FINAL AGENDA

A M E N D E D

REGULAR COUNCIL MEETING
TUESDAY
AUGUST 27, 2019

COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
4:30 P.M. AND 6:00 P.M.

4:30 P.M. MEETING

Individual Items on the 4:30 p.m. meeting agenda may be postponed to the 6:00 p.m. meeting.

1. CALL TO ORDER

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

MAYOR EVANS
VICE MAYOR SHIMONI
COUNCILMEMBER ASLAN
COUNCILMEMBER MCCARTHY
COUNCILMEMBER ODEGAARD
COUNCILMEMBER SALAS
COUNCILMEMBER WHELAN

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

4. APPROVAL OF MINUTES FROM PREVIOUS MEETINGS

A. **Consideration and Approval of Minutes**: City Council Budget Retreat of February 12, 2018; Budget Retreat of April 24, 2018; Regular Meeting of October 16, 2018; Special Work Session/Joint Meeting of October 23, 2018; Regular Meeting of November 6, 2018; Regular Meeting of November 20, 2018; Special Meeting of November 26, 2018; Joint Work Session of December 3, 2018; Regular Meeting of December 4, 2018; Work Session of December 11, 2018; Work Session of March 12, 2019; Joint Work Session of April 1, 2019; and Special

Meeting (Executive Session) of May 21, 2019.

5. PROCLAMATIONS AND RECOGNITIONS

A. **Proclamation:** 4-H Youth in Coconino County

6. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

7. APPOINTMENTS

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that the City Council may vote to go into executive session, which will not be open to the public, for the purpose of discussing or considering employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee, or employee of any public body...., pursuant to A.R.S. §38-431.03(A)(1).

A. **Consideration of Appointments:** Water Commission

STAFF RECOMMENDED ACTION:

Make three appointments to terms expiring December 2021.

B. **Consideration of Appointments:** Open Spaces Commission.

STAFF RECOMMENDED ACTION:

Make one appointment to a term expiring April 2020.
Make two appointments to terms expiring April 2022.

C. **Consideration of Appointments:** Planning and Zoning Commission.

STAFF RECOMMENDED ACTION:

Make one appointment to a term expiring December 2020.
Make one appointment to a term expiring December 2021.

8. LIQUOR LICENSE PUBLIC HEARINGS

A. **Consideration and Action on Liquor License Application:** Jin Young Lee "Kokiyo," 116 S. San Francisco Street, Series 12 (restaurant), New License.

STAFF RECOMMENDED ACTION:

Open the public hearing.
Receive citizen input.
Close the public hearing.

The City Council has the option to:
(1) Forward the application to the State with a recommendation for approval;
(2) Forward the application to the State with a recommendation for denial based on information from staff, the testimony received at the public hearing and/or other factors.

9. CONSENT ITEMS

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

A. **Ratification of Payment:** Purchase of restoration services from Superior Restoration for emergency services provided to the City's building located at 11 West Cherry Avenue.

STAFF RECOMMENDED ACTION:

Ratify payment to Superior Restoration for emergency services provided to the City's building located at 11 West Cherry Avenue in the amount of $61,680.92.

B. **Consideration and Approval of Separation Agreement:** for City Manager, Barbara Goodrich.

STAFF RECOMMENDED ACTION:

Approve separation agreement for City Manager, Barbara Goodrich, effective August 26, 2019.

10. ROUTINE ITEMS

A. **Consideration and approval of Grant Agreement:** To the U.S. Department of Justice, through the Arizona Criminal Justice Commission, for the Edward Byrne Justice Assistance Grant funds in the amount of $283,494.00 for the Northern Arizona Street Crimes Task Force (METRO unit).

STAFF RECOMMENDED ACTION:

Approve the acceptance of the grant from the U.S. Department of Justice, through the Arizona Criminal Justice Commission, Edward Byrne Justice Assistance Grant funds in the amount of $283,494.00 for FY2020.

B. ~~**Consideration and Approval of Lease of City-Owned Property:** Amendment to extend the Flagstaff Railroad Passenger Station Facility Lease with National Railroad Passenger Corporation (Amtrak) for a term of five (5) years, with options for renewal.~~

STAFF RECOMMENDED ACTION:

~~Approve an Amendment extending the Facility Railroad Passenger Station Facility Lease for a term of five years, with options for renewal.~~

MOVED TO SEPTEMBER 17TH COUNCIL MEETING

C. **Consideration and Approval of a Contract:** With Gotcha Mobility, LLC ("Gotcha") for Bike Share Systems.

STAFF RECOMMENDED ACTION:

Approve award of contract with Gotcha, a bike share system company, to provide an innovative and cost-effective bike share system that will advance multi-modal transportation options for Flagstaff and Northern Arizona University.

D. **Consideration and Approval of Final Plat** Request by 66th and Fourth, LLC, for Final Plat approval for The Trax - Phase 2, a commercial subdivision consisting of 4 lots and 3 tracts on approximately 8.74 acres, located at 2511 East Route 66 in the HC, Highway Commercial Zone. **(Subdivision of 8.74 acres into 4 lots located at 2511 E. Route 66)**

STAFF RECOMMENDED ACTION:

Staff recommends the City Council approve the final plat and authorize the Mayor to sign both the plat and City/Subdivider Agreement when notified by staff that the documents are ready for recording.

E. **Consideration and Approval of ~~Final~~ Preliminary Plat:** Request from TLC PC Golf, LLC, for Preliminary Plat approval for Club Cabin Condominiums at the Estates at Pine Canyon Unit 1.

STAFF RECOMMENDED ACTION:

The Planning and Zoning Commission recommends (4-0 vote) the City Council approve the Preliminary Plat.

F. **Consideration and Approval of Contract:** APS Level 2 Electric Vehicle Charging Pilot Agreement # 231283.

STAFF RECOMMENDED ACTION:

Approve APS Level 2 Electric Vehicle Charging Pilot Agreement # 231283.

RECESS

6:00 P.M. MEETING

RECONVENE

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

11. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

MAYOR EVANS	
VICE MAYOR SHIMONI	COUNCILMEMBER ODEGAARD
COUNCILMEMBER ASLAN	COUNCILMEMBER SALAS
COUNCILMEMBER MCCARTHY	COUNCILMEMBER WHELAN

12. PLEDGE OF ALLEGIANCE

13. PUBLIC PARTICIPATION

14. CARRY OVER ITEMS FROM THE 4:30 P.M. AGENDA

15. PUBLIC HEARING ITEMS

A. Consideration and Adoption of Ordinance No. 2019-27: Direct to Ordinance Zoning Map Amendment, by Miramonte Arizona, LLC, for Ponderosa Parkway of approximately 11.97 acres located at 1650 East Ponderosa Parkway from the Rural Residential (RR) zone to the High Density Residential (HR) zone. The development site is located within the Resource Protection Overlay (RPO).

STAFF RECOMMENDED ACTION:

Staff recommends the City Council, in accordance with the findings presented by staff, approve the requested Direct to Ordinance Zoning Map Amendment for Ponderosa Parkway, LLC (PZ-17-00227-03) and take the following action:

At the August 27, 2019 Council Meeting:

1) Hold the Public Hearing
2) Read Ordinance No. 2019-27 by title only for the first time

3) City Clerk reads Ordinance No. 2019-27 by title only (if approved above)
At the September 3, 2019 Council Meeting:
1) Read Ordinance No. 2019-27 by title only for the final time
2) City Clerk reads Ordinance No. 2019-27 by title only (if approved above)
3) Adopt Ordinance No. 2019-27

16. REGULAR AGENDA

A. Consideration and Adoption of Ordinance No. 2019-26: An ordinance of the City Council of the City of Flagstaff, authorizing the acquisition of real property and/or easements for the Switzer Canyon Water Transmission Main Project - Phases IV & V; providing for delegation of authority, subsequent council approvals, severability, and establishing an effective date.

STAFF RECOMMENDED ACTION:

At the August 27, 2019 Council Meeting:
1) Read Ordinance No. 2019-26 by title only for the first time
2) City Clerk reads Ordinance No. 2019-26 by title only (if approved above)
At the September 17, 2019 Council Meeting:
3) Read Ordinance No. 2019-26 by title only for the final time
4) City Clerk reads Ordinance No. 2019-26 by title only (if approved above)
5) Adopt Ordinance No. 2019-26

B. Consideration and Adoption of Resolution No. 2019-30: A Resolution of the Flagstaff City Council, approving a Pond Agreement with Wanderland Flagstaff, LLC, to provide for acquisition of a storm water detention easement on certain real property located along west Route 66, construction of a pond for recreational and storm water detention use, and maintenance of the pond; providing for recording, and establishing an effective date.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2019-30 by title only
2) City Clerk reads Resolution No. 2019-30 by title only (if approved above)
3) Adopt Resolution No. 2019-30

C. Consideration and Approval of Contract: A Contribution Agreement with the owners of the Wildwood Hills mobile home park related to the construction of a nearby stormwater detention basin to reduce regional flooding that impacts the owner's property.

STAFF RECOMMENDED ACTION:

Approve Contribution Agreement with the owners of the Wildwood Hills mobile home park.

D. Consideration and Adoption of Resolution No. 2019-39: A resolution of the Flagstaff City Council, approving an Intergovernmental Agreement between Arizona State Parks and Trails and the City of Flagstaff for the implementation of the Site Steward Program on Flagstaff open space.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2019-39 by title only
2) City Clerk reads Resolution No. 2019-39 by title only (if approved above)
3) Adopt Resolution No. 2019-39

E. **Consideration and Adoption of Resolution No. 2019-38:** A resolution of the Flagstaff City Council, repealing Resolution No. 2016-33 which adopted the *2016 Board and Commission Members' Rules and Operations Manual*, and adopting the *2019 Board and Commission Members' Rules and Operations Manual* and the *2019 Board and Commission Staff Liaison Resource Guide.*

RECOMMENDED ACTION:

1) Read Resolution No. 2019-38 by tittle only
2) City Clerk reads Resolution No. 2019-38 by title only (if approved above)
3) Adopt Resolution No. 2019-38

F. **Consideration and Direction:** Board and Commission Council Representative Assignments

STAFF RECOMMENDED ACTION:

Make Council Representative Assignments to the following Commissions:

1. Airport Commission
2. Beautification and Public Art Commission
3. Commission on Diversity Awareness
4. Commission on Inclusion and Adaptive Living
5. Heritage Preservation Commission
6. Housing Commission
7. Open Spaces Commission
8. Parks and Recreation Commission
9. Planning and Zoning Commission
10. Sustainability Commission
11. Tourism Commission
12. Transportation Commission
13. Water Commission
14. Any other commissions Council feels necessary

G. **Review of Conditional Use Permit No. PZ 18-00182-02:** A request by Mayor Evans to place on a future agenda a review of a Conditional Use Permit (CUP) for a Rooming and Boarding facility located at 901 S O'Leary. The CUP as approved by the Planning and Zoning Commission allows the Commons at Sawmill, an existing apartment complex, to have individual leases with each tenant within a rental unit.

17. **DISCUSSION ITEMS**

A. **Street Lighting to Enhance Dark Skies (SLEDS) Project Update**

B. Update on the City of Flagstaff's renewable energy goals and renewable energy project development.

STAFF RECOMMENDED ACTION:

Staff is seeking direction from City Council on next steps for advancing renewable energy for municipal operations.

18. COUNCIL LIAISON REPORTS

19. FUTURE AGENDA ITEM REQUESTS

After discussion and upon agreement by three members of the Council, an item will be moved to a regularly-scheduled Council meeting.

A. **Removal of F.A.I.R. Items:** Four previously requested F.A.I.R. items have been requested to be removed by Councilmember Whelan who made the initial requests.

B. **Future Agenda Item Request (F.A.I.R.):** A request by Mayor Evans to place on a future agenda a discussion about possible regulations on new developments coming into town with a retail component for the benefit of higher density and not providing the retail.

C. **Future Agenda Item Request (F.A.I.R.):** A request by Mayor Evans to place on a future agenda a discussion about a text amendment to the City Code allowing Council salaries to be considered by Council earlier than what is currently stated.

20. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

21. ADJOURNMENT

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on _____, at _____ a.m./p.m. in accordance with the statement filed by the City Council with the City Clerk.

Dated this _____ day of _____, 2019.

_____
Stacy Saltzburg, MMC, City Clerk

4. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE

Consideration and Approval of Minutes: City Council Budget Retreat of February 12, 2018; Budget Retreat of April 24, 2018; Regular Meeting of October 16, 2018; Special Work Session/Joint Meeting of October 23, 2018; Regular Meeting of November 6, 2018; Regular Meeting of November 20, 2018; Special Meeting of November 26, 2018; Joint Work Session of December 3, 2018; Regular Meeting of December 4, 2018; Work Session of December 11, 2018; Work Session of March 12, 2019; Joint Work Session of April 1, 2019; and Special Meeting (Executive Session) of May 21, 2019.

RECOMMENDED ACTION:

Approve the minutes of the City Council Budget Retreat of February 12, 2018; Budget Retreat of April 24, 2018; Regular Meeting of October 16, 2018; Special Work Session/Joint Meeting of October 23, 2018; Regular Meeting of November 6, 2018; Regular Meeting of November 20, 2018; Special Meeting of November 26, 2018; Joint Work Session of December 3, 2018; Regular Meeting of December 4, 2018; Work Session of December 11, 2018; Work Session of March 12, 2019; Joint Work Session of April 1, 2019; and Special Meeting (Executive Session) of May 21, 2019.

EXECUTIVE SUMMARY:

Minutes of City Council meetings are a requirement of Arizona Revised Statutes and, additionally, provide a method of informing the public of discussions and actions being taken by the City Council.

INFORMATION:

COUNCIL GOALS:

COMMUNITY OUTREACH
Enhance public transparency and accessibility.

Attachments:
02.12.2018.CCBR
04.24.2018.CCBR
10.16.2018.CCRM
10.23.2018.JWS
11.06.2018.CCRM
11.20.2018.CCRM
11.26.2018.CCSM
12.03.2018.CCJWS

12.04.2018.CCRM
12.11.2018.CCWS
04.01.2019.CCJWS
03.12.2019.CCWS
05.21.2019.CCSMES

CITY COUNCIL BUDGET RETREAT
MONDAY, FEBRUARY 12, 2018
AND TUESDAY, FEBRUARY 13, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
9:00 A.M. & 1:00 P.M.

1. Call to Order

Mayor Evans called the Budget Retreat of the Flagstaff City Council held February 12, 2018, to order at 9:00 a.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

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2. Pledge of Allegiance and Mission Statement

The Council and audience recited the pledge of allegiance.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

3. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	NONE
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others Present: Interim City Manager Barbara Goodrich; City Attorney Sterling Solomon

4. City Council Fiscal Year 2019 Budget Retreat

Ms. Goodrich began a PowerPoint Presentation that covered the following:

RETREAT OBJECTIVES AND OUTLINE
COUNCIL GOALS AND OBJECTIVES CHECK IN

Deputy City Manager Shane Dille continued the presentation.

AGENDA
HOW DID WE GET HERE?
WHY THE MATRIX WORKS
HOW IS IT WORKING FOR YOU?

Council briefly discussed how the matrix is working for them and requested quarterly updates to the document. It was also suggested that an overview of the goals and accomplishments be published in CityScape.

Management Services Director Rick Tadder continued the presentation.

REVENUE UPDATES
CITY SALES TAX – GENERAL FUND

Mr. Tadder explained that the revenue team has put significant effort into updating the website and providing as much information as they can regarding the transition to the State collecting sales taxes.

Mr. Tadder also reported that construction has seen the largest growth in sales tax revenues. It is unsure how long that will continue so staff is documenting those as more of a one-time bump.

Mr. Tadder continued.

STATE SHARED SALES TAX
STATE SHARED INCOME TAX/URBAN REVENUE
FRANCHISE FEES
BUILDING PERMITS
BED, BOARD AND BEVERAGE (BBB)
HIGHWAY USER REVENUE (HURF)

Finance Director Brandi Suda continued the presentation.

AVAILABLE REVENUES AND FIXED COSTS
FIXED COSTS – PENSION

Councilmember Whelan asked how the pension fund became so underfunded. Ms. Goodrich offered that it was a combination of things; what has mostly impacted the situation is the under-realized investment earnings. When the anticipated interest earning estimates were not realized it increased contributions to compensate. Another factor was the result of two lawsuits that determined that moving the employee share from 7.65% to 11.65% was not permissible and then rolled back to 7.65% with cities and towns having to refund those contributions.

Mr. Tadder continued.

FIXED COSTS – HEALTH BENEFITS
REVENUE UPDATE SUMMARY – GENERAL FUND
FIXED COSTS SUMMARY – GENERAL FUND

A break was held from 10:32 a.m. through 10:44 p.m.

At this time public comment was received from the following individuals regarding the budget:

- Armando Bernasconi, Quality Connections

Human Resources Director Shannon Anderson continued the presentation:

BENEFITS
NAPEBT
HEALTH BENEFITS
NATIONAL TRENDS
NATIONAL TRENDS UTILIZATION VS. INFLATION
NATIONAL TRENDS COST MANAGEMENT STRATEGIES 2016 & 2017
NATIONAL TRENDS REGIONAL VARIATIONS
ARIZONA TRENDS
ARIZONA TREND MEDICAL PREMIUM COST SHARING FOR EMPLOYEE-ONLY
ARIZONA TREND MEDICAL PREMIUM COST SHARING FOR EMPLOYEE PLUS FAMILY
ARIZONA TREND MEDICAL PREMIUM COST SHARING
ARIZONA TREND ANNUAL MEDICAL PLAN DEDUCTIBLES
ARIZONA TREND OFFICE VISIT COPAYMENTS
ARIZONA TREND OUT OF POCKET MAXIMUMS
ARIZONA TREND PRESCRIPTION DRUG COPAYMENTS
NAPEBT TRENDS
NAPEBT RENEWAL
NAPEBT RENEWAL ADDITIONAL BENEFITS
WELLNESS
INCENTIVE PROGRAM
INCENTIVE PROGRAM SUCCESSES
NEAR SITE CLINIC
NEAR SITE CLINIC 2017 INITIATIVES
NEAR SITE CLINIC SUCCESSES
NEAR SITE CLINIC YEAR 2 ADDITIONS
BENEFITS – MATERNITY/PATERNITY LEAVE
PUBLIC SAFETY PERSONNEL RETIREMENT SYSTEM (PSPRS)
UNFUNDED LIABILITY STATUS
FY 2019 RATES AND COSTS
CONSIDERATION OF CHANGING AMORTIZATION PERIOD
PENSION POLICY DEVELOPMENT
WHAT ARE OTHER CITIES DOING
CONSIDERATION OF CHANGING AMORTIZATION PERIOD
STAFF RECOMMENDATION

Councilmember McCarthy asked what the amortization period is. Mr. Tadder stated that the expectation is to pay it off in a 20-year period.

Ms. Goodrich explained that the normal cost to support someone is about 15% versus the 85% the City has been paying to try and catch up.

Councilmember Overton stated that he would like to see the City be more aggressive in paying down the liability. He indicated that the City is currently maintaining and if another downturn hits this would be a $15 million budget item that is not negotiable.

A break was held from 12:22 p.m. through 1:00 p.m.

Mr. Tadder continued the presentation.

GENERAL OBLIGATION BONDS
HISTORY OF GO BONDS AUTHORIZED – 20 YEARS
GENERAL OBLIGATION BONDS
LEGAL LIMITS
SECONDARY PROPERTY TAX RATE
CAPACITY BASED ON CURRENT POLICY

At this time the following people addressed Council concerning the budget:

- Janet Regner, Coconino County Community Services

Housing Manager Sarah Darr continued the presentation.

AFFORDABLE HOUSING
SEVERAL TASKS, ALL RELATED SOMEHOW
AFFORDABLE HOUSING
COUNCIL GOALS
COUNCIL OBJECTIVES
COUNCIL PRIORITIES
USE OF CITY OWNED LAND
PLAN MOVING FORWARD
FUNDING
HISTORY – STUDIES/REPORTS
CONSISTENT RECOMMENDATIONS:
ECONA STUDY AND RECOMMENDATIONS
WHAT CAN YOU DO WITH A BOND FOR AFFORDABLE HOUSING?

After discussion a majority of Council agreed to have staff do further research concerning an Affordable Housing bond question on the November 2018 ballot.

Human Resources Benefits Analyst Jennifer Caputo continued the presentation.

2017 EMPLOYEE SURVEY
2017 RESULTS
AREAS OF SIGNIFICANT INCREASE
AREAS OF SIGNIFICANT DECREASE
AREAS OF NO SIGNIFICANT CHANGE
SUMMARY OF WRITTEN COMMENTS
NEXT STEPS

Ms. Goodrich provided the following wrap up of the conversations:

- Council would like to find better ways to use the Council Priorities and incorporate them into the budget process.
- A majority of Council is interested in moving maternity/paternity leave forward for consideration.
- Council would like to continue with a 20-year amortization on the PSPRS unfunded liability.

5. Informational Items To/From Mayor, Council, and City Manager; future agenda item requests.

None

6. Adjournment

The City Council Budget Retreat of February 12, 2018, recessed at 2:27 p.m.

City Council Fiscal Year 2019 Budget Retreat - Day Two

1. Call to Order

Mayor Evans called the Budget Retreat of the Flagstaff City Council held February 13, 2018, to order at 1:00 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

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2. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	NONE
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: Interim City Manager Barbara Goodrich and City Attorney Sterling Solomon.

3. City Council Fiscal Year 2019 Budget Retreat

Interim Police Chief Dan Musselman began a PowerPoint presentation that covered the following:

PUBLIC SAFETY OPERATIONS UPDATE
FPD PUBLIC SAFETY STAFFING CONCERNS
STAFFING LEVELS ARE NO LONGER ADEQUATE
RETENTION AND RECRUITMENT
INCENTIVES AND INVESTMENTS

Deputy Fire Chief Mark Wilson continued the presentation.

COUNCIL QUESTIONS FROM DECEMBER RETREAT
CALL VOLUME VS FTE
COMPARISON TO OTHER CITIES
JULY 2016-JULY 2017 CALL VOLUME DENSITY MAP
NUMBER OF PARAMEDICS – COMPENSATION FACTORS
TYPES OF EMERGENCY MEDICAL SERVICE (EMS) CALLS 2016
IMPACTS TO SERVICE DEMANDS

Councilmember McCarthy asked what types of calls are being responded to at NAU. Deputy Chief Wilson stated that they range from alcoholism, drugs, broken limbs, assaults and other disputes. He stated that they will often see a spike in service when the new school year begins and then it levels out; the same is true when a new facility comes online.

Deputy Chief Wilson continued the presentation.

FEASIBILITY OF REOPENING FIRE STATION 32
WHAT IS ALL OF THIS TELLING US?
SUMMARY

Deputy Chief Wilson stated that there is a need for at least nine new firefighters as well as additional staff in wildland firefighting.

Councilmember Overton asked if the reorganization from a few years ago is working or if there is one station carrying more of a call load than others. Deputy Chief Wilson stated that the stations that have lower call volumes are being utilized as needed for other areas; the intent is to get as many of them out responding to calls. The crews are rotated to slower stations because they are getting so burned out. The use of CART has helped in the response.

Councilmember Overton asked where the new firefighters that are being requested would go. Deputy Chief Wilson stated that the biggest impact with bringing them on would be the reduction in overtime costs and burnout because they are currently so understaffed.

Police Chief Kevin Treadway added that there is a different model for policing; they do not respond from quadrants but rather assign officers in the field to different beats. Those beats have not been expanded in the last 15 years and as the city continues to expand the need directly equates to officers. During the graveyard shift there is only one supervisor and five officers covering the entire city. The minimum staffing level has not changed but additional officers would allow them to add a squad during the high-volume times.

Chief Treadway added that they have tried everything keep officers in Flagstaff; he is not aware of

any other police department that has not reinstated merit and the merit issue comes up again and again when officers leave. Councilmember Overton stated that if merit is the need then City Council needs to find ongoing money for merit. Those ongoing dollars are difficult to find and merit takes a large portion of that. He would like to see public safety as a priority for merits.

Wildland Fire Manager Paul Summerfelt continued the presentation.

WILDLAND FIRE MANAGEMENT (WFM) FLAGSTAFF WATERSHED PROTECTION PROJECT (FWPP) COMPLETION AND PROGRAM SUSTAINABILITY
THE SETTING
OUR INVESTMENT: THE CYCLE OF SUCCESS
THE GOOD NEWS
FWPP STATUS AND NEEDS
WFM SUSTAINABILITY
SUMMARY

Mr. Tadder continued the presentation.

WILDLAND FIRE MANAGEMENT FUNDING CONSIDERATION
POSSIBLE FUNDING

Fire Chief Mark Gaillard continued.

SUMMIT INTERGOVERNMENTAL AGREEMENT (IGA)
FLAGSTAFF FIRE DEPARTMENT (FFD) SITUATION STATUS
FEATURES OF THE IGA
OPERATIONAL BENEFITS OF THE ENHANCED SUMMIT IGA
FISCAL IMPACTS
SUPPORT FOR IGA
RECOMMENDATION:

A break was held from 3:03 p.m. through 3:12 p.m.

Chief Gaillard continued the presentation.

PUBLIC SAFETY RESEARCH GROUP (PSRG) RESEARCH
CONCLUSIONS
RISK MANAGEMENT WAS ADDRESSED
EXAMPLES OF BOTH AGENCIES SHARING RESOURCES
FISCAL ANALYSIS
QUID PRO QUO

Council briefly discussed the cost savings associated with partnering with Summit Fire and the benefits that it could provide.

Assistant to the City Manager Caleb Blaschke continued the presentation.

NATIVE AMERICAN STRATEGIC INITIATIVES
NATIVE AMERICAN AFFAIRS LIAISON
INDIGENOUS CIRCLE OF FLAGSTAFF

Mayor Evans stated that she recently met with the Indigenous Circle of Flagstaff (ICF) and one thing that they shared concerns that if the Liaison position had other duties as assigned that the

meaning and purpose would be lost. They also expressed a need for a leader or Executive Director to focus on establishing an organization that could overlook and direct the implementation of a strategic plan.

Rose Tsosie addressed Council as a member of ICF and offered that they believe there is a better way to do this; they need the ability to establish a foundation or organization through a 501(c)3 who can move the plan forward and operate

Chris Jocks, also with ICF, addressed Council stating that the process needs to be community driven. The first objective is to make sure there is adequate representation in the community. ICF does support the City having a liaison to spearhead the program forward. He stated that the community needs to be involved in developing the job description as well as be represented through the selection process.

Councilmember Putzova left the meeting at 3:50 p.m.

Council had further discussion about the need for ICF to develop a non-profit agency to help with the collection and distribution of funds.

Ms. Goodrich continued the presentation.

SERVICE PARTNER CONTRACTS
DISABILITY PROVIDERS

Quality Connections CEO Armando Bernasconi addressed Council requesting that the Council direct staff to do research for short-term and long-term funding.

The Council discussed the chronic underfunding of the disability service providers by the State, and how the increase in minimum wage is further impacting their operations. They also discussed the need to treat the community fair and how singling out one specific service may present a challenge. Council discussed the possibility of the State to provide a funding match if the City were to provide the base funding and how they need to be cautious of dedicating financial resources before having all the proper information. Additionally, finding a revenue source for this direction will be important to ensure that the City's base services continue to operate. The Council agreed to send a letter to the State seeking more information.

Ms. Goodrich continued the presentation.

RELOCATION ASSISTANCE FOR TRAILER PARK CLOSURES

Council discussed the possibility of the City establishing its own fund to provide this type of assistance for trailer park closures Council gave direction for staff to look at establishing a program and the legal aspects of doing so.

Code Enforcement Manager Reggie Eccelston continued the presentation

GRAFFITI ABATEMENT
GRAFFITI BUSTERS PROGRAM
- COMMUNITY BENEFITS
- FUTURE CONSIDERATIONS

A break was held from 4:55 p.m. through 5:03 p.m.

Human Resources Director Shannon Anderson continued the presentation.

COMPENSATION
MARKET BASED PLAY
PAY EQUITY STUDY
BACKGROUND
OBJECTIVE
METHODOLOGY
ANALYSIS
FINDINGS BY DBM JOB VALUE
FINDINGS BY MIDPOINT
FINDINGS BY COMPA-RATIO
ORGANIZATION WIDE STATISTICAL FINDINGS BY DBM JOB VALUE
ORGANIZATION WIDE STATISTICAL FINDINGS BY PAY GRADE MIDPOINT
STATISTICAL FINDINGS BY DIVISION
RECOMMENDATIONS
NEXT STEPS

Ms. Goodrich reviewed the areas she heard from Council that need to be brought forward during the next budget retreats.

- Police – increase personnel and stabilize retention.
- Fire – address service level concerns with the Fire Department
- Wildland Fire Management – leverage money the City has and engage community partners
- Native American Affairs – development of a one-year strategic plan and development of a group to accept funding from the City or outside organizations.
- Service Partner Contracts – provide a letter of support on the grant application to State for relocation of trailer assistance.
- Graffiti Abatement – provide additional funding to enhance the program.

4. Adjournment

The City Council Budget Retreat of February 13, 2018, adjourned at 5:27 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

FY19 Budget				Remaining balance		58,000	-	-	-	-	-	290,000	250,000	65,000	-
Council Parking Lot Items						General Fund		Airport		BBB - Economic		BBB - Tourism		BBB - Arts and Sciences	
		Approved		1X Amt	Ong Amt	1X Amt	Ong Amt	1X Amt	Ong Amt	1X Amt	Ong Amt	1X Amt	Ong Amt	1X Amt	Ong Amt
Available prior to Budget Retreat						*253,000*	-	-	-	*100,000*		*400,000*	*250,000*	*65,000*	-
Parking Lot Items for Funding Consideration															
Increase BBB-ED Loan Payment	Other	Yes				(100,000)				100,000					
Budget Item entry error	Other	Yes		(25,000)		(25,000)									
Housing Relocation Support	Afforable Hsg	Yes		100,000		100,000									
Teacher Training-Sustainability	Climate Action	Yes		10,000		10,000									
Public Restrooms (split with BBB funds)	Economic Dev	Yes		200,000	approved										
Paid Maternity/Paternity-4 weeks	Personnel	Yes			57,500		40,000								
Impact Fee Study	Various	Yes		150,000		150,000									
Impact Fees-FD and PD Portion	Fire/Police	Yes		(75,000)		(75,000)									
IT Funding	Other	Yes		50,000		100,000									
Each 1% merit sworn officers=$115K		Yes			345,000		345,000								
PSPRS 30 Year Actuarial		Yes			(345,000)		(345,000)								
Budget Team to find funding		Yes					(40,000)								
Willow Bend-Educational Opportunity		Yes		10,000		10,000									
Boys and Girls Club		Yes		25,000		25,000									
Sustainability Program		Yes-no set $													
Airport-Greentree-Dump Station	Economic Dev	Yes		175,000				175,000							
Airport-Greentree-Security	Economic Dev	Yes		79,000				79,000							
Airport Marketing in General Fund	Economic Dev	Yes		(71,500)				(71,500)							
Other Airport Revenues	Economic Dev	Yes		(182,500)				(182,500)							
Airport Marketing Second Airline-Contingency		Yes										100,000			
Sister Cities	Economic Dev	Yes		10,000								10,000			
General Fund Balance Reduce 20%		No		(300,000)											
Neighborhood Planner	Bldg and Zoning	No			108,000										
Planning Development Manager	Bldg and Zoning	No			102,000										
Home Energy Efficiency Program	Climate Action	No		20,000											
Litter Clean Up Citywide	Economic Dev	No													
10 Yr Longevity Pay- PD (excl. temps)	Personnel	No		80,000											
10 Yr Longevity Pay- FD (excl. temps)	Personnel	No		65,000											
10 Yr Longevity Pay-All Others (excl. Temps)	Personnel	No		230,000											
Paid Maternity/Paternity-8 weeks	Personnel	No			115,000										
Paid Maternity/Paternity-12 weeks	Personnel	No			172,500										
TOTAL				**550,000**	**555,000**	**195,000**	-	-	-	**100,000**	-	**110,000**	-	-	-
BALANCE AVAILABLE						**58,000**	-	-	-	-	-	**290,000**	**250,000**	**65,000**	-

CITY COUNCIL BUDGET RETREAT
TUESDAY, APRIL 24, 2018
AND WEDNESDAY, APRIL 25, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
1:00 P.M.

1. Call to Order

Mayor Evans called the Budget Retreat of April 24, 2018, to order at 1:02 p.m.

2. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	NONE
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD (arrived at 1:04 p.m.)	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others Present: Interim City Manager Barbara Goodrich; City Attorney Sterling Solomon

3. City Council FY 2019 Budget Retreat

Interim City Manager Barbara Goodrich provided an overview of the budget process. Ms. Goodrich offered that she feels that the proposed budget that is being brought forward addresses many of the Council's goals and priorities, but there were also many things that were unable to be addressed. The City is healthy from an economic perspective with on-going revenues continuing to grow but there were things that still could not be done including staff compensation. There was no ability to offer any kind of merit increase this year and unfortunately this is being reflected in the City's increased turnover. There are a number of requests in front of Council that are for maintenance, capital, and city services that were unable to be provided for this year as well. There will be discussions about the various fees and taxes that are new, existing, or being requested to continue basic city services. They also include providing funds for sustained maintenance of the Flagstaff Watershed Protection Project. Additionally, there are a number of desired enhancements in the Sustainability Section and they would like to review their fees to increase their revenues and that is not part of this year's recommendation because of all the things that are already on the table. These are just a couple of the items that were unable to be addressed to the depth Council may have wanted.

Ms. Goodrich offered that she would like to suggest that the Council take a longer view of the City budget process, not this fiscal year but going forward into the next budget year. Staff prepares a five-year plan each year to ensure that the budget decisions are sustainable going

forward. It is necessary to look at the root cause of why the City is unable to advance so many of its strategic priorities and it really comes down to the continued burden that the public safety pension system is putting on the budget.

Over the last three years the unfunded liability has grown by an average of $10 million per year putting the current unfunded liability over $100 million. These increases are a result of changes in actuarial assumptions and the two recent lawsuits that rolled back benefits to the people who were vested in those benefits before the package changed.

Of the $10.5 million spent each year for public safety pension, $8 million is for the unfunded portion. She again suggested that the Council take longer term view and consider possible solutions to this problem. Perhaps it is time for the Council and the community to seriously consider a public safety tax in 2020 to buy down the liability so that $8 million can be used for ongoing operations in the city and be able to advance the community priorities in a better way than is possible today.

It is a big ask but doing this would lessen the need to continually ask for increased fees and taxes to continue services in the community. A priority or performance-based budgeting process will do a deep dive into what the community feels are priority services and programs provided by the city. This is important because every service the city provides has a constituency and it is very hard to objectively talk about what the impacts are when there is a Council Chambers full of people that depend on that service. This type of budgeting system will allow objective community feedback on what the community, as a whole, feels are important services to provide within limited financial resources.

Councilmember McCarthy asked if the City continues on its current path with the pension issues if it will get caught up. Ms. Goodrich state that implementation of Tier 3 will get the City there. The City does not have control over the actuarial assumptions and the continuation of the decrease in interest rates will help make the contributions go further but it is time to be more proactive.

Staff is looking at a possible study to identify where the City's sales tax primarily comes from; from inside residents our outside visitors. That data will be used to provide consideration of a sales tax initiative. Being aggressive could mean that a majority of the pension could be paid off in five years and the City could start immediately putting some of those resources back into the organization's resources and employees.

Management Services Director Rick Tadder began the Budget Retreat PowerPoint presentation:

APPROACH FOR FY2019 BUDGET
- GOALS AND OBJECTIVES
- BUDGET PRIORITIES
- BASE BUDGET REDUCTIONS

BUDGET OUTLOOK
- BASE BUDGET REDUCTIONS
- REQUESTS FROM DIVISIONS
- REVENUES – GENERAL FUND
- EXPENDITURES – GENERAL FUND
- SUMMARY – GENERAL FUND

TOTAL AVAILABLE FOR PARKING LOT: $253,000

BUDGET OUTLOOK
- EXPENDITURES – ALL FUNDS
- EXPENDITURES BY GOAL – $14.7M

REVENUE CONSIDERATIONS
TAX DISCUSSION
RECENT FEE/CHARGE CHANGES
UPCOMING FEE/CHARGE CHANGES
BUSINESS LICENSES AND TRANSACTION PRIVILEGE TAX LICENSES (TPT)
STORMWATER SERVICE CHARGE
FUTURE FEE/CHARGE CHANGES
SOLID WASTE
ENVIRONMENTAL FEE
FLAGSTAFF WATERSHED PROTECTION PROJECT
AIRPORT PARKING
COUNCIL GOALS, OBJECTIVES AND BUDGET PRIORITIES
BUDGET PROCESS – RECOMMENDED BUDGET
REVIEW OF NEW INVESTMENTS BY COUNCIL GOAL

At this time, staff members reviewed various Council Goals and related objectives, budget priorities, and work programs with Economic Vitality Director Heidi Hansen continuing the presentation.

ECONOMIC DEVELOPMENT
Grow and Strengthen a More Equitable and Resilient Economy

Objectives:
Market Parks and Recreation as accessible for all regardless of income

Budget Priorities:
Downtown Litter/Recycling/Cleanup

Work Program:
Airport – presented by Airport Director Barney Helmick
Community Investment – presented by Community Investment Director David McIntire
Tourism – presented by Convention and Visitor's Bureau Director Trace Ward
Economic Vitality Campaign – presented by Ms. Hansen
Flagstaff Sister Cities – presented by Ms. Hansen

After a brief discussion Council requested that the Airport Waste Dump Station, TSA Security, and Sister Cities funding be added to the Parking Lot list.

A break was held from 3:08 p.m. to 3:21 p.m. at which time Housing Director Sarah Darr continued the presentation.

AFFORDABLE HOUSING
Support Development and Increase the Inventory of Public and Private Affordable Housing for Renters and Homeowners Throughout the Community

Objectives:
Increase the number of affordable rental units
Seek partnerships with private developers to increase the inventory of affordable rental and ownership housing

Budget Priorities:
Funding for Down Payment and Closing Cost Programs

Work Program:
Continued facilitation with Brinshore for Scattered Sites Affordable Housing
Provide public education for Housing ballot question
Participate with local groups to enhance housing opportunities throughout the community
Work with local service providers on the Front Door program
Pursue further creation of rental housing units on City owned land

Ms. Goodrich continued the presentation.

SOCIAL JUSTICE
Advance Social Justice in the Community

Objectives:
Develop a strategic plan to implement the Indigenous Circle of Flagstaff recommendations.
Improve overall communications and engagement with Native Nations as we work in partnership on shared issues and concerns.
Facilitation of annual meetings with tribal nations and collaborate on agenda development

Budget Priorities:
Indigenous Organizational Development
Meetings with Indigenous Councils
Federal Match for Disability Service Providers
Economic Analysis of Visitation to the Community

Work Program:
Indigenous Circle of Flagstaff Recommendations
Indigenous Commission
Cultural Awareness Training
Marketing of Indigenous Community
Meetings with Indigenous Groups

Discussion was held concerning minimum wage and the federal match for disability service providers as well as the need for an economic analysis of visitation to the community.

Public Works Director Andy Bertelsen continued the presentation.

TRANSPORTATION AND OTHER PUBLIC INFRASTRUCTURE
Deliver Quality Infrastructure and Continue to advocate for and Implement a Highly Performing Multi-Modal Transportation System

Objectives:
Advocate for additional state and federal funding for state and federal roads
Complete construction of the new core maintenance facility in the next two years
Replace aging infrastructure

Budget Priorities:
Northern Arizona Council of Governments Regional Planning Grant Increase
Environmental Remediation and Demolition of Mogollon Yard
Replace Two (2) Street Sweepers
Replace One (1) Dump/Plow Truck

Repurpose Two (2) Solid Waste Tractors and Trailers to Street Operations

Work Program:
Street Lights to Enhance Dark Skies
Street Maintenance Program
Street Sweeping
Storm Drain Maintenance

Planning Director Dan Folke continued the presentation.

BUILDING AND ZONING/REGIONAL PLAN
Revise the Zoning Code to Remove Ambiguities and Ensure it is Consistent with Community Values and the Regional Plan

Objectives:
Adjust the codes to better reflect community values and the intent of the regional plan.

Budget Priorities:
Codification Services
Building Inspector Overlap
StruCalc Computer Program

Work Program:
Complete Southside Specific Plan and Code Amendments
Implement Building Safety succession plan for Building inspection retirements
Accept and review building permit plans electronically

Council discussed the staffing needs of Community Development and requested that a Neighborhood Planner position and Planning Development Manager position be added to the Parking Lot list.

The Council also discussed impact fees. Ms. Goodrich noted that they can only be collected and spent if they are increasing service to a new area or because of new growth. She said that if they are trying to enhance the code enforcement they provide, they could not be used for that; if they were growing by 10,000 people that requires a new police substation, it could be used for that new infrastructure.

Sustainability Manager Nicole Antonopoulos continued the presentation.

CLIMATE CHANGE
Take Meaningful Climate Change Action

Objective:
Develop and implement a climate action plan

Budget Priorities:
Energy Data and Energy Rebate Contract Pay
Fire Adapted Community Events
Greenhouse Gas Inventory Software

Work Program:
- Climate Action and Adaptation Plan
- Arizona Renewable Energy Collective
- City of Flagstaff Hopi Renewable Energy Memo of Understanding
- Fire Adapted Community Resiliency and Preparedness Events
- Home Energy Efficiency Rebate Program

Council requested that increasing funding to the Home Energy Efficiency Program and Teacher Training for sustainability be added to the Parking Lot list.

Water Conservation Manager Erin Young continued the presentation.

WATER CONSERVATION
Become a National Leader in Water Conservation in All Sectors

Objective:
- Secure long-term water resources

Budget Priorities:
- Aquifer Recharge Feasibility Study
- Water Service contribution toward Sustainability programs

Work Program:
- Conservation Program
- Water Resources
- Reclaimed Water

A break was held from 5:05 p.m. through 5:25 p.m. after which Fire Chief Mark Gaillard continued the presentation.

ENVIRONMENTAL AND NATURAL RESOURCES
Actively Manage and Protect All Environmental and Natural Resources

Objective:
- Preserve natural resources
- Increase City recycling from 13% to 75%

Budget Priorities:
- Open Space Specialist
- Schultz Creek Trailhead Construction
- Zero Waste Coordinator

Work Program:
- Flagstaff Watershed Protection Project
- Four Forests Restoration Initiative
- Firewise Neighborhoods
- Wildland Urban Interface Code
- Volunteers
- Fire Metrics: Occurrences and Acres/Incident (Treated vs Untreated)
- McMillian Mesa Management Plan
- Schultz Creek Trailhead Management Plan
- Picture Canyon Natural and Cultural Preserve Improvements and Graffiti Abatement
- Indigenous Youth Service Academy

Conservation Easement Reporting
Legally Designated Open Space Easement Process Updated (Application/Fee Assessment)

Human Resources Director Shannon Anderson continued the presentation.

COMPENSATION AND BENEFITS
COMPENSATION TRENDS
BENEFIT TRENDS
RETENTION TRENDS
COMPENSATION
BENEFITS
FUTURE RETIREMENT COSTS

Employee Advisory Committee Co-Chairs Kristi Markey and Tamara Lawless continued the presentation.

EAC PRESENTATION FY2019
EAC FY2019 BUDGET RECOMMENDATIONS
WHAT WAS ADOPTED BY THE BUDGET TEAM
EAC FY2019 ACCOMPLISHMENTS

Ms. Anderson continued the presentation.

PERSONNEL
Attract and Retain Quality Staff

Objectives:
Invest in employee training
Ensure adequate Public Safety staffing levels
Enhance tuition reimbursement opportunities throughout the organization
Provide parking incentives for employees

Budget Priorities:
Increase in Training Budget City Wide
Regional Fire Training Coordinator
Increase (3) Paramedic Assignments
Summit IGA
CART Overtime Funding
Radio System
Police Officers (2)
Police Aides (3)
Security Guards for Libraries
Tuition Reimbursements (Citywide)
Parking Permits, EcoPass and Incentives

Work Program:
Recruitment Incentive for Police Personnel
Hiring Bonus for Lateral Officers
Hired 2 Police Officers with award of COPS Grant
Hired 6 Firefighters with award of SAFER Grant
IGA with Summit Fire and Medical District
Regional Firefighter Academy

Following Council discussion, it was requested that paid maternity/paternity leave, a ten-year longevity payout, and an establishment of a housing relocation fund be added to the Parking Lot list.

Communications Manager Jessica Drum continued the presentation.

COMMUNITY OUTREACH
Enhance Public Transparency and Accessibility

Budget Priorities:
- Election
- Citizens Survey
- Website Optimization
- Certified Public Participation and Other Trainings

Work Program:
- Strategic Communications Plan
- Social Media Best Practices Guide

Neighborhood Liaison Valeria Chase continued the presentation.

TOWN & GOWN
Enhance Relationships Between the City and Institutions of Higher Education

Objective:
- Coordinate with NAU, CCC and the Arizona Board of Regents (ABOR) in planning for future growth of the student population

Budget Priorities:
- Neighborhood Liaison

Work Program:
- International Town and Gown Association
- Community Welcome Event
- Neighborhood Events and Outreach
- Internship IGA with NAU

Code Compliance Manager Reggie Eccelston continued the presentation.

CODE COMPLIANCE
Achieve Comprehensive and Equitable Code Compliance

Budget Priorities:
- Graffiti Abatement Supplies
- Litter Removal Program
- Litter Prevention Programming Supplies

Work Program:
- Work with neighborhood associations and community groups to prioritize issues and coordinate enforcement
- Complete neighborhood outreach on parking and solid waste in neighborhoods around NAU

Work with Dark Skies community to develop education pieces and enforcement of dark sky compliant lighting
Community Stewards community clean-ups and group clean-ups

Council requested that a Litter Clean Up Program be added to the Parking Lot list.

At this time, the following individuals addressed the Council regarding the budget:

- Amanda Kristinat, Boys and Girls Club of Flagstaff
- Delfina Rodriguez, Arrowhead Mobile Home Park resident
- Norma Rodriguez, Arrowhead Mobile Home Park resident
- Miriam Meza, Arrowhead Mobile Home Park resident
- Olga Garcia, Arrowhead Mobile Home Park resident
- Gabby Vazguez, Arrowhead Mobile Home Park resident

4. Adjournment

The Flagstaff City Council Budget Retreat of April 24, 2018, recessed at 7:33 p.m.

City Council FY 2019 Budget Retreat - Day Two

1. Call to Order

Mayor Evans called the Special Budget Retreat of the Flagstaff City Council held April 25, 2018, to order at 9:03 a.m.

2. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	NONE
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: Interim City Manager Barbara Goodrich and City Attorney Sterling Solomon.

3. City Council FY 2019 Budget Retreat

City Engineer Rick Barrett provided a PowerPoint presentation that covered the following:

CAPITAL IMPROVEMENT PROGRAM OVERVIEW
CAPITAL IMPROVEMENT PROGRAM SUMMARY – FISCAL YEARS 2019-2023

Capital Project Manager Trevor Henry continued.

EIGHT PROGRAM CATEGORIES
PROGRAM CATEGORIES FY18 ESTIMATES
PROGRAM CATEGORIES FY19 BUDGET
PROGRAM CATEGORIES FY20-23 PROJECTIONS
PROGRAM CATEGORIES CATEGORY TOTAL
TOTAL PROGRAM SUMMARY
GENERAL GOVERNMENT
STREETS/TRANSPORTATION
FUTS
BBB
WATER/WASTEWATER/RECLAIMED WATER
STORMWATER
SOLID WASTE / SEMS
AIRPORT

Mr. Tadder continued the presentation.

OTHER NEW INVESTMENTS
APPROVED PERSONNEL AND OTHER REQUESTS
- Census 2020 Count Committee
- Service Partner Contracts
- Library
- Tourism

Councilmember Barotz asked about IT security funding. IT Director Ladd Vagen stated that there is approximately $450,000 in anticipated cost to increase securities. Not all of that was funded in this year's budget but there are improvements that can be done with the funding that was received.

Councilmember Bartoz requested that additional IT funding be added to the Parking Lot list.

A break was held from 10:19 a.m. through 10:46 a.m.

At this time the following individuals addressed the Council regarding the budget:

- Moran Henn, Willow Bend
- Murielle Mesa, Arrowhead Mobile Home Park resident
- Gaby Vasquez, Arrowhead Mobile Home Park resident
- Jose Alvarado, Arrowhead Mobile Home Park resident
- Dr. Louis Fernandez, Arrowhead Mobile Home Park resident
- Susan Altiveros, Arrowhead Mobile Home Park resident
- Susan Wallace, Arrowhead Mobile Home Park resident
- Paul Linds, Arrowhead Mobile Home Park resident
- Evan Hotbaker, Arrowhead Mobile Home Park resident

Written comment cards regarding the Council budget were submitted by the following:

- Nicole Charles
- Nate Edenhofer
- Mare Schumacher
- Jessica Martinez

The budget discussion continued.

Councilmember Barotz asked about the increased service levels with the Fire Department. There has been an increased call load by over 325% while reducing staff. She asked how the current financial situation in the department is modifying the way they respond to calls and the equipment used in an effort to save money.

Fire Chief Mark Gaillard stated that the situation is the rapidly increasing service demand and no increase in resources. The number one requested service is emergency medical services and it has been difficult to ensure a paramedic is responding with Fire personnel. This is a high priority use and they want to put enough paramedics on the work force to respond at all times. There has been discussion about a partnership with Summit Fire to reduce overhead and increasing service in the community. With regard to equipment Flagstaff Fire is using equipment that in some communities would have been retired at half the level that is currently being used.

Councilmember Putzova asked what the total budget contingency the City maintains in its budget is. Ms. Goodrich explained that there is a contingency fund for forest fires and other unexpected things that come up. 20% is the current contingency percentage as adopted by Council some years ago.

Mr. Tadder continued the presentation.

COUNCIL PARKING LOT ITEMS

Mr. Tadder provided Council with a list of their requested Parking Lot items. The Council reviewed and discussed each one; the final outcome of the parking lot list is attached.

4. Adjournment

The Flagstaff City Council Budget Retreat of April 25, 2018, adjourned at 1:49 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CITY COUNCIL REGULAR MEETING
TUESDAY, OCTOBER 16, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
4:30 P.M. AND 6:00 P.M.

MINUTES

1. CALL TO ORDER

Vice Mayor Whelan called the Regular Meeting of October 16, 2018, to order at 4:31 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
VICE MAYOR WHELAN COUNCILMEMBER BAROTZ (telephonically) COUNCILMEMBER MCCARTHY COUNCILMEMBER ODEGAARD COUNCILMEMBER OVERTON COUNCILMEMBER PUTZOVA	MAYOR EVANS

Others present: City Manager Barbara Goodrich and City Attorney Sterling Solomon.

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

The Council and audience recited the pledge of allegiance and Councilmember Putzova read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

4. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None

5. PROCLAMATIONS AND RECOGNITIONS

None

6. APPOINTMENTS

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that the City Council may vote to go into executive session, which will not be open to the public, for the purpose of discussing or considering employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee, or employee of any public body...., pursuant to A.R.S. §38-431.03(A)(1).

A. Consideration of Appointments: Northern Arizona Intergovernmental Public Transportation Authority (NAIPTA) Transit Advisory Committee (TAC) Citizen Representative and Alternate Member Appointments.

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Scott Overton to appoint Paul Wagner as an alternate to a term expiring October 2021.

Vote: 6 - 0 - Unanimously

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to appoint Kevin Parkes to the permanent position with a term expiring October 2021.

Vote: 6 - 0 - Unanimously

B. Consideration of Appointments: Sustainability Commission.

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Charlie Odegaard to appoint Dara Marks-Marino to a term expiring October 2021.

Vote: 6 - 0 - Unanimously

7. CONSENT ITEMS

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Eva Putzova to approve Consent Items 7A through 7D.

Vote: 6 - 0 - Unanimously

A. **Consideration and Approval of Grant Agreement:** Wildland Fire Hazard Fuels (WFHF) 15-212 grant award - Greater Flagstaff Fuels Reduction Project (2015 Additional Funding).

Approve the Greater Flagstaff Fuels Reduction Project (2015 Additional) Wildland Fire Hazardous Fuels (WFHF) 2015-212 grant award from AZ Dept of Forestry and Fire Management.

B. **Consideration and Approval of Grant Agreement:** Wildland Fire Hazardous Fuels (WFHF) 18-203 grant award - Greater Flagstaff Fuels Reduction Project.

Approve the Greater Flagstaff Fuels Reduction Project Wildland Fire Hazardous Fuels (WFHF) 18-203 grant award from AZ Dept of Forestry and Fire Management.

C. **Consideration and Approval of License Agreement:**

This Agreement is between the City of Flagstaff and the Flagstaff Youth Hockey Association (FYHA). The Agreement outlines the responsibilities for both parties including the rental of ice time from the City of Flagstaff Jay Lively Activity Center.

Approve the license agreement between the City of Flagstaff and the Flagstaff Youth Hockey Assocation with anticipated revenue of approximately $69,000.

D. **Consideration and Approval of Grant Award:** FY18 Cooperating Technical Partners Grant Agreement.

Approve the FEMA FY18 Cooperating Technical Partners Grant Agreement in the amount of $200,000 for the Rio de Flag Hydrology Study.

8. **ROUTINE ITEMS**

A. **Adjustment of Boundary between the United States Forest Service (USFS) and National Park Service (NPS).**

Interim Assistant to the City Manager Cliff Bryson introduced Kayci Cook Collins, Superintendent with the National Forest Service, who provided a PowerPoint presentation that covered the following:

FLAGSTAFF AREA NATIONAL MONUMENTS
SUNSET CRATER VOLCANO NM
BACKGROUND
WHAT IS SO SPECIAL?
NPS FACILITIES ON USFS LAND
WHY TRANSFER TRACT FROM USFS TO NPSW
REASONS TO SUPPORT TRANSFER

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Scott Overton to approve a letter support for the boundary adjustment of 97.71 acres from the United States Forest Service (USFS) Coconino National Forest to the National Park Service (NPS) Sunset Crater Volcano National Monument.

Vote: 6 - 0 - Unanimously

RECESS

The 4:30 p.m. portion of the October 16, 2018, Regular Council Meeting recessed at 4:43 p.m.

6:00 P.M. MEETING

RECONVENE

Vice Mayor Whelan called the meeting of the Flagstaff City Council held October 16, 2018, to order at 6:00 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

9. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
VICE MAYOR WHELAN COUNCILMEMBER BAROTZ COUNCILMEMBER MCCARTHY COUNCILMEMBER ODEGAARD COUNCILMEMBER OVERTON COUNCILMEMBER PUTZOVA	MAYOR EVANS

Others present: City Manager Barbara Goodrich and City Attorney Sterling Solomon.

10. PLEDGE OF ALLEGIANCE

The Council and audience recited the pledge of allegiance.

11. PUBLIC PARTICIPATION

Mike Marlow with NAU addressed the Council inviting them and the public to attend the NAU Homecoming activities next week. He stated that they will be honoring Stacey Brechler-Knaggs with the Dwight Patterson Alumnus of the Year Award at halftime.

Tyler Linner addressed Council with concerns about the removal of milkweed along Lone Tree Road. He asked the Council to consider marking and protecting these areas to preserve the natural habitat of butterflies.

Paul Kulpinski addressed Council regarding the work of Launch Flagstaff. He thanked the Council for their continued support and asked for the opportunity to do a formal presentation

about their work.

Sarah Goodman, Adeline Travis, and Cheyenne Sorenson addressed Council about the Cinderella Program. The program builds friendships and self-confidence and provides opportunities for young women to be well rounded individuals and leaders in the community.

12. CARRY OVER ITEMS FROM THE 4:30 P.M. AGENDA

None

13. PUBLIC HEARING ITEMS

A. Consideration and Adoption of Resolution No. 2018-50: A resolution of the City Council of the City of Flagstaff, Arizona amending the Flagstaff Regional Plan 2030 by amending the Future Growth Illustration (Maps 21 and 22) and the Road Network Illustration (Map 25) to make the land use and road network designations consistent with the McMillan Mesa Natural Area to clarify the extent of surrounding land uses on City property, to correct mapping errors, and establishing an effective date.

Vice Mayor Whelan opened the public hearing.

Comprehensive Planning Manager Sara Dechter provided a PowerPoint presentation that covered the following:

MCMILLAN MESA NATURAL AREA – MAJOR REGIONAL PLAN AMENDMENT
WHAT IS PROPOSED?
FRP30 AREA TYPES CURRENT MAP
FRP30 AREA TYPES AMENDED MAP
ROAD NETWORK CHANGES
WHY IS A PLAN AMENDMENT NECESSARY?
REQUIRED PUBLIC PROCESS AND NOTICE
REQUIRED NOTICE
60 DAY PUBLIC REVIEW
PUBLIC HEARING SCHEDULE
COMMUNITY BENEFITS
CONFLICTING GOALS AND POLICIES
CHANGE TO AREA TYPES
WHAT ANALYSIS IS REQUIRED?
IMPACT ANALYSIS SUMMARY
TRANSPORTATION ANALYSIS SUMMARY
TRANSPORTATION IMPACTS
IMPLEMENTATION OF THE GENERAL PLAN

There being no public comment, Vice Mayor Whelan closed the public hearing.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Charlie Odegaard to read Resolution No. 2018-50 by title only.

Vote: 6 - 0 - Unanimously

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA. AMENDING THE FLAGSTAFF REGIONAL PLAN 2030 BY AMENDING THE FUTURE GROWTH ILLUSTRATION (MAPS 21 AND 22) AND THE ROAD NETWORK ILLUSTRATION (MAP 25) TO MAKE THE LAND USE AND ROAD NETWORK DESIGNATIONS CONSISTENT WITH THE MCMILLAN MESA NATURAL AREA, TO CLARIFY THE EXTENT OF SURROUNDING LAND USES ON CITY PROPERTY, TO CORRECT MAPPING ERRORS, AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to adopt Resolution No. 2018-50.

Vote: 6 - 0 - Unanimously

14. REGULAR AGENDA

A. Consideration and Adoption of Ordinance No. 2018-35: An ordinance amending the Flagstaff City Code, Chapter 1-14, *Personnel System*, by amending the Employee Handbook of Regulations related to *General Definitions* and *Residency Requirements* and by adding *Use of City Vehicles;* providing for repeal of conflicting ordinances; severability; and establishing an effective date **(Addendum 14 to Employee Handbook)**

Human Resources Director Shannon Anderson provided a PowerPoint presentation that covered the following.

ADDENDUM 14 – EMPLOYEE HANDBOOK
ADDENDUM 12 – EMPLOYEE HANDBOOK

Casey Gonzales addressed Council expressing support of the Ordinance on behalf of United Flagstaff Firefighters Association.

Vice Mayor Whelan asked if the issue was time sensitive and if not she suggested postponing a decision to allow for a more open discussion with the public at a Work Session.

Mr. Gonzales stated that it is not a time sensitive issue but it is something that has been discussed over the last couple of years and more in depth within the last eight months with the increasing cost of housing. While it is not a dire emergency it is something that the Association would appreciate a little urgency on. Expanding the residency area to the state has no cost impact, it is a cost neutral benefit with immediate impact and morale increase.

Flagstaff Fire Chief Mark Gaillard offered his agreement with Mr. Gonzales stating that there are two vacancies coming up in the recruitment process and if there is a change in the residency requirement it may help broaden the applicant pool.

Councilmember Barotz stated that she is supportive of moving forward now; there is not any one solution that will make the issue go away, it is housing, cost of living, and salary. Securing multiple strategies to help the department is something that she would support.

Vice Mayor Whelan asked how many times firefighters report to work per month. Chief Gaillard stated that they report to work five times per month which is why the expanded residency area has no impact on operations. He is not concerned about any negative impact to public safety and offered that through partnerships with other surrounding agencies there is always adequate coverage for response to a large event.

Vice Mayor Whelan offered that she believes that the issue is bigger than a Council decision and the community needs to participate in the discussion.

Councilmember Overton agreed and suggested that perhaps the Firefighter Union and Flagstaff Fire Department do outreach to the community to explain what the change means for the community.

Councilmember Barotz asked if it is common practice to allow firefighters to live outside municipal limits. Chief Gaillard responded that it is very uncommon to find residency restrictions in other areas. Mr. Gonzales added that there are two cities in Arizona that have restrictions.

Councilmember Putzova stated that she is comfortable with the amendments and does not believe that a public conversation would lead to any other outcome. If there are restricted residency requirements, then there needs to be salaries to match.

Councilmember McCarthy stated that if there is concern from the public, they have the opportunity to provide those comments at the second read of the ordinance.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-35 by title only for the first time.

Vote: 5 - 1

NAY: Vice Mayor Jamie Whelan

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, PERSONNEL SYSTEM, BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS RELATED TO GENERAL DEFINITIONS AND RESIDENCY REQUIREMENTS AND BY ADDING USE OF CITY VEHICLES; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

B. **Consideration and Adoption of Ordinance No. 2018-36:** An ordinance amending the Employee Handbook of Regulations *Employment Categories* and *Employee Advisory Committee*; providing for penalties; repeal of conflicting ordinances; severability; and establishing an effective date. ***(Addendum 15, relating to FMPO Executive Director)***

Ms. Anderson provided a PowerPoint presentation that covered the following:

ADDENDUM 15 – EMPLOYEE HANDBOOK

Moved by Councilmember Eva Putzova, **seconded by** Councilmember Jim McCarthy to read Ordinance No. 2018-36 by title only for the first time.

Vote: 6 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, PERSONNEL SYSTEM, BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS EMPLOYMENT CATEGORIES AND EMPLOYEE ADVISORY COMMITTEE; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

C. **Consideration and Adoption of Resolution No. 2018-47:** A resolution approving an Intergovernmental Agreement/Third-Party Agreement between the City of Flagstaff, Coconino County, and Paw Placement of Northern Arizona for Animal Shelter Services.

Deputy Police Chief Walt Miller provided a PowerPoint presentation that covered the following:

ANIMAL SHELTER SERVICES
SUMMARY
SECOND CHANCE BUILDING – 1665 N. HIGHWAY 89
REQUEST FOR PROPOSALS (RFP) PROCESS
CONCERNS
FINANCIAL IMPACTS

Councilmember Overton expressed concern about the financial contribution to the building; while it is a match by the City now, will the expectation be to fund it ongoing. The City does not own the building and he does not want to set a precedent of taking on the maintenance of county structures.

Deputy Chief Miller stated that this is a one time ask to help Paw Placement get up and running and there is a five-year limit for the matching contribution. Councilmember Overton stated that he would like to see that contribution be paid in full up front rather than over the five-year period.

Deputy County Manager Mike Townsend stated that the $12,300 contribution by the City and County is related to capital expenses for the interior of the building. The contractor will be running the facility. It is meant to create a fund for the contractor to take care of the things internally as needed.

A break was held from 7:29 p.m. through 7:37 p.m.

Moved by Councilmember Eva Putzova, **seconded by** Vice Mayor Jamie Whelan to read Resolution No. 2018-47 by title only.

Vote: 6 - 0 - Unanimously

A RESOLUTION APPROVING THE INTERGOVERNMENTAL AND THIRD PARTY AGREEMENT BETWEEN THE CITY OF FLAGSTAFF, COCONINO COUNTY AND PAW PLACEMENT OF NORTHERN ARIZONA FOR ANIMAL SHELTER SERVICES

Moved by Councilmember Eva Putzova, **seconded by** Councilmember Jim McCarthy to adopt Ordinance No. 2018-47.

Vote: 6 - 0 - Unanimously

D. **Consideration and Adoption of Resolution No. 2018-49:** A resolution of the City Council of the City of Flagstaff, Arizona amending the Procurement Code Manual, Article 25, Change Orders, Sections 25.1 Change Order Process, Section 25.2 Change Order Conditions, and Section 25.3 Change Order Membership and establishing an effective date.

Purchasing Director Rick Compau provided a PowerPoint presentation that covered the following:

PROCUREMENT CODE MANUAL PROPOSED AMENDMENTS TO ARTICLE 25
"CHANGE ORDERS"
OVERVIEW
HISTORY OF F.A.I.R.
PROPOSED AMENDMENTS: SECTION 25.1 "CHANGE ORDER PROCESS" LETTER (E)

Councilmember Barotz asked for a clarification on when a Change Order would need to be approved by Council. Senior Assistant City Attorney Christina Rubalcava explained that Change Orders are looked at cumulatively and once it meets the $50,000 threshold then it comes to Council for approval.

Mr. Compau continued the presentation.

PROPOSED AMENDMENTS: SECTION 25.2 "CHANGE ORDER CONDITIONS"
LETTER (A)

Councilmember McCarthy asked what triggers a Change Order. Mr. Compau stated that when things that are not identified in the specifications or if something is added or removed a Change Order would be issued. An example would be a change in the price or quantity of asphalt needed for a project. Those estimates are included in the original bid but they are not always exact.

Vice Mayor Whelan asked why contract allowances do not start at 5% and then negotiate from there. Mr. Compau stated that the proposed changes remove the set percentages and replaces the language with may so there is more flexibility in setting the percentage based on the work to be done.

Mr. Compau continued.

PROPOSED AMENDMENTS: SECTION 25.2 "CHANGE ORDER CONDITIONS"
LETTER (B)
PROPOSED AMENDMENTS: SECTION 25.2 "CHANGE ORDER CONDITIONS" ADDITION

Councilmember Odegaard asked if any of the proposed changes will slow down or speed up projects. Mr. Compau stated that they could potentially slow down the process when Change Orders need to come to Council for approval due to agenda availability.

Councilmember Bartoz asked who decides what an extenuating circumstance is. Mr. Compau stated that it is a judgment call between the contractor, project manager, and the project manager's director. Extenuating circumstances are generally if something is time sensitive to correct or a safety concern.

Andy Fernandez addressed Council in opposition of the changes proposed by staff.

Councilmember McCarthy stated that it might be better for staff to consider the comments

and questions from Council and provide further edits.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Charlie Odegaard to postpone the item until staff has the chance to consider Council comments and come back with changes.

Vote: 6 - 0 - Unanimously

E. **Consideration and Adoption of Ordinance No. 2018-20:** A(n) ordinance amending Section 5-01-001-0001 of the Flagstaff City Code regarding fire protection services in County islands and other selected unincorporated property.

Deputy Fire Chief Mark Wilson stated that the ordinance will amend the methodology that is used to calculate contract rates for property outside city limits that do not currently have a contract with the City. The ordinance will also change from a Consumer Price Index (CPI) to a 2% flat rate for those properties that already have a contract. The proposal is to change from the old method that was based off of call volume and move to a top burden rate for three person companies for an engine and water tender. This would bring some equality between those who are paying taxes and those who are on contract. Those who are not on contract would be billed in the same manner as well.

Andy Fernandez addressed Council and suggested that the county islands throughout the City should be annexed into the City and pay taxes for fire service.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-20 by title only for the first time.

Vote: 6 - 0 - Unanimously

AN ORDINANCE AMENDING SECTION 5-01-001-0001 OF THE FLAGSTAFF CITY CODE REGARDING FIRE PROTECTION SERVICES IN COUNTY ISLANDS AND OTHER SELECTED UNINCORPORATED PROPERTY.

F. **Consideration and Possible Action:** Cancel the 6:00 p.m. portion of the November 6, 2018 Regular Meeting and the Regular Meeting of January 1, 2019.

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to cancel the 6:00 p.m. portion of the November 6, 2018 Regular Meeting and the Regular Meeting of January 1, 2019.

Vote: 6 - 0 - Unanimously

15. COUNCIL LIAISON REPORTS

None

16. FUTURE AGENDA ITEM REQUESTS

After discussion and upon agreement by two members of the Council, an item will be moved to a regularly-scheduled Council meeting.

A. **Future Agenda Item Request (F.A.I.R.):** A Citizens' Petition requesting Council consideration of free parking on first Friday of each month.

Terry Madeksza addressed Council stating that a policy is being created for requests to offer free parking during certain events downtown. She indicated that the policy should be coming before Council soon and feels that the consideration of the petition should come after a policy is finalized.

Councilmember Putzova suggested that both conversations can happen at the same time.

Councilmember Overton expressed concern about setting a policy and having a request at the same meeting. He would rather have a policy in place and then have the requester go through the process. Ms. Madeksza agreed stating that they have been working on a policy for the last couple months and it is nearing completion. The policy would put a process in place that is fair and that can be applied consistently.

Two Councilmembers were in favor of Councilmember Putzova's suggestion and moving the item to a future agenda.

B. **Future Agenda Item Request (F.A.I.R.):** A request by Councilmember Odegaard to place on a future agenda a discussion about bringing back the Youth Commission in some form.

Councilmember Odegaard stated that after attending the League of Cities and Towns Annual Conference and seeing other cities bringing youth to the event he would like to discuss a similar practice for Flagstaff.

Vice Mayor Whelan added that there is also movement in the community to find ways to empower youth; this could be something that could be a partnership with those efforts.

At least two Councilmembers were in favor of moving the item to a future agenda.

C. **Future Agenda Item Request (F.A.I.R.):** A request by Vice Mayor Whelan to place on a future agenda a discussion about reestablishing the conversation about Thorpe Park with regards to future use as a park, affordable housing, and the community building.

At least two Councilmembers were in favor of moving the item to a future agenda.

17. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

Councilmember Odegaard reported that General Semonite will be in Flagstaff tomorrow to discuss the Rio de Flag. He is excited about what will come from that meeting.

Vice Mayor Whelan reported that she attended the Stronger as One meeting which was well attended. There is urgency in looking at death by suicide which has increased 45% in the last year within the region. This statistic is very alarming, and the group is working together on the issue and will be making recommendations in the near future.

18. ADJOURNMENT

The Regular Meeting of the Flagstaff City Council held October 16, 2018, adjourned at 9:12 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

I, STACY SALTZBURG, do hereby certify that I am the City Clerk of the City of Flagstaff, County of Coconino, State of Arizona, and that the above Minutes are a true and correct summary of the Meeting of the Council of the City of Flagstaff held on October 16, 2018. I further certify that the Meeting was duly called and held and that a quorum was present.

DATED this 27th day of August, 2019.

_____
CITY CLERK

COMBINED SPECIAL WORK SESSION /
JOINT CITY/COUNTY WORK SESSION
TUESDAY, OCTOBER 23, 2018
COCONINO COMMUNITY COLLEGE
2800 SOUTH LONE TREE ROAD
6:00 P.M.

MINUTES

1. Call to Order

Vice Mayor Whelan called the Special Work Session of October 23, 2018, to order at 6:02 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. Pledge of Allegiance and Mission Statement

The Council and audience recited the Pledge of Allegiance.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

3. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
VICE MAYOR WHELAN	MAYOR EVANS
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: City Manager Barbara Goodrich and City Attorney Sterling Solomon.

4. Public Participation

Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None

5. **Future Agenda Item Request (F.A.I.R):** A request by Councilmember McCarthy to place on a future agenda a discussion about the possibility of amending the investment policy to further pursue Social Responsible Investing (SRI).

Management Services Director Rick Tadder introduced Paulina Woo, Director of PFM Asset Management, LLC, who provided a PowerPoint presentation that covered the following:

F.A.I.R: SOCIALLY RESPONSIBLE INVESTING
SOCIALLY RESPONSIBLE INVESTING (SRI)
CITY'S INVESTMENT OBJECTIVES
ALLOWABLE INVESTMENTS STRICTLY CONTROLLED BY ARIZONA LAW
BASIC TYPES OF IMPACT INVESTING
SRI'S AMBIGUOUS MEANING
DIFFERENT INVESTMENT APPROACHES
NARROW UNIVERSE OF PERMITTED USERS
OVERVIEW OF SPECIFIC ISSUER LIMITATIONS
VALUE COMPARISON OF VARIOUS SECTORS
SOCIALLY RESPONSIBLE PORTFOLIO – KEY POINTS TO CONSIDER

Councilmember McCarthy stated that when he brought the issue forward, he made a suggestion that the City not invest with companies that deal with nuclear, tobacco, and gambling. He asked if taking that direction would put the City in a situation where it could not find safe yields.

Ms. Woo stated that in her experience, tobacco and gambling would be pretty easy to eliminate but the nuclear power becomes a challenging issue because of the government's involvement with nuclear power. There would have to be a clear standard as to what nuclear power meant and the City would have to exempt the government issuers. It becomes too hard to make specific connections. For example, there are cities that do not want to support any company that would support the building of a border wall, but it is difficult to connecting the investments and the relationship. It is important to be realistic in defining the connections.

Councilmember Odegaard thanked Ms. Woo for her presentation and stated that he is not interested in making any changes to how things are currently being done.

Councilmember Putzova stated that she would like the City to further explore what the policy would look like including the suggestions of Councilmember McCarthy.

Councilmember Overton stated that the City's current portfolio is limited in what could be removed; he asked what the financial implications would be of the minor things that are able to

be changed. Ms. Woo stated that the policy is so limited now that there is not much more to limit and there would be very little impact. Most of the City's portfolio is corporate and technology.

There was not a majority of Council supportive of moving the item forward for further discussion or action.

6. Climate Action and Adaptation Plan: Draft Review #3

Sustainability Specialist Jenny Neiman provided a PowerPoint presentation that covered the following:

AGENDA
WHY ARE WE HERE: PLAN OBJECTIVES
REVIEW AND FEEDBACK

Community Investment Director David McIntire stated that there had been some questions about potential competing values between the CAAP and economic development. Mr. McIntire stated that economic development and CAAP can be complimentary to each other. While there are methods in economic development that are focused more on making sure that the City is bringing in high wage jobs and that business is sustainable in an economic sense, there are ways to do that in tandem with the CAAP and they are not mutually exclusive.

One example of this cooperation is the Innovate Waste Challenge which encourages entrepreneurship as a solution for local entrepreneurs, through competition, to develop ways to remove waste whether through providing services or products that create prosperity for them and jobs long term while lengthening the life of the landfill.

Another example is that Economic Vitality is working on an Adaptive and Reuse Policy which will encourage the use of existing properties that may have some issues that are preventing them from their highest and best use. Instead of greenfield development, the policy would encourage infill development of existing buildings. The City of Flagstaff's general focus areas for economic development are low impact and high wage.

Part of why Economic Vitality has been participating in the development of the CAAP is because they work with existing companies in Flagstaff to identify potential threats that could come with climate change to develop strategies and opportunities to be aware and adapt.

Ms. Nieman continued the presentation.

PLAN REVISIONS BASED ON FEEDBACK
REVISED TARGETS: ENERGY

Councilmember Odegaard asked if there would need to be changes in the existing building codes to achieve the goal of 50% of new residential permits being net-zero. Ms. Neiman explained that the goal is a very ambitious target and mirrors what other states are doing. There is a lot of opportunity in the construction sector, but it is identifying the appropriate mechanism such as incentives or code changes.

FOCUS AREA REVIEW
CAAP FOCUS AREAS
PUBLIC HEALTH & EMERGENCY SERVICES
PUBLIC HEALTH GOALS

PUBLIC HEALTH STRATEGIES

The following individuals addressed Council in support of the CAAP:

- Tyler Linner
- Darren Bingham

The following comments were received:

- Very supportive of the Plan.
- There should be more focus on getting people more options for transit, not building overpasses and widening roads.
- The city needs more bike lanes and ADA accessible options for transportation.
- It is imperative that the City work with the community on implementation of the Plan.
- We cannot consume ourselves out of a consumption problem.
- Look to NAU as a partner in the effort.
- Adequate funding needs to be put behind the Plan for implementation.

Written comment cards in support of the CAAP were submitted by the following individuals:

- Emily Haworth
- Katherine Allen
- Chris Kocay
- Garrett Heidrick
- Tristan Smit
- Tyler Linner
- Darren Bingham
- Kyle England
- Elizabeth Lancione
- Christina Lizzo
- Kelly Bessem

Ms. Neiman continued the presentation.

IMPLEMENTATION STRATEGY
IMPLEMENTATION LEADERSHIP
IMPLEMENTATION OPERATIONALIZING EQUITY
IMPLEMENTATION ACCOUNTABILITY AND REPORTING
IMPLEMENTATION KICK-STARTING IMPLEMENTATION
IMPLEMENTATION FUNDING POSSIBILITIES

Councilmember Overton stated that there are significant costs to the Plan and the funding is not currently available. Boulder, Colorado has a similar plan, but they have a sales tax on goods and services to fund it. There is not automatic funding if the Plan is adopted. The community will have to make decisions on how aggressively they would like to implement the Plan and how the funding will be generated to do so.

Ms. Neiman stated that there are things in the Plan that are free or require minimal staff time and there are very large things. The intent is to put it all out there for discussion with the community. The City can begin by tackling the changes that are low cost investments now. There are also ways to work with community partners to leverage multiple sources of funding but there will be difficult questions and decisions in the future.

Councilmember McCarthy stated that he sees the CAAP as a similar document to the Regional Plan that is looked to for guidance on the vision of Flagstaff. It will be a guiding document to help

the City make decisions.

Ms. Neiman concluded her presentation.

IMPLEMENTATION COMMUNITY OUTREACH
IMPLEMENTATION COMMUNITY CAPACITY
NEXT STEPS

A break was held from 7:26 p.m. through 7:37 p.m.

Vice Mayor Whelan re-ordered the agenda and recessed the Work Session at 7:37 p.m. to begin the Joint Work Session with the Coconino County Board of Supervisors.

Vice Mayor Whelan called the Special Work Session back to order at 9:05 p.m.

7. Discussion on the process for amending the Special Event Application Packet (including the Special Event Rules and Regulations) and Chapter 8-12 of the City Code regarding Special Events.

Recreation Supervisor Claire Harper provided a PowerPoint presentation that covered the following:

PROCESS FOR AMENDING THE SPECIAL EVENT APPLICATION PACKET
BACKGROUND
STAFF RECOMMENDATION
NEXT STEPS

Gina Marie Byars addressed Council to thank staff for their work with event producers to make sure they understand what is going on and get their feedback. She is excited to see the final product and see how events can make Flagstaff a more vibrant place.

8. Adjournment

The Special Work Session of October 23, 2018, adjourned at 9:13 p.m.

JOINT FLAGSTAFF CITY COUNCIL/COUNTY BOARD OF SUPERVISORS SPECIAL WORK SESSION

1. Call to Order

Vice Mayor Whelan called the Joint City Council/Coconino County Board of Supervisors Work Session of October 23, 2018, to order at 7:37 p.m.

2. Roll Call:

NOTE: One or more Councilmembers/Supervisors may be in attendance telephonically or by other technological means.

BOARD OF SUPERVISORS PRESENT:	BOARD OF SUPERVISORS ABSENT:
CHAIRMAN BABBOTT SUPERVISOR ARCHULETA (arrived at 7:47 p.m.) SUPERVISOR PARKS SUPERVISOR RYAN	VICE CHAIRWOMAN FOWLER
CITY COUNCILMEMBERS PRESENT:	CITY COUNCILMEMBERS ABSENT:
VICE MAYOR WHELAN COUNCILMEMBER BAROTZ COUNCILMEMBER MCCARTHY COUNCILMEMBER ODEGAARD COUNCILMEMBER OVERTON COUNCILMEMBER PUTZOVA	MAYOR EVANS

Others present: City Manager Barbara Goodrich; City Attorney Sterling Solomon, Deputy County Manager Lucinda Andreani.

3. Water Resources Planning Discussion

Water Resources Manager Erin Young provided a PowerPoint presentation that covered the following:

WATER RESOURCES PLANNING UPDATE
TONIGHT'S TALKING POINTS
INTEGRATED MASTER PLAN APPROACH
SCENARIO PLANNING
WATER RESOURCES CHAPTER UPDATE
GOALS OF THE WATER RESOURCES SECTION
OBJECTIVES OF A "ONE WATER" APPROACH
INTEGRATED MASTER PLAN - 2021
WATER RESOURCES MASTER PLAN TIMELINE
TIMELINE

Chairman Babbott asked what the output will be of the advanced treatment analysis. Ms. Young stated that staff is currently crafting the scope of work for the analysis, the intent is to look at all the different elements of reclaimed water use including options for purple pipe where there may be recreation opportunities, future Regional Plan land uses, and the changing landscape of reclaimed water pricing. Also looking at the cost benefit to treating reclaimed water versus ground pumping. There are some communities that are moving to a one cost for all water. Water Services Director Brad Hill added that in looking at the various water supplies, the goal is to determine a cost to develop, relative to the volume of water.

Councilmember McCarthy stated that reclaimed water is going through an evolution. Reclaimed water did not have any value until it was discovered that it could be used for landscaping and now the value is shifting upward towards the same value as potable water.

Vice Mayor Whelan asked about regulations on water as the technology is changing. Ms. Young stated that the Arizona Department of Environmental Quality has been working with stakeholders to draft language for allowing direct potable reuse. In January 2018 they provided a lift of the prohibition to use reclaimed water for direct potable reuse. They are working on

components of what that looks like with the development of an Operator Training Program as well as determining whether a facility needs to meet water quality standards versus them dictating how an agency would achieve the standards. There is significant advancement in technology with Arizona, California, and Texas leading the way. The biggest issue is the public perception.

Supervisor Ryan stated that one of the primary issues is the water budget and build out associated with the community. It is looking at land patterns and how the County works together with the community and the City. The County has a different ability to associate with water in the unincorporated areas. With limited review associated with infrastructure, the discussions about quantity are very different than the City's discussions. The County has been evaluating snow play as a region for a while, the Board of Supervisors did not take action on it and there needs to be an evaluation of the potential for snow making, the type of water to use, and the availability of the water. The County has been asking for purple pipe to Fort Tuthill in anticipation of the snow play opportunity, but it is not in the plans for another five to ten years. It is something that could be evaluated in the next Regional Plan.

Vice Mayor Whelan stated that she believes that it is an opportunity for the community to reflect on what potable water is being used for. There have been conversations about Jay Lively and if the water could be switched to reclaimed. This discussion is just the beginning and the collection of data and public input is vital to developing a direction for water uses.

Councilmember McCarthy stated that the City has gone to great lengths to promote water conservation and his concern about adding new snowmaking projects is that it will destroy the culture of conservation. There will be difficult discussions with conflicting values to consider before making any decisions.

Supervisor Parks stated that the issue is a matter of perspective; snow making at Fort Tuthill is estimated to use 1.2 million gallons per year and Jay Lively uses 1.5 million gallons per year, compare that to the 300 million gallons per year used to flush toilets. The perception is that it is a waste of water, but other factors need to be considered as well such as the reduced traffic on Highway 180. He asked if the water technology to make A+ water and moving towards one water will make the purple pipes obsolete in the future.

Ms. Young stated that the City would approach the idea of maintaining a stream of A+ rate water for current uses and the benefit of converting to potable water.

Supervisor Parks asked when Red Gap Ranch is expected to come online. Ms. Young stated that the Red Gap Ranch feasibility study and concept design is slated to be completed in the spring. The study will provide an estimate on the dollars needed to compare bringing Red Gap Ranch online to advance water treatment options. There will need to be consideration of the volume of water advanced treatment would bring. In the future, 8,000-acre feet per year is needed for the water demands at build out. Consideration has to be given to how much sewage collection is estimated at build out and how much of that can be converted to advance treatment.

Ms. Young further explained that there are operational advantages to Red Gap Ranch and those advantages have to be weighed with the consideration of starting with advanced treatment. There has to be raw water to feed the reclaimed system and that is where bringing Red Gap Ranch online might be most beneficial. These considerations will be looked at in terms of a sustainable water budget, the cost of purple pipe to high occupancy housing, and how those options are funded.

Supervisor Archuleta stated that water discussions have been happening for over a decade starting with the regional approach and development of the Coconino Plateau Water Advisory Council. The purpose is to develop a regional approach to water and bring partners to the table to discuss conservation, develop a water budget, and discuss possible incentives, among other things. This topic would be a great discussion item for the Coconino Plateau Water Advisory Council.

Supervisor Archuleta went on to say that in the past the burden has been placed on developers to bear the cost of water infrastructure. When the County was looking at Fort Tuthill they were hoping for an opportunity to tie into the reclaimed system in partnership with the developer, unfortunately that has not come to fruition because the cost has been prohibitive. There are opportunities for conservation through water harvesting, installation of low flush toilets, and other things that can be done; it comes down to determining what the opportunities are and the values of the community.

Councilmember Odegaard stated that water conservation is one of his top values. It is difficult to promote and stress water conservation when things are happening that compete with that value.

Chairman Babbott stated that the County uses potable water for recreation and the City uses potable water for recreation and that is a decision both have consciously made. It is an issue of competing values and there is no perfect balance to serve multiple objectives. If and when reclaimed water becomes available at Fort Tuthill he would certainly entertain that discussion.

The following provided comments regarding water resource planning:

- Joe Shannon
- Alicyn Gitlin
- Adam Shimoni
- J.R. Murray
- Steve Finch

The following comments were received:

- The situation with snow plan and Highway 180 is a communication problem, not a recreation problem.
- There needs to be better education for potential visitors to Flagstaff for winter recreation.
- It is important for the City and County to discuss and work on these issues together.
- Climate change is a way of life for anyone under 30, engage with them on conservation strategies.
- The City, County, and Forest Service all need to develop a policy for the uses of potable water.
- Water is a finite resource and needs to be treated as such.
- A limit needs to be put on how much water can be used for recreational purposes.
- More community education and input is needed on the issue.
- There are other ways to address the traffic on Highway 180, making snow is not the answer.
- Flagstaff is the winter capital of Arizona.
- People come to Flagstaff regardless of communication and education, it just does not reach everyone.
- There has been conversations for a long time about having a winter recreation place south of town.
- Tourism is the life blood of Flagstaff.
- It is important to remember that there is an economic return on every gallon of water that is used.

- The City is probably losing more water to leakage from the old water infrastructure than is being used on the peaks.

Councilmember Putzova stated that the issues of the Fort Tuthill snow play area and the traffic on Highway 180 are two unrelated issues. Discussions have been started about water policy and community values and prioritizing the uses of potable water. It is important to be explicit in the policy about the uses that are prioritized and what uses are shut off in times of shortage.

Councilmember Overton offered that he was not supportive of the letter sent to the County. He believes that it is the County's decision on how to use their park. There are a lot of competing values at play and there are two jurisdictions with separate roles and powers. He does not want to tell the County how to conduct their business and that expectation is the same going the other way. The City and County will continue to work at a lot of issues and water is one of them.

Supervisor Ryan stated that it is a mutual respect between the City and County and water is a difficult issue. It is a public private partnership that the County is trying to address with the snow play issue.

4. Informational Items To/From Chairman, Supervisors and County Manager/Mayor, Council and City Manager.

The City Council and Board of Supervisors thanked each other for their participation in the meeting and for their continued support of working together on issues that affect the community.

5. Adjournment

The Flagstaff City Council/Coconino County Board of Supervisors Joint Work Session of October 23, 2018, adjourned at 9:05 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CITY COUNCIL REGULAR MEETING
TUESDAY, NOVEMBER 6, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
4:30 P.M. AND 6:00 P.M.

MINUTES

1. CALL TO ORDER

Mayor Evans called the meeting of the Flagstaff City Council held November 6, 2018, to order at 4:30 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: Interim City Manager Barbara Goodrich and City Attorney Sterling Solomon.

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

The Council and audience recited the pledge of allegiance and Councilmember Overton read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

4. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None

5. PROCLAMATIONS AND RECOGNITIONS

6. CONSENT ITEMS

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

Laurie Stephens with Accurate Building Maintenance addressed Council regarding item 7A expressing thanks for allowing them to continue providing service to the City. She expressed disappointment about not being selected to provide service to all the facilities.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to approve Consent Items 7A and 7B.

Vote: 7 - 0 - Unanimously

A. Consideration and Approval of Contract: Custodial Services

1) Approve two (2) Custodial Service Contracts to the following firms:
   - Accurate Building Maintenance, LLC [Nine (9) facilities]
   - Pinnacle Building Service [Nine (9) facilities]

2) Provide the Purchasing Director the authority to add or delete facilities and/or services as necessary during the term of the agreement.

3) Authorize the City Manager to execute the necessary documents

B. Consideration and Approval of Contract: Consideration and approval of the Professional Services Contract for the continuation for the City of Flagstaff Employer Assisted Housing (COF-EAH) program, the administration for the new Community Homebuyer Assistance Program (CHAP), and to provide Homebuyer Counseling and Education as well as Eligibility Determination for all first time Flagstaff homebuyers, Contract No. 2019-03 between City of Flagstaff and Housing Solutions of Northern Arizona, Inc. (HSNA).

Approve contract with HSNA to continue the administration of the City of Flagstaff Employer Assisted Housing (COF-EAH) program available to all eligible City of Flagstaff employees and to administer the new Community Homebuyer Assistance Program (CHAP) available to Flagstaff citizens.

7. ROUTINE ITEMS

A. Consideration and Approval of Airport Master Plan

Moved by Councilmember Scott Overton, **seconded by** Councilmember Jim McCarthy to approve the Airport Master Plan final draft.

Vote: 7 - 0 - Unanimously

B. Consideration and Approval of Cooperative Contract: Airport Security Upgrades at the Flagstaff Airport.

Moved by Councilmember Charlie Odegaard, **seconded by** Vice Mayor Jamie Whelan to approve the cooperative purchase contract for the purchase and installation of security equipment at the Flagstaff Airport from Enterprise Security, Inc. through a Maricopa County Cooperative Purchase Agreement, contract number 120745-S for a total dollar amount of $79,954; and authorize the City Manager to execute the necessary documents.

Vote: 7 - 0 - Unanimously

C. Consideration and Adoption of Ordinance No. 2018-35: An ordinance amending the Flagstaff City Code, Chapter 1-14, *Personnel System*, by amending the Employee Handbook of Regulations related to *General Definitions* and *Residency Requirements* and by adding *Use of City Vehicles;* providing for repeal of conflicting ordinances; severability; and establishing an effective date **(Addendum 14 to Employee Handbook)**

Moved by Councilmember Eva Putzova, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-35 by title only for the final time.

Vice Mayor Whelan asked if this opportunity should be extended to all City staff. Human Resources Director Shannon Anderson stated that the situation is different for firefighters due to their shift work and the various mutual aid contracts that are in place should large event occur. Those types of contracts are not available for other departments such as Water Services and Public Works because they are required to respond within one hour of call-out.

Vice Mayor Whelan asked how many people are asking for the ability to live outside of the greater Flagstaff area and how many Firefighters have taken advantage of the City's Employer Assisted Housing program. She would like more time to consider this action and find something equitable for all City staff.

Ms. Anderson explained that the existing policy for a one hour response time only applies to emergency service personnel which are in Water Services, Public Works, the Police Department, and the Fire Department. There are no restrictions for employees outside this designation. Human Resources was approached by the Fire Department with their request and it was presented to the Employee Advisory Committee and the Leadership Team. She is unsure of the number of firefighters who have used the City's housing assistance program.

Casey Gonzales with the United Flagstaff Fire Fighters addressed the Council in support of the ordinance. He stated that this is something that has no cost to the City and it is a tool to attract new firefighters to Flagstaff. Generally speaking, firefighters want to live where they work; this would just allow other options.

Councilmember McCarthy stated that he is supportive of the ordinance but would like to see if there is a way to extend it to other emergency personnel.

Mayor Evans agreed and stated that it is frustrating that employees cannot afford to live in the city. She would also like to look at the underlying policy that deals with all safety personnel. The City needs to look at all different ways to motivate people to work and live in Flagstaff and be a part of the community.

Fire Chief Mark Gaillard offered that they looked at practices in other communities and found that most did not have a residency requirement.

Councilmember Overton asked if Workman's Compensation covers an employee to and from work only when using a City vehicle. Mr. Solomon stated that it covers public safety employees to and from work regardless of the vehicle; it could be a City vehicle or a personal vehicle.

Vote: 7 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, PERSONNEL SYSTEM, BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS RELATED TO GENERAL DEFINITIONS AND RESIDENCY REQUIREMENTS AND BY ADDING USE OF CITY VEHICLES; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to adopt Ordinance No. 2018-35.

Vote: 7 - 0 - Unanimously

D. **Consideration and Adoption of Ordinance No. 2018-36:** An ordinance amending the Employee Handbook of Regulations *Employment Categories* and *Employee Advisory Committee*; providing for penalties; repeal of conflicting ordinances; severability; and establishing an effective date. ***(Addendum 15, relating to FMPO Executive Director)***

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to read Ordinance No. 2018-36 by title only for the final time.

Vote: 7 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, PERSONNEL SYSTEM, BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS EMPLOYMENT CATEGORIES AND EMPLOYEE ADVISORY COMMITTEE; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to adopt Ordinance No. 2018-36.

Vote: 7 - 0 - Unanimously

E. **Consideration and Adoption of Ordinance No. 2018-20:** A(n) ordinance amending Section 5-01-001-0001 of the Flagstaff City Code regarding fire protection services in County islands and other selected unincorporated property.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-20 by title only for the final time.

Vote: 7 - 0 - Unanimously

AN ORDINANCE AMENDING SECTION 5-01-001-0001 OF THE FLAGSTAFF CITY CODE REGARDING FIRE PROTECTION SERVICES IN COUNTY ISLANDS AND OTHER SELECTED UNINCORPORATED PROPERTY

Moved by Councilmember Charlie Odegaard, **seconded by** Vice Mayor Jamie Whelan to adopt Ordinance No. 2018-20.

Vote: 7 - 0 - Unanimously

F. **Consideration and Adoption of Ordinance No. 2018-38:** An ordinance of the City Council of the City of Flagstaff, amending the Flagstaff City Code by amending Title 9 *Traffic Code* Section 9-01-001-0003 *Stopping or Standing and Parking Restrictions*, to modify parking violation fines, providing for penalties, repeal of conflicting ordinances, severability, and establishing an effective date.

Community Investment Director David McIntire and Finance Director Brandi Suda provided a PowerPoint presentation that covered the following:

ADJUSTMENT OF PARKING FINES
BACKGROUND
NEW STATE SURCHARGES AND ASSESSMENTS – EFFECTIVE 1/1/19
NEW FINE AMOUNTS

Councilmember McCarthy asked if it would be possible to add a surcharge that could be applied to the PSPRS unfunded pension liability. Ms. Goodrich stated that there are statutory guidelines on what cities can attach surcharges to and there is a process to go through to propose such a fee.

A majority of Council was not interested in evaluating that possibility.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Scott Overton to read Ordinance No. 2018-20 by title only for the first time.

Vote: 5 - 2

NAY: Councilmember Eva Putzova
Vice Mayor Jamie Whelan

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF CITY CODE BY AMENDING TITLE 9 TRAFFIC CODE SECTION 9-01-001-0003 STOPPING OR STANDING AND PARKING RESTRICTIONS, TO MODIFY PARKING VIOLATION FINES, PROVIDING FOR PENALTIES, REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY AND ESTABLISHING AN EFFECTIVE DATE

G. **Consideration and Approval of Resolution No. 2018-51 and Intergovernmental Agreement:** A resolution approving an Intergovernmental Agreement between Pinewood Fire District and the City of Flagstaff on behalf of the Flagstaff Fire Department to fund a Regional Training Coordinator and participate in regional training of emergency services personnel.

Chief Gaillard stated this agreement is for the addition of a new partner in the Regional Training Program.

Moved by Councilmember Scott Overton, **seconded by** Vice Mayor Jamie Whelan to read Resolution No. 2018-51 by title only.

Vote: 7 - 0 - Unanimously

A RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN PINEWOOD FIRE DISTRICT AND THE CITY OF FLAGSTAFF ON BEHALF OF THE FLAGSTAFF FIRE DEPARTMENT TO FUND A REGIONAL TRAINING COORDINATOR AND PARTICIPATE IN REGIONAL TRAINING OF EMERGENCY SERVICES PERSONNEL

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to adopt Resolution No. 2018-51.

Vote: 7 - 0 - Unanimously

H. **Consideration and Adoption of Resolution No. 2018-52:** A resolution of the City Council of the City of Flagstaff, Arizona authorizing the settlement of the matter of *John Castaneda v. City of Flagstaff, et al.*, case No. CV2018-00006, currently pending in Coconino County Superior Court.

Mr. Solomon stated that a settlement has been reached in the matter of John Castaneda v. City of Flagstaff and the resolution would authorize the City to settle the case.

Moved by Councilmember Charlie Odegaard, **seconded by** Vice Mayor Jamie Whelan to read Resolution No. 2018-52 by title only.

Vote: 7 - 0 - Unanimously

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL AUTHORIZING THE SETTLEMENT OF THE MATTER OF JOHN CASTANEDA V. CITY OF FLAGSTAFF, ET AL., CASE NO. CV2018-00006, CURRENTLY PENDING IN COCONINO COUNTY SUPERIOR COURT

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Jim McCarthy to adopt Resolution No. 2018-52.

Vote: 7 - 0 - Unanimously

8. **COUNCIL LIAISON REPORTS**

None

9. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

Councilmember Odegaard thanked staff for arranging the business listening tour; the information was very helpful.

Councilmember Odegaard reminded the Council about the upcoming Stuff the Bus event.

Vice Mayor Whelan requested the following F.A.I.R. items:

1. Discuss the prioritization of the Request for Qualifications to work on Transect Amendments.
2. Discussion of building types and heights allowed in the T4 Zone.
3. Discussion about Charter residency requirements for leadership and equity of residency for all City staff.

Councilmember McCarthy also reported on the business listening tour and thanked staff for arranging the tour.

Councilmember Overton reported that he did his last official school tour of City Hall with 70 students from Marshall Elementary School.

Mayor Evans echoed Councilmember Odegaard's reminder about the upcoming Stuff the Bus event to gather turkeys for the Flagstaff Family Food Center. There will be a competition between the City and County as to who collects the most turkeys with the real winner being the community.

10. ADJOURNMENT

The Regular Meeting of the Flagstaff City Council held November 6, 2018, adjourned at 5:32 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

I, STACY SALTZBURG, do hereby certify that I am the City Clerk of the City of Flagstaff, County of Coconino, State of Arizona, and that the above Minutes are a true and correct summary of the Meeting of the Council of the City of Flagstaff held on November 6, 2018. I further certify that the Meeting was duly called and held and that a quorum was present.

DATED this 27th day of August, 2019.

_____
CITY CLERK

CITY COUNCIL REGULAR MEETING
TUESDAY, NOVEMBER 20, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
4:30 P.M. AND 6:00 P.M.

MINUTES

1. CALL TO ORDER

Mayor Evans called the meeting of the Flagstaff City Council held November 20, 2018, to order at 4:30 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: City Manager Barbara Goodrich and City Attorney Sterling Solomon.

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

The Council and audience recited the pledge of allegiance and Vice Mayor Whelan read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

4. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None

5. PROCLAMATIONS AND RECOGNITIONS

None

6. APPOINTMENTS

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that the City Council may vote to go into executive session, which will not be open to the public, for the purpose of discussing or considering employment, assignment, appointment, promotion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee, or employee of any public body...., pursuant to A.R.S. §38-431.03(A)(1).

A. Consideration of Appointments: Heritage Preservation Commission.

Moved by Councilmember Celia Barotz, **seconded by** Vice Mayor Jamie Whelan to appoint Stefano Coaloa to an At-Large position with a term expiring December 2020.

Vote: 7 - 0 - Unanimously

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Charlie Odegaard to appoint Dr. Emily Dale to a Professional position with a term expiring December 2020.

Vote: 7 - 0 - Unanimously

7. LIQUOR LICENSE PUBLIC HEARINGS

A. Consideration and Action on Liquor License Application: Steven Hallum "Swift Travel Center," 3099 W. Shamrell Boulevard, Series 10 (beer and wine store), New License.

Mayor Evans opened the public hearing.

Sgt. Collin Seay addressed the Council with a brief explanation of the license.

Councilmember Odegaard thanked the applicant for coming to the meeting and being available for questions.

There being no public comment Mayor Evans closed the public hearing.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to forward the application to the State with a recommendation of approval.

Vote: 7 - 0 - Unanimously

8. CONSENT ITEMS

All matters under Consent Agenda are considered by the City Council to be routine and will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

Moved by Councilmember Eva Putzova, **seconded by** Vice Mayor Jamie Whelan to approve Consent Item 7A.

Vote: 7 - 0 - Unanimously

A. Consideration and Approval of Street Closure(s): New Year's Eve Safety Street Closure
Approve the street closure of Aspen Avenue (between San Francisco Street and Beaver Street) and Leroux Street (between Route 66 and Birch Avenue) on December 31, 2018, from 8:00 PM, to January 1, 2019 at 1:30 AM.

9. ROUTINE ITEMS

A. Consideration and Approval of Cooperative Purchasing Contract: Contract phased retirement program through cooperative purchasing agreement with Mohave Cooperative.

Human Resources Director Shannon Anderson stated that the contract with SmartWorks is a succession planning tool that allows employees the ability to train and complete projects as they phase out to retirement.

Councilmember Putzova asked how many people have utilized the program. Ms. Anderson stated that each year it is between two and four individuals.

Councilmember McCarthy stated that the employee only receives 75% of what they were making before they entered into the program; he asked what the rationale was for that figure. Ms. Anderson stated that the 75% is because the employee is not doing the full scope of the job, they are focused on the knowledge transfer or completion of projects. Additionally, they are receiving their pension from the State retirement system at the same time.

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Jim McCarthy to approve the purchase from SmartworksPlus for an annual amount up to $800,000 plus applicable taxes.

Vote: 6 - 1

NAY: Councilmember Scott Overton

B. Consideration and Approval of Purchase Contract: Purchase of 7 Scott Self-Contained Breathing Apparatus (SCBA), 7 Scott Face Piece masks, and 14 Scott 45-min SCBA Bottles from Fisher Scientific Company, L.L.C.

AARF Manager Tim Skinner provided a display of the equipment and reviewed each one with the Council.

Moved by Councilmember Scott Overton, **seconded by** Vice Mayor Jamie Whelan to approve the contract with Fisher Scientific Company, L.L.C. in the amount of $51,313.49 with U.S. Department of Transportation, Federal Aviation Administration grant funds and authorize the City Manager to execute the necessary documents.

Vote: 7 - 0 - Unanimously

C. **Consideration and Adoption of Ordinance No. 2018-38:** An ordinance of the City Council of the City of Flagstaff, amending the Flagstaff City Code by amending Title 9 *Traffic Code* Section 9-01-001-0003 *Stopping or Standing and Parking Restrictions*, to modify parking violation fines, providing for penalties, repeal of conflicting ordinances, severability, and establishing an effective date.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-38 by title only for the final time.

Vote: 7 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF CITY CODE BY AMENDING TITLE 9 TRAFFIC CODE SECTION 9-01-001-0003 STOPPING STANDING AND PARKING RESTRICTIONS, TO MODIFY PARKING VIOLATION FINES, PROVIDING FOR PENALTIES, REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Charlie Odegaard to adopt Ordinance 2018-38.

Vote: 7 - 0 - Unanimously

RECESS

The 4:30 p.m. portion of the November 20, 2018, Regular Council Meeting recessed at 4:47 p.m.

6:00 P.M. MEETING

RECONVENE

Mayor Evans reconvened the Regular Meeting of the Flagstaff City Council held November 20, 2018, at 6:00 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

10. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT: ABSENT:

MAYOR EVANS
VICE MAYOR WHELAN
COUNCILMEMBER BAROTZ
COUNCILMEMBER MCCARTHY
COUNCILMEMBER ODEGAARD
COUNCILMEMBER OVERTON
COUNCILMEMBER PUTZOVA

Others present: City Manager Barbara Goodrich and City Attorney Sterling Solomon.

11. PLEDGE OF ALLEGIANCE

The Council and audience recited the pledge of allegiance.

12. PUBLIC PARTICIPATION

Roabie Johnson addressed Council requesting that the fire grills be permanently removed from Thorpe Park because of the fire danger.

13. CARRY OVER ITEMS FROM THE 4:30 P.M. AGENDA

None

14. PUBLIC HEARING ITEMS

A. Consideration and Adoption of Ordinance No. 2018-40: An ordinance of the Mayor and Council of the City of Flagstaff, Arizona amending the Flagstaff City Code, Title 12, Floodplains, Chapter 12-02, Stormwater Management Utility, by amending the Schedule of Stormwater Management Utility Service Charges and Fees; providing for repeal of conflicting ordinances, severability, penalties, and establishing an effective date. ***(Changes in stormwater fees)***

Mayor Evans opened the Public Hearing.

Stormwater Manager Chris Kirkendall provided a PowerPoint presentation that covered the following:

STORMWATER UTILITY SERVICE CHARGE
OVERVIEW
COUNCIL DIRECTION
COMMUNITY NEEDS
STORMWATER CURRENT TOP 10 PRIORITIES
PUBLIC OUTREACH

Councilmember Barotz asked why the Water Commission did not have a recommendation. Water Services Director Brad Hill stated that there was significant discussion and they

considered both the ten- and twelve-year options. They did not like either option so they opted to offer no recommendation.

Management Services Director Rick Tadder continued the presentation.

SERVICE CHARGE INCREASE OBJECTIVES
STORMWATER SERVICE CHARGE – $36 MILLION INCREASE FOR CAPITAL PROJECTS
STORMWATER SERVICE CHARGE – INCREMENTAL INCREASE
$36 MILLION INCREASE FOR CAPITAL PROJECTS - INCREMENTAL INCREASE

Councilmember Overton asked if it is possible to leave the current rate and assign it to bond debt over a longer period of time such as 25 or 30 years. Mr. Tadder explained that the current rate would not be enough in that time frame as some of that funding has already been set for other projects. Councilmember Overton asked if it would be enough to fund the federal obligation for the Rio de Flag to which Mr. Tadder responded no.

Capital Improvements Engineer Bret Peterson continued the presentation.

RIO DE FLAG FLOOD CONTROL PROJECT UPDATE
ARMY CORPS OF ENGINEERS' ITEMS
BNSF RAILWAY COORDINATION ITEMS
PUBLIC INVOLVEMENT UPDATE

Councilmember McCarthy asked if all three options would allow for the Rio de Flag project to be funded along with all the other capital projects. Mr. Tadder stated that all projects would be completed but the pay as you go options would delay some of the projects until adequate funding is generated.

Councilmember Barotz asked who pays the stormwater fee. Mr. Tadder stated that everyone within City limits pay the stormwater fee. The residential fee is capped at five ERUs.

Mr. Tadder continued the presentation.

ACCELERATED PROJECTS SCENARIO

Ms. Goodrich stated that the City is at a point with the Army Corp. of Engineers (ACE) with the Rio de Flag project where it is important to understand that as early as October 2019 ACE may be asking for solid assurance that the City has the $30 to $36 million it needs for its share of the project. This is why the options are being provided now to generate the funds sooner rather than go through a pay as you go program. While a pay as you go program would get the $36 million it would not happen soon enough.

Councilmember Overton asked if there are other funding mechanisms if the Rio de Flag project did not come to fruition. It is difficult to ask citizens to pay for a project that has been going on for 15 years with no assurance it will actually come forward. Ms. Goodrich stated that the City needs to start accumulating funds regardless of who does the project. In terms of other funding alternatives, she believes that as long as the City can show ACE that there is a plan in place to accumulate the funding, it would be enough to move forward and give the Council time to develop an appropriate fee schedule.

Vice Mayor Whelan asked if the Council were to move forward with revenue bonds and the project were to not come forward if the bond funds could be returned. Ms. Goodrich stated the Council could give direction to return those funds. Mr. Tadder added that approving the rate

does not authorize the debt, that is a separate action by the Council.

Mr. Tadder concluded the presentation.

ACCELERATED PROJECTS SCENARIO - $33M/25 YEAR DEBT
ACCELERATED PROJECTS SCENARIO - $33M/25 YEAR DEBT – INCREMENTAL INCREASE
FLAT RATE SCENARIO

Mayor Evans asked if the Coconino County Flood Control District has provided any indication that the Rio de Flag project could be funded by the District. Ms. Goodrich stated that the District has not provided that information.

Vice Mayor Whelan stated that the Rio de Flag project has been going on for a very long time and it now looks like a real possibility to get it done. The City needs to move on the rates and keep the fee as small as possible. If the way to go is revenue bonds that can be pulled back if the project does not go forward then that is what she is supportive of doing.

The following individuals addressed Council in opposition of changes to stormwater fees:

- Stephen Vedral
- Rick Lopez
- Andy Fernandez

The following comments were received:

- It is difficult to absorb the doubling of anything into a budget.
- It is already expensive to live in Flagstaff this will make it even more so.
- The Rio de Flag project began as a $20 million project and now it is a $130 million project.
- Skeptical that ACE will actually come through and deliver the project.
- The what ifs need to be addressed before asking citizens to shoulder the cost.
- NAU needs to come to the table as a financial partner, they have a huge impact in the event of a flood.
- The City has been dragging their feet on the project and now the citizens are paying for that.

A written comment card in opposition of changes to stormwater fees was submitted by Joe Galli.

Councilmember Barotz stated that putting this off only makes the City more vulnerable and if ACE does not come through the money will be needed more than ever to complete the project without them.

Mayor Evans agreed and offered that there is a billion-dollar issue right in the middle of the city that needs to be addressed with or without ACE and the City needs the funding to address it.

Councilmember Overton agreed that the project is a top priority and the City is at capacity. He is advocating for looking at a flat tax and using that revenue for bonding to show ACE that a plan is in place. Without 100% plans he is not comfortable charging the citizens for something that is still unknown.

Councilmember Odegaard offered that he believes the City is at a crossroads with ACE committing to begin construction by 2020. He expressed support for revenue bonds that are

paid for by the stormwater fee. He acknowledged that it is an increase, but it is one where the community will see a physical impact in the City.

Councilmember McCarthy stated that he is supportive of the 25-year bonding option.

Mayor Evans asked if it would be possible to adopt the ordinance and delay the collection of fees until July 2019 to see if ACE will deliver as promised. Mr. Tadder explained that it is an option should a majority of Council be supportive.

There being no further public comment Mayor Evans closed the Public Hearing.

Councilmember Putzova stated that the stormwater fee must be part of the solution because it is the impervious surfaces that are contributing to the issue.

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to read Ordinance 2018-40 by title for the first time with the debt financed option.

Moved by Mayor Coral J. Evans, **seconded by** Councilmember Scott Overton to amend the motion to have a start time of July 1, 2019 and reserve the option to bring the ordinance back in case the Army Corp of Engineers does not meet the first deadline.

Councilmember Putzova stated that the proposed rate per ERU is regardless of the size of the surface; she asked why a tiered approach has not been pursued based on the side of the property. Ms. Goodrich explained that for the City to provide a tiered rate for a particular user it has to show a direct impact to some part of the infrastructure. For example, if the City had to put in larger storm sewer drains for a big box store because of the water that comes off the surface of that property versus a neighborhood which does not need as large of a drain, then there would be a clear nexus to create tiered rates. However, there is no variation in the infrastructure needed regardless of the size of the surface. Mr. Solomon added that stormwater rates have to be standard across the board; if they are not, the rates can be considered an arbitrary fee.

Vote: 5 - 2

NAY: Councilmember Charlie Odegaard
Councilmember Jim McCarthy

Original motion:

Vote: 7 - 0 - Unanimously

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING THE FLAGSTAFF CITY CODE, TITLE 12, FLOODPLAINS, CHAPTER 12-02, STORMWATER MANAGEMENT UTILITY, BY AMENDING THE SCHEDULE OF STORMWATER MANAGEMENT UTILITY SERVICE CHARGES AND FEES; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, PENALTIES, AND ESTABLISHING AN EFFECTIVE DATE.

A break was held from 7:51 p.m. through 8:05 p.m.

15. REGULAR AGENDA

A. Consideration and Adoption of Resolution No. 2018-56: A resolution adopting the Climate Action and Adaptation Plan.

Sustainability Manager Nicole Antonopoulos introduced Sustainability Specialist Jenny Niemann who provided a PowerPoint presentation that covered the following:

FLAGSTAFF CLIMATE ACTION AND ADAPTATION PLAN
FOUNDATION
PLANNING PROCESS
OVERARCHING GOALS
SEVEN FOCUS AREAS
IMPLEMENTATION PRIORITIES

The following individuals addressed Council in support of the Climate Action and Adaptation Plan:

- Rolf Vom Dorp
- Gabrielle Neilson
- Bellicia Vaiza
- Juniper Holland
- Rick Lopez
- Dustin Kuluris
- Christina Lizzo
- Andy Bessler
- Clarice Linskey
- Benjamin Heirigs
- Rick Moore
- Adam Shimoni

The following comments were received:

- Supportive of the Plan and encourage the City Council to participate in informing everyone in the community about it.
- The Plan is only as good as the backing it receives from the community.
- Climate issues are immensely important to address.
- Protecting the earth is important for the future.
- Climate change is the most vital issue facing the world today.
- Take action on the Plan and implement it fully.
- As the federal level falls behind in taking action on climate change, it is even more important to move forward at a local level.
- There is concern about the financial impacts of the Plan on the community.
- Impressed with the process and the community input that was included.
- Proud to see Flagstaff take action on such an important issue.
- This is not a plan that will sit on the shelf, it will move forward and be successful.
- Supportive of the Plan's goals and targets.
- Implementation of the Plan needs to be adequately funded.
- A revolving load fund for citizens to develop rooftop solar is a great idea.
- It is important that Flagstaff be ready to take on the issues of climate change and the Plan gets us closer to that goal.
- The Grand Canyon Trust fully supports the Climate Action and Adaptation Plan.
- It will be important to educate citizens and empower them to implement the Plan.

The following individuals submitted written comment cards in support of the Climate Action and Adaptation Plan:

- Leah Mundell
- Ivan DeGeyter
- Aneeka Bippus
- Keetra Bippus
- Taylor Asher
- Patricia Ellsworth
- Sophia Marshall
- Kim Curtis
- Debra Block
- Gessica Montrose Neilson
- Robinli Uber
- Michael Caulkins
- Nathan Edenhok
- Kai Jaykan Beattie
- Etienne MacCormack
- Maya Rappaport
- John Kaltenstein
- Frankie Beesley
- Nora Timmerman
- Gemma Giovale
- Shawn Newell
- Ma'ayan Rothes Cohen

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to read Ordinance No. 2018-56 by title only for the final time.

Councilmember Putzova offered appreciation to the staff and those who participated in forming the Plan. This is a historic moment and she is proud of the Council for having the courage to pursue the Plan. She would like staff to bring forward a budget proposal for implementation during the next budget cycle.

Councilmember McCarthy also offered appreciation to the staff and all those in the community who took part in the process.

Councilmember Odegaard stated that the challenge will be the implementation of the Plan and the number of action items that will be brought forward. He appreciated the inclusion of the chart of estimated costs, it will be helpful as the Council identifies ways to begin moving forward.

Councilmember Overton offered that the Plan is a reflection of the community and its values. This will not be an easy plan to implement, when the budget realities set in there will be difficult decisions to make. It is important to temper the community expectation and communicate that it will take time to move things forward. He is supportive of the Plan but really wants to underscore the difficulties there will be in carrying it out.

Mayor Evans thanked staff for taking on the challenge of developing a plan; she also thanked the community for their involvement. The Plan is something that represents the community and it is an example to other communities in Arizona. This is only the first step in the process and she encouraged the community to continue to be engaged.

Vote: 7 - 0 - Unanimously

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, ADOPTING THE CLIMATE ACTION AND ADAPTATION PLAN.

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to adopt Ordinance No. 2018-56.

Vote: 7 - 0 - Unanimously

B. **Consideration and Adoption of Resolution No. 2018-54:** A resolution of the Flagstaff City Council authorizing an Intergovernmental Agreement with the Arizona Department of Transportation for Construction of the Fourth Street /I-40 Bridge Replacement Project.

City Engineer Rick Barrett addressed Council stating that the City partnered with the Arizona Department of Transportation (ADOT) to construct the Fourth Street/I-40 Bridge. There have been previous Council actions to support the replacement project. The cost will be split equally between the City and ADOT and will be funded out of the Transportation Tax and the Fourth Street funds

Councilmember Overton asked about the timeline for construction. Mr. Barrett stated that they are pushing to get the final design concept to understand what methods can be used to accelerate the project. It is hoped that construction can begin in March of 2020.

Andy Fernandez addressed Council in support of the project.

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Scott Overton to read Resolution No. 2018-54 by title only.

Vote: 7 - 0 - Unanimously

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE ARIZONA DEPARTMENT OF TRANSPORTATION AND THE CITY OF FLAGSTAFF FOR THE CONSTRUCTION OF THE FOURTH STREET AND INTERSTATE 40 BRIDGE REPLACEMENT PROJECT.

Moved by Councilmember Charlie Odegaard, **seconded by** Vice Mayor Jamie Whelan to adopt Resolution No. 2018-54.

Vote: 7 - 0 - Unanimously

C. **Consideration and Adoption of Resolution No. 2018-43 and Ordinance No. 2018-32:** An ordinance and resolution amending the Flagstaff City Code, Title 7, *Health and Sanitation,* and Title 12, *Floodplains*, to adopt an Enforcement Response Plan related to enforcement of water, pretreatment, wastewater, and stormwater regulations, including administrative fines and/or penalties for violations

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to read Resolution No. 2018-43 by title only.

Vote: 7 - 0 - Unanimously

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, DECLARING THOSE CERTAIN DOCUMENTS KNOWN AS "THE 2018 UPDATES TO THE WATER SERVICES REGULATIONS" AND THE "ENFORCEMENT RESPONSE PLAN" AS PUBLIC RECORDS

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to read Ordinance No. 2018-32 by title only for the first time.

Vote: 7 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING THE FLAGSTAFF CITY CODE, TITLE 7, HEALTH AND SANITATION, AND TITLE 12, FLOODPLAINS, TO ADOPT AN ENFORCEMENT RESPONSE PLAN RELATED TO ENFORCEMENT OF WATER, PRETREATMENT, WASTEWATER, AND STORMWATER REGULATIONS, INCLUDING ADMINISTRATIVE FINES AND/OR PENALTIES FOR VIOLATIONS; PROVIDING FOR PENALTIES, REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

D. **Consideration and Adoption of Resolution No. 2018-55 and Ordinance No. 2018-41:** An ordinance and resolution amending the Flagstaff City Code, Chapter 1-14, *Personnel System,* by adopting Addendum 16 to the Employee Handbook of Regulations to add *Drug and Alcohol-Free Workplace* and *Employee Alcohol and Controlled Substance Testing Policy*.

Human Resources Director Shannon Anderson provided a PowerPoint presentation that covered the following:

ADDENDUM 16-EMPLOYEE HANDBOOK

Vice Mayor Whelan stated that she has some legal questions and would like to schedule an Executive Session to discuss.

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Charlie Odegaard to postpone the item until January 15, 2019 after an Executive Session on January 8, 2019.

Vote: 6 - 1

NAY: Councilmember Scott Overton

16. **DISCUSSION ITEMS**

A. **Discussion:** Sound level regulations at special events.

Recreation Supervisor Claire Harper provided a PowerPoint presentation that covered the following:

CONTINUED DISCUSSION OF SOUND REGULATIONS AT SPECIAL EVENTS
BACKGROUND
MD ACOUSTICS RECOMMENDATION
COUNCIL'S RECOMMENDATION
MD ACOUSTICS REVISED RECOMMENDATION
CONTINUED DISCUSSION

The following individuals addressed Council concerning sound levels at special events:

- Debra A. Taylor
- Joan Martini
- Rick Moore
- Russell R. Mann
- Gina Marie Byers
- Ryan Martin
- Charlie Silver
- Andy Fernandez

The following comments were received:

- If the ordinance is passed, it will affect all community events. Some events may have to leave town.
- Reducing sound levels will have an impact on festivals and the vendors who participate in them.
- Those events who are at 100 feet or more from a residential domain should remain at 90 decibels.
- Supportive of the decibel limit being reduced to 85 decibels at 50 feet.
- C Level sound regulations should also be added.
- There should be no amplified music downtown.
- Suggest that zones be created to classify each park and assign different sound level regulations to each.
- Wheeler Park is not suitable for festivals.
- 90 decibels is very difficult to hear at a larger park such as Thorpe.
- There is no data about the number of complaints received, if there are only four or five complaints compared to the 4,000 attendees it is an unfair comparison.
- We need to evaluate the value festivals bring to the City in order to make a fair assessment of the adjustments and what that means for those festivals.
- There are so many variables to consider with sound such as wind, hearing capability, and distance so each event can sound differently when using the same decibel levels.

The following individuals submitted written comment cards regarding sound levels:

- Roabie Johnson
- Joe Galli
- Jen Blue

Councilmember McCarthy stated that he is not suggesting shutting down events in Flagstaff; he wants to try and balance the needs of the neighborhood against the needs of people having fun. A compromise is on the table for 85 decibels at 50 feet and based on the data it should still allow a successful event.

Mayor Evans stated that the compromise is based on one event at Wheeler Park and while it might work there it may not work for other events at other locations. There needs to be a more comprehensive solution. There should be a way to design a system with a configuration to keep the music contained. A one size fits all may not be appropriate.

Councilmember McCarthy stated that he does not think the City should be involved in the setup of equipment, the issue is the sound emanating from the event. He offered that the compromise be adopted for Wheeler Park with a commitment to adjust other parks later.

Councilmember Barotz added that she would support the idea of the compromise applying to Wheeler Park. She does not believe it will diminish the quality of the events there. It would be a step in the right direction to address the concerns in that park and it would be

unfortunate if nothing was done at all.

Vice Mayor Whelan stated that there needs to be a demonstration that allows Council and the neighboring residents to observe. She does not believe that this is ready to move forward yet, more analysis is needed. Councilmember Odegaard agreed with Vice Mayor Whelan stating that it should wait.

Councilmember Overton stated that he is in favor of leaving the policy as it is with no change in the sound levels.

Mayor Evans stated that ultimately something needs to be done. The event season is over until May so there is time to continue discussions and formulate recommendations.

A majority of Council agreed to leave the current policy in place and asked staff to do further research and bring another discussion to Council before the season begins next year.

A break was held from 10:10 p.m. through 10:15 p.m.

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to continue the meeting in accordance with the Rules of Procedure.

Vote: 7 - 0 - Unanimously

17. COUNCIL LIAISON REPORTS

None

18. FUTURE AGENDA ITEM REQUESTS

After discussion and upon agreement by two members of the Council, an item will be moved to a regularly-scheduled Council meeting.

A. **Future Agenda Item Request (F.A.I.R.):** A request by Mayor Evans to place on a future agenda a discussion about a sound demonstration in Wheeler Park.

Mayor Evans stated that there was majority direction from Council on this item included with the last discussion item.

B. **Future Agenda Item Request (F.A.I.R.):** A request by Mayor Evans to place on a future agenda a discussion about the condemnation of property in the general area of 703 Blackbird Roost for affordable housing

The following individuals addressed Council in support of placing the item on a future agenda for discussion:

- Vanessa Savel
- Frankie Beesley
- Nathan Edenhofer
- Luis Fernandez
- Olga Garcia
- Gerardo Alvarado
- Adam Shimoni

The following comments were received:

- The area needs to be prioritized for the displaced families of Arrowhead Village.
- Prioritizing affordable housing will prioritize all families in Flagstaff.
- Do not pay more for the property than the previous owner.
- Community discussion is needed before any action should be taken.
- Affordable housing needs to be defined.
- The Council should seriously consider purchasing the property.
- Please think of the community and not just the commercial owners.
- The Council needs to work with a developer to bring in housing that supports the neighborhood in a positive way.
- Using this property to address the needs of the most vulnerable in the community is a great prospect.

The following individuals submitted written comment cards in support of placing the item on a future agenda for discussion:

- Leah Mundell
- Erin Hillbert
- Nathan Edenhofer
- Madeline Ramirez
- Gerardo Alvarado
- Marcus Ford
- Alejandra Becera
- Mare Schumacher
- KaiJaylaan Beattie
- Mara Pfeffer
- Angelica Sanchez
- Nereyda Bojorquez
- Jody Clements
- Frankie Beesley
- Olga Garcia
- Luis Fernandez
- Michael Caulkins
- Sandra Lubarsky
- Miriam Meza
- Ned Del Callejo
- Nora Timmerman
- Kim Curtis
- Maya Rappaport
- Kevin Alvarez
- Kyra Bennett
- James Irr

At least two Councilmembers were in support of moving the item to a future agenda.

C. **Future Agenda Item Request (F.A.I.R.):** A request by Councilmember Putzova to place on a future agenda a discussion about Keep Families Free and Together.

Councilmember Putzova provided the Council with a proposed ordinance. She stated that the group that drafted the ordinance worked with an attorney and they believe the ordinance

is within the confines of SB1070. The ordinance proposes to amend the Title 14 of the City Code by adding an additional chapter.

The following individuals addressed Council in support of placing the item to a future agenda:

- Frankie Beesley
- Vanessa Savel
- Nathan Edenhofer
- Virgil Clark
- Alejandra Becerra
- Luis Fernandez
- Adam Shimoni
- Robert Neustadt
- David Melendez

The following comments were received:

- The issue of family separation does not just happen in just boarder communities, it happens everywhere.
- The ordinance takes a stance for keeping the community safe.
- Please adopt something that has legal weight to keep families together.
- There is significant concern about the criminalization and discrimination of immigrant families in the community.
- Immigrants are contributors to the community culture in everyway and Flagstaff would not function the same without these families.
- Local law enforcement working with Immigration and Customs Enforcement (ICE) is unacceptable.
- The fear in the immigrant population keeps them from reporting crime.
- The City must stand in solidarity with its immigrant residents.
- There should not be punishment for simply being an undocumented immigrant.
- Employers of immigrants are threatening to call ICE as a way to control their employees.
- It is the right of everyone to live, work, and play where they want.
- Cooperation with ICE does not make communities safer, it only creates a more vulnerable population.
- If cities stop cooperating with ICE the community becomes safer because people feel more comfortable contacting the police.
- Everyone in Flagstaff should feel safe and protected in the community.
- Please allow this item to move forward.
- Lawyers and community members have been involved in the drafting of the ordinance.
- Immigrants are very productive members of the community.
- There are a lot of people who are still in the beginning of the process of being here legally and they are being unfairly targeted.
- The federal administration is dividing the community.
- Courtesy holds are not legal and other communities do not do them.
- If the City cannot defend its most vulnerable, it cannot defend anyone.

The following individuals submitted written comment cards in support of placing the item on a future agenda:

- Kim Curtis
- Ned Del Callejo
- Nora Timmerman
- Nereyda Bojorquez

- Jody Clements
- Sandra Lubarsky
- Marcus Ford
- James Irr
- Luis Fernandez
- Michael Caulkins
- Frankie Beesley
- Nathan Edenhofer
- Mara Pfeffer
- Chrycia Legendre
- Madeline Ramirez
- Maya Rappaport
- Nina Porter
- Leah Porter
- Tyler Barnard
- Ian Tong
- Alejandra Becerra
- Angelica Sanchez
- Emily Davalos
- Nick Humphries
- Amanda Burns
- KaiJaylaan Beattie
- Dustin Kuluris
- Erin Hiebert

At least two Councilmembers were in support of moving the item to a future agenda.

19. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

Councilmember Odegaard reported that he attended the ADOT Transportation Board meeting in Wickenburg and shared Flagstaff's success with the transportation measures at the past election.

Vice Mayor Whelan requested a F.A.I.R. item to discuss the continuation of communicating with the Arizona Board of Regents and invite them to a meeting or send a letter sharing the City's concern about local impacts.

Councilmember McCarthy asked if staff could follow up on the public participation request and review the installation of the fire grills at Thorpe Park.

Councilmember Putzova requested a F.A.I.R. item to discuss changing the City's organizational structure to create a Sustainability Department and elevate the function of that department.

Councilmember Putzova requested another F.A.I.R. item to discuss the possibility of an affordable housing ballot measure for the 2020 election.

Councilmember Putzova also requested a CCR regarding how the $100,000 in funding to assist displaced residents was used.

Ms. Goodrich reported that final election results were received but not in time to have them

approved at this meeting. The results must be approved before next Tuesday so there will be a Special Meeting called for Monday, November 26, 2018 at 6:00 p.m. to take the necessary action.

Mayor Evans reported that she attended the Alliance meeting last Friday and the participating organizations have stated that they will be bringing forward properties they have available for possible work force and affordable housing.

Mayor Evans requested a F.A.I.R. item to discuss establishing the Affordable Housing Commission discussed in Prop 422.

20. ADJOURNMENT

The Regular Meeting of the Flagstaff City Council held November 20, 2018, adjourned at 11:02 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

I, STACY SALTZBURG, do hereby certify that I am the City Clerk of the City of Flagstaff, County of Coconino, State of Arizona, and that the above Minutes are a true and correct summary of the Meeting of the Council of the City of Flagstaff held on November 20, 2018. I further certify that the Meeting was duly called and held and that a quorum was present.

DATED this 27th day of August, 2019.

_____
CITY CLERK

CITY COUNCIL SPECIAL MEETING
MONDAY, NOVEMBER 26, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
6:00 P.M.

MINUTES

1. CALL TO ORDER

Vice Mayor Whelan called the Special Meeting of the Flagstaff City Council held November 26, 2018, to order at 6:00 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
VICE MAYOR WHELAN	MAYOR EVANS
COUNCILMEMBER BAROTZ	COUNCILMEMBER OVERTON
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER PUTZOVA	

Others present: City Manager Barbara Goodrich; City Attorney Sterling Solomon.

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

The Council and audience recited the pledge of allegiance and Vice Mayor Whelan read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

4. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is

your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None

5. REGULAR AGENDA

A. Consideration and Adoption of Resolution No. 2018-59: A resolution of the Mayor and Council of the City of Flagstaff, Coconino County, Arizona, declaring official and adopting the results of the General/Special Election held on November 6, 2018.

City Clerk Stacy Saltzburg reviewed the official results of the November 6, 2018 general election.

Moved by Councilmember Eva Putzova, **seconded by** Councilmember Charlie Odegaard to read Resolution No. 2018-59 by title only.

Vote: 5 - 0 - Unanimously

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, COCONINO COUNTY, ARIZONA, DECLARING OFFICIAL AND ADOPTING THE RESULTS OF THE GENERAL/SPECIAL ELECTION HELD ON NOVEMBER 6, 2018

Moved by Councilmember Eva Putzova, **seconded by** Councilmember Charlie Odegaard to adopt Resolution No. 2018-59.

Vote: 5 - 0 - Unanimously

6. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

None

7. ADJOURNMENT

The Special Meeting of the Flagstaff City Council held November 26, 2018, adjourned at 6:04 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

I, STACY SALTZBURG, do hereby certify that I am the City Clerk of the City of Flagstaff, County of Coconino, State of Arizona, and that the above Minutes are a true and correct summary of the Meeting of the Council of the City of Flagstaff held on November 26, 2018. I further certify that the Meeting was duly called and held and that a quorum was present.

DATED this 27th day of August, 2019.

_____

CITY CLERK

JOINT CITY/COUNTY WORK SESSION
MONDAY, DECEMBER 3, 2018
COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
3:00 P.M.

MINUTES

1. Call to Order

Mayor Evans called the Joint City/County Work Session of December 3, 2018, to order at 3:02 p.m

2. Pledge of Allegiance and Mission Statement

The Council, Board of Supervisors, and audience recited the Pledge of Allegiance and Councilmember Putzova read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

3. Roll Call:

NOTE: One or more Councilmembers/Supervisors may be in attendance telephonically or by other technological means.

BOARD OF SUPERVISORS PRESENT:	BOARD OF SUPERVISORS ABSENT:
CHAIRMAN BABBOTT	VICE CHAIRWOMAN FOWLER
SUPERVISOR ARCHULETA	
SUPERVISOR PARKS (arrived at 3:09 p.m.)	
SUPERVISOR RYAN	

CITY COUNCILMEMBERS PRESENT:	CITY COUNCILMEMBERS ABSENT:
MAYOR EVANS	
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: City Manager Barbara Goodrich; County Manager James Jayne; City Attorney Sterling Solomon, Deputy County Attorney Rose Winkler.

4. Public Participation:

Public Participation enables the public to address the Council about an items that are not on the agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment on an item that is on the agenda is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak.

Mayor Evans stated that Councilmember Barotz will have to leave the Council Meeting early due to a family emergency and asked her if she would like to make any remarks as this will be her last meeting as a Councilmember.

Councilmember Barotz provided a statement about her time on the City Council. She thanked the Council for their work during her tenure and thanked them for all the great things they have accomplished over the years. She thanked the voters for allowing her to serve two terms on the Council. She also thanked her elected official colleagues and City staff for their work towards helping Flagstaff be the best it can be.

Councilmember Barotz left the meeting at 3:15 p.m.

Monica Foos with the Flagstaff Family Food Center thanked the City Council and Board of Supervisors for collecting turkeys. Enough food was brought in to provide food boxes to over 470 local families.

5. Presentation of Joint Land Use Study Draft Final Report

Interim Community Development Director Dan Folke introduced Coconino County Community Development Director Jay Christelman and Julie Bassuk and Bob Bengford with the consulting firm Makers who provided a PowerPoint presentation that covered the following:

COCONINO JOINT LAND USE STUDY
TODAY'S AGENDA
JLUS STUDY AREA
COMMUNITY OUTREACH
WORK PLAN
JLUS ISSUES & STRATEGIES
ISSUE CATEGORIES
STRATEGY CATEGORIES
DARK SKIES
LAND USE
ENVIRONMENTAL HEALTH
NEXT STEPS
JLUS: STEPS TO COMPLETION
COCONINO COUNTY ACTION ITEMS (SAMPLE)
FLAGSTAFF ACTION ITEMS (SAMPLE)
NEXT STEPS

Chairman Babbott thanked Councilmember Barotz for her work in the JLUS process. One of the things that was heavily discussed were land trades and how impactful those can be to a region. The process will ensure that all partners are proactive about potential land trades to benefit everyone. Supervisor Ryan added that the key part of the plan is coordination and working together as partner agencies.

6. Joint City and County Proclamation: NAU Cross-Country Championship Three-Peat

Mayor Evans re-ordered the agenda and took Item 6 after Item 7.

The City Council and the Board of Supervisors approached the podium to recognize the NAU Cross-Country Team and present them with a joint City/County proclamation.

Chairman Babbott stated that a three-peat is an impressive accomplishment that brings to light the benefits of Flagstaff's high altitude training.

Mayor Evans thanked the team for the way they represent the City of Flagstaff and she expressed pride in having them as students at NAU.

7. Update on 2020 Census Coordination and Outreach for the City of Flagstaff and Coconino County

Comprehensive Planning Manager Sara Dechter provided a PowerPoint presentation that covered the following:

CENSUS 2020 COORDINATION AND OUTREACH UPDATE
WHY DO LOCAL GOVERNMENTS CARE ABOUT AN ACCURATE CENSUS?
ROLE OF THE CITY AND COUNTY IN THE 2020 CENSUS
HART TO REACH POPULATIONS
CENSUS 2020 MILESTONES
CENSUS 2020 JOBS
COMMUNITY CENSUS TEAM
CENSUS BUDGET
CENSUS BUDGET OVERSIGHT
WHAT IS PSAP?
PSAP IN COCONINO COUNTY
TIMELINE FOR PSAP
WHAT'S AFTER PSAP

Vice Mayor Whelan asked why the City did not just focus on its own jurisdiction. Ms. Dechter stated that there are a lot of efficiencies to be gained by having the City and County work together; the messaging and advertising campaign is uniform and combined so that the same message is being spread throughout the region.

Vice Mayor Whelan asked if there are any accommodations provided to Coconino County given the unique elements that it has. Ms. Dechter explained that the main accommodation is a dedicated Census office.

Councilmember McCarthy asked how the student population is counted and if it is based on their home location or the university. Ms. Dechter stated that the count is based on where a person lives on April 1, 2020. Part of the outreach will be helping students understand the importance of being counted in Flagstaff.

Supervisor Archuleta offered that the synergy between the City and County has been working very well and she complimented the work staff has done thus far. There are commonalities between the two agencies and the difficulty each has to locate certain populations. The intent is to collectively identify strategies to reach those hard to reach populations.

Supervisor Ryan stressed the importance of the Census count. It is important to make sure

people understand the importance so the region is represented accurately.

8. Coconino Criminal Justice Coordinating Council Update

Honorable Judge Dan Slayton addressed Council stating that the Coconino Criminal Justice Coordinating Council (CJCC) is a joint City and County opportunity. In August 2017, CJCC revised its mission and vision. The vision is that the people of Coconino County are safe, offenders receive efficient and just treatment, victims are protected and able to heal, and crime and recidivism is reduced. They proactively seek to ensure communities of Coconino County are safe, healthy, resilient, and thriving.

The mission is to exercise leadership in criminal justice innovation to improve community wellbeing, equity, justice, restitution for victims, and reduction in recidivism. They support and promote reforms that provide for continuous support of justice policy and services.

The CJCC was started in 2005 as an attempt to try and reduce the inmate population at the Coconino County Jail as the part of a Federal Consent Decree. The process of people and agencies coming together has developed into the current CJCC.

Judge Slayton highlighted the following successes of CJCC:

- In partnership with the Adult Probation Department, they conceptualized an innovative program utilizing online delivery of cognitive behavioral therapies and mental treatment to probationers which resulted in an award of $700,000 Department of Justice grant.
- Obtained unprecedented criminal justice history data access from the Arizona Department of Public Safety negotiating a Memorandum of Understanding with the Arizona Department of Public Safety and the Attorney General's Office to obtain the information annually.
- Helped Coconino County become a leader in criminal justice data utilization and research partnerships which led to an invitation by the White House Office of Social Innovation to provide expertise and input resulting in the creation of the White House 2016 Data Driven Justice Initiative. As a result of these meetings the US Department of Health and Human Services issued clarifying guidance regarding privacy regulations making health in criminal justice data sharing easier for local government. This data will help the City and County justify funding or not funding programs and services.

Chief of Adult Probation, Sarah Douthit continued the presentation:

JOINT CITY/COUNTY MEETING
VISION – THE FUTURE WE WISH TO SEE
CRIMINAL JUSTICE COORDINATING COUNCIL
MISSION – WHY CJCC EXISTS
GUIDING PRINCIPLES – HOW WE DO OUR WORK
VALUES AND BELIEFS
STRENGTHS – OUR SUCCESS DEPENDS ON IT
STRATEGIC FOCUS
GOALS

Deputy County Manager Dr. Marie Peoples continued the presentation:

GOAL 2 EQUITY
FAIRNESS AND IMPARTIALITY TOWARDS ALL CONCERNED
COCONINO COUNTY RACIAL/ETHNIC DEMOGRAPHICS
JAIL INCARCERATION AMONG COCONINO COUNTY RESIDENTS
GOAL 1. BEHAVIORAL HEALTH/MENTAL HEALTH/SUBSTANCE ABUSE

GOAL 2. EQUITY
GOAL 3. STRATEGIC INVESTMENTS
GOAL 4. DATA
THREE KEY TAKEAWAYS

Director of Legal Defenders Gary Pearlmutter continued the presentation stating that the CJCC has enabled its members to establish a strong working relationship between all of its members and these relationships are what has led the program to be successful. Past successes that CJCC is trying to build on include, crisis intervention training and the development of Recovery Court, Mental Health Court, and Veteran's Court.

Mayor Evans stated that the work of CJCC is very valuable and she is excited that the effort is ongoing. She asked how the work and essence of CJCC can be more accessible to the general public. She also asked about the Multi-generational Intervention Initiative and how CJCC plans on incorporating the targeted populations into the design of the program. The work that LAUNCH, Flagstaff Medical Center, and the Northern Arizona Regional Behavioral Authority (NARBHA) are doing compliments the elements of CJCC. She suggested the consideration of something similar to Front Door for re-entry.

Ms. Douthit stated LAUNCH will be involved to identify what can be done for the children to prevent issues in the future. She expressed interest in the Front Door suggestion as well. Judge Slayton added that NARBHA is active in CJCC with constant communication and they are heavily utilized.

Vice Mayor Whelan stated that it is an honor to represent the City Council on the CJCC and the work that is being done is great for the community.

Supervisor Archuleta thanked the CJCC team for their leadership in the community. She appreciates the focus on looking at what it is that brings people into the system, what it is that needs to be addressed, and how to better assist people. Many of the services offered tend to be disjointed and people have to go to a number of places to get access to resources; anything that can be done to assist these individuals and make the process more accessible will not only benefit the individual but the community as well.

Councilmember Odegaard asked where the funding comes from to provide the various services. Judge Slayton stated that it comes through the City and County; coming together as one allows for the best utilization of the funding. The efforts of CJCC is to continue encouraging its members to work together and seek funding that provides complimentary services and support between all agencies.

Mayor Evans left the meeting at 5:07 p.m. and Vice Mayor Whelan took over as Chair of the meeting.

9. Coconino County Flood Control District Update

Chairman Babbott stated that the Flood Control District update has been pulled from the agenda at this time. Mr. Jayne stated that the Board will be scheduling a hearing that allows the City Council to attend.

A break was held from 5:12 p.m. through 5:21 p.m.

10. Flagstaff's Climate Action and Adaptation Plan

Climate and Energy Specialist Jenny Neimann provided a PowerPoint presentation that covered the following:

CITY OF FLAGSTAFF CLIMATE ACTION AND ADAPTION PLAN
2017-2019 FLAGSTAFF CITY COUNCIL GOAL: TAKE MEANINGFUL CLIMATE CHANGE ACTION
CAAP PLAN DEVELOPMENT TIMELINE
WHY DO WE NEED A CLIMATE ACTION AND ADAPTATION PLAN?
CLIMATE CHANGE POSES RISKS TO EVERYTHING
THE BENEFITS OF A PLAN ARE BROAD
CLIMATE PLANS CAN ANSWER MANY QUESTIONS
PLAN DEVELOPMENT
STEP ONE: DEFINE HOW THE CLIMATE IS CHANGING IN FLAGSTAFF
TEMPERATURES HAVE INCREASED IN COCONINO COUNTY
COMPARED TO TODAY, BY 2050 WE EXPECT TO HAVE
STEP TWO: ACKNOWLEDGE THAT EVERYONE HAS A ROLE IN CLIMATE ACTION
HOST COMMUNITY CONVERSATIONS
TO LEARN WHAT ACTIONS THE COMMUNITY SUPPORTS
STEP THREE: ADDRESS BOTH MITIGATION AND ADAPTATION
MITIGATION MEANS CONSIDERING OUR CONTRIBUTIONS
ADAPTATION MEANS PREPARING FOR WHAT'S COMING
VULNERABILITY CONSIDERATIONS
STEP FOUR: BUILD ON THE GREAT WORK ALREADY BEING DONE
STEP FIVE: SET AMBITIOUS OVERARCHING GOALS
STEP SIX: DEVELOP STRATEGIES AND ACTIONS ACROSS SEVEN FOCUS AREAS THAT ADDRESS FLAGSTAFF'S UNIQUE CONTEXT
STEP SEVEN: ANALYZE POTENTIAL IMPACTS OF THE PLAN
POTENTIAL IMPACT OF THE PLAN
STEP EIGHT: CREATE A DETAILED IMPLEMENTATION STRATEGY

Chairman Babbott stated that he attended at least two of the open houses and they were incredibly well attended and they engaged community. It is a very comprehensive plan and he asked how changes in data will be integrated into the report over time. Ms. Neiman stated that some of those details are still being developed. All the goals and indicators will be put into a dashboard that will be updated as the Plan moves along.

Supervisor Ryan stated that past Regional Plans focused on higher density and when that began to come forward the community did not want it; he asked how the Plan will be modified as the City moves forward and changes. Ms. Neiman offered that the intent is to update the Plan every five years. The Plan is flexible in not defining implementation so it can be modified and developed along the way as the community sees appropriate. It is important to be thinking about the climate benefits of all developments that come to the City and the Plan can support making the conversations easier. The desire is to do things that help people accept the high-density housing and there needs to be better communication with the community in talking about the benefits of the things in the Plan. There will also be an annual check in with Council on what is working well and what is not.

Supervisor Archuleta asked what people had expressed about the fear of emissions and not being able to afford modern vehicles that are efficient. Ms. Neiman stated that they did not hear a lot about electric vehicles. There was a lot of talk about consumption and that a used car is probably greener than an electric car at this point as half of the emissions created by a car comes from the actual manufacturing rather than driving. The Plan identifies vehicle

share options and supporting the efforts to educate people about these types of programs. It will be important to be creative in our thinking to help meet people where they are.

Chairman Babbott stated that the Board of Supervisors has been contemplating building codes and being more flexible about the reuse of materials; it is important that the regulatory components reflect climate action and adaptation values. Councilmember Overton added that there is some fear associated with moving away from normal and it makes a lot of sense to offer flexible alternatives. The City Council will be having similar conversations when it comes time to adopt new building codes. He encouraged the City Council to support the County in its efforts to incorporate some of their ideas into their codes.

Supervisor Parks agreed stating that there are large parts of the County in areas that do not have building codes and they are unable to afford a house that is energy efficient; the flexibility is important here and identifying other ways to be energy efficient can have impact.

11. Informational Items To/From Chairman, Supervisors and County Manager/Mayor, Council and City Manager

Councilmember Overton offered appreciation to the County for their participation; this is his last joint meeting with the County and he appreciates the experiences that the City/County partnership has provided.

Councilmember Odeagaard thanked the Board of Supervisors for coming and being a part of the conversation and collaborating on things that affect both agencies.

Supervisor Parks expressed his appreciation for the continued partnership between the City and County. He wished everyone a Merry Christmas.

Supervisor Ryan stated that he was glad that the City and County could come together and collaborate on things. He offered his appreciation to outgoing Councilmembers Overton, Barotz, and Putzova.

Supervisor Archuleta also expressed her appreciation to Councilmembers Overton, Barotz, and Putzova for their years of public service. She wished everyone a Merry Christmas and Happy Hanukkah.

Councilmember McCarthy offered that it is always a pleasure to work with people who are working toward common goals. He appreciates the partnership with the County and thanked the Board of Supervisors for attending the meeting.

Ms. Goodrich echoed the appreciations and thanked the Board of Supervisors for attending.

Mr. Jayne stated that he appreciates the relationships between the City and County elected officials as well as the relationships between staff members.

Chairman Babbott also offered appreciation for the collaboration between the City and County. He recognized and thanked Councilmembers Overton, Barotz, and Putzova for their work and sacrifices made to serve the community.

Vice Mayor Whelan stated that the LAUNCH Steering Committee has been working hard on a proposal to come forward in the new year; they will be asking about funding and discussing the economic return on developing a high quality, free preschool program. She thanked the Board of Supervisors and stated that she appreciates the way the joint meetings are growing and the willingness to talk about all things, not just those that are agreed upon.

12. Public Participation

None

13. Adjournment

The Joint Work Session of the Flagstaff City Council/Coconino County Board of Supervisors of December 3, 2018, adjourned at 6:05 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CITY COUNCIL REGULAR MEETING
TUESDAY, DECEMBER 4, 2018
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
4:30 P.M. AND 6:00 P.M.

MINUTES

1. CALL TO ORDER

Vice Mayor Whelan called the meeting of the Flagstaff City Council held December 4, 2018, to order at 4:30 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
VICE MAYOR WHELAN COUNCILMEMBER MCCARTHY COUNCILMEMBER ODEGAARD COUNCILMEMBER OVERTON COUNCILMEMBER PUTZOVA	MAYOR EVANS COUNCILMEMBER BAROTZ

Others present: City Manager Barbara Goodrich; City Attorney Sterling Solomon.

3. PLEDGE OF ALLEGIANCE AND MISSION STATEMENT

The Council and audience recited the pledge of allegiance and Vice Mayor Whelan read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

4. PUBLIC PARTICIPATION

Public Participation enables the public to address the Council about an item that is not on the agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. If you wish to address the Council at tonight's meeting, please complete a

comment card and submit it to the recording clerk as soon as possible. Your name will be called when it is your turn to speak. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

None

5. PROCLAMATIONS AND RECOGNITIONS

A. **Proclamation:** Nackard Family of Companies 75th Anniversary

Vice Mayor Whelan moved this item to the 6:00 p.m. portion of the meeting.

6. LIQUOR LICENSE PUBLIC HEARINGS

Vice Mayor Whelan opened the public hearing.

Sgt. Collin Seay addressed the Council with a brief explanation of the licenses.

Councilmember Odegaard thanked both applicants for attending the meeting.

There being no further public comment Vice Mayor Whelan closed the public hearing.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Jim McCarthy to forward both applications to the State with a recommendation of approval.

Vote: 5 - 0 - Unanimously

A. **Consideration and Action on Liquor License Application:** Terry Thomson Jr., "Rickety Cricket Brewing", 10 E. Route 66, Series 7 (beer and wine bar) New License .

B. **Consideration and Action on Liquor License Application:** Shane Shumway "Marriott Residence Inn," 100 N. Humphreys, Series 10 (beer and wine store), New License.

7. ROUTINE ITEMS

A. **Consideration and Adoption of Resolution No. 2018-43 and Ordinance No. 2018-32:** An ordinance and resolution amending the Flagstaff City Code, Title 7, *Health and Sanitation,* and Title 12, *Floodplains*, to adopt an Enforcement Response Plan related to enforcement of water, pretreatment, wastewater, and stormwater regulations, including administrative fines and/or penalties for violations.

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to adopt Resolution No. 2018-43.

Vote: 5 - 0 - Unanimously

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to read Ordinance No. 2018-32 by title only for the final time.

Vote: 5 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING THE FLAGSTAFF CITY CODE, TITLE 7, HEALTH AND SANITATION, AND TITLE 12, FLOODPLAINS, TO ADOPT AN ENFORCEMENT RESPONSE PLAN RELATED TO ENFORCEMENT OF WATER, PRETREATMENT, WASTEWATER, AND STORMWATER REGULATIONS, INCLUDING ADMINISTRATIVE FINES AND/OR PENALTIES FOR VIOLATIONS; PROVIDING FOR PENALTIES, REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Scott Overton to adopt Ordinance No. 2018-32.

Vote: 5 - 0 - Unanimously

B. Consideration and approval of the renewal of the Business Incubator and Accelerator Master Lease (Master Lease) and the Agreement For Services for the Business Incubator and Accelerator (Services Agreement): Flagstaff Business Incubator and Accelerator Agreements with Northern Arizona Technology and Business Incubator, Inc doing business as the Center for Entrepreneurship and Technology (NACET).

Community Investment Director David McIntire introduced Grants and Contracts Manager Stacey Brechler-Knaggs who provided a PowerPoint presentation that covered the following:

NACET RENEWAL AND AMENDMENT
NACET RENEWAL – BACKGROUND
CURRENT MODEL HIGHLIGHTS
INCUBATOR
ACCELERATOR
SERVICES
ORGANIZATION MONEY FLOW
BUILDING EXPENSES

Mr. McIntire continued the presentation.

RECOMMENDED MODEL
NEW MODEL HIGHLIGHTS
ORGANIZATION MONEY FLOW
CONSIDERATIONS
SOME KEY POINTS
THE FUTURE

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Scott Overton to approve the renewal of the Master Lease and Services Agreement with NACET for the Flagstaff Business Incubator and Accelerator located at 2225 and 2201 North Gemini Drive respectively and authorize the City Manager to make any non-substantive changes to the Master Lease and Services Agreement.

Vote: 5 - 0 - Unanimously

C. **Consideration and Adoption of Ordinance No. 2018-40:** An ordinance of the Mayor and Council of the City of Flagstaff, Arizona amending the Flagstaff City Code, Title 12, Floodplains, Chapter 12-02, Stormwater Management Utility, by amending the Schedule of Stormwater Management Utility Service Charges and Fees; providing for repeal of conflicting ordinances, severability, penalties, and establishing an effective date. ***(Changes in stormwater fees)***

Vice Mayor Whelan moved this item to the 6:00 p.m. portion of the meeting.

RECESS

The 4:30 p.m. portion of the December 4, 2018, Regular Council Meeting recessed at 4:55 p.m.

6:00 P.M. MEETING

RECONVENE

Vice Mayor Whelan reconvened the Regular Meeting of the Flagstaff City Council held December 4, 2018 at 6:00 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this regular meeting, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

8. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
VICE MAYOR WHELAN COUNCILMEMBER MCCARTHY COUNCILMEMBER ODEGAARD COUNCILMEMBER OVERTON COUNCILMEMBER PUTZOVA	MAYOR EVANS COUNCILMEMBER BAROTZ

Others present: City Manager Barbara Goodrich; City Attorney Sterling Solomon.

9. PLEDGE OF ALLEGIANCE

The Council and audience recited the pledge of allegiance.

10. CARRY OVER ITEMS FROM THE 4:30 P.M. AGENDA

A. **5A: Proclamation:** Nackard Family of Companies 75th Anniversary

The Vice Mayor and City Council recognized and presented a Proclamation to Nackard

Family Companies honoring them for their 75th Anniversary in Flagstaff.

B. **7C: Consideration and Adoption of Ordinance No. 2018-40:** An ordinance of the Mayor and Council of the City of Flagstaff, Arizona amending the Flagstaff City Code, Title 12, Floodplains, Chapter 12-02, Stormwater Management Utility, by amending the Schedule of Stormwater Management Utility Service Charges and Fees; providing for repeal of conflicting ordinances, severability, penalties, and establishing an effective date. ***(Changes in stormwater fees)***

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to read Ordinance No. 2018-40 by title only for the final time.

Vote: 5 - 0 - Unanimously

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING THE FLAGSTAFF CITY CODE, TITLE 12, FLOODPLAINS, CHAPTER 12-02, STORMWATER MANAGEMENT UTILITY, BY AMENDING THE SCHEDULE OF STORMWATER MANAGEMENT UTILITY SERVICE CHARGES AND FEES; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, PENALTIES, AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to adopt Ordinance No. 2018-40.

Vote: 5 - 0 - Unanimously

11. REGULAR AGENDA

A. **Consideration and Adoption of Ordinance No. 2018-39:** An ordinance amending the Flagstaff City Code, Chapter 1-14, *Personnel System*, by amending the Employee Handbook of Regulations *Nepotism.*

Human Resources Director Shannon Anderson provided a PowerPoint presentation that covered the following:

ADDENDUM 17 – EMPLOYEE HANDBOOK
FOUNDATION OF POLICY
EVALUATION OF CITY OPERATIONS
EXPECTATIONS
PROCEDURES
REASONS FOR THE RECOMMENDED POLICY

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Eva Putzova to read Ordinance No. 2018-39 by title only for the first time.

Vote: 5 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, PERSONNEL SYSTEM, BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS RELATED TO NEPOTISM; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

B. **Consideration and Adoption of Ordinance No. 2018-42:** Amending the Flagstaff City Code, Title 8, Public Ways and Property, Chapter 12, Special Events.

Recreation Supervisor Claire Harper addressed Council with a PowerPoint presentation that covered the following:

AMENDING SPECIAL EVENT ORDINANCE
BACKGROUND
REVISIONS

The following individuals addressed Council in support of disallowing special event permits in the City Hall lawn and flagpole areas:

- Lisa Cantor Ganey
- Rabbi Mindie Snyder

The following comments were received:

- Concerned about the perception that the City is endorsing the events that take place on City Hall property.
- Allowing semi-permanent structures such as tents and wooden fences in close proximity to City Hall gives the appearance is that the City endorses the views of the user.
- Because the City cannot discriminate when it grants Special Event Permits for the use of the City Hall property it must allow all events including hate groups.
- Request that the Council amend the Special Event Permit Rules to disallow special event permits in the City Hall flagpole area.
- There are plenty of other City parks where people can hold events.

The following individuals submitted written comment cards in support of disallowing special event permits in the City Hall lawn and flagpole areas:

- Nena Bloom
- Joe Janey
- Lanny Morrisor

Councilmember Putzova stated that she is interested in modifying the existing policy with regard to the times that the City issues the special event permits for. She suggested removing the option for multi-day permits but still allowing groups to utilize the space so long as they follow all City rules.

Councilmember Overton asked if there is a list of groups that utilize the plaza area.
Ms. Harper stated that the events in the plaza over the past three years are as follows:

- Disarm Hate Rally
- Wear Orange for Gun Violence
- Environmental Press Conference
- Monument to American Press Conference
- Climate Action Campaign Press Conference
- Miss Navajo Nation 1868 Treaty

Ms. Harper stated that there are also groups who have utilized both the front lawn and the plaza area.

Ms. Putzova asked which events in the front lawn and plaza areas are multi-day events.
Ms. Harper stated that the Bible Marathon, 9/11 flag display, and the Pride Flag on the

temporary flagpole are all multi-day events.

Moved by Councilmember Jim McCarthy to amend Ordinance 2018-42 to disallow special events on the paved area abutting City Hall near the flagpole, the nearby lawn area in front of City Hall.

Vote: The motion failed for lack of a second.

Councilmember Putzova stated that a display is not the same as when there is an activity tied to it. She asked if there are other considerations that could be built into the process to allow a multi-day permit if it is only to display flags or other articles.

Vice Mayor Whelan suggested continuing the current practice but put restraints on signage, time allowed, and other things.

Councilmember Putzova stated that the reason the Special Event process is used for the display of flags is because there is no other policy or process that addresses the flagpole specifically. She requested that a separate flagpole policy be created.

Ms. Harper stated that a special event permit is a permit for exclusive use of an area. Councilmember Putzova asked if there could be different rules for passive use and non-passive use. Mr. Solomon stated that if it goes through the special event process then the same rules would apply regardless of passive or non-passive use.

Councilmember Overton expressed concern regarding how the City would be differentiating between the groups that utilize the plaza area. He is hesitant to say no because he does not want to prevent the things that the community wants in that area at the risk that there may be something that is not wanted.

Councilmember Putzova offerd that it is important to create an environment where people can express their views. Even when there is something that leads to negative emotions in people she would still err on the side of openness. If there is no way to regulate because everyone must be treated the same then she would rather leave things as they are.

Councilmember Odegaard stated that he is not interested in changing anything right now. There are a lot of good things that are done in the plaza area and to deny those things in the future would be a disservice to the community.

Vice Mayor Whelan stated that the issue is one of censorship and safety. It is unfortunate that there has to be discussion about the ability to have events on the lawn and plaza but there are safety concerns about what could happen. She leans more towards saying no to all because of the safety concerns. It is not no everywhere it is just no at City Hall.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Scott Overton to read Ordinance No. 2018-42 by title only for the first time.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Eva Putzova to amend the motion to change Paragraph 8-12-001-0004 Noise Regulations, Section F, Sub-section 1, to have first sentence replaced and to read as follows: "For events at Wheeler Park, sound levels measured at 50 feet from the speaker locations must not exceed 85 decibels, A-weighted; for events at other locations where permits are allowed for amplified entertainment, the sound levels measured at 100 feet from the speaker locations must not

exceed 90 decibels, A-weighted."

Councilmember Overton stated that the Mayor had requested a sound study and demonstration and he will not support the amendment; he believes that the entire Council should be present discuss and make the decision.

Councilmember Odegaard agreed and indicated that he will not be in support of the amendment because the study and demonstration should be done first.

Vice Mayor Whelan stated that she will support the amendment; the community and the promoters have worked hard to resolve the issue and she would like to honor that.

Vote: 3 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

Original Motion:

Vote: 3 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING THE FLAGSTAFF CITY CODE, TITLE 8, PUBLIC WAYS AND PROPERTY, CHAPTER 12, SPECIAL EVENTS, PROVIDING FOR SEVERABILITY AND AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

C. **Consideration and Adoption of Resolution No. 2018-58 and Ordinance No. 2018-45:** An ordinance and resolution amending the Flagstaff City Code, Title 7, *Health and Sanitation,* to update solid waste fees.

Solid Waste and Fleet Section Director Todd Hansen stated that on November 27, 2018 staff provided information on rate options to create a sustainable solid waste fund. Based on the direction received at that meeting staff has updated the rate fees in the ordinance.

Councilmember Odegaard asked if there will be future rate studies for solid waste fees. Public Works Director Andy Bertelsen stated that the model is to look at the rates in three-year intervals to evaluate efficiencies in process as well as keeping the rate model in check. The recession period was a difficult time and it was decided that no rate changes would come forward during that time.

Vice Mayor Whelan asked if there has been discussion about contracting out the City's service. Mr. Hanson explained that it is not something that has been considered previously but it is something that can be evaluated in the future if that is the direction of Council. Based on his experience, what is being done now preserves the City's system to keep pricing lower for citizens and contracting out would likely increase rates over time.

Andy Fernandez addressed Council and stated that recycling to reduce the quantity of material going to the landfill would save 50 years of the landfill life.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Eva Putzova to read Resolution No. 2018-58 by title only.

Vote: 3 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

A RESOLUTION OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, DECLARING CERTAIN DOCUMENTS KNOWN AS "THE 2018 UPDATES TO THE SOLID WASTE FEES" AS PUBLIC RECORDS

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to read Ordinance No. 2018-45 by title only for the first time.

Vote: 3 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING SECTION 7-04-001-0010, MUNICIPAL SOLID WASTE FEES, OF THE FLAGSTAFF CITY CODE

D. **Consideration and Adoption of Ordinance No. 2018-37:** An ordinance of the Mayor and Council of the City of Flagstaff authorizing the sale or abandonment of approximately 1,278 square feet of City right-of-way adjacent to 1900 North Second Street.

Real Estate Manager Charity Lee provided a PowerPoint presentation that covered the following:

SALE/ABANDONMENT OF RIGHT OF WAY
OVERVIEW MAP
AREAL MAP
BACKGROUND
ORDINANCE 2018-37
OPTIONS

Councilmember Overton asked what the approximate cost would be to go with Option 1. Ms. Lee stated that based on appraisal it would be a $2,000 to $3,000 cost.

Moved by Councilmember Scott Overton, **seconded by** Vice Mayor Jamie Whelan to read Ordinance No. 2018-37 with Option 1 by title only for the first time.

Councilmember Odegaard asked if there have been discussions with the adjacent property owner. Ms. Lee stated that staff has talked with them but not with regard to price. If they were to chose not to bid, the City could look at other options such as a license agreement or leaving things as is to maintain their access.

Vote: 5 - 0 - Unanimously

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF AUTHORIZING THE SALE OR ABANDONMENT OF APPROXIMATELY 1278 SQUARE FEET OF CITY RIGHT-OF-WAY ADJACENT TO 1900 NORTH SECOND STREET; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

E. **Consideration and Approval:** Canceling the 4:30 p.m. portion of the December 18, 2018 Regular Council Meeting

Moved by Councilmember Charlie Odegaard, **seconded by** Vice Mayor Jamie Whelan to cancel the 4:30 p.m. portion of the December 18, 2018 Regular Council Meeting.

Vote: 5 - 0 - Unanimously

F. **Consideration and Adoption of Ordinance No. 2018-43:** An ordinance amending Flagstaff City Code Chapter 7-05, *Smokefree Air,* to change the Title of Flagstaff City Code, Chapter 7-05 to "SMOKE-FREE/TOBACCO-FREE AIR" and to prohibit the the use of electronic cigarettes, vaping, and all other tobacco products where smoking is already prohibited in the City of Flagstaff. (An ordinance banning electronic cigarettes and similar devices where smoking is already prohibited).

Mr. Solomon offered that the Smokefree Air ordinance was expanded to parks and City cemeteries, at that time the Council wanted to look into furthering the ordinance to include all tobacco products. The primary issue is vaping and e-cigarettes and the proposed ordinance covers all types of tobacco products.

The following individuals addressed Council in support of Ordinance No. 2018-43:

- Nikki White
- Lydia Mendoza
- Andy Fernandez

The following comments were received:

- Vaping and the use of e-cigarettes are not a safe alternative to regular cigarettes.
- The effects of vaping and e-cigarettes are harmful to the smoker and those around them.
- Support the addition of e-cigarettes and vaping products to the ordinance.
- The Center for Disease Control indicates that the vapor is not harmless.
- One jule pod contains more nicotine than an entire pack of cigarettes
- The City should have eliminated all smoking when the federal government said it was a health hazard.
- The efforts of the young people in Flagstaff to curb the use of tobacco by young people is impressive.

Moved by Councilmember Jim McCarthy, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-43 by title only for the first time.

Vote: 5 - 0 - Unanimously

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, COCONINO COUNTY, ARIZONA, AMENDING FLAGSTAFF CITY CODE TITLE 7, HEALTH AND SANITATION, CHAPTER 7-05, SMOKEFREE AIR CHANGING THE NAME OF THE

CHAPTER TO "SMOKE-FREE/TOBACCO-FREE AIR" AND AMENDING SECTIONS OF CHAPTER 7-05 TO PROHIBIT THE USE OF ELECTRONIC CIGARETTES; ESTABLISHING SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

12. DISCUSSION ITEMS

A. **Discussion:** Raising the age to 21 to purchase tobacco products

Mr. Solomon stated that the T21 movement to raise the age to purchase tobacco products to 21 has taken off across the country. He is looking to Council for direction on how they would like to proceed.

The following individuals addressed Council in support of a T21 ordinance:

- Veronica Vargas
- Tyler Thomas
- Stacey Robbins
- Emily Blink
- Hunter Owens
- Karime Arce-Romero

The following comments were received:

- T21 is raising the legal purchasing age to 21 for all nicotine products.
- 84% of adult users began before the age of 18 and 95% before the age of 21.
- Raising the minimum age would help limit access to tobacco products.
- T21 could reduce the proliferation of tobacco use in the high schools because many high school students know someone who is 18 who can purchase products for them.
- Over 270 community surveys were collected and 88% of respondents believe that commercial tobacco use is a problem and 84% support T21.
- 94% of middle and high school students believe that tobacco is a problem among their peers and are supportive of T21 for Flagstaff.
- T21 will decrease the changes of tobacco use at a young age.
- The brain is not fully developed until age 25 and tobacco can be harmful to the developing brain.
- T21 will raise awareness on the dangerous effects of tobacco use at a young age.
- Five states and numerous cities have instituted T21.
- Only 1% of smokers start after the age of 24.
- The first T21 ordinance was done in 2005 and to date, not one store has gone out of business as a result of T21.
- T21 can help tobacco retailers because they can use the same sales strategies they use for alcohol such as the vertical identification cards for those under 21.
- Tobacco use is not a right of passage and military service is not an excuse for a lifetime addiction to tobacco.

A majority of Council was in favor of further discussion and consideration of an ordinance.

13. COUNCIL LIAISON REPORTS

Councilmember Overton reported that NAIPTA is holding their annual advance this Thursday and the conversations will focus on the services they are providing and how the five-year plan will continue to be implemented.

14. FUTURE AGENDA ITEM REQUESTS

After discussion and upon agreement by two members of the Council, an item will be moved to a regularly-scheduled Council meeting.

A. Future Agenda Item Request (F.A.I.R.): Verification of action regarding Councilmember Putzova's request to place on a future agenda a discussion about Keep Families Free and Together.

Councilmember Putzova requested that the Keep Families Free and Together F.A.I.R. item be expedited.

There was not a Council majority to expedite the item.

B. Future Agenda Item Request (F.A.I.R.): A request by Vice Mayor Whelan to place on a future agenda a discussion about Natural habitats on City property being labeled and set aside when mowing occurs.

Vice Mayor Whelan stated that a community member had come forward about butterfly habitats and milkweed being inadvertently cut down. She is hoping that citizens involved with the Arboretum and Master Gardeners could come together and identify habitat areas and place signage there.

A majority of Council agreed to move the item forward to a future agenda.

At this time, Vice Mayor Whelan called for Public Participation.

Andy Fernandez addressed Council with various concerns.

15. INFORMATIONAL ITEMS AND REPORTS FROM COUNCIL AND STAFF, FUTURE AGENDA ITEM REQUESTS

None

16. ADJOURNMENT

The Regular Meeting of the Flagstaff City Council held December 4, 2018, adjourned at 8:02 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

I, STACY SALTZBURG, do hereby certify that I am the City Clerk of the City of Flagstaff, County of Coconino, State of Arizona, and that the above Minutes are a true and correct summary of the Meeting of the Council of the City of Flagstaff held on December 4, 2018. I further certify that the Meeting was duly called and held and that a quorum was present.

DATED this 27th day of August, 2019.

_____

CITY CLERK

COMBINED SPECIAL MEETING/WORK SESSION
TUESDAY, DECEMBER 11, 2018
COUNCIL CHAMBERS
211 WEST ASPEN AVE.
6:00 P.M.

1. Call to Order

Mayor Evans called the Special Meeting of the Flagstaff City Council held September 9, 2018, to order at 6:02 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. Pledge of Allegiance and Mission Statement

The Council and audience recited the pledge of allegiance and Councilmember Putzova read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

3. ROLL CALL

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	NONE
VICE MAYOR WHELAN	
COUNCILMEMBER BAROTZ (telphonically at 7:00 p.m.)	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER OVERTON	
COUNCILMEMBER PUTZOVA	

Others present: City Manager Barbara Goodrich; City Attorney Sterling Solomon.

4. Public Participation

Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

Mayor Evans re-ordered the agenda and took Item 4 after Item 5.

Mary Norton addressed Council with concerns regarding a new high-density development adjacent to Pinnacle Pines and the effect it may have on parking in the community.

Andy Fernandez addressed the Council with concerns about affordable housing, recycling, and public participation.

5. Presentation and Recognition of Outgoing Councilmembers

Mayor Evans stated that Councilmember Barotz was unable to attend due to a family emergency. She stated that the Council will be recognizing her at a later time.

Councilmember Putzova stated that she is honored to have served the residents of Flagstaff. She thanked City staff for their hard work and professionalism. She also thanked the citizens for their participation. It has been a meaningful four years and she looks forward to seeing what the next City Council will bring forward.

Councilmember Overton offered that it has been an honor and great experience representing the community and thanked them for their confidence in him. He expressed appreciation to his family for their support over the years. He thanked City staff and leadership, it is because of them that the City is successful, and it is clear that they all do their best work. He wished the community and the incoming Council all the best.

The following individuals offered comments recognizing the outgoing Councilmembers:

- Erika Mazza
- Christa Sadler
- Jeff Meilbeck
- Kathryn Jim
- Nat White
- Madison Overton
- Rick Moore
- Andy Fernandez
- John Viktora
- Hunter Owens
- Dan Caputo

The following comments were received:

- Thank you Councilmember Barotz for your eight and a half years of service to Flagstaff.

- Councilmember Barotz had unwavering dedication to honesty, integrity, and doing what was right.
- I appreciate the work Councilmember Barotz did to maintaining and preserving open space in Flagstaff.
- Thank you to all three Councilmembers for their involvement with NAIPTA.
- Thank you for the work you have done for the LGBTQ community.
- I am grateful for your words of wisdom and the love you each have granted to Flagstaff.
- There is a bright future for all of you as you move forward with other endeavors.
- Each of you gave me confidence because you always asked three important questions; how much it costs, how does it improve the social fabric of Flagstaff, and what are the unintended consequences.
- Leadership is more than leading people; it is standing beside them.
- You all worked hard to help others have their views heard.
- Thank you for the time, energy, and patience you each put into your positions.
- I appreciate Councilmember Overton's consideration of all sides of the issues.
- Thank you all for the work you did in the anti-tobacco efforts.
- You all will be sorely missed, and Flagstaff is a better place because of your service.

A written comment card recognizing the outgoing Councilmembers was submitted by Stephanie Smith.

Mayor Evans, Vice Mayor Whelan, Councilmembers Odegaard and McCarthy, Ms. Goodrich, and Mr. Solomon each offered thoughts, accolades, and appreciation to outgoing Councilmembers Barotz, Overton, and Putzova.

The City Council presented a commemorative shadow box to Councilmembers Barotz, Overton, and Putzova in recognition and gratitude for their service to the City of Flagstaff.

6. **Consideration and Adoption of Ordinance No. 2018-42:** Amending the Flagstaff City Code, Title 8, Public Ways and Property, Chapter 12, Special Events.

Councilmember Barotz joined the meeting telephonically at 7:00 p.m.

Recreation Supervisor Claire Harper stated that the changes Council requested at the last meeting have been incorporated into the Ordinance.

Moved by Councilmember Eva Putzova, **seconded by** Councilmember Jim McCarthy to read Ordinance No. 2018-42 by title only for the final time.

Councilmember McCarthy stated that the collaboration between the promoters and the neighbors is an example of how all decisions should be made. He thanked staff for their hard work on the issue.

Vote: 4 - 3

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard
Mayor Coral J. Evans

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING THE FLAGSTAFF CITY CODE, TITLE 8, PUBLIC WAYS AND PROPERTY,

CHAPTER 12, SPECIAL EVENTS, PROVIDING FOR SEVERABILITY AND AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

Moved by Vice Mayor Jamie Whelan, **seconded by** Councilmember Jim McCarthy to adopt Ordinance No. 2018-42.

Vote: 4 - 3

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard
Mayor Coral J. Evans

Councilmember Barotz left the meeting at 7:08 p.m.

7. **Consideration and Adoption of Ordinance No. 2018-43:** An ordinance amending Flagstaff City Code Chapter 7-05, *Smokefree Air,* to change the Title of Flagstaff City Code, Chapter 7-05 to "SMOKE-FREE/TOBACCO-FREE AIR" and to prohibit the the use of electronic cigarettes, vaping, and all other tobacco products where smoking is already prohibited in the City of Flagstaff. (An ordinance banning electronic cigarettes and similar devices where smoking is already prohibited).

The following individuals addressed Council regarding Ordinance No. 2018-43:

- Jason White
- David Morris
- Bernice Carver
- Veronica Vargas

The following comments were received:

- Concerned that business owners were not aware of the ordinance.
- Vaping was a way for me to stop smoking.
- It would be helpful for business owners and industry leaders be involved in these types of conversations in the future.
- Proud of the youth coalitions and what they have done.
- The fight against the tobacco industry is never ending.
- There are so many harmful substances in tobacco and there is unnecessary suffering by victims of secondhand smoke.
- Thank you for championing tobacco prevention in Flagstaff.
- This ordinance will make a difference in the community and have positive effects on the health and wellbeing of people.
- Thank you for supporting your mission.

Moved by Councilmember Scott Overton, **seconded by** Vice Mayor Jamie Whelan to read Ordinance No. 2018-43 by title only for the final time.

Vote: 6 - 0 - Unanimously

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, COCONINO COUNTY, ARIZONA, AMENDING FLAGSTAFF CITY CODE TITLE 7, HEALTH AND SANITATION, CHAPTER 7-05, SMOKEFREE AIR CHANGING THE NAME OF THE

CHAPTER TO "SMOKE-FREE/TOBACCO-FREE AIR" AND AMENDING SECTIONS OF CHAPTER 7-05 TO PROHIBIT THE USE OF ELECTRONIC CIGARETTES; ESTABLISHING SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to adopt Ordinance No. 2018-43.

Vote: 6 - 0 - Unanimously

8. **Consideration and Adoption of Ordinance No. 2018-37:** An ordinance of the Mayor and Council of the City of Flagstaff authorizing the sale or abandonment of approximately 1,278 square feet of City right-of-way adjacent to 1900 North Second Street.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to read Ordinance No. 2018-37 by title only for the final time.

Vote: 6 - 0 - Unanimously

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF AUTHORIZING THE SALE OR ABANDONMENT OF APPROXIMATELY 1278 SQUARE FEET OF CITY RIGHT-OF-WAY ADJACENT TO 1900 NORTH SECOND STREET; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Jim McCarthy to adopt Ordinance No. 2018-37.

Vote: 6 - 0 - Unanimously

9. **Consideration and Adoption of Resolution No. 2018-58 and Ordinance No. 2018-45:** An ordinance and resolution amending the Flagstaff City Code, Title 7, *Health and Sanitation,* to update solid waste fees.

Andy Fernandez addressed Council with concerns about the changes in recycling and the increase of the fee.

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to adopt Resolution No. 2018-58.

Vote: 4 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to read Ordinance No. 2018-45 by title only for the final time.

Vote: 4 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

AN ORDINANCE OF THE MAYOR AND COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA AMENDING SECTION 7-04-001-0010, MUNICIPAL SOLID WASTE FEES, OF THE FLAGSTAFF CITY CODE

Moved by Councilmember Jim McCarthy, **seconded by** Vice Mayor Jamie Whelan to adopt Ordinance No. 2018-45.

Vote: 4 - 2

NAY: Councilmember Scott Overton
Councilmember Charlie Odegaard

10. **Consideration and Adoption of Ordinance No. 2018-39:** An ordinance amending the Flagstaff City Code, Chapter 1-14, *Personnel System*, by amending the Employee Handbook of Regulations *Nepotism.*

Moved by Councilmember Charlie Odegaard, **seconded by** Councilmember Eva Putzova to read Ordinance No. 2018-39 by title only for the final time.

Vote: 6 - 0 - Unanimously

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA, AMENDING THE FLAGSTAFF CITY CODE, CHAPTER 1-14, PERSONNEL SYSTEM, BY AMENDING THE EMPLOYEE HANDBOOK OF REGULATIONS RELATED TO NEPOTISM; PROVIDING FOR PENALTIES; REPEAL OF CONFLICTING ORDINANCES; SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

Moved by Councilmember Charlie Odegaard, **seconded by** Vice Mayor Jamie Whelan to adopt Ordinance No. 2018-39.

Vote: 6 - 0 - Unanimously

11. **Consideration and Adoption of Resolution No. 2018-60:** A resolution stating the desire of the City of Flagstaff Housing Authority to obtain a Moving to Work designation and agreeing to comply with the Moving to Work objectives and statutory requirements, as well as the operations notice.

Housing Director Sarah Darr stated that the Resolution is a formality required as part of an application that allows the City to enter into a lottery that if selected, would allow the City to apply for a Moving to Work designation. The designation will allow the City to seek exemption from many of the Public Housing and Housing Choice Voucher program rules as well as provide flexibility to combine federal funds to help better meet the needs of the community.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Charlie Odegaard to read Resolution No. 2018-60 by title only.

Vote: 6 - 0 - Unanimously

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, ARIZONA DECLARING THE CITY'S DESIRE TO OBTAIN FOR THE HOUSING AUTHORITY A MOVING TO WORK DESIGNATION AND AGREEMENT TO COMPLY WITH THE MOVING TO WORK

OBJECTIVES AND STATUTORY REQUIREMENTS AS WELL AS THE OPERATIONS NOTICE.

Moved by Councilmember Scott Overton, **seconded by** Councilmember Jim McCarthy to adopt Resolution No. 2018-60.

Vote: 6 - 0 - Unanimously

12. **Consideration and Approval of Contract:** Contract with Ballard Spahr, LLP for legal services; authorize the CIty Attorney and any retained legal counsel to file an action to clarify the legal effects of Proposition 126 on the City of Flagstaff and other cities; and direct the City Attorney to prepare a contract for joint representation and cost sharing agreement with other cities.

Senior Assistant City Attorney Anja Wendel provided a PowerPoint presentation that covered the following:

PROPOSITION 126
WHAT IS PROP 126?
HOW DOES IT AFFECT THE CITY?
COUNCIL OPTIONS

Moved by Councilmember Scott Overton, **seconded by** Councilmember Jim McCarthy to approve the contract with Ballard Spahr, LLP for legal services, authorize the City Attorney and any retained legal counsel to file an action to clarify the legal effects of Proposition 126 on the City of Flagstaff and other cities, and direct the City Attorney to prepare a contract for joint representation and cost sharing agreement with other cities.

Vice Mayor Whelan asked if entering into litigation would stop Proposition 126 or if it would still continue. Ms. Wendel stated that the law is in effect, the question is if the Arizona Department of Revenue (ADOR) would stop collecting the taxes. She believes that ADOR would collect the taxes and possibly escrow them and not distribute them pending the outcome of the litigation.

Councilmember Putzova asked what the anticipated cost of the entire for legal representation. Ms. Wendel stated that it is difficult to estimate those total costs; it can cost $25,000 to $30,000 to file the complaint and do the initial research. Another city has done some of this research already and if other cities participate those costs will be shared. Mr. Solomon added that when the time comes to join the other cities in litigation, a cost share agreement will be brought to the Council for consideration which would address the proportionality for each party.

Ms. Goodrich offered that there has been a lot of support to enter into this type of legal action. These issues were unanticipated consequences and the State is just as concerned as the cities are. The role that the League will play is unknown at this time and staff remains in close contact with its State Lobbyist Richard Travis on the matter. Unfortunately, no one has a clear path forward at this time.

Vice Mayor Whelan suggested holding off to see what other cities and the State will do and if the City needs to join in it does so at the appropriate time. Mayor Evans stated that the State may or may not weigh in and the timeline for that is unknown, it may come after Flagstaff's taxes go into effect. The City is faced with a nearing deadline for its taxes to go into effect and it does not want to collect taxes that may have to be returned. It poses a big issue as preparation of the budget begins. The more cities that are moving forward together shows the legislature that this is a major issue for cities and towns.

Moved by Vice Mayor Jamie Whelan, **seconded by** Mayor Coral J. Evans to amend the motion to include language in the contract that the fee would be pro-rated among the participating parties per a separately negotiated cost sharing agreement.

Vote: 6 - 0 - Unanimously

Councilmember McCarthy stated that he would like the City's legal team be involved in the negotiations on what legal points should be brought forward in the litigation to ensure that strong arguments are developed.

Original Motion:

Vote: 6 - 0 - Unanimously

13. Adjournment

The Flagstaff City Council Special Meeting of December 11, 2018, adjourned at 7:49 p.m. at which time Councilmember Overton left the meeting.

WORK SESSION

1. Call to Order

Mayor Evans called the Work Session of December 11, 2018 to order at 8:00 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. Review of Draft Agenda for the December 18, 2018 City Council Meeting

Citizens wishing to speak on agenda items not specifically called out by the City Council may submit a speaker card for their items of interest to the recording clerk.

None

3. Homeless Services Overview, 2018 Point in Time Data & Safe Parking Options

Housing and Grants Administrator Leah Bloom provided a PowerPoint presentation that covered the following:

HOMELESS SERVICES OVERVIEW, 2018 POINT IN TIME DATA & SAFE PARKING OPTIONS
INTRODUCTIONS
TONIGHT'S AGENDA

VEHICULAR HOMELESS COUNT

Ms. Bloom introduced Flagstaff Shelter Services Executive Director Ross Altenbaugh who continued the presentation

HOMELESS SERVICES OVERVIEW
INTRODUCTION & HISTORY
COMMITTEE ROSTER
OVERVIEW
FLOW CHART
HOW IT WORKS
CASE CONFERENCING
BENCHMARKS
IS IT WORKING?

Ms. Bloom introduced Continuum of Care Coordinator with Arizona Department of Housing David Bridge who continued the presentation.

2018 POINT IN TIME (PIT) DATA
2018 PIT COUNT METHODOLOGY
2018 SUMMARY – AZ BALANCE OF STATE
2015-2018 ARIZONA BALANCE OF STATE CONTINUUM OF CARE PIT RESULTS

Councilmember Putzova asked about the long term trends with veterans and what has been seen in the context of the 17-year long war and how it has contributed to the number of homeless veterans.

Mr. Bridge stated that nationally veteran homelessness is down significantly and the veteran populations are aging out. The single biggest cadre of veterans continues to come from the Vietnam War and the post-Vietnam period. Because of the current conflicts and the prestige that comes with military service, there has been a large increase in the homeless veteran population and Veterans' Affairs has finally gotten involved. There has been a significant increase in contributions to the VASH voucher program and there is also a program called SSVF that targets chronic veteran homelessness and their families which has led to a 25% decrease in veteran homelessness across the country in the last ten years.

Ms. Darr stated that Flagstaff has 100 VASH vouchers specifically to serve the veteran population. Flagstaff has a hard time utilizing the vouchers. All of the easy veterans to be housed have been housed. The focus has been on those with longer term chronic issues surrounding mental health or substance abuse issues. Another challenge is that those vouchers go out into the community and have to be accepted by a landlord; there are credit challenges and criminal backgrounds that veterans may have and that can be a significant barrier to finding a landlord willing to take a chance.

Mr. Bridge continued the presentation.

2018 COCONINO PIT RESULTS
WHERE SURVEYED?
2018 UNSHELTERED PIT COUNT DEMOGRAPHICS
PIT COUNT HISTORY – COCONINO
WHAT DO WE DO WITH THIS?
NEXT STEPS-SYSTEM IMPROVEMENT

Interim Planning Director Tiffany Antol continued the presentation.

SAFE PARKING OPTIONS
SAFE PARKING – TWO TYPES
BEST PRACTICES FOR SAFE PARKING

Councilmember Putzova stated that she is interested in continuing the conversations on crafting a program that is appropriate for Flagstaff that will create a safe place for people to sleep in their vehicles.

Councilmember McCarthy stated that he is not interested in people parking in residential areas. A safe parking area might be a good idea but he does not know if there are appropriate places to do it. He indicated that he is willing to pursue further conversations on safe sleeping programs.

Ms. Antol stated that the direction she is seeking, from a planning perspective, is whether the Council wants to give direction to include a Zoning Code text amendment to include safe parking areas and allowing an applicant to come forward as a provider.

Vice Mayor Whelan asked Ms. Altenbaugh if she thinks this type of program is needed or should the City should be supporting the programs it already has more. Ms. Altenbaugh stated that the National Alliance to End Homelessness has taken a stance that this type of program would be a step backwards. Focusing funding and resources on housing is the way to end homelessness. She believes that resources are most effective in current programs that are doing work in the community.

Councilmember McCarthy asked if it would require a Zoning Code amendment to allow private property owners the ability to allow people to sleep in their cars on their property.
Ms. Antol stated that an amendment would be needed to allow for that option.

Councilmember Odegaard asked Ms. Altenbaugh's thoughts on the best way to get people housing and if allowing people to sleep in their cars would help that effort. Ms. Altenbaugh stated that when looking at the numbers and bed utilization in the community, the capacity to offer emergency shelter to those who need shelter exists. The shelter is already addressing the need with a parking lot that is available for people to use and it allows for them to get access to resources needed to find permanent housing. She does not think an additional area would be necessary.

Councilmember Putzova stated that no one can sleep in a vehicle in Flagstaff. Ms. Altenbaugh offered that there are currently four to six people utilizing the parking lot at Flagstaff Shelter Services and there are plans to increase the size of the parking lot so that can be an option for others.

Councilmember Putzova stated that there are many reasons why someone may not want to go to the shelter and their only option would be to sleep in an illegal way. She asked if it would be better to have some opportunity to do this without being criminalized. Ms. Altenbaugh stated that in her professional opinion she feels that resources should be put into long term resources that seek to end homelessness and permanently house people.

Mayor Evans indicated that she is not interested in moving the item forward for further discussion. She expressed concern about the safety at the parking areas and the possible liability to the City should something happen there. There would need to be an investment of significant resources to police the area to ensure the safety of those who are there. If resources

and funding are available, they should be directed to improving existing programs. She stated that there is a need for culturally sensitive programs as well as coordination with tribal leadership on their programs on the reservation. Efforts should be focused on improving the current system.

Ms. Altenbaugh offered that Flagstaff Shelter Services is excited to be working on the racial disparity piece; they understand that there is an access problem with getting the indigenous population access to Front Door and they are working on ways to make better connections with them and get them the resources they need.

Councilmember McCarthy stated that understanding that Flagstaff Shelter Services has a place for people to sleep in their car if they chose, he does not feel that a separate program is needed.

There was not a majority of Council in support of moving the item forward.

4. **Discussion:** A Citizens' Petition requesting Council consideration of free parking on first Friday of each month.

There was no support to move the item forward for future consideration.

5. **Discussion:** Bringing back the Youth Commission in some form.

Ms. Goodrich stated that there are various community groups already working on something similar to get youth involved in the community. As Council considers this one option it may be helpful to research what those other organizations are doing and possibly combine efforts.

Councilmember Odegaard agreed and stated that he wants to have youth that are civically engaged. He looks forward to having the discussion and understanding what the collaboration would look like.

Vice Mayor Whelan offered that youth working on youth issues is something that should be happening. She agrees that it would be nice to bring Flagstaff youth to the League Conference to see how local governments operate.

Councilmember Putzova stated that she would like a specific youth commission for the City that allows students to shadow Councilmembers and model the roles that they may want to pursue later in life.

A majority of Council was supportive in moving the item forward.

6. **Public Participation**

None

7. **Informational Items To/From Mayor, Council, and City Manager; future agenda item requests**

Councilmember Putzova requested three F.A.I.R. items:

1. Amend the anti-camping ordinance so people are not criminalized for sleeping.

2. Create a Sustainability Department to elevate sustainability so climate and resiliency is always considered.
3. Change the Police Department data collection, reporting, and sharing to improve data transparency using something similar to opendatapolicing.com.

Councilmember McCarthy attended the All Aboard Conference. He stated that it sounds like things are fairly positive about keeping Amtrak going long distance for now, but pressure is still needed to keep it in the future. He thanked Council for their support in sending a letter to Amtrak expressing support for the long-distance rail travel.

Vice Mayor Whelan stated that she is sad to be losing three members of Council but is also excited about the incoming Councilmembers and the things they will bring to the City.

Councilmember Odegaard extended an invitation to Council to join him and Mayor Evans on December 16, 2018 from 3:00 p.m. to 4:00 p.m. to stock shelves at The Pantry.

Mayor Evans requested information about the Campus Advantage Development in the Pine Canyon area.

Mayor Evans also reported that the Council has received a number of emails about parking issues at Basis School. The people who are dropping off and picking up kids are blocking traffic. There were similar issues with a school on Fourth Street and the City helped come up with ways that were helpful in alleviating the problem. She asked if staff could look into possibly helping them solve the issue.

8. Adjournment

The Flagstaff City Council Work Session of December 11, 2018, adjourned at 9:48 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CERTIFICATION

I, STACY SALTZBURG, do hereby certify that I am the City Clerk of the City of Flagstaff, County of Coconino, State of Arizona, and that the above Minutes are a true and correct summary of the Meeting of the Council of the City of Flagstaff held on December 11, 2018. I further certify that the Meeting was duly called and held and that a quorum was present.

DATED this 27th day of August, 2019.

_____
CITY CLERK

CITY COUNCIL/BOARD OF SUPERVISORS/
NORTHERN ARIZONA UNIVERSITY
JOINT WORK SESSION
MONDAY, APRIL 1, 2019
COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
4:00 P.M.

MINUTES

1. Call to Order

Mayor Evans called the Joint City/County/NAU Work Session of April 1, 2019, to order at 4:03 p.m.

2. Pledge of Allegiance and Mission Statement

Councilmember Salas led the Council and audience in the Pledge of Allegiance and Councilmember Odegaard read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

3. Roll Call:

NOTE: One or more Councilmembers/Supervisors may be in attendance telephonically or by other technological means.

PRESENT: ABSENT:

CHAIRMAN BABBOT
VICE CHAIRWOMAN FOWLER
SUPERVISOR ARCHULETA
SUPERVISOR PARKS (arrived at 4:12 p.m.)
SUPERVISOR RYAN (arrived at 4:21 p.m.)

MAYOR EVANS
VICE MAYOR SHIMONI
COUNCILMEMBER ASLAN
COUNCILMEMBER MCCARTHY
COUNCILMEMBER SALAS
COUNCILMEMBER WHELAN

PRESIDENT CHENG

Others present: City Manager Barbara Goodrich, City Attorney Sterling Solomon, County Manager James Jayne

4. Public Participation:

Public Participation enables the public to address the Council about an items that are not on the agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment on an item that is on the agenda is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone an opportunity to speak.

None.

Chairman Babbott asked to take a moment to reflect on the Flagstaff community because of recent events. He worked in conjunction with Mayor Evans to create a list of Flagstaff values. Mayor Evans and Chairman Babbott gave a summary of their thoughts on what Flagstaff's values are and led the meeting in a moment of reflection and silence at 4:08 pm.

5. Update on 2020 Census efforts of the Coconino County-Flagstaff Census team

Director of Special Initiatives and the Census Coordinator for Coconino County Kim Musselman led a presentation on the 2020 Census with City of Flagstaff Comprehensive Planning Manager and Census Coordinator Sara Dechter and Associate Director of NAU School of Communication Jerry Thull. She started the presentation by highlighting the census timeline. April 1st is the National Census Day of Action. Various partners have joined to advertise the National Day of Action via social media. The Census bureau's tagline is "Shape your Future." Census job recruitment has started and has received 200 applications for early operations positions. There will be 1,400 total positions for the complete rollout.

The citizenship question will be heard by the US Supreme Court on April 23, 2019. The Flagstaff office should open late July/early August in the old Walgreen's building.

The County received the Participant Statistical Areas Program (PSAP) data at the end of January. The County is the entity responsible for providing the PSAP data back to the Census Bureau. The PSAP data is where track boundaries, block groups, and other special designated places are determined. Many groups are looking at the data to make suggestions for changes and for accuracy. Letters were sent from the County to all towns and municipalities inviting them to participate. The information received from them will be entered into the software system in the next month and forwarded to the Census department in May. The City of Flagstaff has already submitted their data.

Councilmember Whelan asked Ms. Musselman to explain tracks. Ms. Musselman explained that every area in Coconino County is divided into tracks based off populations and physical location. The tricky part is that tracks need to follow geography so geographic information systems are very important in the process.

Ms. Musselman continued the presentation and gave an update on the Census Oversight Committee. The Committee meets quarterly and accounts for the resources that are used for the Census. The first meeting was in February 2019 and determined that the committee will review events and purchases greater than $2,500. They held interviews for a part-time Volunteer and Event Coordinator and have approved hiring a public relations and media firm.

They also approved submitting quarterly spending reports from the City and County so the oversight committee can review.

Ms. Dechter assumed the presentation. She stated that there was a press briefing broadcasted on YouTube. She reminded the group that there are two components to the census: education and outreach. There are currently five subcommittees with the NAU and the Media and Outreach subcommittees currently operating, and the K-12 Education Network, the Non-governmental organizations, and Employers and Businesses subcommittees starting in Summer and Fall 2019. In testing, it was found that 52.3% of people filled out the census form without any advertising or prompting. Without any efforts, it is reasonable to expect a 50% return on the census. The goals of the subcommittees are to target hard-to-reach populations.

Ms. Dechter spoke about media and outreach and stated that the *Arizona Daily Sun* has started working on a series of census-related articles and a Census jobs social media campaign has had good organic reach. The committee is discussing radio outreach as well.

Councilmember Aslan asked if there is a strategy in outreach regarding the undocumented community and the sensitivity surrounding it. Ms. Dechter replied that there is a network of social service groups, faith-based groups, and social outreach groups that work with undocumented communities in general. They are holding off on messaging until the Supreme Court decision, but they hope to know more in early to mid-May. Social science research shows that there is a 20% less chance that Hispanic households will reply. Councilmember Aslan replied that 20% sounds like a huge potential impact.

Vice Mayor Shimoni offered that students are not using Facebook as much anymore and recommended that staff use other social media avenues.

Mr. Thull stated that he is teaching two sections of the capstone class working on the communication efforts for the Census. NAU students are counted as residents of Flagstaff for the Census. The students are working on their outreach presentations for a May 3, 2019 presentation at Coconino County. Their findings show that students are not sure what the Census is, that awareness of the Census is low, and that the mailer delivery is problematic since students do not check their physical mail often. The mailer is addressed to “head of household” which causes uncertainty about who the mailer is addressed to and the questions in the Census are difficult for student households to answer. The capstone project also found that students prefer to be counted at home and do not realize that they should be counted as Flagstaff residents. However, there were some positives found; students thought the most important issues that the Census addresses were equitable funding for social welfare and education funding. They also felt strongly about representation in the House of Representatives.

As far as communication to students was concerned, face-to-face communication was found to be the most important outreach method with Instagram and Twitter being the best for social media. Snapchat was found to not be the best avenue.

President Cheng thanked NAU staff and Mr. Thull for the work.

Supervisor Archuleta and Councilmember Whelan read a proclamation regarding the National Census Day of Action.

6. Update on Forest Health initiatives (Greater Flagstaff area).

Wildland Fire Management Officer Paul Summerfelt gave an update on Forest Health, focusing on resilient forest and community protection activities that the three entities are working cooperatively on. Mr. Summerfelt explained that he would cover the Flagstaff Water Initiative Program and that Forest Restoration Director for Coconino County Jay Smith, Greater Flagstaff Forest Partnerships Coordinator Anne Mottek, and NAU ERI Profession Dr. Han Sup Han would also present.

The Flagstaff Watershed Protection Project was approved by Flagstaff voters in 2012 and is an investment in the future. The City has treated and thinned about 89% of the 2,150 acres identified for thinning. The State has completed 100% of the 1,035 acres identified, but there are 200 acres that have just been identified and the State will work on this area in the next ten days. The Navajo Nation owns a piece in the Dry Lake Hills. Work is ongoing and is about 42% complete. Work should be completed this summer. The federal land has three phases. Phase I, around the base of Mt. Elden, has been completed. Phase II, which is steep, is about 40% complete and work will continue throughout the summer. Another 1,400 acres will be addressed with stewardship contracts. Phase III, which incorporates 2,600 acres, will begin soon.

The work requires helicopter logging with heavy equipment and takes a lot of outreach. Hand crews from the Arizona Conservation Experience, the Arizona Conservation Corps, and the City are working hard.

The Climate Adaptation and Action Plan identified forest health as a large component of the plan and it will be incorporated into the forest health projects.

Mr. Summerfelt added that there are unique messaging opportunities at the present time. The first is that Supervisor Babbott is one of the co-chairs for the Four Forest Restoration Initiative. The second is with the Arizona Corporation Commission which is setting the regulations for using biomass for electricity.

Mr. Smith assumed the presentation and spoke about the Coconino County Industry Partnership and trying to find a vendor for the waste-wood due to multiple no-bids in 2018. The companies are unable to transport the cuttings after they are done so they are not able to bid. The partnership is discussing the reasons for the lack of bids. They met with Congressman O'Halleran to discuss ways to improve and increase the forest industry in Coconino County. Good Earth Power AZ/New Life Forest Products has new investors and have begun installation of a new mill in the Williams area. Joe Dirt Excavating has also begun the installation of a mill in the Williams area.

Vice Mayor Shimoni asked if there were any examples of other communities who have encountered issues with disposing of waste-wood. Mr. Smith stated that there are other counties who have the same issue and believes that the solution may be a subsidy, but they need to find a creative solution rather than a subsidy to get rid of the low-value product.

Mr. Smith introduced Ms. Mottek, Greater Flagstaff Forest Partnerships (GFFP) Coordinator, and she discussed the 2019 Wildfire Mitigation Award that the GFFP received at the Wildland-Urban Interface Conferences and the accomplishments that lead to the award. GFFP was established in 1996 and is one of the longest standing partnerships in the country. Ms. Mottek asked all GFFP members, past and present, to stand and be recognized.

Dr. Han presented on forest operations and biomass. He discussed the issues with leaving biomass in the forest. He also discussed the lack of markets for wood in western Arizona and some potential pilot projects for exporting wood chips to South Korea working with JA International, LLC. He stated that there are ideas and studies on processing the biomass in Flagstaff to increase the sale value. NAU ERI is working to develop and expand industry interest.

Councilmember Whelan asked why the development would be in Camp Navajo and should there be concern about particles with production, especially with astronomy. Dr. Han replied that Camp Navajo is being discussed because of the proximity to railway infrastructure. Hauling with trucks would be economically impractical. There is a lot of water at Camp Navajo and the location is conveniently located near the highway as well. The particulate matter would be mitigated by having it in a remote location and the observatory operation is being considered.

President Cheng commended the ERI staff and spoke about the collaboration.

Vice Mayor Shimoni inquired about the pilot program with the South Korean company and if they had done this program with other areas. Dr. Han stated that the company has worked with Georgia, Florida, and California. The cost is much less with Georgia and Florida than California due to shipping differences.

7. Discussion of Facility Planning and Organizational Updates.

Public Works Director Andy Bertelsen started the presentation and gave an overview of the City of Flagstaff's building inventory. He covered the construction efforts underway and discussed the airport expansion. He covered leasing partners and planning efforts. He mentioned the Veteran's Home that will be built on McMillian Mesa. He also mentioned that the sport fields opened today and that there is a lot of demand for space for youth sports activities.

Councilmember Aslan inquired about locations for the West Side Park that was mentioned in the presentation. Mr. Bertelsen stated that staff has identified some overflow from the Boulder Point Development, behind Staples.

Facilities Management Director for Coconino County Susan Brown gave a short overview of the County facility planning and the County's projects. She stated that they are very proud of the new medical examiner's facility and that there will be an open house on April 30, 2019.

Vice President for Capital Planning and Campus Operations at NAU Dan Okoli gave an overview of projects NAU is working on with NAIPTA. They are partnering to make the connection coming from Beluah into campus safer, to create connection sidewalks on McConnell Drive, and to build a new transit station. NAU worked with NAIPTA to find funding for the project through an FTA grant. He also discussed the partnership with NAIPTA to do a study to add an additional fourth entrance to NAU at the intersection of Milton Road and Arizona State Route 66.

Councilmember Whelan inquired about the potential traffic impact of the development of a new entrance at Route 66 and Milton. Mr. Okoli stated that he believes that the new entrance would improve traffic in the area and he is working with a consultant on traffic flow, potentially incorporating a traffic signal. They are exploring if the entrance will be a limited entry or

restricted entry. The impact analysis will allow for recommendations. The consultant is also exploring closing some of the access points that exit onto Milton.

The other projects Mr. Okoli spoke about are to examine the utilization and appropriateness of spaces for current and desired methods of teaching, research learning, and student life; identify programmatic needs to support the university's mission; and developing a set of recommendations to improve and enhance spaces to meet programmatic needs and overarching goals. This allows for NAU to be good stewards and partners. There is a renovation of the third and fourth floors on the Science Annex Building to convert them into offices. They are selecting consultants for the STEM Building to be occupied in 2023. The Student Athlete High Performance building has had a consultant picked and that building will be completed in 2021.

Vice Mayor Shimoni mentioned that he was looking forward to the progress.

8. Transportation discussion including; City's 5 Year Plan highlights; Multi-Modal coordination; NAIPTA coordination; County coordination and; NAU coordination.

City Engineer Rick Barrett presented on the following topics: the Climate Action and Adaptation Plan; the City Transportation Commission; the City's Five-Year Plan including the Lone Tree overpass and the Mill Town project that extends Beulah Boulevard; the Multi-Model project; the Master Plan regarding the missing sidewalk connections; dedicated bike pedways off roadway; updates on the Arizona Department of Transportation; Flagstaff Metropolitan Planning Organization; the Lone Tree Traffic Interchange, NAU project highlights; FUSD projects; and BNSF Railway.

CEO and General Manager of NAIPTA Erika Mazza highlighted the successes of Mountain Line and future partnership opportunities. She highlighted an award from Arizona Department of Transportation on the Highway 180 implementation plan partnership. Ms. Mazza added that the Census data could allow for additional funding for NAIPTA.

President Cheng left the meeting at 6:02 pm.

Coconino County Deputy County Manager and Public Works Director Lucinda Andreani highlighted the projects that the County has completed. They were able to leverage funds due to Proposition 403 on the Lake Mary Road corridor, which has become an international destination for recreation. She also covered upcoming projects. Ms. Andreani addressed the future plans of the County regarding transportation including working with consultants, equipment replacement, and future employment growth and culture.

Vice Mayor Shimoni addressed the widening of roads and how that is beneficial to the community.

Councilmember Aslan inquired about a pedestrian bridge or underpass to connect the Lake Mary area to campus. He feels that is an area that has a need for an alternative transportation route to allow for safety. Mr. Barrett responded that staff will look into that area.

Councilmember Whelan addressed the sidewalk connections and asked about the funding of those sidewalks. Mr. Barrett stated that sidewalk segments will be prioritized and the ability to expense them with other projects will be investigated. That program has not been built yet and the information will be available in the future. Proposition 419 starts in July.

Councilmember McCarthy inquired about the improvements to the Amtrack station and if that would impact the length of time the train stops and closes intersections. Mr. Barrett stated that it would not greatly impact the length of stay because of the way the station is built and the fact that the station is used for freight and passengers.

Supervisor Ryan addressed the improvements with transportation in the area and how investment has greatly improved transportation in the area.

Chairman Babbott inquired about the Lone Tree Traffic Interchange. Mr. Barrett stated that it is the same DCR which was never completed. It was an $84 million-dollar price tag and the map presented is too small to see in detail. Mr. Barrett would be happy to bring this forward in the future. There is considerable work dedicated to I-40 in that cost estimate that is not included in the traffic interchange.

9. Public Participation

This item was taken out of order.

This item was moved to 5:36 pm so that President Cheng could leave the meeting at 6:00 pm due to a conflicting meeting.

President Cheng presented the Mayor and the County Supervisor Chair a new Northern Arizona University flag. She also distributed a flyer regarding parking, transportation, and growth. She addressed the growth at NAU and spoke about the drive of Arizona to have 60% of residents obtain a college degree. President Cheng stated that 12,000 NAU alumni live in the Flagstaff region.

10. Informational Items To/From Chairman, Supervisors and County Manager/Mayor, Council and City Manager/NAU President

Councilmember Salas shared that she traveled to Washington D.C. with Mayor Evans, Councilmember Whelan, City Manager Goodrich, and Deputy City Manager Dille. She spoke about the requests the City made.

Supervisor Parks stated that he traveled to Washington D.C. as well and that they had productive sessions with the representatives. He was also able to go to the White House and stated that Chair Babbott was very influential with the congressional representatives.

Councilmember Odegaard shared his gratitude for having all participants at the meeting and thanked the partners for being in attendance.

Supervisor Fowler thanked NAU and stated that they recently completed a study on the North Rim regarding opening and closing dates and the economic impact. It was found that if the North Rim was open one month longer there would be a positive economic impact of $14 million dollars. Supervisor Fowler's district does not touch Flagstaff and it is the only one that does not.

Supervisor Ryan stated that he looks forward to working with the City Council and welcomed the new Councilmembers.

Councilmember McCarthy gave his thanks for the consideration given at the meeting.

Supervisor Archuleta expressed her gratitude and stated that the agenda was meaningful to her. She also welcomed the new Councilmembers and recognized President Cheng and thanked her for her visibility and her communication. She stated that she is excited about the Milton Road study.

Vice Mayor Shimoni also expressed his gratitude to all the participants and organizers of the meeting. He stated that he feels that everyone works best when working together.

City Manager Goodrich also expressed her gratitude and spoke about the meeting with Congressman Stanton in Washington D.C. where he spoke about how when dealing with all the background noise, you will miss the great things happening around us. Ms. Goodrich stated that meetings like these allow for the discussion of the great projects happening in the Flagstaff area.

Dr. Okoli expressed his gratitude and stated that NAU is proud to be a part of the partnerships.

County Manager Jimmy Jayne stated his thanks.

Chairman Babbott thanked Flagstaff City Economic Vitality Director Heidi Hansen and past Economic Vitality Director Stacey Button for the success with the new airline. He also addressed the work done on Mental Health First Aid and suicide in the community. He updated the group on the Ft. Tuthill Water Corridor challenges.

Mayor Evans thanked the County Supervisors and President Cheng for attending the meeting and the staff from all three organizations.

11. Adjournment

The Flagstaff City Council, Coconino County Board of Supervisors, and Northern Arizona University Joint Work Session of April 1, 2019, adjourned at 6:33 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

CITY COUNCIL WORK SESSION
TUESDAY, MARCH 12, 2019
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN
6:00 P.M.

MINUTES

1. Call to Order

Mayor Evans called the Work Session of March 12, 2019, to order at 6:02 p.m.

NOTICE OF OPTION TO RECESS INTO EXECUTIVE SESSION

Pursuant to A.R.S. §38-431.02, notice is hereby given to the members of the City Council and to the general public that, at this work session, the City Council may vote to go into executive session, which will not be open to the public, for legal advice and discussion with the City's attorneys for legal advice on any item listed on the following agenda, pursuant to A.R.S. §38-431.03(A)(3).

2. Pledge of Allegiance and Mission Statement

The Council and audience recited the Pledge of Allegiance and Councilmember Salas read the Mission Statement of the City of Flagstaff.

MISSION STATEMENT

The mission of the City of Flagstaff is to protect and enhance the quality of life for all.

3. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	
VICE MAYOR SHIMONI (via phone)	
COUNCILMEMBER ASLAN	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER SALAS	
COUNCILMEMBER WHELAN	

4. Public Participation

Public Participation enables the public to address the council about items that are not on the prepared agenda. Public Participation appears on the agenda twice, at the beginning and at the end of the work session. You may speak at one or the other, but not both. Anyone wishing to comment at the meeting is asked to fill out a speaker card and submit it to the recording clerk. When the item comes up on the agenda, your name will be called. You may address the

Council up to three times throughout the meeting, including comments made during Public Participation. Please limit your remarks to three minutes per item to allow everyone to have an opportunity to speak. At the discretion of the Chair, ten or more persons present at the meeting and wishing to speak may appoint a representative who may have no more than fifteen minutes to speak.

The following individuals addressed the Council regarding the appeal of the proposed cell phone tower near Fourth Street:

- Juliana Suby
- Ginger Van Divier
- Brooks Hart

All speakers were against the development of a cell phone tower in the area and comments included that the application for the development of the tower was incorrectly done and weak, that there was no need for a cell phone tower in that area, that the tower would be unsightly and lower property values, that the project puts the surrounding neighborhoods at risk due to three high-pressured gas pipelines, that areas where cell phone usage is higher were being ignored, and that the City should use a third party vendor to evaluate telecommunication needs.

5. Review of Draft Agenda for the March 19, 2019 City Council Meeting

Citizens wishing to speak on agenda items not specifically called out by the City Council may submit a speaker card for their items of interest to the recording clerk.

Councilmember Odegaard requested that a representative from Beta Public Relations be at the March 19, 2019 Regular Council meeting for questions.

6. Public Participation

Item taken out of order.

Ericka Mazza, CEO of NAIPTA, thanked the Council and the City for their participation in the cleanup of the epic snow storm and stated that she appreciates the partnership between NAITPA and the City of Flagstaff.

Steve Finch, representing Flagstaff Lodging, Restaurant & Tourism Association, mentioned that there will be a Flagstaff Business Workshop at the Museum of Northern Arizona. The workshop is open to non-profits, businesses, and CEOs on how to stay successful. He invited Council to the event.

7. Affordable housing overview selected current project updates and presentation on public housing development/redevelopment tools. Additionally, an overview of city-owned property with development potential was included.

Housing Director Sarah Darr and Real Estate Manager Charity Lee presented to Council a presentation on housing. Council asked for clarification on affordable housing in a budget retreat. The three items covered were Affordable Housing, updates on on-going issues, and next steps.

During the presentation, Ms. Darr discussed what affordable housing is, covered housing related expenses which include utilities, HOA fees, insurance, and more, defined that annual income is based on gross income rather than net income, and stated that there is not a

community in our country that has solved their affordable housing issue. She also informed Council that formally designated affordable housing is subject to a two-prong test where a subsidy or investment of some type exists. Informal subsidies, such as getting help with a down payment from parents or a “personal” break on rent, exist as well.

Ms. Darr also gave an overview of the Basic Housing Continuum. Ms. Darr presented a graph that shows how people can move up or down in the continuum and people do not necessarily go through every step. In the Flagstaff area, all the steps in the continuum do not necessarily connect. HUD uses Area Median Income (AMI) as their eligibility limit. The limit is generally 80% AMI. In the Flagstaff community, if a family of four makes less than $56,000 they are considered low-income as Flagstaff is considered a high cost exception area.

Ms. Darr discussed why efforts are focused on low-income households and how funding is more often targeted for low-income housing. Rental programs are even more often focused on lower-income households and households are eligible for assistance with a 60% AMI, which is $42,000 for a four-person household. College students are not typically eligible because they are usually dependents of their parents. If they are not a dependent, they may be eligible for rental assistance. The largest demand of rentals is for one and two bedroom units, and the need is increasing with the aging population.

Ownership programs are often focused on first-time homeowners. Demand tools, like down payment assistance and mortgage assistance, are typically less expensive than addressing supply issues. Down payment assistance is less expensive to the organization because the money is a loan and is more cost effective than developing properties. That makes helping on the demand side more affordable than helping on the supply side.

Ms. Darr added that the Low Income Housing Tax Credit (LIHTC) is the largest affordable rental housing funding source and that it was started in the 1980s during the Reagan administration. It is an IRS program, not a HUD program, and the City of Flagstaff has partnered in multiple complexes using LIHTC. There are about 800 units currently. The minimum affordability time period is fifteen years, but the City typically requests that developers provide thirty years of affordability because of the community needs. All of the properties in Flagstaff are under thirty year periods.

Vice Mayor Shimoni inquired about the thirty-year requirement for affordable housing. He asked how the City is able to request that extended time period from developers rather than fifteen years. Ms. Darr stated that they are agreed upon in Development Agreements or additional restrictive covenants. Often developers are seeking re-zoning or financial benefits from the City, so there is leverage for the ask. Also, the state has started giving tax credits for thirty-year affordability time periods as well.

Councilmember Whelan asked how much money is in the down payment assistance fund. Ms. Darr stated it is about $160,000.

Ms. Darr continued the presentation and gave an update on projects. The first project covered was a request to assist residents displaced by mobile home park closures. The funding amount is $84,562. They received one response which is scheduled for review on May 7, 2019 by Council.

Ms. Darr also covered the public housing natural gas systems. The City owns and operates the natural gas systems in Siler and Brannen Homes. There were installation issues when the homes were built in the 1970s which caused the recent Siler Homes issue. When the Siler Homes issue arose, City staff were able to house the residents in hotels for five nights and the residents were happy with the City response. Currently, testing the gas lines at Brannen homes is delayed due to weather; it is not possible to test for natural gas leaks

when the ground is frozen or saturated. There have been no issues identified thus far. Housing staff will follow up with the Council on pricing for replacement and electric conversion. There is a large difference between fixing the gas lines and converting to electric. If the lines are replaced, UniSource will take over the utility. The electric conversion would cost at least $8,000 or $9,000 a unit.

Councilmember Aslan added that he found the Brannen Homes response a heart-warming story and that he is happy to see the prevention the staff is performing at the properties.

Councilmember McCarthy asked why gas is being phased out and replaced with electric. Ms. Darr stated that the conversion is a recommended element in the Citizen's Climate Action and Adaptation Plan. Councilmember McCarthy also stated that the Arizona Corporation Commission could require the use of thread protectors rather than thread seals to prevent leaks and encouraged someone to ask the Arizona Corporation Commission to regulate thread seals.

Councilmember Odegaard inquired about the City owning and operating the natural gas system and he asked if there was one master meter. Ms. Darr replied that there is one master meter at Siler Homes and two at Brannen Homes. There are individual meters at each unit, but it is not cost effective to measure them, so gas is included in rent for each of the units.

Ms. Darr continued the presentation by addressing that affordable housing developments are in progress on the scattered sites. Brinshore Development is the development partner and site plans will be brought to Council in the spring. Due to funding constraints, all units must be completed by December 2020. The units will be distributed as 19 units on West Street, 11 units on Isabel St., and 50 units on the Butler/Lone Tree site. The developer does not see an issue with achieving the given timeframe.

Ms. Darr gave an update on upcoming programs and addressed rental properties. She stated a Council goal is to support development and increase the inventory of public and private affordable housing for renters and homeowners throughout the community. Ms. Darr stated that staff recommends a long-term plan to achieve Council's goal in a more meaningful way and that prior planning and positioning is lining up with external funding opportunities. She added that the residents in the homes will be foremost in everyone's minds and that no one will lose their homes. Last November, Housing Staff received a letter from HUD that encouraged a different direction for some historical programs. Ms. Darr pointed out some highlights from the letter including that the capital needs of public housing inventory have outpaced Federal funding, and that a 2010 conservative estimate of capital backlog shows an almost $26 billion with annual growth of about $3.5 billion. In response, HUD has introduced the term "repositioning public housing." The letter also discussed providing public housing authorities, like the City of Flagstaff, with additional flexibilities, allowing communities to develop locally appropriate strategies to preserve affordable housing and the HUD goal of repositioning 105,000 public housing units by the end of September 2019.

All public housing in Flagstaff and associated property is owned by the City of Flagstaff. These properties are restricted by Declarations of Trust that limit their use to affordable housing. They were built by HUD funding and are limited in use by HUD. Ms. Darr stated that part of the letter's goal is "to make sure you and your staff are aware of the repositioning strategies available and to provide technical assistance where needed… [HUD is looking forward] to helping facilitate locally-driven solutions to your unique set of challenges and opportunities."

Repositioning is a way to address the backlogged capital needs by utilizing existing equity

and the option to partner with the private market. Privatization is only one piece and can result in redevelopment or rehabilitation of the units or can be a financial conversion. Staff believes hat there is an opportunity to address local priorities, Council goals, and to create more units through public and private partnerships. HUD has recognized that the financial structure of public housing nationwide is unsustainable in the long-term. HUD did a financial analysis of the City's program and it is financially stable for now. HUD is encouraging the City to transition public housing to a different financial platform. Industry belief is that at some point options will become requirements, so staff recommends implementing now while there is some flexibility.

This does not mean that housing units will go away, and public housing residents are not losing their homes. This is a financial conversation, but there is no additional money from HUD.

The Rental Assistance Demonstration (RAD) program was established in 2011 to help convert at-risk public housing properties to project-based vouchers or rental assistance contracts under the financial format of the Section 8 program where the subsidy stays with the unit. This would be a voluntary conversion and would allow more flexibility for the City to plan better and ease reliance on HUD funding. It would allow for a 10-year stability period since the amount of money from RAD rents could be more accurately projected. This would allow the City the opportunity to stabilize under a different federal funding source, increase the number of affordable rentals, leverage private investment, and tailor development to meet local needs. In the past, Housing Authorities have not been able to access the equity in their land. With this, the housing units move to a different federal financial platform which is more flexible and permanently affordable. RAD is cost-neutral and does not increase HUD's budget. The public housing program is limited by congressional appropriations and statutory restrictions. Other rental programs like Section 8 are more flexible. The Section 8 program is financially designed to work alongside other public and private financing tools. This change would convert the City, under regulation, from public housing to Section 8 project based. HUD repositioning tools are intended to be used with private ones.

To convert, the City needs to identify a "co-developer" partner through a competitive request for statement of qualifications and anticipate payment through any developer fees associated with the developments. The City can structure the contract in a way to withdraw from it easily. This model with a co-developer has been successfully utilized in Arizona and nationwide. The City of Maricopa no longer has public housing developments with this model, yet they still have a successful low-income housing program. Housing staff has attended multiple conferences to discuss and learn about this process. They learned that the City of Flagstaff has a lot of opportunity in this way. Yuma, however, decided that they did not want to do this process after starting it and were able to stop their progress. Ms. Darr also shared a slide on RAD Public Housing Conversions nationwide to demonstrate the number of public housing units that have been touched by the conversion.

The conversion would take four to eight years because it involves local, state, and federal administrative processes and development process. Things should be done in this time; it will not take that long to start. It is also a long timeframe because this process involves people and their homes.

Ms. Darr spoke to an engineer on what he wishes housing authorities did at the beginning of the process. She was told that they wish that residents were involved earlier for resident education and that it would help to see what residents want to see from their community and what is important to them. Not having the involvement early slowed the process down.

RAD's process is for the Public Housing Agency (PHA) to submit a letter of interest and then to be placed on a waiting list. It could take a year for HUD to review the City's application if

submitted because HUD is currently reviewing letters of interest from 2017. HUD notifies the PHA when they have been selected for review and the PHA then has 60 days to submit a full application. They would then issue initial approval, known as a “Commitment to enter into a Housing Assistance Plan” and would be about two years out. The RAD rents are determined

and locked in at this time since the PHA finalizes the details of financing and unit conversion. HUD then issues the RAD conversion commitment and closing/conversion takes place.

The Letter of Interest would be written by the City and would reserve a spot on HUD’s waiting list. It identifies projects and units for which there is interest in applying and it is non-binding with few details. Again, HUD is currently reviewing Letters of Interest submitted in 2017. The City’s program is rated as a High Performer by HUD, the City ranks high, and the PHA does not “need to be saved” so there is a strong negotiating point to finding a co-developer. The priorities of the PHA are: current and future residents, to increase the number of rental units to reach Council’s goal, retain ownership of land and to keep the reversionary clause at a minimum, and retain the property management team. Ms. Darr stated that the unknowns at this time are the specific dates, the specific unit numbers, the specific locations, the AMI served, the funding sources, and the potential leverage. All of these would be figured out as part of the process since this would be only the beginning of the process.

Ms. Darr displayed a map of City-owned parcels starting with Brannen Homes. She stated that the property could be expanded with more homes and the current units at the site were built in the 50s and 60s in multiple phases. She spoke about Siler Homes where there are 100 units in 74 buildings with a recreation center. The site covers 20 acres. The Lockett and Fanning parcel is contiguous to Siler Homes and it makes sense to utilize that parcel for relocation or to develop it in another way.

There are 38 scattered units throughout the community that Ms. Darr shared. Some are single family homes, some are townhomes, some are duplexes, and some are triplexes that are used for transitional housing and each were reviewed to categorize them in different ways, as open space, parks, public housing, etc.

Real Estate Manager Charity Lee took over the presentation and gave an overview of sites with potential for development. Ms. Lee discussed the history of the properties. The City owns over 600 parcels.

The parcels were reviewed to see how they were purchased and evaluated to see if they could be used for housing. Many of the properties were purchased for specific use with restricted funds. The first parcel discussed was the Schultz Pass Meadow parcel. The land was purchased in 2006 and it is a 3-acre, medium density-zoned parcel that was bought with housing funds for $140,000 with additional money used for infrastructure for a total of $400,000 spent on the parcel. A concept plan was provided.

The next area discussed was two parcels acquired for the Cheshire Park and FUTS expansion purchased with over $800,000 of BBB funds. Ms. Lee shared the park plan and stated that the property is identified in the Parks Master Plan. Ms. Lee stated that if the City wants to do something different with the parcels purchased with restricted funds, those funds would need to be repaid.

Ms. Lee covered the parcel at 1000 N. Thorpe Road. It is zoned for public facility and is over nine acres. The property was acquired in 1917 from the Clark family. The southern portion of the site is used as a multi-use field and the west is adjacent to Clark Homes. This site is restricted for park use. In 2014 the northern portion of the site was identified to be available for affordable housing by resolution. The parcel is impacted by a grant fund from 1988 for development of Thorpe which affects the eastern portion of the property.

The parcels at 215 S. O'Leary St. and 217 S. O'Leary St. were acquired with HURF funds when the City did a Butler and Lone Tree improvement project. The zoning is High Density Residential. and combined they would make a 6500 sq. ft. parcel.

The 1.2 acre parcel at 900 S. O'Leary was reviewed. There is no deed restriction, but HURF funds were used for the purchase. A concept plan was displayed for a garden and housing.

A parcel off JW Powell Boulevard, nicknamed the shark bite, was reviewed. The City received this property in a development agreement and the 26 acre parcel is zoned manufactured housing. It would require substantial infrastructure development.

The 2989 E. Butler Ave. parcel was purchased in the 1970s for a Butler Avenue extension. Real Estate proceeds money was used so there are restrictions. There is a roundabout planned for this parcel.

Ms. Lee also reviewed the triangle parcel at Cedar Avenue and West Street which is two parcels that adds up to about 4.5 acres. This area was not set aside for open space, even though there is a monument there, and is not formally designated as open space. The small parcel next to it was also acquired with HURF funds and it would be a recommendation to combine the two lots.

Councilmember Whelan inquired about the triangle parcel. She asked about the property across the street near Linda Vista Drive and if it is open space or a part of Buffalo Park. Ms. Lee stated that the land there is not reserved for open space and was acquired from Federal land.

The parcel at Fanning and Lockett was purchased in 2018 year with Affordable Housing funds and is a little over 2 acres.

The Christiansen parcel off East El Paso Drive is about 10 acres and was part of the Coconino National Forest that the City received in the 70s. Part of the challenges surrounding this area is access and it is identified in the Park's Master Plan. The property would need to be accessed through National Park Service property.

Mayor Evans asked about a piece of property between the shopping center and the Museum Club east of Lower Greenlaw that she believes is a remnant. Ms. Darr stated that the piece of property is privately owned by the shopping center or the Museum Club and it has some informal trails that go to Bushmaster Park. Mayor Evans would like to see that property incorporated into Siler Homes or Lower Greenlaw. Ms. Darr stated that there is a storm water conveyance on the parcel and the connection would need to be through Bushmaster Park. The City has never been in the position to discuss the parcel. Mayor Evans would like that to be a conversation the City has in the future.

Ms. Darr continued the presentation and thanked GIS for their assistance. She requested direction from Council, but not on properties at this time. There are several projects that will be applying for tax credits and, keeping that in mind, staff would like to do a multi-year plan to realize Council goals in a bigger way. They would like direction to submit a letter of intent and issue a request for statement of qualifications to identify a co-developer.

Mayor Evans asked to address public comment before Council gave direction.

Public Speakers:

Devonna McLaughlin, the CEO of Housing Solutions of Northern Arizona, encouraged the

Council's support of a concrete plan. She encouraged Council to direct staff to put out a RSOQ immediately and to move forward with the creation of a housing commission to create a housing plan. She requested that the City and Council focus on housing and prioritize it.

Councilmember Odegaard asked if Ms. McLaughlin would recommend the letter of intent to HUD. She would.

John Viktora stated that the presentation that there is a 15 acre piece of land off Woody Mountain Road that is designated for resource preservation, which is non-buildable. He asked how many acres of non-buildable land is around town. He asked what that does to the price of land and stated that he is concerned about that designation. He stated he is troubled by the need for housing that Flagstaff has had for decades.

Ross Altenbaugh, the Executive Director of Flagstaff Shelter Services, stated that they support the direction Housing staff has put forward.

Deborah Harris added that people are struggling to get into homes in the community and spoke about the types of people who need housing. She discussed the decisions that were made while she was the Board President of FUSD and asked Council to consider the people in the whole community. She stated that affordable housing should be spread out throughout the whole community rather than one place. Transportation can be developed that will allow for affordable housing anyplace in the community.

Mayor Evans called for a five-minute break and called the meeting back to order at 8:23 pm.

Rick Lopez added a public comment as well in support of the housing direction. He stated that the community needs to move forward with something. He added that it has been policy to not cluster affordable housing in one location. He addressed the Public Works yard parcel. The public voted to sell the parcel to a developer to offset the cost of the new Public Works yard. He stated that the decision to not sell the property as requested by the neighborhood does not benefit the rest of the community. He asked for Council to be transparent on how they will pay for the new Public Works yard.

Councilmember McCarthy asked Ms. Darr about the new paradigm on how HUD wants affordable housing defined. He asked if Council could approach the decision once the program is more fleshed out. Ms. Darr stated that Council could and that the decisions to convert to the new tool can always be changed. Councilmember McCarthy is supportive of moving forward with the exploration.

Vice Mayor Shimoni asked if the City maintains ownership of the property in this program. Ms. Darr stated that it is one of the options. The property could also be transferred to the developer on a temporary basis with a revisionary clause. The recommendation of staff at this point is to maintain ownership and local control, but that could change. The RAD program ensures that the public asset remains a public asset long-term.

Vice Mayor Shimoni also asked if the City would lose control of the 30%-of-income cap for rent control. Ms. Darr explained that rent control is not a term used with Public Housing and households would pay an income range for affordability. The rents are determined affordable by HUD for a 60% AMI. In all the cases she knows of, the rents remained affordable under one mechanism or another. The City is in a position to leverage items like that.

Vice Mayor Shimoni asked about the period of time for relocation of residents and that HUD employees he has spoken to are concerned about the communication regarding relocation. He is in support of moving forward with the initial stages of the RAD. Ms. Darr gave an example of relocation for reassurance. Residents that are relocated have a right to return to

the units or elect to receive a tenant protect voucher to move to a different spot in assisted housing. Unit protections are required.

Councilmember Odegaard stated he is glad to see this presentation and he is supportive of moving forward.

Councilmember Salas stated that she is happy to see a leveraging of the properties the City has and is supportive of moving forward with the letter and the RSOQ.

Councilmember Whelan stated that she is supportive as well, but that the timeframe is concerning, and a plan needs to be established. She understands that the City has added more open space in the last four to six years than it has in decades. She stated that affordable housing is a matter of the community's wellbeing.

Councilmember Aslan offered his support to move forward as well.

Councilmember Whelan shared that Mayor Evans had brought up placing signs on parcels bought for affordable housing previously. She would like to see this done.

Mayor Evans stated that she is also supportive of moving forward. She asked what a multi-year plan means and stated that the old plans did not take into account the community changes and pushback. She stated that she is interested in how the housing plan is executed. Desirable locations for affordable housing keep changing and that worries her. She also asked what the new model looks like. She shared that having a yard in Siler Homes helped give her family some "normalcy." She would like to see a diversity of housing developed.

Ms. Darr addressed her concerns stating that here is a housing plan, but there has never been an opportunity to attach concrete funding to the plan in a meaningful way. However, this is different with the RAD program and the co-developer. As far as gentrification, it may happen around the area, but that there is affordable housing in desirable locations and there always will be. There is a need to involve residents and the Housing Department will work with residents to help figure out if there will be multiple housing types on one site. This is the opportunity to access housing types that were not accessible by law in the past. She stated that the Housing Department will be back in front of council multiple times. The four to eight year time frame is for completion of the whole process, not for the planning process. Mayor Evans also asked about the AMI served and stated that it needs to cover, at the bare minimum, the current AMI served. Ms. Darr stated that covering the minimum AMI currently served is guaranteed and that she would like to see a mixed-rate community.

Ms. Darr shared the final slide of the presentation which was an update of upcoming issues that the Housing Staff is working on currently.

Mayor Evans asked when the conversation with the individuals who live in public housing will start. Ms. Darr stated that they have started planting the seeds of the discussions. At a public meeting in April, staff will meet with residents and talk to them about it. There is also a rumor that NAU is buying Brannen Homes that is not true. There is a newsletter that goes out to every household that will be utilized as well.

8. **FUTURE AGENDA ITEM REQUESTS**

After discussion and upon agreement by three members of the Council, an item will be moved to a regularly-scheduled Council meeting.

A. **Future Agenda Item Request (F.A.I.R.):** A request by Mayor Evans to place on a future agenda a discussion about a plan on how to move forward with the development of affordable housing on the Shultz Pass Parcel (the triangle at Shultz Pass Road at Hwy 180) including the discussion of a $500K general obligation bond ballot question or something similar for repayment of affordable housing monies allocated/spent on Shultz Pass Property in a future election.

Mayor Evans stated that this is a FAIR request and that she brought forward and stated that the discussion regarding this parcel was not finalized in previous meetings.

The public speakers against development of the Schultz Pass parcel were Sallie Page, Joe Shannon, Mary Williams, and Joan Martini.

Comments against the development of the parcel included:

- Traffic is an issue on the 180 corridor.
- Development of the Schultz parcel should be put on the back burner until the traffic is mitigated.
- The old City Yard should be kept as a park.
- The timeliness of the issue since the parcel has sat since 2007.
- There are questions regarding the utilities.
- Double taxation regarding the payback for the parcel.
- Open space is always up for grabs.
- That this is a no-win situation.
- The PAC, Save Schultz Meadow, has been established and a petition has started circulating to put an initiative on the ballot to make this parcel open space.
- The love of the view of the field.
- There are better choices.
- Let the citizens make the decision.
- Worth every penny to preserve the view.

Emily Melhorn spoke in support of the development of the Schultz Pass parcel and her comments included:

- People who support the creation of open space waited 12 years after the purchase of the parcel to start an initiative to make the parcel open space.
- The parcel is a good location for affordable housing.
- Designating the land as open space is costly to the City .
- The property behind the parcel is privately owned and will one day be developed.

It was also noted that the GIS public portal does not designate the City owned land well.

Mayor Evans pointed out that many established neighborhoods did not exist when she was a child and that they were open space. She would like Council to be mindful that as the City grows, there needs to be more growth. She reminded Council that the other parcels that staff presented will also pose a fight.

Mayor Evans reviewed the minutes of July 7, 2017. There was a conversation of why the City of Flagstaff could not designate the parcel as open space, how many houses could be developed on the property, and how the money spent on the parcel could be repaid. Mayor Evans changed her vote at that time to not hold up the RFP for the four remaining parcels with the understanding that the piece of property would be discussed in the future. At the following meeting, August 15, 2017, a citizen's petition was presented to preserve the parcel as open space. It was stated that there would be a citizen's initiative to designate the parcel as open space and that there were would be a fundraising element to pay back the affordable

housing fund. It was a consensus of Council to not move forward with the parcel at that time.

Councilmember Odegaard stated that he wanted to give the Citizen's Initiative at least six months. The citizens have just now compiled the paperwork rather than in 2017. Mayor Evans stated that she hopes that the citizens get the signatures and that this is not a delay. She also stated that she wants to address the $500,000 spent on the parcel and stated that if a general bond is put forward, the City then spends $1,000,000 on the land. She stated that she wants to have a conversation on if the City should try to recoup the cost.

Councilmember Whelan stated that if the initiative does not get enough signatures, the parcel needs to be made into affordable housing. The citizens have already paid for it once.

Mayor Evans clarified that if the initiative does not receive enough signatures by the deadline, she would like to move forward with affordable housing on the parcel. If there are enough signatures, she would like to discuss how to recoup the cost.

Councilmember McCarthy asked if the GIS map could be made more user friendly for the public. Ms. Darr replied that the intent of the map is to be posted on the City's website. It is not quite completed yet and it is a work in progress. Councilmember McCarthy asked if the properties discussed tonight could be added.

Vice Mayor Shimoni agreed and stated that he is in support of waiting to see if the initiative collects enough signatures before moving forward.

Mayor Evans stated that she would like to have Council move forward with affordable housing if the initiative does not collect enough signatures. She would also like for staff to look at options to recoup the cost of the parcel.

Councilmember McCarthy is not in favor of the FAIR item moving forward.

Councilmember Aslan is in support of Mayor Evans' request and wants to move forward and continue the conversation.

Councilmember Salas stated that there needs to be a balance between affordable housing and open space. She also wanted to ensure that the City recoups the $500,000 so that all taxpayer money is spent wisely.

City Manager Goodrich stated that there were three Councilmembers supportive of moving the conversation forward and information can be provided at the next vote on when the signatures for the initiative need to be collected by.

9. **Discussion/Direction:** Current Issues Before Arizona Legislature and Federal Issues.

Assistant to the City Manager, Cliff Bryson, addressed the Council to give an update on the legislature and federal issues. He highlighted:

- HB2109 County Transportation Excise Tax
- HB2536 Fuel; Electric Cars; Hybrids; Taxes

Councilmember Whelan stated that the nation is moving towards hybrid vehicles and that it is disspointing that the legislature in Arizona is not helping to motivate citizens to get into a hybrid or electric vehicle. She added that NACOG also approved the tax.

Mr. Bryson stated that he drafted a letter from Council to meet with the state delegates and that it was approved by the Councilmembers. The letter will be reviewed by the City Manager

and sent after her approval.

Mr. Bryson introduced Water Services Director Brad Hill who gave a presentation on the findings from the American Water Works Association. He asked Council if they were interested in the recommendation to meet with delegates and have Mr. Bryson and Mr. Hill join City Council in meetings where it makes sense.

Councilmember Whelan stated that she is interested in that proposal.

Councilmember Odegaard asked how many issues will be discussed. Mr. Hill replied that he has two issues to discuss and one that he can leave information about.

City Manager Goodrich recommended that Council continues to work with the City's Federal Lobbyist Bob Holmes since getting in five topics can be difficult. She asked for the latitude for staff to work with Mr. Holmes.

Mayor Evans replied that some meetings would make sense to bring up water topics while others would not. Councilmember McCarthy agreed with Mayor Evans.

Mr. Bryson stated that there is a new state lobbyist, Tom Madeska, for a four-month term.

Councilmember Salas offered a correction regarding the Tiger Grant and stated that it is now knows as BUILT: Better Utilizing Investments to Leverage Development.

10. Informational Items To/From Mayor, Council, and City Manager; future agenda item requests

Councilmember Salas attended the FMPO meeting as an alternate. She shared that FMPO should contact the City Manager regarding transportation to coordinate the legislative efforts.

Councilmember Odegaard shared that he had the pleasure of attending a dinner with the Israeli diplomat. He also thanked KAFF Country Radio Station for their broadcast of the Lady Lumberjack’s basketball team in the playoffs and congratulated the team.

Councilmember Aslan shared that he attended a presentation of the sea aquifer last night and he would like to see more events like that. He stated that he will not be at next week’s meeting.

Councilmember McCarthy stated that he was also at the FMPO meeting and that they will be rebranding the name of the organization. He added that NAIPTA is calling itself Mountain Line.

Vice Mayor Shimoni shared an idea he had regarding local DPS operators with communication with the State and how Council may help them get heard. He requested that this be a FAIR item. Councilmember Whelan asked if Council could have the City's state lobbyist Todd Madeksza investigate it and see if there is a better way than having it go through the FAIR process. Perhaps he could explain the issue better.

Councilmember Whelan stated that she had a tour with Streets Director Scott Overton and that she appreciates all they do.

Mayor Evans stated that there is a community meet and greet tomorrow for candidates for the City Manager’s position. She added that she met with the consulate from Israel as well and spoke to him about Israel’s water use. They reuse 98% of their water. She asked him to consider having some of Israel’s water people speak to some of Flagstaff’s water staff. She

also met with the Scottsdale and Fountain Hill's Mayors today regarding AirBnBs.

Councilmember Odegaard asked if there will be a second round of Councilmembers going to Phoenix soon. City Manager Goodrich stated that it is in the works and will be less of a legislative trip.

11. Adjournment

The Flagstaff City Council Work Session of March 12, 2019, adjourned at 9:54 p.m.

_____
MAYOR

ATTEST:

_____
CITY CLERK

SPECIAL MEETING (EXECUTIVE SESSION)
TUESDAY, MAY 21, 2019
STAFF CONFERENCE ROOM - SECOND FLOOR
FLAGSTAFF CITY HALL
211 WEST ASPEN AVENUE
1:30 P.M.

1. Call to Order

Mayor Evans called the Special Meeting (Executive Session) to order at 1:36 p.m.

2. Roll Call

NOTE: One or more Councilmembers may be in attendance telephonically or by other technological means.

PRESENT:	ABSENT:
MAYOR EVANS	
VICE MAYOR SHIMONI	
COUNCILMEMBER ASLAN	
COUNCILMEMBER MCCARTHY	
COUNCILMEMBER ODEGAARD	
COUNCILMEMBER SALAS	
COUNCILMEMBER WHELAN	

Others present: City Manager Barbara Goodrich and City Attorney Sterling Solomon.

3. Recess into Executive Session

Moved by Councilmember Regina Salas, **seconded by** Councilmember Jim McCarthy to recess into Executive Session.

Vote: 7-0 - Unanimously

4. Executive Session:

The Flagstaff City Council recessed into Executive Session at 1:37 p.m.

A. Discussion or consultation for legal advice with the attorney or attorneys of the public body; and discussion or consultation with the attorneys of the public body in order to consider its position and instruct its attorneys regarding the public body's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation or in settlement discussions conducted in order to avoid or resolve litigation, pursuant to A.R.S. §38-431.03(A)(3) and (4), respectively.

i. Settlement Agreement - Canyon Del Rio

B. Discussion or consultation for legal advice with the attorney or attorneys of the public body, pursuant to A.R.S. §38-431.03(A)(3).

i. Flagstaff Metropolitan Planning Organization

ii. Coconino County Flood Control District

C. Discussion or consultation for legal advice with the attorney or attorneys of the public body; discussion or consultation with the attorneys of the public body in order to consider its position and instruct its attorneys regarding the public body's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation or in settlement discussions conducted in order to avoid or resolve litigation; discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property, pursuant to A.R.S. §38-431.03(A)(3), (4) and (7), respectively.

i. Legal Advice on potential detention pond Development Agreement involving drainage near Wildwood Hills Subdivision/Wanderland Campground and real estate options

5. Adjournment

The Special Meeting (Executive Session) of the Flagstaff City Council held May 21 2019, reconvened into Open Session at 4:22 p.m. at which time the meeting adjourned.

_____
MAYOR

ATTEST:

_____
CITY CLERK

5. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Fobar, Deputy City Clerk
Date:	08/23/2019
Meeting Date:	08/27/2019

TITLE:

Proclamation: 4-H Youth in Coconino County

DESIRED OUTCOME:

Read and Present Proclamation

EXECUTIVE SUMMARY:

INFORMATION:

Attachments: Proclamation

City of Flagstaff –
Office of the Mayor

Proclamation

WHEREAS, Coconino County 4-H and the County Fair have been a tradition in Flagstaff for over 70 years; and

WHEREAS, we are proud to showcase the outstanding young 4-H members and their dedication to "Making the Best Better"; and

WHEREAS, through livestock projects, personal development and community service, these young people learn life skills and service to last a lifetime; and

WHEREAS, 4-H gives youth that extra edge for life success by offering numerous opportunities to develop leadership, responsibility, citizenship and enhance their abilities; and

WHEREAS, 4-H members spend months feeding, grooming and training their animals, they often win many awards in various categories at the Coconino County Fair.

NOW, THEREFORE, I, CORAL EVANS, MAYOR OF THE CITY OF FLAGSTAFF, ARIZONA, do hereby proclaim **Friday, August 30, 2019 to Sunday, September 2, 2019, as -**

*** 4-H Youth in Coconino County Weekend 2019 ***

in Flagstaff, Arizona and call upon the citizens of Flagstaff to recognize this outstanding group of young people in our community. To further acknowledge and support 4-H Youth in Coconino County Weekend 2019, the City will raise the 4-H flag in front of City Hall for the weekend of August 30th to September 2nd, 2019.

DATED this 23rd day of August 2019

Coral Evans

_____

MAYOR

ATTEST:

_____

CITY CLERK

7. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Fobar, Deputy City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration of Appointments: Water Commission

STAFF RECOMMENDED ACTION:

Make three appointments to terms expiring December 2021.

Executive Summary:

The Water Commission consists of seven citizens and a representative from the Planning and Zoning Commission. It reviews extensions of the water and sewer collection systems, treatment and use of water furnished by the City, treatment and disposal of the City's sewage system effluent, and water/sewer rates. There are currently three seats available. It is important to fill vacancies on Boards and Commissions quickly so as to allow the Commission to continue meeting on a regular basis.

There are six applications on file and they are as follows:

Malcolm Alter (current commissioner)
Donald Bills (new applicant)
Ward Davis (current commissioner)
Timothy P. Ellsworth Bowers (new applicant)
Brett Gleitsmann (new applicant)
Ben Ruddell (current commissioner)
~~Robert Vane (new applicant) WITHDRAWN~~

In an effort to reduce exposure to personal information the applicant roster and applications will be submitted to the City Council separately.

Council Appointment Assignment: Councilmember Whelan, Councilmember Aslan, and Councilmember McCarthy.

Financial Impact:

These are voluntary positions and there is no budgetary impact to the City of Flagstaff.

Policy Impact:

None

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

There is no Council goal that specifically addresses appointments to Boards and Commissions; however, boards and commissions provide input and recommendations based on City Council goals that may pertain to the board or commission work plan.

Has There Been Previous Council Decision on This:

None

Options and Alternatives:

1) Appoint three Commissioners; by appointing Commissioners at this time, the Water Commission will be at full membership, allowing the group to meet and provide recommendations to the City Council.

2) Table the action to allow for further discussion or expand the list of candidates.

Community Benefits and Considerations:

The City's boards, commissions, and committees were created to foster public participation and input and to encourage Flagstaff citizens to take an active role in city government.

Community Involvement:

INFORM: Board members and City staff have informed the community of these vacancies through word of mouth in addition to the vacancies posting on the City's website.

Attachments:

7. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Fobar, Deputy City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration of Appointments: Open Spaces Commission.

STAFF RECOMMENDED ACTION:

Make one appointment to a term expiring April 2020.
Make two appointments to terms expiring April 2022.

Executive Summary:

The Open Spaces Commission consists of seven regular members all of whom shall be appointed by the City Council, except for designee from the Planning and Zoning Commission. The commission serves as an advisory body on the acquisition, management, use, restoration, enhancement, protection, and conservation of open space land. There are currently three seats available. It is important to fill vacancies on Boards and Commissions quickly so as to allow the Commission to continue meeting on a regular basis.

There are eight applications on file for consideration by the Council, they are as follows:

Danny Barbee (new applicant)
Jim Burton (current commissioner)
Nancy Marie Evans (new applicant)
Mark Loseth (new applicant)
Jessica Simmons (new applicant)
Kate Stanley (new applicant)
Joseph Thomas (new applicant)
Jack Welch (new applicant)

In an effort to reduce exposure to personal information the applicant roster and applications will be submitted to the City Council separately.

COUNCIL APPOINTMENT ASSIGNMENT: Mayor Evans, Councilmember Aslan, and Councilmember Odegaard.

Financial Impact:

These are voluntary positions and there is no budgetary impact to the City of Flagstaff.

Policy Impact:

Not applicable.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

There is no Council goal that specifically addresses appointments to Boards and Commissions; however, boards and commissions do provide input and recommendations based on City Council goals that may pertain to the board or commission work plan.

Has There Been Previous Council Decision on This:

None.

Options and Alternatives:

1) Appoint three Commissioners: By appointing members at this time, the Open Spaces Commission will be at full membership, allowing the group to meet and provide recommendations to the City Council.

2) Postpone the action to allow for further discussion or expand the list of candidates.

Community Benefits and Considerations:

The City's boards, commissions, and committees were created to foster public participation and input and to encourage Flagstaff citizens to take an active role in city government.

Community Involvement:

INFORM: The vacancies are posted on the City's website and individual recruitment and mention of the opening by Commission members and City staff has occurred, informing others of this vacancy through word of mouth.

Attachments:

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Fobar, Deputy City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration of Appointments: Planning and Zoning Commission.

STAFF RECOMMENDED ACTION:

Make one appointment to a term expiring December 2020.
Make one appointment to a term expiring December 2021.

Executive Summary:

The Planning and Zoning Commission consists of seven citizen members and serves as an advisory board to the Council on matters relating to the growth and physical development of the City. The commission also conducts hearings on amendments to the Zoning Map, tentative subdivision plats, and Development Review Board appeals. There are currently two seats available due to resignations. It is important to fill vacancies on Boards and Commissions quickly so as to allow the Commission to continue meeting on a regular basis.

There are four applications currently on file, they are as follows:

Richard Becher (new applicant)
Carole Mandino (new applicant)
P. Lloyd Paul (new applicant)
Gaylene Soper (new applicant)

Richard Becher is currently a commissioner on the Board of Adjustment. Upon review of Mr. Becher's background, staff recommended that he apply for the Planning and Zoning Commission. If appointed, Mr. Becher would resign from the Board of Adjustment and would be assigned as the new Planning and Zoning Representative for the Board of Adjustment. Mr. Becher's appointment to the Planning and Zoning Commission is contingent on his resignation from the Board of Adjustment.

Staff recommends filling the two vacant seats as soon as possible to ensure that a quorum of members will be available to conduct hearings on amendments to the Zoning Map, tentative subdivision plats, and Development Review Board appeals. In an effort to reduce exposure to personal information the applicant roster and applications will be submitted to the City Council separately.

Council Appointment Assignment: Councilmember Odegaard and Mayor Evans

Financial Impact:
These are voluntary positions and there is no budgetary impact to the City of Flagstaff.

Policy Impact:
None

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:
There is no Council goal that specifically addresses appointments to Boards and Commissions; however, boards and commissions do provide input and recommendations based on City Council goals that may pertain to the board or commission work plan.

Has There Been Previous Council Decision on This:
None

Options and Alternatives:
1) Appoint two Commissioners; by appointing Commissioners at this time, the Planning and Zoning Commission will have one expired, occupied seat, but will still allow the group to meet and provide recommendations to the City Council.
2) Table the action to allow for further discussion or expand the list of candidates.

Community Benefits and Considerations:
The City's boards, commissions, and committees were created to foster public participation and input and to encourage Flagstaff citizens to take an active role in city government.

Community Involvement:
INFORM: The vacancies are posted on the City's website and individual recruitment and mention of the opening by Board members and City staff has occurred, informing others of these vacancies through word of mouth.

Attachments: P&Z Authority

CHAPTER 2-01
PLANNING AND ZONING COMMISSION

SECTIONS:

2-01-001-0001 CREATION OF COMMISSION
2-01-001-0002 INTENT AND PURPOSE
2-01-001-0003 MEMBERSHIP
2-01-001-0004 MEETINGS
2-01-001-0005 DUTIES AND FUNCTIONS

Prior legislation: Ords. 339, 859, 1427, 1826 and 2007-09.

2-01-001-0001 CREATION OF COMMISSION

There is hereby established a Planning and Zoning Commission for the City of Flagstaff under the provisions of A.R.S. § 9-461.02. (Ord. 339, 10-8-45; Ord. 2010-35, Amended, 11/16/2010)

2-01-001-0002 INTENT AND PURPOSE

The purpose of the Planning and Zoning Commission is to direct the growth and physical development of the City in a sound and orderly fashion for the prosperity, health, safety, convenience, and general welfare of the citizens of Flagstaff. (Ord. 2010-35, 11/16/2010)

2-01-001-0003 MEMBERSHIP

The Planning and Zoning Commission shall consist of seven (7) members appointed by the Mayor and Council.

The term of each citizen member shall be three (3) years or until his successor takes office. Vacancies occurring otherwise than through the expiration of term shall be filled for the unexpired portion of the term.

A. A Chairperson and Vice-Chairperson shall be elected from and by the voting membership of the Commission to serve one (1) year terms. A Chairperson may serve no more than two (2) consecutive terms as Chairperson (exclusive of a term as Vice-Chairperson). Upon the conclusion of a second, consecutive term as Chairperson, such Commission member shall be ineligible to serve as either Chairperson or Vice-Chairperson until a calendar year has expired.

B. In addition to the causes for removal set out in the Board and Commission Members' Rules and Operations Manual, a member accumulating eight (8) absences from regularly scheduled meetings in any given calendar year will be automatically removed from the Commission and a replacement appointed by the City Council. An unexcused absence is defined as the failure of the member to notify the Planning and Development Services Section of his or her inability to attend a regularly scheduled meeting. (Ord. 2010-35, 11/16/2010; Ord. 2014-28, Amended, 11/18/2014)

2-01-001-0004 MEETINGS

Unless there are no matters to be considered, the Commission shall hold at least one meeting each month and may schedule additional special meetings as needed. A special meeting may serve as the minimum one meeting per month. (Ord. 2010-35, 11/16/2010)

2-01-001-0005 DUTIES AND FUNCTIONS

The Planning and Zoning Commission created in this chapter shall be and act as the Zoning Commission of the City, and all duties and powers granted to zoning commissions under State law shall be exercised by the Planning and Zoning Commission. In addition to any authority granted to the Planning and Zoning Commission by State law or other ordinances of the City, the Planning and Zoning Commission shall have the following duties and functions under the provisions of these regulations:

A. To review and recommend to the City Council adoption of a comprehensive general plan adopted in compliance with the authority provided in A.R.S. Section 9-461.05 for the orderly growth and development of the City and for any land outside the City which, in the opinion of the Planning and Zoning Commission, bears a relation to the planning of the City.

B. To hear, review, and make recommendations to the City Council regarding applications for amendments to the General Plan or any other plan in accordance with the provisions of Chapter 11-10 (General Plans).

C. To serve as an advisory body to the City Council and furnish the Council through the Planning Director the facts concerning the adoption of any report or recommendation.

D. To make its special knowledge and expertise available upon reasonable written request and authorization of the City Council to any official, department, board, commission or agency of the State or Federal governments.

E. To hear and review amendments to the Zoning Map and to the text of the Zoning Code in accordance with the provisions of Title 10, Zoning Code, Division 10-20.50 (Amendments to the Zoning Code Text and the Zoning Map).

F. To confer with and advise other similar City or County commissions.

G. To make investigations, maps, reports, and recommendations to the City Council in regard to the physical development of the City.

H. To hear, review and make recommendations to the City Council regarding preliminary subdivision plats after recommendation from the Planning Director and City Engineer in accordance with Chapter 11-20, Subdivision and Land Split Regulations.

I. To take such other action as authorized in Title 10 (Zoning Code) and Title 11 (General Plan and Subdivisions) as necessary to implement the provisions of those titles and the General Plan.

J. To consider, review and approve Conditional Use Permits, pursuant to the provisions of Section 10-

20.40.050 (Conditional Use Permits).

K. The Commission shall carry out other such duties as determined by the City Council and present other recommendations the City Council deems pertinent. (Ord. 859, 10-24-72; Ord. 2010-35, Amended, 11/16/2010; Ord. 2014-28, Amended, 11/18/2014)

8. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Fobar, Deputy City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Action on Liquor License Application: Jin Young Lee "Kokiyo," 116 S. San Francisco Street, Series 12 (restaurant), New License.

STAFF RECOMMENDED ACTION:

Open the public hearing.
Receive citizen input.
Close the public hearing.

The City Council has the option to:
(1) Forward the application to the State with a recommendation for approval;
(2) Forward the application to the State with a recommendation for denial based on information from staff, the testimony received at the public hearing and/or other factors.

Executive Summary:

The liquor license process begins at the State level and applications are then forwarded to the respective municipality for posting at the property and holding a public hearing, after which the Council recommendation is forwarded back to the State. A Series 12 license allows the holder of a restaurant license to sell and serve spirituous liquor solely for consumption on the premises of an establishment which derives at least forty percent (40%) of its gross revenue from the sale of food. Kokiyo is an existing business in Flagstaff applying for a new series 12 restaurant license. If approved it will be the 97th active series 12 license in Flagstaff. Series 12 licenses are non-quota licenses. To view surrounding liquor licenses, please visit http://map-flagstaff.opendata.arcgis.com/.

The property has been posted as required, and the Police and Community Development divisions have reviewed the application and provided their respective reports.

Financial Impact:
There is no budgetary impact to the City of Flagstaff as this is a recommendation to the State.

Policy Impact:
Not applicable.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:
Liquor licenses are a regulatory action and there is no Council goal that applies.

Has There Been Previous Council Decision on This:
Not applicable.

Key Considerations:
Because the application is for a new license, consideration may be given to both the location and the applicant's personal qualifications.

The deadline for issuing a recommendation on this application is August 29, 2019.

Community Benefits and Considerations:
This business will contribute to the tax base of the community.

Community Involvement:
The application was properly posted on August 5, 2019. No written protests have been received to date.

Attachments:
Kokiyo - Letter to Applicant
Hearing Procedures
Series 12 Description
Kokiyo - PD Memo
Kokiyo - Zoning Memo
Kokiyo - Map

OFFICE OF THE CITY CLERK

August 5, 2019

Kokiyo
Attn: Jin Young Lee
116 S. San Francisco Street
Flagstaff, AZ 86001

Dear Mr. Lee:

Your application for a new Series 12 Liquor License for Kokiyo located at 116 S. San Francisco Street, was posted on August 5, 2019. The City Council will consider the application at a public hearing during their regularly scheduled City Council Meeting on **Tuesday, August 27, 2019 which begins at 4:30 p.m.**

It is important that you or your representative attend this Council Meeting and be prepared to answer any questions that the City Council may have. Failure to be available for questions could result in a recommendation for denial of your application. We suggest that you contact your legal counsel or the Department of Liquor Licenses and Control at 602-542-5141 to determine the criteria for your license. To help you understand how the public hearing process will be conducted, we are enclosing a copy of the City's liquor license application hearing procedures.

The twenty-day posting period for your liquor license application is set to expire on August 26, 2019 and the application may be removed from the premises at that time.

There is an $815 application fee which needs to be received prior to the hearing date. Payment can be made online at https://www.flagstaff.az.gov/2452/E--Services under Business Licensing Payment Online Services by clicking Liquor License Request Payment, in person at the payment window, or you can send a check to my attention at 211 W. Aspen Ave., Flagstaff, AZ 86001.

If you have any questions, please feel free to call me at 928-213-2077.

Sincerely,

Stacy M. Fobar
Deputy City Clerk

Enclosure

City of Flagstaff

Liquor License Application
Hearing Procedures

1. When the matter is reached at the Council meeting, the presiding officer will open the public hearing on the item.

2. The presiding officer will request that the Applicant come forward to address the Council regarding the application in a presentation not exceeding ten (10) minutes. Council may question the Applicant regarding the testimony or other evidence provided by the Applicant.

3. The presiding officer will then ask whether City staff have information to present to the Council regarding the application. Staff should come forward at this point and present information to the Council in a presentation not exceeding ten (10) minutes. Council may question City staff regarding the testimony or other evidence provided by City staff.

4. Other parties, if any, may then testify, limited to three (3) minutes per person. Council may question these parties regarding the testimony they present to the Council.

5. The Applicant may make a concise closing statement to the Council, limited to five (5) minutes. During this statement, Council may ask additional questions of the Applicant.

6. City staff may make a concise closing statement to the Council, limited to five (5) minutes. During this statement, Council may ask additional questions of City Staff.

7. The presiding officer will then close the public hearing.

8. The Council will then, by motion, vote to forward the application to the State with a recommendation of approval, disapproval, or shall vote to forward with no recommendation.

R19-1-702. Determining Whether to Grant a License for a Certain Location

A. To determine whether public convenience requires and the best interest of the community will be substantially served by issuing or transferring a license at a particular unlicensed location, local governing authorities and the Board may consider the following criteria:

1. Petitions and testimony from individuals who favor or oppose issuance of a license and who reside in, own, or lease property within one mile of the proposed premises;

2. Number and types of licenses within one mile of the proposed premises;

3. Evidence that all necessary licenses and permits for which the applicant is eligible at the time of application have been obtained from the state and all other governing bodies;

4. Residential and commercial population of the community and its likelihood of increasing, decreasing, or remaining static;

5. Residential and commercial population density within one mile of the proposed premises;

6. Evidence concerning the nature of the proposed business, its potential market, and its likely customers;

7. Effect on vehicular traffic within one mile of the proposed premises;

8. Compatibility of the proposed business with other activity within one mile of the proposed premises;

9. Effect or impact on the activities of businesses or the residential neighborhood that might be affected by granting a license at the proposed premises;

10. History for the past five years of liquor violations and reported criminal activity at the proposed premises provided that the applicant received a detailed report of the violations and criminal activity at least 20 days before the hearing by the Board;

11. Comparison of the hours of operation at the proposed premises to the hours of operation of existing businesses within one mile of the proposed premises; and

12. Proximity of the proposed premises to licensed childcare facilities as defined by A.R.S. § 36-881.

B. This Section is authorized by A.R.S. § 4-201(I).

License Types: Series 12 Restaurant License

Non-transferable
On-sale retail privileges
Note: Terms in **BOLD CAPITALS** are defined in the glossary.

PURPOSE:
Allows the holder of a restaurant license to sell and serve spirituous liquor solely for consumption on the premises of an establishment which derives at least forty percent (40%) of its gross revenue from the sale of food.

ADDITIONAL RIGHTS AND RESPONSIBILITIES:
An applicant for a restaurant license must file a copy of its restaurant menu and Restaurant Operation Plan with the application. The Plan must include listings of all restaurant equipment and service items, the restaurant seating capacity, and other information requested by the department to substantiate that the restaurant will operate in compliance with Title 4.

The licensee must notify the Department, in advance, of any proposed changes in the seating capacity of the restaurant or dimensions of a restaurant facility.

A restaurant licensee must maintain complete restaurant services continually during the hours of selling and serving of spirituous liquor, until at least 10:00 p.m. daily, if any spirituous liquor is to be sold and served up to 2:00 a.m.

On any original applications, new managers and/or the person responsible for the day-to-day operations must attend a basic and management training class.

A licensee acting as a **RETAIL AGENT**, authorized to purchase and accept **DELIVERY** of spirituous liquor by other licensees, must receive a certificate of registration from the Department.

A **PREGNANCY WARNING SIGN** for pregnant women consuming spirituous liquor must be posted within twenty (20) feet of the cash register or behind the bar.

A log must be kept by the licensee of all persons employed at the premises including each employee's name, date and place of birth, address and responsibilities.

Bar, beer and wine bar, and restaurant licensees must pay an annual surcharge of $20.00. The money collected from these licensees will be used by the Department for an auditor to review compliance by restaurants with the restaurant licensing provisions of ARS 4-205.02.

FLAGSTAFF POLICE DEPARTMENT
911 SAWMILL RD • FLAGSTAFF, ARIZONA 86001• (928) 779-3646
ADMIN FAX (928)213-3372
TDD 1-800-842-4681

Chief of Police
Kevin D. Treadway

MEMORANDUM

Memo #19-044

TO: **Chief Treadway**

FROM: **Sgt. Collin Seay**

DATE: **July 31st, 2019**

RE: **LIQUOR LICENSE APPLICATION – SERIES 12- FOR "Kokiyo"**

On July 31st, 2019, I initiated an investigation into an application for a series 12 (restaurant) liquor license filed by Jin Lee (Controlling Person and Agent) and Jouhee Lee (Controlling Person). Kokiyo is located at 116 S San Francisco St. This is an application for a new series 12 license #67230.

I conducted a query through local systems and public access on Jin Lee and Jouhee Lee, and no derogatory records were found. Jin reported she was in the process of taking the mandatory department of liquor course and would have it completed before the August 27th, 2019 council meeting. I conducted a search of the current and previous liquor licenses possessed by Jin Lee and Jouhee Lee, and I could not locate any other licenses they possess or liquor violations against them. Jin Lee advised me over the phone this was their first liquor license.

Jin Lee confirmed she would attend the council meeting on August 27th, 2019. She advised me the business hours would be from 11 am to 10 pm, and they would be open Tuesdays through Sundays with liquor available for purchase during these hours. Jin Lee said the restaurant is currently open, and she is not operating with a temporary liquor license. She said she is awaiting final approval to sell liquor.

Planning and Development Services Memorandum

To: Stacy Fobar, Deputy City Clerk

From: Reggie Eccleston, Code Compliance Manager

CC: Tiffany Antol, Planning Director

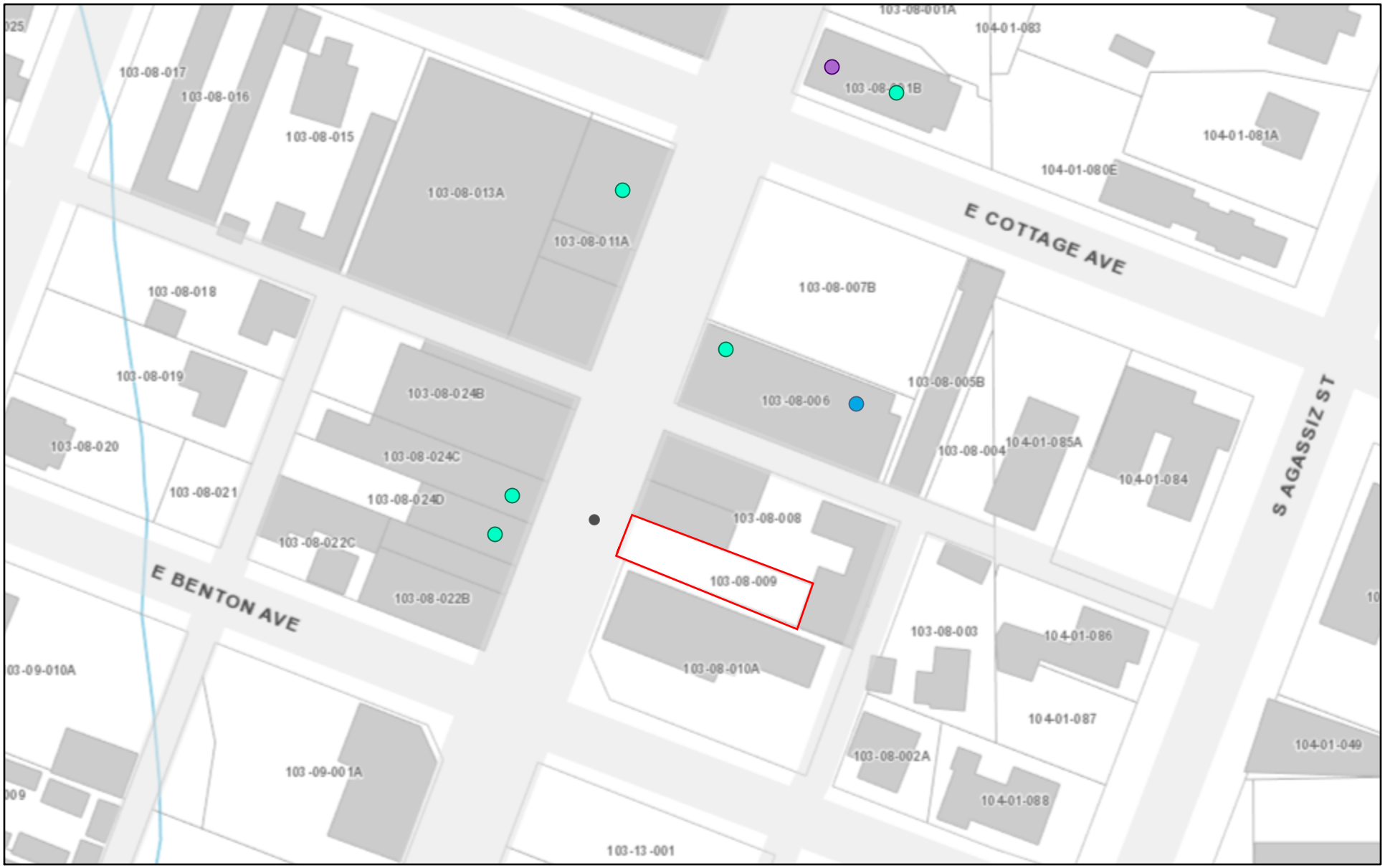
Date: Aug. 5. 2019

Re: Application for Liquor License #67230
116 S. San Francisco St., Flagstaff, Arizona 86001
Assessor's Parcel Number 103-08-008
Jin Young Lee on behalf of Kokiyo

This application is a request for a new Series 12 Restuarant liquor license by Jin Young Lee on behalf of Kokiyo. This business is located within the Community Commercial district. This district does allow for this use.

There are no active Zoning Code violations associated with the applicant or the property at this time.

Kikoyo - Map



8/5/2019, 3:17:10 PM

Liquor Licenses

- Beer and Wine Bar
- Beer and Wine Store
- Restaurant

1:1,128

0 0.01 0.01 0.03 mi

0 0.01 0.03 0.05 km

Web AppBuilder for ArcGIS

9. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Dean Coughenour, Director of Risk Management
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Ratification of Payment: Purchase of restoration services from Superior Restoration for emergency services provided to the City's building located at 11 West Cherry Avenue.

STAFF RECOMMENDED ACTION:

Ratify payment to Superior Restoration for emergency services provided to the City's building located at 11 West Cherry Avenue in the amount of $61,680.92.

Executive Summary:

On Friday April 12th the City's sewer line on Beaver adjacent to 11 West Cherry building became blocked with paper products. The blockage caused water from the sewer to flow back into the basement of the building.

To protect the building from further damage and to minimize the disruption to the City's tenant, Superior Restoration was contacted, the sewage water was removed, and the building was remediated to the point of being able to be reoccupied in the most expeditious manner possible.

Financial Impact:

The cost to remediate the building was $61,680.92. This payment will be funded out of the City's self insurance trust fund.

Policy Impact:

None

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

None

Previous Council Decision on This:

There has been no previous Council action.

Attachments:

9. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Shannon Anderson, Deputy City Manager
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Approval of Separation Agreement: for City Manager, Barbara Goodrich.

STAFF RECOMMENDED ACTION:

Approve separation agreement for City Manager, Barbara Goodrich, effective August 26, 2019.

Executive Summary:

The City Manager, Barbara Goodrich, will be retiring from the City of Flagstaff. This separation agreement outlines the terms of her retirement from the position of City Manager.

Financial Impact:

All financial impacts, such as the paid time off accruals, have been budgeted.

Policy Impact:

There are no policy impacts.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

The City Manager position is supportive in the planning and preparation of items connected to Council Goals, Regional Plan and Team Flagstaff Strategic Plan.

Has There Been Previous Council Decision on This:

No.

Options and Alternatives:

The City Council may choose to amend the agreement terms prior to approval of the separation agreement.

Community Benefits and Considerations:

Inform.

Attachments: Separation Agreement

SEPARATION, RELEASE AND TEMPORARY EMPLOYMENT AGREEMENT

This Separation, Release and Temporary Employment Agreement (this "Agreement") is entered August 26, 2019 (the "Effective Date"), between Barbara Goodrich ("Goodrich") and the City of Flagstaff, an Arizona municipal corporation (the "City").

RECITALS:

A. The City currently employs Goodrich as the City Manager, pursuant to the terms of an Agreement for Services dated October 13, 2018 (the "Employment Contract").

B. Goodrich desires to retire from her Employment and has tendered her voluntary, irrevocable resignation effective August 26, 2019.

C. The City desires to have Goodrich continue as a contract temporary employee of the City following her retirement to assist with the transition for the new City Manager.

D. The City and Goodrich desire to amicably and forever conclude any and all issues pertaining to the Goodrich's employment with the City, without any claims or admission of liability, and without setting any precedent binding on the City or Goodrich in any other situation.

AGREEMENT:

NOW, THEREFORE, in consideration of the foregoing introduction and recitals, which are incorporated herein by reference, the following mutual covenants and conditions, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the City and the Goodrich hereby agree as follows:

1. Separation Date. This Agreement will become effective on the Effective Date, which date shall be deemed the date Goodrich tendered her voluntary, irrevocable resignation, which resignation shall be effective August 26, 2019 (the "Separation Date").

2. Terms of Employment.

2.1 Until Separation Date. From the Effective Date through August 26, 2019, Goodrich will continue to be employed by the City according to the terms of the Employment Contract.

2.2 During Temporary Employment Period. From the Separation Date through September 13, 2019, Goodrich shall be employed by the City as a contract temporary employee in the role of City Management Advisor, not to exceed 20 hours per week. Goodrich's duties during this time period shall include any actions reasonably necessary to support the new City Manager to ensure a smooth transition, including, but not limited to providing information on current projects and operations, sharing meeting dates, times, invitees and details regarding purpose, and providing essential background information to the new City Manager.

2.3 Other Employment. Goodrich may enter into a separate employment agreement with another employer prior to the Separation Date; provided, however, Goodrich shall not begin employment under any such agreement until after September 13, 2019.

3. Consideration.

3.1. Until Separation Date. From the Effective Date through August 26, 2019, Goodrich will continue to be compensated by the City according to the terms of the Employment Contract. Following the Separation Date, Goodrich shall receive a payout for unused leave (Sick Leave accrual of 539.45 hours (1,078.90 hours at payout of 50%); and Vacation Leave accrual of 424.86 hours;) in accordance with Sections 1-50-020 and 1-50-029 of the City's Employee Handbook of Regulations (the "Handbook") which shall be paid within 30 days of the Separation Date.

3.2 During Temporary Employment Period. From the Separation Date through September 13, 2019, Goodrich shall be paid $98.0769/hour for each hour worked, up to 20 hours per week. Goodrich shall be provided with employee benefits according to the Handbook for a 20-hour Benefits Eligible Employee from the Separation Date through September 30, 2019. In addition to the hourly pay, Goodrich shall receive, as part of her September 13, 2019, paycheck a one-time payment of $350.00 as an automobile allowance.

3.3 No Warranty. The City makes no representation or warranty to Goodrich regarding the tax treatment or consequences of any payments made under this Agreement. Goodrich will be solely responsible for the payment of all taxes of whatever kind that may be due or payable in connection with any sums paid under this Agreement, and will indemnify and hold the City harmless from all liens, actions, or claims on the part of the Internal Revenue Service or any other tax authority in connection with this Agreement.

4. Consultation with Legal Counsel. The parties to this Agreement have had an opportunity to consult with counsel of their choosing, and to have their rights and obligations under this Agreement, including, but not limited to, the release language in this Agreement, explained to them and respectively acknowledge an understanding of the content of this Agreement.

5. Mutual Release of Claims. No claims have been asserted by Goodrich or the City at the time of this Agreement. However, the parties agree it is in their mutual best interests to provide a release of claims.

5.1 Release by Goodrich. Goodrich hereby releases and discharges all of her existing rights to any relief of any kind known at the time of the Separation Date against the City, its affiliated entities, predecessors, successors, assigns, its agents, directors, officers and representatives (hereinafter the "City Released Parties") for, from and against any and all losses, liabilities, claims, expenses, demands, and causes of action, of every kind and nature whatsoever in law or in equity, contract or tort, known at the time of the Separation Date, including by way of illustration, but not of exclusion, all claims for wages, compensation, benefits, damages, disbursements or any other claim arising from or relating to Goodrich's employment with the City and all claims for personal injury or any other claim on any basis or theory whatsoever through

the Separation Date. Goodrich is not hereby waiving or releasing any rights she may have to her vested accrued employee benefits under the City's health, retirement or other applicable benefit plans as of the Separation Date.

5.2 Acknowledgement of Rights. Goodrich is aware of her rights under the Older Workers Benefit Protection Act, 29 U.S.C. 621 *et seq*., and understands and agrees that she is waiving any and all rights or claims she may have under the Age Discrimination in Employment Act of 1967 ("ADEA") as amended. Goodrich further expressly acknowledges and agrees that she:

A. Has been offered a period of at least 21 days within which to consider this Agreement before executing it, and with advice of her counsel has waived that opportunity after having what she hereby expressly acknowledges and agrees was an adequate and fair period of time within which to review and consider this Agreement.

B. Has carefully read and fully understands all of the provisions of this Agreement and has agreed to accept all of the terms contained therein without any pressure or coercion by the City.

C. By this Agreement, understands she is releasing the City Released Parties as defined in this Agreement from any and all claims she may have against them or any of them accruing through the Separation Date.

D. Knowingly and voluntarily agrees to all of the terms set forth in this Agreement.

E. Knowingly and voluntarily intends to be legally bound by this Agreement.

F. Had an opportunity to consult with an attorney of her choice prior to executing this Agreement.

G. Has a full seven days following the Effective Date to revoke this Agreement and has been and hereby is advised in writing that this Agreement shall not become effective or enforceable until the revocation period has expired.

5.3 Release by City. The City hereby releases and discharges all of its existing rights to any relief of any kind known at the time of the Separation Date of this Agreement against Goodrich, her predecessors, successors, assigns, her agents, marital communities and representatives (hereinafter "Goodrich Released Parties") for and from any and all losses, liabilities, claims, expenses, demands, and causes of action, of every kind and nature whatsoever in law or in equity, contract or tort, known at the time of the Separation Date, for actions taken in the course and scope of her employment, including, by way of illustration, but not of exclusion, all claims for compensation, damages, disbursements or any other claim arising from or relating to Goodrich's employment with the City and all claims for personal injury or any other claim on any basis or theory whatsoever through the Separation Date for her actions taken in the course and

scope of her employment with the City. This release does not release Goodrich from any claim against Goodrich by another governmental agency for acts Goodrich committed outside the course and scope of her duties as a City employee.

6. Indemnification for Acts in the Course and Scope of Employment. Notwithstanding anything herein to the contrary, to the maximum extent provided by law, the City shall defend, hold, harmless, and indemnify Goodrich from any and all demands, claims, suits, actions, and legal proceedings brought against Goodrich in her official capacity as an agent and employee of the City, or in her individual capacity, provided that the claim arose while Goodrich was acting within the scope of her employment. In no event shall the City's obligation hereunder exceed the authority conferred upon the City by state law.

7. Authority; No Assignment. Goodrich represents and warrants that she has the authority to enter into this Agreement, and that she has not assigned any claims to any person or entity.

8. Complete Agreement. No promise, inducement or agreement not herein expressed has been made or entered into between the parties hereto. This Agreement constitutes and embodies the full and complete understanding and agreement of the parties hereto with respect to the matters addressed herein and supersedes all prior understandings and agreements. The parties may not change, modify or rescind this Agreement except in writing, signed by both parties.

9. Headings. The heading to each paragraph contained herein is for the convenience of the parties and has no independent legal significance.

10. Governing Law. This Agreement shall be construed and enforced under the laws of the State of Arizona and suit pertaining to this Agreement may be brought only in courts in Coconino County, Arizona.

11. Drafting. The provisions of this Agreement shall be deemed prepared or drafted by any one party or its attorneys and shall not be construed more strongly against either party.

12. Counterparts. This Agreement may be executed in counterparts.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the City has duly executed this Agreement by its authorized representatives and the Employee has hereunto set his hand, in each case effective as of the date first above written.

BARBARA GOODRICH

_____

CITY OF FLAGSTAFF

By:_____
Coral Evans, Mayor

ATTEST:

By:_____
Stacy Saltzburg, City Clerk

APPROVED AS TO FORM:

By:_____
Andrew J. McGuire, Outside Counsel

10. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Scott Mansfield, Police Lieutenant
Co-Submitter:	Stacey Brechler-Knaggs
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and approval of Grant Agreement: To the U.S. Department of Justice, through the Arizona Criminal Justice Commission, for the Edward Byrne Justice Assistance Grant funds in the amount of $283,494.00 for the Northern Arizona Street Crimes Task Force (METRO unit).

STAFF RECOMMENDED ACTION:

Approve the acceptance of the grant from the U.S. Department of Justice, through the Arizona Criminal Justice Commission, Edward Byrne Justice Assistance Grant funds in the amount of $283,494.00 for FY2020.

Executive Summary:

The City of Flagstaff was awarded $283,494.00 in grant funds from the U.S. Department of Justice, through the Arizona Criminal Justice Commission, for the Edward Byrne Justice Assistance Grant funds. This grant funds one Flagstaff Police Sergeant, one Flagstaff Police investigator, and one Coconino County Sheriff's Deputy investigator. There is no cost to the City of Flagstaff.

Financial Impact:

The grant award is in the amount of $212,621.00 (75%) with required matching funds of $70,873.00 (25%). The METRO board has authorized matching funds from the Rico account. The Rico account has provided matching funds in the past years and the board has agreed to provide the above matching funds for this year's grant. This amount will include all city costs, estimated in kind and administrative costs if above normal departmental allocation. The grant award will be the 33rd funding cycle (FY 2020) for the METRO unit. This grant is budgeted in Fiscal Year 2020.

Policy Impact:

None.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Effective Governance - Regional Plan (2030) - Planning, Public Safety, Goal PF.3 Provide high-quality emergency response and public safety services.

Has There Been Previous Council Decision on This:

Yes, the Flagstaff City Council has approved the acceptance of this grant money for the past thirty-two years.

Options and Alternatives:

Approve the acceptance of the grant or decline the acceptance of the grant.

Background/History:

As previously stated, this is the 33rd cycle of this grant in which the Flagstaff City Council has approved the previous 32 cycles.

Key Considerations:

The investigative officers this grant funds is supported by nearly every law enforcement entity in Coconino County including the Coconino County Sheriff's Office, The Flagstaff Police Department, Northern Arizona University Police, ATF, FBI, DEA, Homeland Security and the Department of Public Safety. This grant provides specialized police investigations to all the communities located within Coconino County.

Community Benefits and Considerations:

Officers in the METRO Unit continuously provide support to numerous community groups including, local schools, Citizens Academy programs, local law enforcement training academies etc. in the form of training and educational presentations, drug awareness, and proactive investigations.

Community Involvement:

To work directly with the public through the process to ensure that public issues and concerns are consistently understood and considered.

Expanded Options and Alternatives:

If approved the grant would allow for the acceptance of $283,494.00 in federal funds that will provide proactive enforcement that would otherwise not be available to our citizens.

Attachments: Grant Agreement DC-20-002

ARIZONA CRIMINAL JUSTICE COMMISSION
Drug, Gang, and Violent Crime Control
GRANT AGREEMENT

ACJC Grant Number DC-20-002
Catalog of Federal Domestic Assistance (CFDA) Number 16.738

This Grant Agreement is made this 1st day of June, 2019 by and between the ARIZONA CRIMINAL JUSTICE COMMISSION hereinafter called "COMMISSION" and COCONINO COUNTY, through CITY OF FLAGSTAFF hereinafter called "GRANTEE." The COMMISSION enters into this Agreement pursuant to its authority under the provisions of A.R.S. § 41-2405 (B)(6), and having satisfied itself as to the qualification of GRANTEE;

NOW, THEREFORE, it is agreed between the parties as follows:

1. This Agreement will commence on July 1, 2019 and terminate on June 30, 2020. This Agreement expires at the end of the award period unless prior written approval for an extension has been obtained from the COMMISSION. A request for an extension must be received by the COMMISSION sixty (60) days prior to the end of the award period. The COMMISSION in its sole discretion may approve an extension that furthers the goals and objectives of the program and shall determine the length of any extension.

2. GRANTEE agrees that grant funds will be used in accordance with applicable program rules, guidelines, and special conditions.

3. The COMMISSION will monitor GRANTEE performance against program goals and performance standards and those outlined in the grant application. Substandard performance, as determined by the COMMISSION, will constitute noncompliance with this Agreement. If the COMMISSION finds noncompliance, the GRANTEE will receive a written notice which identifies the area of noncompliance, and the appropriate corrective action to be taken. If the GRANTEE does not respond within thirty (30) calendar days to this notice and does not provide sufficient information concerning the steps which are being taken to correct the problem, the COMMISSION may suspend funding, permanently terminate this Agreement or revoke the grant.

4. Any deviation or failure to comply with the purpose and/or conditions of this Agreement without prior written COMMISSION approval may constitute sufficient reason for the COMMISSION to terminate this Agreement, revoke the grant, require the return of all unspent funds, perform an audit of expended funds, and require the return of any previously spent funds which are deemed to have been spent in violation of the purpose or conditions of this grant.

5. This Agreement may be modified only by a written amendment signed by the Executive Director or by persons authorized by the Executive Director on behalf of the COMMISSION and GRANTEE. Any notice given pursuant to this Agreement shall be in writing and shall be considered to have been given when actually received by the following addressee or their agents or employees:

   A. If to the COMMISSION:

   Arizona Criminal Justice Commission
   1110 W. Washington Street, Suite 230
   Phoenix, Arizona 85007
   Attn: Program Manager

B. If to the GRANTEE:

City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001
Attn: **Mrs. Barbara Goodrich**

6. For grant awards above $100,000, GRANTEE may make budget adjustments of up to ten (10) percent of the total grant within any approved budget category excluding equipment. Written approval from the COMMISSION in advance is required if GRANTEE wishes to make adjustments or reprogram in excess of ten (10) percent or if GRANTEE wishes to purchase equipment not previously approved.

   For grant awards less than $100,000, the GRANTEE may make budget adjustments within approved categories excluding equipment as long as there are no changes to the purpose or scope of the project. If GRANTEE wishes to purchase equipment not previously approved, written approval from the COMMISSION in advance is required.

APPROVED LINE ITEM PROGRAM BUDGET	
Personnel:	
Salaries	$186,119.00
Fringe Benefits (for salaries/overtime)*	$97,375.00
Overtime	NOT APPROVED
Professional & Outside/Consultant & Contractual Services	NOT APPROVED
Travel In-State	NOT APPROVED
Travel Out-of-State	NOT APPROVED
Confidential Funds	NOT APPROVED
Operating Expenses:	
Supplies	NOT APPROVED
Registration/Training	NOT APPROVED
Other	NOT APPROVED
Equipment	
Capital	NOT APPROVED
Noncapital	NOT APPROVED
TOTAL	$283,494.00
Positions Funded: Sergeant- Flagstaff PD (1.0), Investigator- Flagstaff PD (.75), Investigator- Coconino County Sheriff's Office (1.0) Equipment Type: Not Approved.	

*Reference the ACJC Grant Management Manual for definition of approved Fringe Benefit

7. GRANTEE understands that other Federal grant funds cannot be used as a match for this grant. The total to be paid by the COMMISSION under this Agreement shall not exceed $99,223.00 in federal funds awarded to the COMMISSION by the U.S. Department of Justice (USDOJ), Office of Justice Programs (OJP) and $113,398.00 in State Funds. If this grant has a matching requirement GRANTEE understands that other federal grant funds cannot be used as a match for this grant. The matching amount for this award is $70,873.00.

8. Every payment obligation of the COMMISSION under this Agreement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligation. If funds are not allocated and available for the continuance of this Agreement, this Agreement may be terminated by the COMMISSION. No liability shall accrue to the COMMISSION in the event this provision is exercised, and the COMMISSION shall not be obligated or liable for any future payments or for any damages as a result of termination under this paragraph.

9. GRANTEE agrees that if it currently has an active award of federal funds or if it receives any other award of federal funds during the period of performance for this award, and those award funds have been, are being or are to be used, in whole or in part, for one or more of the identical cost items for which funds are being provided under this award, GRANTEE will promptly notify, in writing, the COMMISSION, of the potential of duplication, and if so requested by the COMMISSION, seek a budget modification or change-of-project-scope grant adjustment notice (GAN) to eliminate any inappropriate duplication of funding.

10. GRANTEE agrees to retain all books, account reports, files and other records, (paper and/or electronic) relating to this Agreement and the performance of this Agreement for no less than five (5) years from the last financial report submitted to the COMMISSION. All such documents shall be subject to inspection and audit at reasonable times, including such records of any subgrantee, contractor, or subcontractor. GRANTEE also understands and agrees that USDOJ and the United States General Accounting Office (USGAO) are authorized to interview any officer or employee of the GRANTEE (or of any subgrantee, contractor, or subcontractor) regarding transactions related to this award.

11. GRANTEE agrees that activities funded under this award will be closely coordinated with related activities supported with Office of Justice Programs (OJP), State, local or tribal funds. Grant funds may only be used for the purposes in the GRANTEE's approved application. GRANTEE shall not undertake any work or activities not described in the grant application, including staff, equipment, or other goods or services without prior approval from the COMMISSION.

12. GRANTEE agrees to track, account for, and report on all funds (including specific outcomes and benefits) separately from all other funds for the same or similar purposes or programs.

    Accordingly, the accounting systems of GRANTEE and all subgrantees must ensure that funds from this award are not commingled with funds from any other source.

13. GRANTEE agrees to abide by Federal and State laws and provide accounting, auditing and monitoring procedures to safeguard grant funds and keep such records to assure proper fiscal controls, management and the efficient disbursement of grant funds.

14. For the purposes of this grant, a capital expenditure means expenditures to acquire capital assets, as defined in 2 C.F.R. 200.12, or expenditures to make additions, improvements, modifications, replacements, rearrangements, reinstallations, renovations, or alterations to capital assets that materially increase their value or useful life, with a cost of $5,000 or greater. If the GRANTEE's capitalization policy defines a capital expenditure as less than $5,000, the GRANTEE will follow its own policy.

15. GRANTEE agrees to maintain property records for equipment purchased with grant funds and perform a physical inventory and reconciliation with property records at least every two years or more frequently if required by GRANTEE policy. GRANTEE agrees that funds will not be used for the construction of new facilities.

16. GRANTEE agrees to follow equipment disposition policies outlined in 2 C.F.R. 200.313(e)(1) through *Uniform Administrative Requirements for Grants and Cooperative Agreements-Equipment* when the equipment is no longer needed for the grant program.
    Link: *e-CFR Navigation Aid:* http://www.ecfr.gov/cgi-bin/ECFR?page=browse

17. GRANTEE agrees that all salaried personnel (including subgrantee personnel) whose activities are to be charged to the award will maintain timesheets or certifications to document hours worked for activities related to this award and non-award related activities. GRANTEE agrees to keep time and attendance sheets for hourly employees signed by the employee and

supervisory official having firsthand knowledge of the work performed by the grant-funded employees.

18. GRANTEE agrees that it will submit financial and activity reports to the COMMISSION in a format provided by the COMMISSION, documenting the activities supported by these grant funds and providing an assessment of the impact of these activities which may include documentation of project milestones. In the event reports are not received on or before the indicated date(s), funding may be suspended until such time as delinquent report(s) are received.

19. These reports are to be submitted according to the following schedule(s):

ACTIVITY REPORTS	
Report Period:	**Due Date:**
July 1 to September 30	October 15
October 1 to December 31	January 15
January 1 to March 31	April 15
April 1 to June 30	July 15

FINANCIAL REPORTS			
Report Period:	**Due Date:**	**Report Period:**	**Due Date:**
July 1 – July 31	August 25	January 1 – January 31	February 25
August 1 – August 31	September 25	February 1 – February 29	March 25
September 1 – September 30	October 25	March 1 – March 31	April 25
October 1 – October 31	November 25	April 1 – April 30	May 25
November 1 – November 30	December 25	May 1 – May 31	June 25
December 1 – December 31	January 25	June 1 – June 30	July 25

Additional reporting requirements may be required for GRANTEES who are considered high risk.

20. GRANTEE understands that financial reports are required as an accounting of expenditures for either reimbursement or COMMISSION-approved advance payments.

21. The final request for reimbursement of grant funds must be received by the COMMISSION no later than sixty (60) days after the last day of the award period.

22. All goods and services must be received or have reasonable expectations thereof and placed in service by GRANTEE by the expiration of this award.

23. GRANTEE agrees that all encumbered funds must be expended and that goods and services must be paid by GRANTEE within sixty (60) days of the expiration of this award.

24. GRANTEE agrees to remit all unexpended grant funds to the COMMISSION within thirty (30) days of written request from the COMMISSION.

25. GRANTEE agrees to account for interest earned on federal grant funds and shall manage interest income in accordance with the Cash Management Improvement Act of 1990 and as indicated in the Office of Justice Programs Financial Guide. Interest earned in excess of allowable limits must be remitted to the COMMISSION within 30 days after receipt of a written request from the COMMISSION.
Link: OJP Financial Guide https://ojp.gov/financialguide/doj/pdfs/DOJ_FinancialGuide.pdf

26. GRANTEE agrees to obtain written COMMISSION approval for all sole source procurements in excess of $150,000.

27. GRANTEE agrees to obtain written COMMISSION approval prior to the expenditure of grant funds for consultant fees in excess of $650 per day.

28. GRANTEE agrees to not use federal grant funds to pay cash compensation (salary plus bonuses) to any employee paid by the grant at a rate that exceeds 110% of the maximum annual salary payable to a member of the federal government's Senior Executive Service (SES) at an agency with a Certified SES Performance Appraisal System for that year. (An award recipient may compensate an employee at a higher rate, provided the amount in excess of this compensation limitation is paid with non-federal funds, unless otherwise noted in the grant solicitation.)

29. GRANTEE agrees not to use grant funds for food and/or beverage unless explicitly approved in writing by the COMMISSION.

30. GRANTEE agrees to comply with all applicable laws, regulations, policies and guidance (including specific cost limits, prior approvals and reporting requirements, where applicable) governing the use of grant funds for expenses related to conferences, meetings, trainings, and other events, including the provision of food and/or beverages at such events, and costs of attendance at such events unless explicitly approved in writing by the COMMISSION. Information on pertinent laws, regulations, policies, and guidance is available in the OJP Financial Guide (currently, as section 3.10 "Post-award Requirements" in the DOJ Grants Financial Guide").

31. No funds shall be used to supplant federal, state, county or local funds that would otherwise be made available for such purposes. Supplanting means the deliberate reduction of state or local funds because of the existence of any grant funds.

32. GRANTEE assigns to the COMMISSION any claim for overcharges resulting from antitrust violations to the extent that such violations concern materials or services applied by third parties to GRANTEE in exchange for grant funds provided under this Agreement.

33. The parties agree to use arbitration in the event of disputes in accordance with the provisions of A.R.S. § 12-1501-12-1518. The laws of the State of Arizona apply to questions arising under this Agreement and any litigation regarding this Agreement must be maintained in Arizona courts, except as pertaining to disputes which are subject to arbitration.

    A. In the event of a dispute, controversy, or claim arising out of or relating in any way to the Agreement, the complaining Party shall notify the other Party in writing thereof. Within 30 calendar days of such notice, representatives of both Parties shall meet at an agreed location to attempt to resolve the dispute in good faith. Should the dispute not be resolved within 30 calendar days after such notice, the complaining Party shall seek remedies exclusively through arbitration, in accordance with the provisions of A.R.S. § 12-1501 through 12-1518.
    B. The arbitration demand must be a clear and concise statement of the claim or dispute. The respondent's answer and any counterclaims must be filed within 20 calendar days of service of the demand.
    C. The arbitration shall be conducted in Maricopa County.
    D. The arbitration shall be conducted by one arbitrator. If the Parties are not able to agree upon the selection of an arbitrator, within 20 calendar days of the commencement of an arbitration proceeding by service of a demand for arbitration, the court on application of a Party shall appoint the arbitrator.
    E. The arbitrator must promptly set a conference to clarify the claims and defenses, to establish fair procedures, and to set a schedule for completing the arbitration.
    F. It is the intent of the parties that, barring extraordinary circumstances, arbitration proceedings will be concluded with 120 calendar days from the date the arbitrator is

appointed. The arbitrator may extend the time limit in the interests of justice. Failure to adhere to this time limit shall not constitute a basis for challenging the award.

G. The arbitrator must issue a written, reasoned award within 20 calendar days from the date the hearing is formally closed, or as soon after that as is feasible. The sole remedy will be actual damages; no punitive damages are allowed.

H. Unless the arbitrator orders otherwise, the Parties must share arbitration costs equally, including arbitrator's fees and expenses. Each party must pay its own expenses and attorney's fees.

34. GRANTEE understands that grant funds may not be released until all delinquent reports and reversion of funds from prior grants are submitted to the COMMISSION.

35. GRANTEE agrees that grant funds are not to be expended for any indirect costs that may be incurred by GRANTEE for administering these funds unless explicitly approved in writing by the COMMISSION. This may include, but is not limited to, costs for services such as accounting, payroll, data processing, purchasing, personnel, and building use which may have been incurred by the GRANTEE.

36. Each party (as "Indemnitor") agrees to defend, indemnify, and hold harmless the other party (as "Indemnitee") from and against any and all claims, losses, liability, costs, or expenses, (including reasonable attorney's fees) (hereinafter collectively referred to as "Claims") arising out of bodily injury of any person (including death) or property damage, but only to the extent that such Claims which result in vicarious/derivative liability to the Indemnitee are caused by the act, omission, negligence, misconduct, or other fault of the Indeminitor, its officers, officials, agents, employees, or volunteers. If the GRANTEE is a State agency, board, commission, or university of the State of Arizona, this paragraph shall not apply.

37. Should GRANTEE utilize a contractor(s) and subcontractor(s) the indemnification clause between GRANTEE and its contractor(s) and subcontractor(s) shall include the following:

    Contractor shall defend, indemnify, and hold harmless the GRANTEE and the State of Arizona, and any jurisdiction or agency issuing any permits for any work arising out of this Agreement, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of the contractor or any of the directors, officers, agents, or employees or subcontractors of such contractor. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by such contractor from and against any and all claims. It is agreed that such contractor will be responsible for primary loss investigation, defense, and judgment costs where this indemnification is applicable. Additionally, on all applicable insurance policies, contractor and its subcontractors shall name the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as an additional insured and also include a waiver of subrogation in favor of the State. Insurance requirements for any contractor used by GRANTEE are incorporated herein by this reference and attached to this Agreement as Exhibit "A."

38. Restrictions and certifications regarding non-disclosure agreements and related matters

No GRANTEE under this award, or entity that receives a procurement contract or subcontract with any funds under this award, may require any employee or contractor to sign an internal confidentiality agreement or statement that prohibits or otherwise restricts, or purports to prohibit or restrict, the reporting (in accordance with law) of waste, fraud, or abuse to an investigative or law enforcement representative of a federal department or agency authorized to receive such information.

The foregoing is not intended, and shall not be understood by the agency making this award, to contravene requirements applicable to Standard Form 312 (which relates to classified information), Form 4414 (which relates to sensitive compartmented information), or any other form issued by a federal department or agency governing the nondisclosure of classified information.

A. In accepting this award, the GRANTEE-

i) represents that it neither requires nor has required internal confidentiality agreements or statements from employees or contractors that currently prohibit or otherwise currently restrict (or purport to prohibit or restrict) employees or contractors from reporting waste, fraud, or abuse as described above; and

ii) certifies that, if it learns or is notified that it is or has been requiring its employees or contractors to execute agreements or statements that prohibit or otherwise restrict (or purport to prohibit or restrict), reporting of waste, fraud, or abuse as described above, it will immediately stop any further obligations of award funds, will provide prompt written notification to the federal agency making this award, and will resume (or permit resumption of) such obligations only if expressly authorized to do so by that agency.

B. If the GRANTEE does or is authorized under this award to make subawards ("subgrants"), procurement contracts, or both—

i) it represents that-

(1) it has determined that no other entity that the recipient's application proposes may or will receive award funds (whether through a subaward ("subgrant"), procurement contract, or subcontract under a procurement contract) either requires or has required internal confidentiality agreements or statements from employees or contractors that currently prohibit or otherwise currently restrict (or purport to prohibit or restrict) employees or contractors from reporting waste, fraud, or abuse as described above; and

(2) it has made appropriate inquiry, or otherwise has an adequate factual basis, to support this representation; and

ii) it certifies that, if it learns or is notified that any sub-recipient, contractor, or subcontractor entity that receives funds under this award is or has been requiring its employees or contractors to execute agreements or statements that prohibit or otherwise restrict (or purport to prohibit or restrict), reporting of waste, fraud, or abuse as described above, it will immediately stop any further obligations of award funds to or by that entity, will provide prompt written notification to the federal agency making this award, and will resume (or permit resumption of) such obligations only if expressly authorized to do so by that agency.

39. GRANTEE agrees to notify the COMMISSION within ten (10) days in the event that the project official is replaced during the award period.

40. No rights or interest in this Agreement shall be assigned by GRANTEE without prior written approval of the COMMISSION.

41. GRANTEE will comply with the audit requirements of *Uniform Guidance (2 CFR 200 subpart F 200.500)* and provide the COMMISSION with the audit report and any findings within 90 days of receipt of such finding. If the report contains no findings, the GRANTEE must provide notification that the audit was completed.
    Link: *Audit Requirements for OJP Awards:*
    https://ojp.gov/funding/pdfs/AuditRequirementsPart200.pdf

42. GRANTEE certifies that it will comply with the Uniform Administrative Requirements, Cost Principles, and Audit Requirements in 2 C.F.R. Part 200, as adopted and supplemented by DOJ in 2 C.F.R. Part 2800 (together, the "Part 200 Uniform Requirements") and the OJP Financial Guide.
    Link: *2 C.F.R Part 200 for OJP Awards:*
    https://ojp.gov/funding/Part200UniformRequirements.htm

43. Compliance with general appropriations-law restrictions on the use of federal funds for awards made after FY 2018. GRANTEE or sub-grantee at any tier must comply with all applicable restrictions on the use of federal funds set out in federal appropriations statutes. Should a question arise as to whether a particular use of federal funds by a GRANTEE would or might fall within the scope of an appropriations-law restriction, the recipient is to contact OJP for guidance, and may not proceed without the express prior written approval of OJP. Pertinent restrictions, including from various "general provisions" in the Consolidated Appropriations Act, 2018 https://ojp.gov/funding/Explore/FY18AppropriationsRestrictions.htm

44. GRANTEE agrees that it cannot use any federal funds, either directly or indirectly, in support of any contract or subaward to either the Association of Community Organizations for Reform Now (ACORN) or its subsidiaries, without the express written approval of the Office of Justice Programs through the COMMISSION.

45. GRANTEE understands and agrees that misuse of award funds may result in a range of penalties, including suspension of current and future funds, suspension or debarment from federal grants, recoupment of monies provided under an award, and civil and/or criminal penalties.

46. GRANTEE agrees not to do business with any individual, agency, company, or corporation listed in the Excluded Parties Listing Service.
    Link: *System for Award Management* https://www.sam.gov/SAM/

47. GRANTEE agrees to ensure that, no later than the due date of the GRANTEE's first financial report after the award is made, GRANTEE and any subgrantees have a valid DUNS profile and active registration with the System for Award Management (SAM) database.

48. GRANTEE certifies that it presently has no financial interest and shall not acquire any financial interest, direct or indirect, which would conflict in any manner or degree with the performance of services required under this Agreement.

49. GRANTEE understands and agrees that any training or training materials developed or delivered with funding provided under this award must adhere to the *OJP Training Guide Principles for Grantees and Subgrantees*.
Link: *OJP Training Guide Principles for Grantees and Subgrantees* https://ojp.gov/funding/Implement/TrainingPrinciplesForGrantees-Subgrantees.htm

50. GRANTEE agrees to cooperate and participate with any and all assessments, evaluation efforts or information and data collection requests and acknowledges that the federal or state grantor agency has the right to obtain, reproduce, publish or use data provided under this award and may authorize others to receive and use such information.

51. GRANTEE shall provide the COMMISSION with a copy of all interim and final reports and proposed publications (including those prepared for conferences and other presentations) resulting from this Agreement. Submission of such materials must be prior to or simultaneous with their public release.

52. GRANTEE agrees that any publications (written, visual, or sound) excluding press releases and newsletters, whether published at the GRANTEE'S or COMMISSION'S expense, shall contain the following statement:

    "This was supported by Award No. 2018-DJ-BX-0444 awarded by the Bureau of Justice Assitance, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect the views of the Department of Justice."

53. GRANTEE agrees to comply with the non-discrimination requirements of the Omnibus Crime Control and Safe Streets Act (Safe Streets Act) of 1968, as amended, 34 U.S.C. § 10228(c); the Victims of Crime Act of 1984, as amended, 34 U.S.C. § 20110(e); the Juvenile Justice and Delinquency Prevention Act of 1974, as amended, 34 U.S.C. § 11182(b); and VAWA, as amended, 34 U.S.C. § 12291(b)(13), contain prohibitions against discrimination on the basis of religion in employment. Despite these nondiscrimination provisions, the DOJ has concluded that it may construe the Religious Freedom Restoration Act (RFRA) on a case-by-case basis to permit some faith-based organizations to receive DOJ funds while taking into account religion when hiring staff, even if the statute that authorizes the funding program generally forbids recipients from considering religion in employment decisions. Please consult with the OCR if you have any questions about the regulation or the application of RFRA to the statues that prohibit discrimination in employment. An organization that is a recipient of financial assistance subject to the nondiscrimination provisions of the Safe Streets Act, must meet two obligations: (1) complying with the federal regulation pertaining to the development of an EEOP (see 28 C.F.R. pt. 42, subpt. E) and (2) submitting to the OCR findings of discrimination (see 28 C.F.R. §§ 42.204(c), .205(c)(5)). If in the three years prior to the date of the grant award a Federal or State Court or Federal or State administrative agency makes a finding of discrimination after a due process hearing against GRANTEE, GRANTEE will forward a copy of the findings to the Office for Civil Rights, Office of Justice Programs and the COMMISSION.

54. In accordance with DOJ guidance pertaining to Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, recipients of federal financial assistance must take reasonable steps to provide meaningful access to their programs and activities for persons with limited English proficiency (LEP). See U.S. Department of Justice, Guidance to Federal Financial Assistance Recipient Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons, 67 Fed. Reg. 41,455 (2002). For more information on the civil rights responsibilities that recipients have in providing language services to LEP individuals, please see the website:
Link: *Limited English Proficiency A Federal Interagency Website* http://www.LEP.gov

55. GRANTEE agrees to comply with the applicable requirements of 28 CFR Part 38, the Department of Justice regulation governing "Partnerships with Faith-Based and Other Neighborhood Organizations" (the "PFNBO"). The PFNBO Regulation provides in part that Department of Justice financial assistance may not be used to fund any inherently religious activities, such as worship, religious instruction, or proselytization. Recipients of Department of Justice financial assistance may still engage in inherently religious activities, but such activities must be separate in time or place from the Department of Justice funded program, and participation in such activities by individuals receiving services from GRANTEE must be voluntary. The PFNBO Regulation also makes clear that organizations participating in programs receiving financial assistance from the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. Notwithstanding any other special condition of this award, faith-based organizations may, in some circumstances, consider religion as a basis for employment.
Link:
https://ojp.gov/funding/Explore/SolicitationRequirements/CivilRightsRequirements.htm#NDPFaith

56. Requirements pertaining to prohibited conduct related to trafficking in persons (including reporting requirements and OJP authority to terminate award)

    The GRANTEE or subgrantee at any tier, must comply with all applicable requirements (including requirements to report allegations) pertaining to prohibited conduct related to the trafficking of persons, whether on the part of recipients, GRANTEES, or individuals defined (for purposes of this condition) as "employees" of the recipient or of any GRANTEE.

    The details of the recipient's obligations related to prohibited conduct related to trafficking in persons are posted on the OJP web site at http://ojp.gov/funding/Explore/ProhibitedConduct-Trafficking.htm (Award condition: Prohibited conduct by recipients and GRANTEES related to trafficking in persons (including reporting requirements and OJP authority to terminate award)) and are incorporated by reference here.

57. GRANTEE should be mindful that the misuse of arrest or conviction records to screen either applicants for employment or employees for retention or promotion may have a disparate impact based on race or national origin, resulting in unlawful employment discrimination. As of June 2013, OJP has issued an advisory that grantees should consult local counsel in reviewing their employment practices. If warranted, grantees should also incorporate an analysis of the use of arrest and conviction records in their Equal Employment Opportunity Plan (EEOP). See Advisory for Recipients of Financial Assistance from the U.S. Department of Justice on the U.S. Equal Employment Opportunity Commission's Enforcement Guidance: Consideration of Arrest and Conviction Records in Employment Decisions Under Title VII of the Civil Rights Act of 1964 (June 2013), available at http://www.ojp.gov/about/ocr/pdfs/UseofConviction_Advisory.pdf.

58. GRANTEE assures that it will comply with all state and federal laws regarding privacy during the course of the award. All information relating to clients is to be treated with confidentiality in accordance with 42 USC section 3789g or 42 USC 14132(b)(3) that are applicable to the collection, disclosure, use, and revelation of data information. GRANTEE further agrees to submit a privacy Certificate that is in accordance with requirements of 28 CFR Part 22 if applicable to the program.

59. GRANTEE agrees to formulate and keep on file an EEOP (if GRANTEE is required pursuant to 28 CFR 42 Subpart E). GRANTEE certifies that they have forwarded to the Office for Civil Rights, Office of Justice Programs the EEOP, or certifications that they have prepared and have on file an EEOP, or that they are exempt from EEOP requirements. Failure to comply may result in suspension of grant funds. Copies of all submissions such as certifications to or

correspondence with the Office for Civil Rights, Office of Justice Programs regarding this requirement must be provided to the COMMISSION by GRANTEE. In the event a federal or state court or federal or state administrative agency makes an adverse finding of discrimination against GRANTEE after a due process hearing, on the ground of race, color, religion, national origin, or sex, GRANTEE will forward a copy of the findings to the Office for Civil Rights, Office of Justice Programs and the COMMISSION (see 28 CFR 42.204(c), .205(c)(5)). .

60. GRANTEE agrees to participate in any required civil rights related training to ensure compliance with all federal and state civil rights laws. GRANTEE will inform the COMMISSION of the position responsible for civil rights compliance and will inform the COMMISSION of change in personnel responsible for civil rights compliance within ten days.
Link: http://www.azcjc.gov/grants

61. Compliance with 41 U.S.C. 4712 (including prohibitions on reprisal; notice to employees) GRANTEE must comply with and is subject to, all applicable provisions of 41 U.S.C. 4712, including all applicable provisions that prohibit, under specified circumstances, discrimination against an employee as reprisal for the employee's disclosure of information related to gross mismanagement of a federal grant, a gross waste of federal funds, an abuse of authority relating to a federal grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal grant.

    GRANTEE also must inform its employees, in writing (and in the predominant native language of the workforce), of employee rights and remedies under 41 U.S.C. 4712. Should a question arise as to the applicability of the provisions of 41 U.S.C. 4712 to this award, the recipient is to contact the DOJ awarding agency (OJP or OVW, as appropriate) for guidance.

62. To support public safety and justice information sharing, GRANTEE, if a governmental subdivision, shall use the National Information Exchange Model (NIEM) specifications and guidelines for this grant. GRANTEE shall publish and make available without restrictions all schemas generated as a result of this grant to the component registry as specified in the guidelines.
Link: http://niem.github.io/reference/specifications/

63. In order to promote information sharing and enable interoperability among disparate systems across the justice and public safety community, OJP requires the grantee to comply with DOJ's Global Justice Information Sharing Initiative (DOJ's Global) guidelines and recommendations for this particular grant. Grantee shall conform to the Global Standards Package (GSP) and all constituent elements, where applicable, as described at:
Link: https://it.ojp.gov/gsp_grantcondition

    Grantee shall document planned approaches to information sharing and describe compliance to the GSP and appropriate privacy policy that protects shared information, or provide detailed justification for why an alternative approach is recommended.

64. To avoid duplicating existing networks or IT systems in any initiatives for law enforcement information sharing systems which involve interstate connectivity between jurisdictions, such systems shall employ, to the extent possible, existing networks as the communication backbone to achieve interstate connectivity, unless GRANTEE can demonstrate to the satisfaction of the COMMISSION that this requirement would not be cost beneficial or would impair the functionality of an existing or proposed IT system.

65. If GRANTEE is a governmental political subdivision, the GRANTEE should, to the extent possible and practical, share criminal justice information with other authorized criminal justice agencies. The process control number (PCN) shall be used in accordance with A.R.S. § 41-

1750 when sharing data with other criminal justice agencies as electronic data systems are developed or improved.

66. If GRANTEE is a state agency and the award is for the development of information technology projects for more than $25,000, GRANTEE must complete a Project Investment Justification (PIJ) and submit the justification to the Arizona Department of Administration (ADOA), with a copy to the COMMISSION. GRANTEE agrees to submit required project status reports to ADOA by the due dates and submit copies to the COMMISSION.

    If GRANTEE is not a state agency and the award is for the development of information technology projects, GRANTEE will follow local technology policies and guidelines.

67. GRANTEE must promptly refer to the COMMISSION any credible evidence that a principal, employee, agent, contractor, sub-grantee, contractor, subcontractor, or other person has, in connection with funds under this award, has either 1) submitted a false claim that violates the False Claims Act; or 2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct. The COMMISSION shall forward the referral to the Department of Justice, Office of the Inspector General.

68. The COMMISSION encourages GRANTEE to establish workplace safety policies and conduct education, awareness and other outreach to decrease crashes caused by distracted drivers, including adopting and enforcing policies banning employees from text messaging while driving any vehicle during the course of performing work funded by this grant. Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving," 74 Fed. Reg. 51225 (October 2009).

69. GRANTEE certifies to comply with the Drug-Free Workplace Act of 1988, and implemented in 28 CFR Part 83, Subpart F, for grantees, as defined in 28 CFR, Part 83 Sections 83.620 and 83.650.

70. GRANTEE agrees to complete and keep on file, as appropriate, Immigration and Naturalization Form (I-9). This form is to be used by recipients to verify that persons are eligible to work in the United States. Additionally, GRANTEE ensures compliance with A.R.S. § 41-4401 by state employers and contractors.

71. GRANTEE acknowledges that immigration laws require them to register and participate with the E-Verify program (employment verification program administered by the United States Department of Homeland Security and the Social Security Administration or any successor program) as they both employ one or more employees in this state. GRANTEE warrants that they have registered with and participate with E-Verify. If the COMMISSION later determines that the GRANTEE has not complied with E-Verify, it will notify the non-compliant GRANTEE by certified mail of the determination and of the right to appeal the determination.

72. GRANTEE certifies that no federal funds will be paid, by or on behalf of, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into any cooperative agreement, and for the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement. If any funds other than Federal funds are paid or will be paid to any person for influencing or attempting to influence an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal award, grant loan, or cooperative agreement, the GRANTEE will complete and submit to the COMMISSION Standard Form-LLL, "Disclosure Form to Report Lobbying" in accordance with its instructions.

73. GRANTEE understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy at any level of government, without the express prior written approval of the Commission.

74. GRANTEE agrees that no funds provided, or personnel employed under this Agreement shall be in any way, or to any extent, engaged in conduct of political activities in violation of USC Title 5, Part II, Chapter 15, section 1502.

75. GRANTEE understands and agrees that award funds may not be used to discriminate against or denigrate the religious or moral beliefs of students who participate in programs for which financial assistance is provided from those funds, or of the parents or legal guardians of such students.

76. GRANTEE understands and agrees that- (a) no award funds may be used to maintain or establish a computer network unless such network blocks the viewing, downloading and exchanging or pornography, and (b) nothing in subsection (a) limits the use of funds necessary for any Federal, State, tribal or local law enforcement agency or any other entity carrying out criminal investigations, prosecution, or adjudication activities.

77. GRANTEE agrees to comply with all federal, state, and local environmental laws and regulations applicable to the development and implementation of activities to be funded under this award. Additional requirements may be found in the Grant Agreement Continuation Sheet.

78. GRANTEE agrees that all gross income earned by the GRANTEE that is directly generated by a supported activity or earned as a result of this award during the period of performance shall be deemed program income. All program income must be accounted for and used for the purpose under the conditions applicable for the use of funds under this award, including the effective edition of the OJP Financial Guide and, as applicable in 2 C.F.R. Part 200 Uniform Requirements.

79. This Agreement is subject to cancellation pursuant to the provision of A.R.S. § 38-511. This Agreement may also be canceled at the COMMISSION'S discretion if not returned with authorized signatures to the COMMISSION within 90 days of commencement of the award.

80. If any provision of this Agreement is held invalid, the remainder of the Agreement shall not be affected thereby, and all other parts of this Agreement shall be in full force and effect.

81. GRANTEE agrees to comply with all Special Condition(s) included with this Agreement on the Grant Agreement Continuation Sheet.

82. GRANTEE understands that grant funds may not be released until GRANTEE is compliant with all requirements of the grant agreement.

Arizona Criminal Justice Commission

Drug, Gang, and Violent Crime Control

GRANT AGREEMENT CONTINUATION SHEET

SPECIAL CONDITION(S)

1. GRANTEE must verify Agency Point of Contact (APOC), Financial Point of Contact (FPOC), Program Point of Contact (PPOC), and Authorized Official contact information in the Grants Management System (GMS), including telephone number and e-mail address. If any information is incorrect or has changed, a Grant Adjustment Notice (GAN) must be submitted via the GMS to document changes. In addition, the FPOC and PPOC must be assigned by the APOC prior to payments being made.

2. GRANTEE agrees to comply with the requirements of 28 C.F.R. Part 46 and all Office of Justice Programs policies and procedures regarding the protection of human research subjects, including obtainment of Institutional Review Board approval, if appropriate, and subject informed consent.

3. GRANTEE agrees to comply with all confidentiality requirements of 34 U.S.C section 10231 and 28 C.F.R. Part 22 that are applicable to collection, use, and revelation of data or information. GRANTEE further agrees, as a condition of grant approval, to submit a Privacy Certificate that is in accord with requirements of 28 C.F.R. Part 22 and, in particular, section 22.23.

4. GRANTEE ensures that it uses generally accepted laboratory practices and procedures as established by accrediting organizations or appropriated certifying bodies.

5. Absent prior express written approval from the COMMISSION, rates for any lodging charged to the grant may not exceed the posted GSA rate for the location. If the GRANTEE opts to obtain lodging at a higher rate, the cost differential, including associated taxes, may not be charged to the award.

6. GRANTEE acknowledges that OJP reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use (in whole or in part, including in connection with derivative works), for Federal purposes: (1) any work subject to copyright developed under an award or subaward; and (2) any rights of copyright to which a recipient or subrecipient purchases ownership with Federal support.

7. GRANTEE understands and agrees that program income earned during the award period and expenditures from program income must be reported quarterly with a final report. These funds are subject to audit. Program income that is earned during the final sixty (60) days of the award period, if appropriate, be obligated and expended for permissible uses during the sixty-day (60-day) period following the award period. Any program income that is earned, but not obligated or expended within sixty (60) days of the end of the award period must be returned to the COMMISSION.

8. GRANTEE agrees that within 120 days of award, for any law enforcement task force funded with these funds, the task force commander, agency executive, task force officers and other task force members of equivalent rank, will complete required online (internet-based) task force training to be provided free of charge through BJA's Center for Task Force Integrity and Leadership (www.ctfli.org). Task force members need only take the training once every four years. GRANTEE will compile and maintain a task force personnel roster and course completion certificates.

9. Quarterly performance metrics reports must be submitted through BJA's Performance Measurement Tool (PMT) website (https://ojpsso.ojp.gov/). For more detailed information on reporting and other JAG requirements, refer to the JAG reporting requirements webpage. Failure to submit required JAG reports by established deadlines may result in the freezing of grant funds and future High-Risk designation.

10. Any law enforcement agency receiving direct or sub-awarded JAG funding must submit quarterly accountability metrics data related to training that officers have received on the use of force, racial and ethnic bias, de-escalation of conflict, and constructive engagement with the public.

11. GRANTEE must comply with all provisions of Title 8, United States Code, Section 1373, which addresses the exchange of information regarding citizenship and immigration status among federal, state, and local government entities and officials.

a. Requirement to collect certain information from sub-recipients

i) The recipient may not make a subaward to a State, a local government, or a "public" institution of higher education, unless it first obtains from the proposed sub-recipient responses to the questions identified in the program solicitation as "Information regarding Communication with the Department of Homeland Security (DHS) and/or Immigration and Customs Enforcement (ICE)." All sub-recipient responses must be collected and maintained by the recipient, consistent with regular document retention requirements, and must be made available to DOJ upon request. Responses to these questions are not required from sub-recipients that are either a tribal government/organization, a nonprofit organization or a private institution of higher education.

b. Noninterference (within the funded "program or activity") with federal law enforcement: 8 U.S.C. 1373 and 1644; ongoing compliance

i) With respect to the "program or activity" funded in whole or part under this award (including any such program or activity of any sub-recipient at any tier), throughout the period of performance, no State or local government entity, - agency, or -official may prohibit or in any way restrict-- (I) any government entity or -official from sending or receiving information regarding citizenship or immigration status as described in 8 U.S.C. 1373(a); or (2) a government entity or -agency from sending, requesting or receiving, maintaining, or exchanging information regarding immigration status as described in either 8 U.S.C. 1373(b) or 1644. Any prohibition (or restriction) that violates this condition is an "information-communication restriction" under this award.

ii) Certifications from sub-recipients. The recipient may not make a subaward to a State, a local government, or a "public" institution of higher education, unless it first obtains a certification of compliance with 8 U.S.C. 1373 and 1644, properly executed by the chief legal officer of the government or educational institution that would receive the subaward, using the appropriate form available at https://ojp.gov/funding/Explore/SampleCertifications-8USC1373.htm. Also, the recipient must require that no sub-recipient (at any tier) may make a further subaward to a State, a local government, or a public institution of higher education, unless it first obtains a certification of compliance with 8 U.S.C. 1373 and 1644, properly executed by the chief legal officer of the government or institution that would receive the further subaward, using the appropriate OJP form.

iii) Rules of Construction

(1) For purposes of this condition:

(2) "State" and "local government" include any agency or other entity thereof, but not any institution of higher education or any Indian tribe.

(3) "public" institution of higher education is defined as one that is owned, controlled, or directly funded (in whole or in substantial part) by a State or local government. (Such a public institution is considered to be a "government entity," and its officials to be "government officials.")

(4) "Program or activity" means what it means under title VI of the Civil Rights Act of 1964 (see 42 U.S.C. 2000d-4a).

(5) "Immigration status" means what it means under 8 U.S.C. 1373 and 8 U.S.C. 1644; and terms that are defined in 8 U.S.C. 1101 mean what they mean under that section 1101, except that "State" also includes American Samoa.

(6) Pursuant to the provisions set out at (or referenced in) 8 U.S.C. 1551 note ("Abolition ... and Transfer of Functions"), references to the "Immigration and Naturalization Service" in 8 U.S.C. 1373 and 1644 are to be read as references to particular components of the Department of Homeland Security (DHS).

iv) Nothing in this condition shall be understood to authorize or require any recipient, any sub-recipient at any tier, any State or local government, any public institution of higher education, or any other entity (or individual) to violate any federal law, including any applicable civil rights or nondiscrimination law.

c. Noninterference (within the funded "program or activity") with federal law enforcement: No public disclosure of certain law enforcement sensitive information

SCOPE. This condition applies with respect to the "program or activity" that is funded (in whole or in part) by the award, as of the date the recipient accepts this award, and throughout the remainder of the period of performance. Its provisions must be among those included in any subaward (at any tier).

i) Noninterference: No public disclosure of federal law enforcement information in order to conceal, harbor, or shield

Consistent with the purposes and objectives of federal law enforcement statutes and federal criminal law (including 8 U.S.C. 1324 and 18 U.S.C. chs. I, 49,227), no public disclosure may be made of any federal law enforcement information in a direct or indirect attempt to conceal, harbor, or shield from detection any fugitive from justice under 18 U.S.C. ch. 49, or any alien who has come to, entered, or remains in the United States in violation of8 U.S.C. ch. 12 -- without regard to whether such disclosure would constitute (or could form a predicate for) a violation of 18 U.S.C. 1071 or 1072 or of 8 U.S.C. 1324(a).

ii) Rules of construction

(1) For purposes of this condition--

(2) the term "alien" means what it means under section 101 of the Immigration and Nationality Act (see 8 U.S.C.101(a)(3));

(3) the term "federal law enforcement information" means law enforcement sensitive information communicated or made available, by the federal government, to a State or local government entity, -agency, or -official, through any means, including, without limitation- (1) through any database, (2) in connection with any law enforcement partnership or -task-force, (3) in connection with any request for law enforcement assistance or -cooperation, or (4) through any de-confliction (or courtesy) notice of planned, imminent, commencing, continuing, or impending federal law enforcement activity;

(4) the term "law enforcement sensitive information" means records or information compiled for any law enforcement purpose; and

(5) the term "public disclosure" means any communication or release other than one-- (a) within the recipient, or (b) to any sub-recipient (at any tier) that is a government entity.

12. GRANTEE must submit the following documents within 45 days of award. Failure to submit the documents will result in a hold of grant funding. Documents may be emailed to dcadmin@azcjc.gov and originals must be kept at the GRANTEE'S agency.

a. ACJC Subgrantee Self-Assessment Questionnaire can be obtained at http://azcjc.gov/drug-gang-violent-crime

b. Benchmark Worksheet can be submitted through http://acjcreporting.azcjc.gov

c. For any agency that is eligible to receive income as a result of grant-funded activities, it must complete the ACJC Program Income Worksheet. The worksheet may be filled out at http://acjcreporting.azcjc.gov

Before the COMMISSION may transmit Federal funds from the FY 2018 Byrne/JAG grant, the GRANTEE is required to submit the properly executed certifications and questionnaire regarding compliance with 8 U.S.C § 1373.

d. Certifications and Assurances by the Chief Legal Officer of the Jurisdiction and DHS and ICE Communications Questionnaire. Failure to submit the following two (2) certifications and Questionnaire will result in a hold of Federal funds. The DHS and ICE Communications Questionnaire document will be sent by email with grant agreement documents and attachments. Certifications and Assurances and Communications Questionnaire and may be returned by email to dcadmin@azcjc.gov or by mail. The two required certifications can be obtained at:
https://ojp.gov/funding/Explore/pdf/FY18JAG_STATE_13731644_Rev0816.pdf
and
https://ojp.gov/funding/Explore/pdf/FY18JAG_STATE_VARIOUS_Rev1025.pdf

e. DHS and ICE Communications Questionnaire. Form can be found at: http://azcjc.gov/drug-gang-violent-crime

13. GRANTEE assures if they are a state agency that the State Information Technology Point of Contact receive written notification regarding any information technology project funded by this grant. GRANTEE agrees to keep on file documentation showing that it has met this requirement.

14. GRANTEE agrees and understands that funded activities may require the preparation of an Environmental Assessment (EA) as defined by the Council of Environmental Quality's Regulations for implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), found at 40 CFR Part 1500.

15. GRANTEE agrees to comply with all federal, state, and local environmental laws and regulations applicable to the development and implementation of activities to be funded under this award. The GRANTEE agrees and understands that complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. The GRANTEE further understands and agrees to requirements for the implementation of a Mitigation Plan, as detailed at https://www.bja.gov/Funding/nepa.html for programs relating to methamphetamine laboratory operations.

16. GRANTEE agrees that any information technology system developed or supported by funds will comply with 28 CFR Part 23, Criminal Intelligence Systems Operating Policies, if OJP determines this regulation be applicable. Should OJP determine 28 CFR Part 23 to be applicable, OJP may at its discretion, perform audits of the system, as per 28 CFR 23.20(g). Should any violation of 28 CFR Part 23 occur, GRANTEE may be fined as per 42 USC 3789g(c)-(d). GRANTEE may not satisfy such a fine with federal funds.

17. GRANTEE agrees that no JAG funds may be expended on unmanned aircraft, unmanned aircraft systems, or aerial vehicles (US, UAS, or UAV) without prior express written approval from Commission.

18. If JAG Program funds will be used for DNA testing of evidentiary materials, any resulting eligible DNA profiles must be uploaded to the Combined DNA Index System (CODIS, the national DNA database operated by the Federal Bureau of Investigation (FBI)) by a government DNA lab with access to CODIS. No profiles generated with JAG funding may be entered into any other non-governmental DNA database without prior express written approval from BJA. For more information, refer to the NIJ DNA Backlog Reduction Program, available at www.nij.gov/topics/forensics/lab-operations/evidence-backlogs/Pages/backlog-reduction-program.aspx.

In addition, funds may not be used for purchase of DNA equipment and supplies when the resulting DNA profiles from such technology are not accepted for entry into CODIS.

19. GRANTEE acknowledges the requirements of the award; remedies for non-compliance or for materially false statements. The conditions of this award are material requirements of the award. Compliance with any certifications or assurances submitted by or on behalf of the recipient that relate to conduct during the period of performance also is a material requirement of this award.

Failure to comply with any or more of these award requirements—whether a condition set out in full below, a condition incorporated by the reference below, or a certification or assurance related to conduct during the award period may result in the Office of Justice Programs ("OJP") taking appropriate action with respect to the recipient and the award. Among other things, the OJP may withhold finds, disallow costs, or suspend or terminate the award. The Department of Justice ("DOJ"), including OJP, also may take other legal action as appropriate.

Any materially false, fictitious, or fraudulent statement to the federal government related to this award (or concealment or omission of a material fact) may be the subject of criminal prosecution (including under 18 U.S.C 1001 and/or 1621, and/or 34 U.S.C. 10271-10273), and also may lead to imposition of civil penalties and administrative remedies for false claims or otherwise (including under 31 U.S.C 3729-3730 and 3801-3812).

Should any provision of a requirement of this award be held to be invalid or unenforceable by its terms, that provision shall first be applied with limited construction so as to give it the maximum effect permitted by law. Should it be held, instead, that the provision is utterly invalid or unenforceable, such provision shall be deemed severable from this award.

20. GRANTEE must have written procedures in place to respond in the event of an actual or imminent "breach" (OMB M-17-12) if it 1) creates, collects, uses, processes, stores, maintains, disseminates, discloses, or disposes of "personally identifiable information (PII)" (2 CFR 200.79) within the scope of an OJP grant-funded program or activity, or 2) uses or operates a "Federal information system" (OMB Circular A-130). The GRANTEE'S breach procedures must include a requirement to report actual or imminent break of PII to the COMMISSION no later than 24 hours after an occurrence of an actual breach, or the detection of an imminent breach.

21. Noninterference (within the funded "program or activity") with federal law enforcement: Interrogation of certain aliens

SCOPE. This condition applies with respect to the "program or activity" that is funded (in whole or in part) by this award, as of the date the recipient accepts this award, and throughout the remainder of the period of performance for the award. Its provisions must be among those included in any subaward (at any tier).

a. Noninterference with statutory law enforcement access to correctional facilities

Consonant with federal law enforcement statutes and regulations -- including 8 U.S.C. 1357(a), under which certain federal officers and employees "have power without warrant ... to interrogate any alien or person believed to be an alien as to his right to be or to remain in the United States," and 8 C.F.R. 287.S(a), under which that power may be exercised "anywhere in or outside the United States" - within the funded program or activity, no State or local government entity, -agency, or -official may interfere with the exercise of that power to interrogate "without warrant" (by agents of the United States acting under color of federal law) by impeding access to any State or local government (or government-contracted) correctional facility by such agents for the purpose "interrogat[ing] any alien or person believed to be an alien as to his [or her] right to be or to remain in the United States."

b. Rules of construction

i) For purposes of this condition:

(1) The term "alien" means what it means under section 101 of the Immigration and Nationality Act (INA) (see 8 U.S.C. l 101(a)(3)).

(2) The term "correctional facility" means what it means under the title I of the Omnibus Crime Control and Safe Streets Act of 1968 (see 34 U.S.C. 1025 l(a)(7)).

(3) The term "impede" includes taking or continuing any action, or implementing or maintaining any law, policy, rule, or practice, that-

(a) is designed to prevent or to significantly delay or complicate, or

(b) has the effect of preventing or of significantly delaying or complicating.

ii) Both the "Rules of Construction" and the "Important Note" set out in the "Noninterference (within the funded 'program or activity') with federal law enforcement: 8 U.S.C. 1373 and 1644 and ongoing compliance" award condition are incorporated by reference as though set forth here in full.

22. Noninterference (within the funded "program or activity") with federal law enforcement: Notice of scheduled release

SCOPE. This condition applies with respect to the "program or activity" that is funded (in whole or in part) by the award, as of the date the recipient accepts the award, and throughout the remainder of the period of performance. Its provisions must be among those included in any subaward at any tier.

a. Noninterference with "removal" process: Notice of scheduled release date and time

Consonant with federal law enforcement statutes -- including 8 U.S.C. 1231 (for an alien incarcerated by a State or local government, a 90-day "removal period" during which the federal government "shall" detain and then "shall" remove an alien from the U.S. "begins" no later than "the date the alien is released from ... confinement"; also, the federal government is expressly authorized to make payments to a "State or a political subdivision of the State ... with respect to the incarceration of [an] undocumented criminal alien"); 8 U.S.C. 1226 (the federal government "shall take into custody" certain criminal aliens "when the alien is released"); and 8 U.S.C. 1366 (requiring an annual DOJ report to Congress on "the number of illegal alien[felons] in Federal and State prisons" and programs underway "to ensure the prompt removal" from the U.S. of removable "criminal aliens") -- within the funded program or activity, no State or local government entity, -agency, or -official (including a government-contracted correctional facility) may interfere with the "removal" process by failing to provide - as early as practicable (see para. 4.C. below) -- advance notice to DHS of the scheduled release date and time for a particular alien, if a

State or local government (or government- contracted) correctional facility receives from DHS a formal written request pursuant to the INA that seeks such advance notice.

b. Rules of construction

i) For purposes of this condition:

(1) The term "alien" means what it means under section 101 of the INA (see 8 U.S.C. 110l(a)(3)).

(2) The term "correctional facility" means what it means under the title I of the Omnibus Crime Control and Safe Streets Act of 1968 (see 34 U.S.C. 10251(a)(7)).

ii) Nothing in this condition shall be understood to authorize or require any recipient, any sub-recipient at any tier, any State or local government, or any other entity or individual to maintain (or detain) any individual in custody beyond the date and time the individual otherwise would have been released.

iii) Applicability

(1) Current DHS practice is ordinarily to request advance notice of scheduled release "as early as practicable (at least 48 hours, if possible)." (See DHS Form I-247A (3/17)). If (e.g., in light of the date DHS made such request) the scheduled release date and time for an alien are such as not to allow for the advance notice that DHS has requested, it shall NOT be a violation of this condition to provide only as much advance notice as practicable.

(2) Current DHS practice is to use the same form for a second, distinct purpose - to request that an individual be detained for up to 48 hours AFTER the scheduled release. This condition does NOT encompass such DHS requests for detention.

iv) Both the "Rules of Construction" and the "Important Note" set out in the "Noninterference (within the funded 'program or activity') with federal law enforcement: 8 U.S.C. 1373 and 1644 and ongoing compliance" award condition are incorporated by reference as though set forth here in full.

Authorized Official Initials:_____

IN WITNESS WHEREOF, the parties have made and executed the Agreement the day and year first above written.

FOR GRANTEE:

Authorized Signatory Date

Greg Clifton, City Manager

Printed Name and Title

Approved as to form and authority to enter into Agreement:

Legal counsel for GRANTEE Date

Marianne Sullivan, Senior Assistant City Attorney

Printed Name and Title

Statutory or other legal authority to enter into Agreement:

Arizona Revised Statue 11-952

Appropriate A.R.S., ordinance, or charter reference

FOR CRIMINAL JUSTICE COMMISSION:

Andrew T. LeFevre, Executive Director Date
Arizona Criminal Justice Commission

ARIZONA CRIMINAL JUSTICE COMMISSION
GRANT AGREEMENT

Insurance Requirements
Exhibit "A"

***Insurance Requirements* for Governmental Parties to a Grant Agreement:**

None.

***Insurance Requirements* for Any Contractors Used by a Party to the Grant Agreement:**

(Note: this applies only to Contractors used by a governmental entity, not to the governmental entity itself.) The *insurance requirements* herein are minimum requirements and in no way limit the indemnity covenants contained in the Intergovernmental Agreement. The State of Arizona in no way warrants that the minimum limits contained herein are sufficient to protect the governmental entity or Contractor from liabilities that might arise out of the performance of the work under this Contract by the Contractor, his agents, representatives, employees or subcontractors, and Contractor and the governmental entity are free to purchase additional insurance.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE:** Contractor shall provide coverage with limits of liability not less than those stated below.

1. **Commercial General Liability – Occurrence Form**
   Policy shall include bodily injury, property damage, and broad form contractual liability.
   - General Aggregate $2,000,000
   - Products-Completed Operations Aggregate $1,000,000
   - Personal and Advertising Injury $1,000,000
   - Fire Legal Liability $50,000
   - Each Occurrence $1,000,000

   a. The policy shall be endorsed, as required by this written agreement, to include the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by or on behalf of the Contractor.

      (Note that the other governmental entity(ies) is/are also required to be additional insured(s), and they should supply the Contractor with their own list of persons to be insured.)

   b. Policy shall contain a waiver of subrogation endorsement, as required by this written agreement, in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

Exhibit "A" Page 2

2. **Business Automobile Liability**
   Bodily Injury and Property Damage for any owned, hired, and/or non-owned vehicles used in the performance of this Contract.

   Combined Single Limit (CSL) $1,000,000

   a. The policy shall be endorsed, as required by this written agreement, to include the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees as additional insureds with respect to liability arising out of the activities performed by or on behalf of, the Contractor involving automobiles owned, hired and/or non-owned by the Contractor.

   b. Policy shall contain a waiver of subrogation endorsement as required by this written agreement in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

      (Note that the other governmental entity(ies) is/are also required to be additional insured(s), and they should supply the Contractor with their own list of persons to be insured.)

3. **Worker's Compensation and Employers' Liability**

Workers' Compensation	Statutory
Employers' Liability	
Each Accident	$1,000,000
Disease – Each Employee	$1,000,000
Disease – Policy Limit	$1,000,000

   a. Policy shall contain a waiver of subrogation endorsement, as required by this written agreement, in favor of the State of Arizona, and its departments, agencies, boards, commissions, universities, its officers, officials, agents, and employees for losses arising from work performed by or on behalf of the Contractor.

   b.
   This requirement shall not apply to each contractor or subcontractor that is exempt under A.R.S. § 23-901, and when such contractor or subcontractor executes the appropriate waiver form (Sole Proprietor or Independent Contractor).

Additional Insurance Requirements:

The policies shall include, or be endorsed to include, as required by this written agreement, the following provisions:

The Contractor's policies shall stipulate that the insurance afforded the Contractor shall be primary and that any insurance carried by the Department, its agents, officials, employees or the State of Arizona shall be excess and not contributory insurance, as provided by A.R.S. § 41-621 (E).

Insurance provided by the Contractor shall not limit the Contractor's liability assumed under the indemnification provisions of this Contract.

Notice of Cancellation:
For each insurance policy required by the insurance provisions of this Contract, the Contractor must provide to the State of Arizona, within two (2) business days of receipt, a notice if a policy is suspended,

voided, or cancelled for any reason. Such notice shall be mailed, emailed, hand delivered or sent by facsimile transmission to (Enter Contracting Agency Representative's Name, Address, and Fax Number Here).

Acceptability of Insurers:
Contractor's insurance shall be placed with companies licensed in the State of Arizona or hold approved non-admitted status on the Arizona Department of Insurance List of Qualified Unauthorized Insurers. Insurers shall have an "A.M. Best" rating of not less than A- VII. The State of Arizona in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

Verification of Coverage:
Contractor shall furnish the State of Arizona with certificates of insurance (valid ACORD form or equivalent approved by the State of Arizona) as required by this Contract. An authorized representative of the insurer shall sign the certificates.

All certificates and endorsements, as required by this written agreement, are to be received and approved by the State of Arizona before work commences. Each insurance policy required by this Contract must be in effect at, or prior to, the commencement of work under this Contract. Failure to maintain the insurance policies as required by this Contract, or to provide evidence of renewal, is a material breach of contract.

All certificates required by this Contract shall be sent directly to the Department. The State of Arizona project/contract number and project description shall be noted on the certificate of insurance. The State of Arizona reserves the right to require complete copies of all insurance policies required by this Contract at any time.

Subcontractors:
Contractor's certificate(s) shall include all subcontractors as insureds under its policies or Contractor shall be responsible for ensuring and/or verifying that all subcontractors have valid and collectible insurance as evidenced by the certificates of insurance and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum Insurance Requirements identified above. The Department reserves the right to require, at any time throughout the life of the Contract, proof from the Contractor that its subcontractors have the required coverage.

Approval and Modifications:
The Contracting Agency, in consultation with State Risk, reserves the right to review or make modifications to the insurance limits, required coverages, or endorsements throughout the life of this contract, as deemed necessary. Such action will not require a formal Contract amendment but may be made by administrative action.

Exceptions:
In the event the Contractor or subcontractor(s) is/are a public entity, then the Insurance Requirements shall not apply. Such public entity shall provide a certificate of self-insurance. If the Contractor or subcontractor(s) is/are a State of Arizona agency, board, commission, or university, none of the above shall apply.

10. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Jessica Lawrence, Visitor Center Manager
Co-Submitter:	Trace Ward
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

~~**Consideration and Approval of Lease of City-Owned Property:** Amendment to extend the Flagstaff Railroad Passenger Station Facility Lease with National Railroad Passenger Corporation (Amtrak) for a term of five (5) years, with options for renewal.~~

STAFF RECOMMENDED ACTION:

~~Approve an Amendment extending the Facility Railroad Passenger Station Facility Lease for a term of five years, with options for renewal.~~

MOVED TO SEPTEMBER 17TH COUNCIL MEETING

Executive Summary:

Approval of an Amendment to extend the Flagstaff Railroad Passenger Station Facility Lease with Amtrak for use of the building located at 1 East Route 66, Flagstaff, AZ, 86001.

The Lease is for the interior area on the east side of the building consisting of approximately 1,000 square feet. The space will be used for the purpose of operating a passenger rail service with associated offices.

Financial Impact:

The City will receive $14,456.60 in rent for the first full year commencing October 1, 2019, and rent shall be increased 3% annually. The City pays for all utilities, maintenance and repair of the premises.

Policy Impact:

None.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

TRANSPORTATION AND OTHER PUBLIC INFRASTRUCTURE

Deliver quality community assets and continue to advocate and implement a highly performing multi-modal transportation system.

Has There Been Previous Council Decision on This:

The City Council approved the original Lease, and it continues through September 30, 2019. The Lease will terminate unless this Amendment is approved.

Options and Alternatives:

1. Not approve the Amendment to extend the Lease and issue a competitive solicitation. This not recommended because as a practical matter the Flagstaff community benefits from having this centrally located railroad passenger station. Amtrak is considered to be a "sole source" provider for railroad passenger services.

2. Direct staff to try and negotiate a higher annual lease amount and/or a different lease terms with Amtrak.

Background/History:

The City of Flagstaff acquired the Railroad Passenger Station in 1993 from the Atchison, Topeka and Santa Fe Railway Company and assumed the lease to Amtrak to provide passenger rail service to Flagstaff. In 1994, a ten (10) year lease agreement was signed and was renewed in 2004, 2009, and for the final term under the agreement in 2014.

Community Benefits and Considerations:

Amtrak provides an important role in multi-modal transportation in Flagstaff by providing passenger rail service to the community. In Fiscal Year 2018 there were 44,000 riders departing and arriving at the Flagstaff Station, placing Flagstaff in the top 100 of stations on long distance lines in the US.

Attachments: Current Lease
Proposed Lease Amendment

VCBR 2004

AMTRAK

NATIONAL RAILROAD PASSENGER CORPORATION
530 WATER STREET, 5TH FLOOR
OAKLAND, CA. 94607

DATE: 04/24/06

TIME: 10:00 Am

TO: MR. Denny Birkland

FAX NO. 928 779-7656

PHONE NO. 928 779-7623

FROM: RICHARD GUY
PROJECT DIRECTOR
REAL ESTATE DEVELOPMENT
PHONE: (510) 238-2615
FAX NO. (510) 433-5919

PAGES (INCLUDING COVER) 10 Cheese & Letter dated 11/9/04

COMMENTS: Thanks for your Asst. Denny.
Please make sure the invoice is
Sent to the Above Address to my
Attention. Thanks

FLAGSTAFF RAILROAD PASSENGER STATION FACILITY LEASE

THIS FLAGSTAFF RAILROAD PASSENGER STATION FACILITY LEASE ("Lease") is entered into as of 8th day of November, 2004 by and between the City of Flagstaff, a municipal corporation of the State of Arizona, located at 211 W. Aspen Avenue, Flagstaff, Arizona, 86001, ("Lessor"), and the National Railroad Passenger Corporation, a corporation organized under the Federal Rail Passenger Service Act and operating as a District of Columbia corporation with offices 60 Massachusetts Avenue, N.E., Washington, D.C., 20002, ("Lessee").

Recitals

A. Lessor is the owner in fee simple of the land and improvements comprising the Flagstaff Railroad Passenger Station and the Flagstaff Visitor's Center ("Visitor's Center") located at 1 East Route 66 in Flagstaff, Arizona ("Premises"). A floorplan of the building on the Premises is graphically described on the attached Exhibit "A".

B. Lessee is in the business of providing national passenger rail service and desires to lease a portion of the Premises from Lessor for the sole purpose of providing such service in Flagstaff, Arizona.

C. Accordingly, the Parties are entering into this Lease subject to the terms and conditions set forth below.

Agreement

1. Leased Premises; Parking.

Lessor leases to Lessee and Lessee leases from Lessor an interior area on the east side of the building on the Premises consisting of approximately twelve hundred (1200) square feet, which area currently comprises the Flagstaff Railroad Passenger Station as depicted on the attached Exhibit "A" ("Leased Premises"). In addition, Lessee shall be allowed to use the exterior platform area on the railway side of the Premises, and shall be allocated three reserved parking spaces in the parking lot located on the east side of the Premises at no additional costs.

2. Term and Renewals.

The term of this Lease shall be five (5) years, commencing on October 1, 2004 ("Commencement Date"), and ending on September 30, 2009, unless sooner terminated by Lessee upon sixty (60) days written notice to Lessor in the event that Lessee's rail passenger service in Flagstaff is relocated or otherwise ceases operation. Provided Lessee has not sooner terminated this Lease and is not in default upon the natural expiration of the initial term of this Lease, Lessee may renew the term of this Lease for two (2) consecutive renewal terms of five (5) years each by notifying Lessor in writing at least sixty (60) days prior to expiration of the then current term of the Lease. Any renewal lease shall be on the same terms and conditions contained in this Lease except there shall be no renewal allowed after the second renewal term has expired.

3. **Rent.**

On or before the Commencement Date and the anniversary of that date thereafter, Lessee shall pay to Lessor rent at the rate of SEVEN DOLLARS & FORTY CENTS ($7.40) per square foot of the Leased Premises as shown on the attached Exhibit "A". This rental rate includes utility service charges for electricity, natural gas, sewer, water, and sanitation services, and shall be increased by three percent (3%) annually to reflect cost increases incurred by Lessor. TOTAL ANNUAL RENT for the first full year shall be EIGHT THOUSAND EIGHT HUNDRED EIGHTY DOLLARS ($8,880.00), as shown on the attached Exhibit "B".

4. **Use of Leased Premises.**

Lessee shall use the Leased Premises only for the purpose of operating a passenger rail service station, with associated offices and other facilities provided for such purpose and for operations incidental thereto, including, but not limited to, business operations, ticketing, waiting area, mail, package and express service and related mechanical and engineering facilities ("Use").

5. **Compliance with Laws.**

Lessee acknowledges and agrees that it shall allow no trade or occupation to be conducted on the Leased Premises which is unlawful, or contrary to any applicable law. Lessee shall comply with all present and future Federal, State and local laws, statutes, ordinances, rules and regulations, applicable to Lessee in connection with Lessee's Use of the Leased Premises. However, Lessee shall not be required to make any physical changes to the Leased Premises. Throughout the term of this Lease, and of any renewal thereof, Lessor, at its sole cost, shall be responsible for compliance with all applicable provisions of the Americans with Disabilities Act of 1990 (Public Law No. 101-336) and with all applicable regulations thereunder as well as all future Federal, State and local laws, statutes, ordinances, rules and regulations regarding Lessor's ownership of the Premises and other obligations pursuant to this Lease.

6. **Hours of Operation; Visitor's Center.**

Lessee shall have the right to keep the Leased Premises open at all such times as it desires or is necessary for the operation of a passenger rail service station. Lessee acknowledges and agrees that the portion of the Premises comprising the west side of the building is occupied by the Visitor's Center as shown on attached Exhibit "A". Lessee further acknowledges and agrees that the Visitor's Center is intended to be separate and apart from the Leased Premises and may have hours of operation that differ from the passenger rail service station hours of operation. Currently, the Visitor's Center hours of operation are as follows: Regular Hours – 7:00 a.m. to 6:00 p.m. Summer Hours – 7:00 a.m. to 7:00 p.m. For security purposes, all public access to the Visitor's Center, including all access by Lessee, its subtenants, licensees, invitees and/or its rail service passengers, shall be unavailable after closing hours. Both the separate exterior entrance to the Visitor's Center and the interior wall between the Visitor's Center and the Leased Premises, shall remain locked until opening time next morning.

7. **Signs.**

Lessee and its subtenants and licensees shall, at their sole cost and expense, have the right to place signs on the Leased Premises after first obtaining approval of Lessor. Lessee, at its sole cost and expense and subject to Lessor's prior approval, shall be responsible for placing "reserved parking" signs at its three parking spaces located in the east side parking lot of the Premises. Lessee shall keep all signs on the Leased Premises and in its parking area in a good state of repair. Lessee agrees to indemnify, defend and hold harmless Lessor from any loss or damage resulting from Lessee's sole, gross negligence or willful misconduct in the erection, maintenance, existence, or removal of any signs placed by Lessee and its subtenants and licensees. Lessee shall not place or allow to be placed any sign on the Leased Premises, or in the parking area on the Premises, that is in violation of any applicable law, ordinance or rule of any government agency.

8. **Assignment; Subleasing; Licensing.**

Lessee shall have the right to assign this Lease, or to sublet or license the use of space within the Leased Premises, and to retain any revenue from such subleases and licenses, upon first obtaining the written consent of Lessor, which consent shall not be unreasonably withheld, conditioned or delayed. Lessor shall have the right to place reasonable conditions on its consent to any such assignments, subleases or licenses. For purposes of this paragraph, allowable subleases and licenses shall include, but not be limited to, agreements for: car rental services; news stands; gift/souvenir shops; food services; coin-operated vending machines; and telephones. Lessee shall have the right to automatically assign this Lease if such assignment is due to statute, regulation, legislation or a judicial decree.

9. **Lessor's Access.**

Lessor, its officers, employees or agents, may, at all reasonable times, enter and have access to the entire Leased Premises for inspection purposes provided that Lessor gives at least twenty-four (24) hours prior notice and is accompanied by a designated employee of Lessee.

10. **Indemnification.**

Lessee is a self-insurer and shall indemnify, defend and hold Lessor harmless against any claims for injury or damage to persons or property arising on the Leased Premises, or in Lessee's allocated parking spaces on the Premises, by reason of the sole, gross negligence or willful misconduct of Lessee, its agents, and employees. Lessee shall cause all contracts with subtenants, licensees or contractors pertaining to the Use of the Leased Premises to indemnify, defend and hold Lessor and Lessee harmless against any claims for injury or damage to persons or property arising on the Leased Premises or in Lessee's allocated parking spaces on the Premises.

Lessor shall indemnify, defend and hold Lessee harmless against any claims for injury or damage to persons or property arising on the Premises, by reason of the sole, gross negligence or willful misconduct of Lessor, its agents, employees, invitees, licensees, or contractors.

11. **Utilities.**

Lessor shall be responsible for all electricity, gas, water, sanitation charges, and any other utility expenses of the Leased Premises except for communications. Lessee shall be responsible for all installation, maintenance, or other costs associated with communications service or equipment on the Leased Premises owned or operated by Lessee, its subtenants or licensees.

12. **Maintenance and Repair.**

Lessor shall be responsible for the general maintenance and repair of the Premises. Lessee agrees to allow Lessor access to the Leased Premises at any reasonable hour in order for Lessor to make necessary repairs. Except as indicated below, Lessor shall be responsible for the following maintenance and repair of the Premises: all structural repairs; periodic window washing of all exterior windows; daily maintenance of all common areas and walls; snow removal from, and maintenance of, all driveways, sidewalks, landscaping, parking lots and common areas; and maintenance and repair of the plumbing, heating, ventilating, air conditioning and electrical systems on the Premises. Lessor agrees to provide janitorial service to all common areas on the Premises. Lessee shall be responsible for cleaning and routine maintenance of areas of the Leased Premises used solely by Lessee, its subtenants or licensees, such as behind counter areas. Lessor and Lessee acknowledge and agree that, pursuant to applicable railroad safety regulations, Lessee shall be solely responsible for all maintenance, such as trash pick-up, snow removal and repairs, in the exterior platform area on the railway side of the Premises located within twenty-five (25) feet of the railroad tracks. If either Lessor or Lessee ("Parties") fails to perform any of its responsibilities under this Section 12 after being given reasonable notice and opportunity to cure by the other Party, the other Party may perform said work and bill the non-performing Party for all reasonable costs associated with said work.

13. **Notice.**

Any notice from Lessor to Lessee relating to this Lease shall be deemed duly served if mailed to Lessee by registered or certified mail, return receipt requested, postage prepaid, at 30th Street Station, 4th Floor South, Philadelphia, PA 19104 (Attention: Real Estate Department) or at such other address as Lessee may from time to time advise in writing. Any notice from Lessee to Lessor relating to this Lease shall be deemed duly served if mailed to Lessor by registered or certified mail, return receipt requested, postage prepaid, at 211 W. Aspen Avenue, Flagstaff, Arizona, 86001 (Attention: Real Estate Manager) or at such other address as Lessor may from time to time advise in writing.

14. **Quiet Enjoyment.**

Lessor agrees that it shall not interfere with Lessee's quiet and peaceful enjoyment of the Leased Premises, or with that of Lessee's subtenants, licensees, patrons or invitees.

LESSOR: City of Flagstaff

By: Joseph A. Donaldson

Title: Mayor

ATTEST:

Margie Brown

City Clerk

APPROVED AS TO FORM:

City Attorney

LESSEE: National Railroad Passenger Corporation

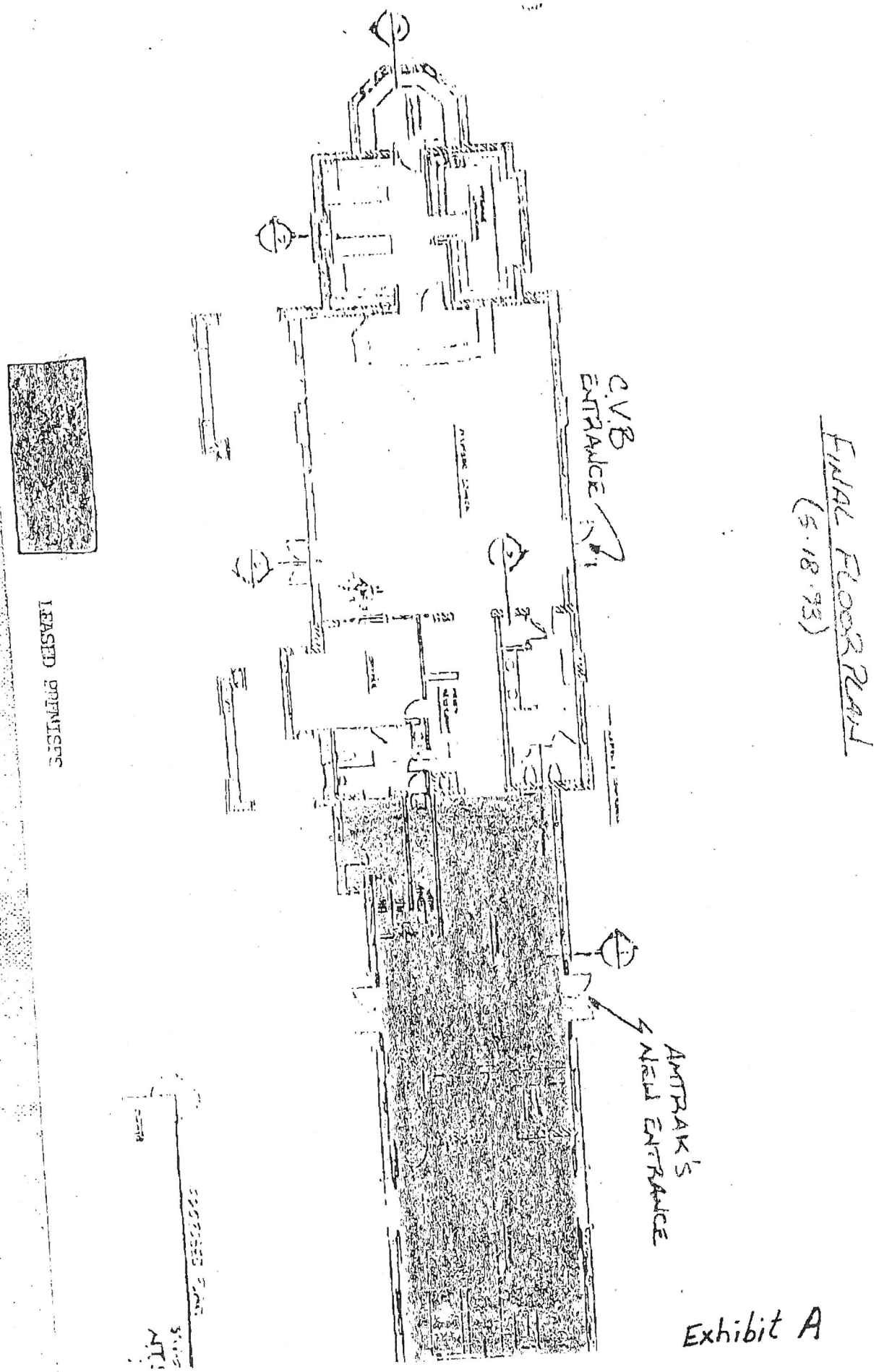
By: Sally J. Bellet

Sally J. Bellet, Esquire
Vice President
Real Estate Development

Title:

WITNESS:

Nancy G. Edwards



FINAL FLOOR PLAN (5.18.23)

Exhibit A

2029
L1

VCBR

Flagstaff Passenger Station

Exhibit "B"

		Annual rent	
2004	Year 1	$	8,880.00 ✓
2005	Year 2	$	9,146.40 ✓
2006	Year 3	$	9,420.79 ✓
2007	Year 4	$	9,703.42 ✓
2008	Year 5	$	9,994.52
2009	Year 6	$	10,294.35
2010	Year 7	$	10,603.18
2011	Year 8	$	10,921.28
2012	Year 9	$	11,248.92
2013	Year 10	$	11,586.39

Rent is for approximately 1200 square feet of building area and includes utilities, taxes, maintenance and allocated parking. A 3% annual escalation rate is applied to adjust for increases in operating and maintenance expenses.

LEASE NAME: Flagstaff Railroad Passenger Station Facility Lease

AMENDMENT: _____, 2019

CONTRACT NUMBER: 2020-06

PROCUREMENT METHOD: Sole Source

The Flagstaff Railroad Passenger Station Facility Lease dated November 8, 2004 ("the Lease") entered into by and between the City of Flagstaff, an Arizona municipal corporation ("Lessor") and National Railroad Passenger Corporation, a corporation organized under the Federal Rail Passenger Service Act and operating as a District Columbus corporation ("Lessee") is hereby amended:.

The Lease, sections 1, 2, 3 and 6 are amended from and after October 1, 2019 as follows (additions shown in underlined capitalized text, and deletions shown as stricken):

1. **Leased Premises; Parking.**

   Lessor leases to Lessee and Lessee leases from Lessor an interior area on the east side of the building on the Premises consisting of approximately twelve hundred (1,200) square feet, which area comprises the Flagstaff Railroad Passenger Station as depicted on the attached Exhibit "A" ("Leased Premises"). In addition, Lessee shall be allowed ~~to~~ NON-EXCLUSIVE use OF the exterior platform area on the railway side of the Premises, and shall be allocated three reserved parking spaces in the parking lot located on the east side of the Premises at no additional cost.

2. **Term and Renewals.**

   THE LEASE IS HEREBY RENEWED FOR A TERM OF FIVE (5) YEARS, COMMENCING ON OCTOBER 1, 2019 ("RENEWAL DATE") AND ENDING ON SEPTEMBER 30, 2024, ~~The term of this Lease shall be five (5) years commencing on October 1, 2004 ("Commencement Date") and ending on September 30, 2009,~~ unless sooner terminated by Lessee upon sixty (60) days written notice to Lessor in the event that Lessee's rail passenger service in Flagstaff is relocated or otherwise ceases operation. Provided Lessee has not sooner terminated this Lease and is not in default upon expiration of the CURRENT ~~initial~~ term of this Lease, Lessee may renew the term of this Lease for two (2) consecutive renewal terms of five (5) years each by notifying Lessor in writing at least sixty (60) days prior to expiration of the then current term of the Lease. THE CITY MANAGER IS DELEGATED AUTORITY TO APPROVE ANY RENEWAL TERM OR HOLDOVER OF UP TO 90 DAYS UNDER THE SAME TERMS AND CONDITIONS CONTAINED IN THIS LEASE, AND ANY CHANGES IN VISITOR'S CENTER HOURS. ~~Any renewal shall be on the same terms and conditions contained in this Lease except there shall be no renewal allowed after the second renewal term has expired.~~

3. **Rent; TAXES.**

   THE RENT COMMENCING ON OCTOBER 1, 2019 SHALL BE $14,456.60 FOR THE YEAR ENDING SEPTEMBER 30, 2020, AND IS PAYABLE IN ADVANCE. ~~On or before the Commencement Date and the anniversary of that date thereafter, Lessor shall pay to Lessor rent at the rate of SEVEN DODLLARS & FORTY CENT CENTS ($7.40) per square foot of the Leased Premises as shown on the attached Exhibit "A".~~ This rental rate includes utility

service charges for electricity, natural gas, sewer, water, and sanitation services, and shall be increased by three percent (3%) annually to reflect cost increases incurred by Lessor. ~~TOTAL ANNUAL RENT for the first year shall be EIGHT THOUSAND EIGHT HUNDRED EIGHT DOLLARS ($8,880.00) as shown on the attached Exhibit "B".~~

6. **Hours of Operation; Visitor's Center.**

Lessee shall have the right to keep the Leased Premises open at all such times as it desires or is necessary for the operation of a passenger rail service station. Lessee acknowledges and agrees that the portion of the Premises comprising the west side of the building is occupied by the Visitor's Center as shown on attached Exhibit "A". Lessee further acknowledges and agrees that the Visitor's Center is intended to be separate and apart from the Leased Premises and may have hours of operation that differ from the passenger rail service station hours of operation. Currently, the Visitor's Center hours of operation are as follows: MONDAY THROUGH SATURDAY -- 8:00 A.M TO 5:00 P.M; SUNDAYS: 9:00 A.M. TO 4:00 PM. ~~Regular Hours -- 7:00 a.m. to 6:00 p.m. Summer Hours -- 7:00 a.m. to 7:00 p.m.~~ For security purposes, all public access to the Visitor's Center, including all access by Lessee, its subtenants, licensees, invitees arid/or its rail service passengers, shall be unavailable after closing hours. Both the separate exterior entrance to the Visitor's Center and the interior wall between the Visitor's Center and the Leased Premises shall remain locked until opening time next morning.

All other provisions, terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment.

LESSOR
City of Flagstaff
211 W. Aspen
Flagstaff, AZ 86001

By Its Authorized Representative:

_____
Signature

_____
Coral Evans, Mayor

Attest by:

_____
Stacy Saltzburg, City Clerk

Approved as to form by:

_____
City Attorney's Office

LESSEE
National Railroad Passenger Corporation
60 Massachusetts Avenue, N.E.
Washington, D.C., 20002

By Its Authorized Representative:

_____
Signature

_____
Printed Name

10. C.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Nicole Antonopoulos, Sustainability Manager
Co-Submitter:	Matthew Luhman
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Approval of a Contract: With Gotcha Mobility, LLC ("Gotcha") for Bike Share Systems.

STAFF RECOMMENDED ACTION:

Approve award of contract with Gotcha, a bike share system company, to provide an innovative and cost-effective bike share system that will advance multi-modal transportation options for Flagstaff and Northern Arizona University.

Executive Summary:

The City of Flagstaff and Northern Arizona University ("NAU") issued a joint solicitation for a bike share company that can provide an innovative bike share system that supports the City's Climate Action and Adaptation Plan goals, ensures that services are accessible and available to traditionally underserved members of the community, conducts community education on cycling safety, and provides the best overall value to the Flagstaff community and NAU.

Financial Impact:

Gotcha offers a flexible pricing plan to ensure a viable and sustainable program. There are various pricing plans including a subscription plan at $9.99 a month for residents and $6.99 a month for students at NAU. Gotcha also offers "pay as you go" rates, which will be of interest to Flagstaff visitors. Those rates are structured as such: $1.00 to unlock a pedal assist bike and $0.15 per minute to ride and $2.00 to unlock an electric bike and $0.15 per minute to ride. Gotcha also offers low income plans to those who can demonstrate financial need. An example of their program in another community is a $5.00 annual membership for those in financial need.

The financial structure that Gotcha proposes utilizes minimal advertising and rental fees as the foundation of their business model. City funds are not necessary to support Gotcha's model currently. However, funding is available if needed. Sustainability was approved for $15,000 in the FY20 budget process to contribute to a long-term community bike share system (account number 214-06-170-0661-0-4349).

Policy Impact:

The awarded bidder will work with City staff to ensure that the bike share system adheres to all City Code. Gotcha offers in-app messaging, a website, and education at various community events:

- Safety tutorials, including rules of the road, and reinforcing good rider behavior;
- Promotion of helmet usage, minimum age for rental will mirror the City's helmet law; and
- Georeferenced areas where bikes should be returned and no park/ride zones

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

This effort supports the City Council goals to take meaningful climate action. Additionally, it supports the goal set forth in the Climate Action and Adaptation Plan. Specifically, the Transportation and Land Use focus area, which highlights goals to reduce greenhouse gas emissions from vehicle use and to prioritize transportation modes and infrastructure. Priority actions in this focus area include:

TLU-2-A: Expand infrastructure and amenities for pedestrians and bikes by drafting, adopting, funding, and implementing the Active Transportation Master Plan, prioritizing measures that can be shown to directly reduce greenhouse gas emissions;
TLU-2-F: Secure additional funding to support biking, walking, and transit;
TLU-2-L: Increase access to bikes, including electric bikes, through bikeshare, expanded bike parking, electric bike rebates, and other opportunities.

This initiative supports the following Regional Plan goals:

Goal E&C 1: Proactively improve and maintain the region's air quality.
Goal E&C 2: Reduce greenhouse gas emissions.
Goal T.1: Improve mobility and access throughout the region.

Has There Been Previous Council Decision on This:

Yes, City Council received a presentation on the outcomes of the six-month bike share pilot on 9/25/18. City Council adopted the Climate Action and Adaptation Plan on 11/20/2019.

Key Considerations:

Gotcha proposes a three to six-month launch period. The following phased time-line outlines the proposed schedule:

PHASE ONE: INITIAL PLANNING
Execution of legal agreement
Introductory/kickoff call with team
Schedule in-person meeting with team
Initiate site planning
Confirm assets and order equipment
Begin sourcing in-market staff
Establish launch date and event
Provide system area and hub locations for approval

PHASE TWO: RECOMMENDATIONS
Provide branding and design of all assets for approval
Provide user pricing for approval
Submit required site permits/ground leases
Provide marketing materials for approval
Hire and onboard in-market staff – introduce to key stakeholders

Conduct in-person meeting with team
Finalize launch event plan

PHASE THREE: DECISION MAKING
Finalize branding and design of all assets
Finalize user pricing/memberships
Finalize system area and hub locations
Finalize marketing materials
Schedule asset delivery and install
Begin software testing (finalized branding and content)
Conduct in-market tutorials for device use and maintenance
Begin marketing system on social media

Attachments: Permit Agreement
Presentation

gotcha

PERMIT AGREEMENT

THIS PERMIT AGREEMENT (this "**Agreement**"), dated as of the ____ day of _____, 2019 (the "**Effective Date**"), is made by and between Gotcha Mobility, LLC, a Delaware limited liability company ("**Gotcha**"), and the city of Flagstaff, a political subdivision of the State of Arizona ("**City**"). Both Gotcha and City are sometimes hereinafter referred to individually as a "**Party**" and, collectively, as the "**Parties**".

WHEREAS, Gotcha is in the business of constructing and providing shared mobility products ("**Assets**") and services for municipalities, colleges, and universities throughout the United States, and has developed a proprietary shared mobility platform with access to related proprietary software, ongoing maintenance services, and expansion assistance (the "**Business**"); and

WHEREAS, City desires to retain Gotcha to establish and maintain a shared mobility platform using Gotcha Assets ("**Services**") on City right-of-way, as defined by the Flagstaff City Code, (the "**Premises**"), and Gotcha is willing to perform and maintain the Services on the Premises, under the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing premises, and the mutual covenants and agreements hereinafter set forth, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Services.

1.1 Services. In exchange for the Fees and other consideration as set forth in this Agreement, Gotcha agrees to provide, and City agrees to hire Gotcha to provide, the Services as more particularly described in the Scope of Work attached hereto as Exhibit A.

1.2 Use of Premises. City hereby grants Gotcha and its Affiliates (defined in Section 9) a non-exclusive, worldwide, fully paid-up and royalty-free license to access and use the Premises during the Term (as defined in Section 4.1), for purposes of performing the Services including, without limitation, for the potential installation of Asset stations ("**Stations**") on the Premises, for operation and maintenance of the Assets.

1.3 Relationship of the Parties. The relationship between the Parties under this Agreement is that of independent contractors, and nothing in this Agreement will be construed to create an agency, partnership, joint venture, strategic alliance, employment or other relationship similar to any of the foregoing between the Parties. Each Party, as an independent contractor, will have complete charge of and control over the details of the means, methods and manner of performing its obligations under this Agreement, including equipment, supplies and materials used in connection therewith, to the extent that the foregoing are consistent with the performance of such Party's obligations under this Agreement. Unless specifically authorized to do so under this Agreement or otherwise in writing, no Party will have power to act on behalf of another Party or to bind such other Party by any representation, promise or commitment, and will make no representation to the contrary to any Person. No Party shall have any responsibility for or control over any employees or contractors of another Party, and under no circumstances shall any such employees or contractors of a Party be considered an employee or agent of another Party.

gotcha

2. Obligations of the Parties.

2.1 Gotcha.

(a) Equipment. Gotcha agrees to provide the following as of the Launch Date, as specified in the Scope of Work: (i) To supply and maintain the quantity of Assets on the Premises; (ii) To install and maintain Stations, upon receipt of permission and agreement of all necessary parties; (iii) To establish and permit a user of the Assets ("**User**") access to the propriety software and technology that includes a downloadable proprietary mobile application (the "**App**") available to Users (collectively, the "**Technology**"), as set forth in Scope of Work (Assets, Stations and Technology are referred to collectively as the "**Gotcha Equipment**"); (iv) To monitor Gotcha Equipment usage by Users and make adjustments to quantities of Assets at particular Stations, where applicable; (v) To make the App available for download in Apple iOS or Android form for Users of the Assets to download to their mobile devices and register for an account, subject to their acceptance of the end user license agreement and other legal notices related to the App, for use in connection with their use of the Assets including unlocking an Asset from a Station, where applicable; (vi) To maintain Gotcha Equipment in good working order and provide routine maintenance in accordance with manufacturer specifications, and to keep records of such maintenance; and (vii) To assist City in assessing developmental goals and plans for expanding the Services during the Term.

(b) Personnel. Gotcha shall have a primary contact to act as its authorized representative with City in respect of all matters pertaining to this Agreement (the "**Gotcha Contract Manager**"), and designate those employees, contractors or vendors in number and skill that it determines, in its sole discretion, to be capable of assisting it to perform the Services.

(c) Permits. Subject to section 2.2(c) below, during the Term, Gotcha shall obtain and maintain in good standing all required federal, state, county and local licenses and permits necessary to perform the Services. In the event that any governmental restrictions are imposed on Gotcha that would necessitate alteration of the performance of the Services offered by Gotcha under this Agreement, Gotcha shall immediately notify City, indicating the specific regulation that requires such alteration, and the Parties shall cooperate in good faith to modify the Services in a way to comply with such restriction but also maintains the essence of the Parties' bargain. During the Term, Gotcha shall be in good standing as a recognized business entity authorized to transact business pursuant to the laws of the state where the Premises is located and the Services are performed.

(d) Equal Opportunity Requirements. Gotcha acknowledges and agrees that it is bound by the following in contracting with City: "This contractor and subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4(a), (or for construction contractors, 41 CFR § 60-4.3(a)), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability."

2.2 City.

(a) City Contract Manager. City agrees to designate one of its employees or authorized representatives to serve as its primary contact with Gotcha and its Affiliates with respect to this Agreement, and to act as its authorized representative with respect to matters pertaining to this Agreement (the "**City Contract Manager**"), with such designation to remain in force unless and until a successor City Contract Manager is appointed. The City Contract Manager shall respond promptly to any reasonable requests from Gotcha for instructions, information or approvals required by Gotcha to provide the Services.

(b) Access. City shall ensure that Gotcha has continual access to the Premises, and City amenities as reasonably necessary, in connection with Gotcha's performance of the Services including, without limitation, for the installation and maintenance of Assets, Racks, and Stations. in connection with the Services.

(c) Other Asset Share Business. During the Term, City shall not: (i) engage or participate, directly or indirectly, in any business that is in competition with the Business; (ii) enter into any agreement with any other party for services similar to the Services on the Premises, without first entering into good faith negotiations with Gotcha with respect to such opportunity; and (iii) otherwise permit advertising or promotional activity anywhere on the Premises where such advertising would compete with the interests of Gotcha. City represents and warrants that, as of the Effective Date, it is not party to any such agreement contemplated in subparagraph (d), other than this Agreement.

(d) Ownership; No Liens. All Gotcha Equipment used in connection with the Services, unless otherwise expressly set forth in this Agreement, shall remain the property of Gotcha, and shall at no time be deemed a fixture or property belonging to City or any other party. City shall not directly or indirectly cause or create any mortgage, pledge, lien, charge, security interest, claim or other encumbrance ("**Lien**") on or with respect to any Gotcha Equipment. In the event that City causes or creates any such Lien, it shall immediately notify Gotcha thereof and undertake commercially reasonable efforts to cause such Lien to be discharged and released from any record, at City's sole cost and expense. City shall indemnify and hold Gotcha harmless from and against any and all costs and expenses, including reasonable attorneys' fees and costs, incurred in discharging and releasing any such Lien. All City Equipment used in connection with the Services, unless otherwise expressly set forth in this Agreement, shall remain the property of City.

(e) Additional Equipment. Gotcha will make available to City, at its option, to purchase certain racks, signage panels, and other related equipment ("**Additional Equipment**") that could be use on the Premises in conjunction with the Assets. If the City wishes to purchase any such Additional Equipment at any time, the Parties shall enter into another agreement.

3. Fees and Expenses.

3.1 User Fees. In consideration of the provision of the Services by Gotcha, City shall permit Gotcha to directly bill and collect from Users various fees to utilize the Services, including but not limited to, monthly and annual membership fees, pay as you go fees and penalty fees ("**User Fees**"). The City shall not be entitled to any User Fees collected due to the Services provided under this Agreement.

3.2 Taxes. Each Party shall be solely responsible for any and all income taxes, and related interest or penalties, incurred by such Party in respect of this Agreement including, without limitation, any federal, state, or local income tax, and any withholding or employment taxes imposed upon such Party, including in respect of any advertising revenue to such Party. City shall be responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state or local governmental entity on any amounts payable to Gotcha hereunder, as well as related to any real estate taxes or levies, if any, associated with the Premises and on which any Gotcha Equipment or City Equipment is installed.

4. Term and Termination.

4.1 Term, Renewals and Fee Changes.

(a) Term and Renewals. This Agreement shall commence upon the Effective Date and continue for a period of two (2) years from the Launch Date (the "**Initial Term**"). Upon expiration of the Initial Term, this Agreement shall be renewed for four (4) additional one (1)-year periods (the "**Renewal Term**") unless either Party provides written notice to the other Party no later than one hundred and twenty (120) days prior to such expiration of its election not to extend. Upon expiration of the Renewal Term, unless the Parties agree otherwise, this Agreement shall continue on a month-to-month until terminated by either Party upon thirty (30) days' written notice to the other Party (the "**Extended Term**"); *provided*, *however*, that the Extended Term shall automatically expire after twelve (12) months. The Initial Term, the Renewal Term and the Extended Term, if any, are referred to collectively as the "**Term**".

4.2 Termination for Cause. Either Party may terminate this Agreement, effective upon written notice to the other Party (the "**Defaulting Party**"), if the Defaulting Party: (a) materially breaches this Agreement, and such breach is incapable of cure, or with respect to a material breach capable of cure, the Defaulting Party does not cure such breach within sixty (60) days after receipt of written notice of such breach; (b) becomes insolvent or admits its inability to pay its debts generally as they become due; (c) becomes subject, voluntarily or involuntarily, to any proceeding under any bankruptcy or insolvency law, which is not fully stayed within ten (10) days or is not dismissed or vacated within sixty (60) days after filing; (d) is dissolved or liquidated or takes any corporate action for such purpose; (e) makes a general assignment for the benefit of creditors; or (f) has a receiver, trustee, custodian or similar agent appointed by order of any court of competent jurisdiction to take charge of or sell any material portion of its property or business.

4.3 Termination.

(a) Voluntary. Gotcha or the City may terminate this Agreement at any time prior to the expiration of the Term, for any reason whatsoever, by providing City with thirty (30) days' prior written notice of its decision to terminate.

4.4 Effect of Termination.

(a) Equipment Removal. Upon any termination or expiration of this Agreement, for any reason, the License granted hereunder shall automatically terminate after a period of sixty (60) days following such date, and Gotcha shall be permitted reasonable access to the Premises for such post-termination period, or longer if otherwise extended by the Parties, for purposes of removing Gotcha Equipment on the Premises. The Parties will cooperate in good faith in respect of such removal, and coordinate appropriate times and procedures for such access and removal. Upon

removal of all Gotcha Equipment, City shall have no obligation to permit Gotcha or its personnel on the Premises for purposes of the Business.

(b) Survival. The rights and obligations of the Parties set forth in this Section and in Sections 5, 6, 9, 10 and 11, and any right or obligation of the Parties in this Agreement which, by its nature, should survive termination or expiration of this Agreement, will survive any such termination or expiration of this Agreement.

4.5 Force Majeure. Neither Party will be liable or responsible to the other Party, or be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement, when and to the extent such failure or delay is caused by any: (a) acts of God; (b) flood, fire, or explosion; (c) war, terrorism, invasion, riot, or other civil unrest; (d) embargoes or blockades in effect on or after the date of this Agreement; (e) national or regional emergency; (f) strikes, lock-outs, labor stoppages, disputes or slowdowns, failures of subcontractors or suppliers, or other industrial disturbances; (g) passage of law or governmental order, rule, regulation, or direction, or any action taken by a governmental or public authority, including but not limited to imposing an embargo, export or import restriction, quota, or other restriction or prohibition; or (h) national or regional shortage of adequate power, telecommunications, or transportation facilities (each of the foregoing, a "**Force Majeure**"); in each case, provided that such event is outside the reasonable control of the affected Party.

5. Confidentiality. The Parties agree that the specific terms and conditions of this Agreement including, without limitation, the Fees shall be confidential and only disclosed by City as set forth in this Section, unless otherwise required under applicable law. City shall not, without the prior written consent of Gotcha, use or disclose any Confidential Information of Gotcha during the Term and for a period of two (2) years following the expiration or termination of this Agreement. Notwithstanding the generality of the foregoing, City may disclose Confidential Information to any personnel, consultants, contractors and counsel who have a need to know in connection with this Agreement and have agreed to be bound by the provisions of this Section, or as otherwise required under applicable law, but only to the extent to ensure City's compliance therewith. "**Confidential Information**" means any non-public information of Gotcha relating to the Business, the Services and Gotcha's activities, financial affairs, technology, marketing, client lists and sales plans and pricing, or that is otherwise marked as "confidential", that is disclosed to or obtained by City in connection with this Agreement. Confidential Information does not include information which (a) is or becomes public knowledge through no breach of this Agreement by City, (b) is received by City from another party that is not under a duty of confidentiality, or (c) is already known or is independently developed by City without use of the Confidential Information. If City is required by applicable law or legal process to disclose any Confidential Information, it shall, prior to making such disclosure, use commercially reasonable efforts to notify Gotcha of such requirements to afford Gotcha the opportunity to seek, at Gotcha's sole cost and expense, a protective order or other remedy.

6. Public Records. This Agreement and any related materials are a matter of public record and subject to disclosure pursuant to Arizona Public Records Law, A.R.S. § 39-121 et seq. If Gotcha has clearly marked its proprietary information as "confidential," the City will endeavor to notify Gotcha prior to release of such information.

7. Intellectual Property.

7.1 Rights. All intellectual property rights of Gotcha related to the Business and the Services, including Gotcha Equipment, and all materials prepared by Gotcha or its Affiliates in connection therewith and hereunder including, without limitation, (a) copyrights, software, patents, patent applications and patent disclosures and inventions (whether patentable or not), (b) trademarks, service marks, trade secrets, trade dress,

trade names, logos, taglines, corporate names and domain names, insignia, symbols or decorative signs (collectively, "**Marks**"), (c) know-how, show-how and Confidential Information related to any of the foregoing, and (iv) together with all of the moral rights in and goodwill associated therewith, derivative works, corrections, enhancements, updates, modifications, tangible or intangible proprietary information, rights to apply for registration, and all other rights therein and thereto (collectively, "**Intellectual Property Rights**"), except for any Confidential Information of City (to the extent not prepared by Gotcha), are and shall be owned by Gotcha (or, in certain instances, by its Affiliates), and not by City. Gotcha hereby grants City a limited license to use all such Intellectual Property Rights solely in connection with the Services during the Term, free of additional charge and on a non-exclusive, worldwide, non-transferable, non-sublicenseable, fully paid-up and royalty-free basis, to the extent necessary to enable City to make reasonable use of the Services. City acknowledges and agrees that other than as expressly provided in this Section, nothing herein shall be construed as Gotcha of, directly or indirectly, selling, leasing, licensing, pledging, sublicensing, lending, encumbering or otherwise transferring any of the foregoing Intellectual Property Rights other than in connection with the Services, and agrees, to the extent permitted under applicable law, to indemnify and hold Gotcha harmless from and against any claim otherwise.

7.2 Marks. No Party grants to the other Party any right in or license to use such Party's Marks, other than as expressly set forth in this Agreement. Each Party grants the other Party (including as to their Affiliates) a limited license to use the other Party's Marks during the Term, free of additional charge and on a non-exclusive, worldwide, non-transferable, non-sublicenseable, fully paid-up and royalty-free basis, to the extent necessary for the performance of obligations under this Agreement, which right shall include a right to advertise or make other public announcements in general about the existence of the relationship between City and Gotcha and the Services, in all cases subject to Section 5.

8. General Representations and Warranties. City represents and warrants to Gotcha that: (a) it is a duly authorized to do business by the State of Arizona; (b) it has the lawful power to engage in the business it presently conducts and contemplates conducting, and is not party to any investigation, proceeding or action by any governmental authority which may materially affect its ability to effectuate its obligations under this Agreement and, in the event that it becomes such a party, shall immediately notify Gotcha of such investigation, proceeding or action; (c) it has the authority to execute and carry out this Agreement and to perform its obligations hereunder, and has obtained all necessary authorizations in connection therewith; (d) it has obtained and shall obtain from time to time any and all licenses, permits or other approvals required under applicable law, which license, permits or other approvals shall be kept current at all times throughout the Term; (e) the execution, delivery and performance of under this Agreement shall not conflict with, result in the breach of, constitute a default under or accelerate performance required by its constituent documents or internal regulations, any applicable law or any material covenant, agreement, understanding, decree, judgment, indenture, instrument or order to which it is a party or by which it or any of its properties or assets is bound or affected; and (f) it will comply with all applicable law related to this Agreement and will cooperate fully with Gotcha in complying with such applicable law.

9. Insurance. During the Term, Gotcha shall, at its own expense, maintain and carry insurance with financially sound and reputable insurers, in full force and effect, to cover its business operations. As defined in the City's Insurance Requirements attached hereto as Exhibit B. Gotcha shall provide City with a copy of its certificate of insurance from its insurer evidencing the insurance coverage required under this Agreement. The certificate of insurance shall name City as an additional insured. Gotcha shall promptly provide City with written notice in the event of a cancellation or material change in Gotcha's insurance coverage as required hereunder. Unless otherwise approved by City, Gotcha shall not commence work under this Agreement until it has obtained all the insurance required hereunder and delivered to the City evidence satisfactory, in the City's sole discretion, of the existence of all insurance required under this Agreement.

gotcha

10. Indemnification. Each Party agrees to indemnify, defend and hold harmless the other Party and their parent and subsidiary entities, related and affiliate entities, and its and their owners, directors, officers, employees, vendors, representatives and agents ("**Affiliates**") (each, an "**Indemnified Party**")from and against any and all losses, damages, liabilities, obligations, penalties, judgments, awards, costs, expenses, interest, and disbursements (including reasonable attorneys' fees and costs, and expenses related to investigation and appeals, arbitration, enforcement of judgments, and proceedings in equity) ("**Loss**"), which may be suffered by, incurred by, accrued against, charged to or recoverable from any Indemnified Party, by reason of any claims, actions, suits or proceedings ("**Claim**") arising out of or relating to any act, error or omission resulting in grossly negligent, reckless or willful misconduct of such Party or its Affiliates during the Term in connection with this Agreement including, without limitation, Claims arising out of or relating to: (a) bodily injury (including death) to a natural person; (b) damage to any other party's personal or real property; (c) any material misrepresentation or breach of warranty by such Party of any representation or warranty set forth in this Agreement; (d) any material breach by such Party of any provision of this Agreement; and (e) any claim of infringement related to any Intellectual Property Rights; *provided*, *however*, that the foregoing indemnity shall not apply to the extent that the applicable Loss resulted in whole from the acts or omissions of an Indemnified Party. A Party seeking indemnification under this Agreement shall give written notice thereof to the other Party as required by law where applicable or promptly following discovery of the fact or circumstance giving rise thereto; provided, however, that any delay in providing such notice shall not impact a Party's right to be indemnified, except to the extent that the other Party is actually prejudiced thereby. Neither Party shall settle or compromise any Claim without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

11. Limitation of Liability; Assumption of Risk; Disclaimer. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, AND TO THE FULLEST EXTENT PERMITTED UNDER APPLICABLE LAW, NO PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, MORAL, EXEMPLARY OR PUNITIVE DAMAGES WHATSOEVER, OR FOR ANY LOSS OF USE, LOSS OF PRODUCTION, LOSS OF REVENUE OR PROFITS, COST OF CAPITAL, LOSS OF GOODWILL, LOSS OF OPPORTUNITY, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ANY OTHER THEORY AT LAW OR IN EQUITY, REGARDLESS OF WHETHER SUCH DAMAGE WAS FORESEEABLE AND NOTWITHSTANDING THE FAILURE OF ANY AGREED OR OTHER REMEDY OF IT ESSENTIAL PURPOSES, AND EACH PARTY EXPRESSLY RELEASES THE OTHER PARTIES FROM ANY SUCH LIABILITY. THE PARTIES FURTHER AGREE THAT THE LIABILITY OF A PARTY UNDER THIS AGREEMENT, WHETHER BASED ON A CLAIM IN CONTRACT, EQUITY, NEGLIGENCE, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), OR OTHERWISE FOR ALL EVENTS, ACTS OR OMISSIONS UNDER THIS AGREEMENT, SHALL NOT EXCEED $10,000. THE LIMITATIONS ON LIABILITY IN THIS SECTION SHALL NOT APPLY, HOWEVER, TO: (A) A PARTY'S CRIMINAL OR FRAUDULENT CONDUCT; (B) A PARTY'S OBLIGATIONS OF INDEMNIFICATION RELATED TO INTELLECTUAL PROPERTY RIGHTS UNDER SECTION 6.1 or SECTION 9; (C) TO LIMIT IN ANY WAY THE EXTENT OF APPLICABLE INSURANCE PROCEEDS; (D) TO CITY'S OBLIGATIONS OF INDEMNIFICATION UNDER SECTION 1.2 AND SECTION 2.2(G); (E) OR AS OTHERWISE PROHIBITED BY APPLICABLE LAW GOVERNING THE RIGHTS AND DUTIES OF CITY IN ENTERING INTO CONTRACTS LIKE THIS AGREEMENT.

Each Party assumes any and all risks of personal injury and property damage attributable to the acts or omissions of such Party or any of its Affiliates, to the degree that such damage is attributable to such Party or Affiliate. GOTCHA MAKES NO WARRANTY WHATSOEVER WITH RESPECT TO THE SERVICES (INCLUDING, FOR CLARIFICATION, THE DELIVERABLES AND THE SERVICES), INCLUDING ANY (F) WARRANTY OF MERCHANTABILITY, (G) WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR (H) WARRANTY AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY; WHETHER EXPRESS OR IMPLIED BY LAW, COURSE OF DEALING, COURSE OF PERFORMANCE, USAGE OF TRADE OR OTHERWISE.

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12. Miscellaneous.

12.1 Notice. Any notice or approval required or permitted under this Agreement must be in writing and shall be given to the other Parties at their addresses set forth in this Section. Each such notice, request or other communication shall be effective (a) if given facsimile, the date on which it is transmitted to the number provided by a Party in writing to the other Party, and the appropriate confirmation is received, (b) if given by U.S. Mail, five (5) calendar days after such communication is deposited in the mail with first class, return receipt requested postage prepaid, addressed as aforesaid, and (c) if given by overnight courier, forty-eight (48) hours after the date on which such communication is received by such courier. E-mail shall be a permitted means of providing notice to a Party under this Agreement as long as receipt can be verified, and provided that notice through e-mail shall be effective forty-eight (48) hours after the date on which the e-mail notice can be verified as received. Unless otherwise notified by a Party in writing, a Party shall submit any notice hereunder as follows:

If to Gotcha:	Gotcha, LLC, 7 Radcliff St., Suite 200 Charleston, SC 29403 Attn: Brett Vigrass, General Counsel brett@thegotchagroup.com *With a copy to*: Ryan Leach, CFO ryan@thegotchagroup.com
If to City:	City of Flagstaff, 211 W. Aspen Ave. Flagstaff, AZ 86001 Attn: Matt Luhman, Senior Procurement Specialist mluhman@flagstaffaz.gov *With a copy to:* Nicole P. Antonopoulos, Sustainability Manager nantonopoulos@flagstaffaz.gov

Any such notices, demands and requests shall be deemed to be delivered (a) if delivered in person, on the date so delivered, and (b) if sent by overnight delivery service, on the delivery date as evidenced by the courier's confirmation. The addresses set forth herein may be changed by written notice to the other Party.

Except as otherwise specifically set forth in this Agreement, all notices, extensions, modifications, consents, requests and approvals to be given by either Party under any section of this Agreement shall be in writing and not be unreasonably withheld by the other Party.

12.2 Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the laws of the State of South Carolina, without regard to applicable conflicts of law principles, and this Agreement shall for all purposes be deemed to have been executed, delivered and agreed to by and between the Parties entirely within the State of South Carolina.

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12.3 Cancellation for Conflict of Interest (A.R.S. § 38-511). The City may cancel this Agreement within three (3) years after its execution, without penalty or further liability to Gotcha.

12.4 Dispute Resolution; Jury Waiver. Any dispute arising out of or related hereto, which cannot be resolved amicably among the Parties after good faith efforts of not less than sixty (60) days, shall be exclusively resolved by the courts of Charleston County, South Carolina, and the Parties irrevocably submit to the exclusive jurisdiction of such courts for purposes thereof, and waive all objections to the laying of venue therein. Each Party shall be responsible for its own attorney's fees and costs in respect of any dispute related to this Agreement, including the costs of any investigations and appeals. EACH PARTY HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES TO THE FULLEST EXTENT PERMISSIBLE UNDER APPLICABLE LAW ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY DISPUTE, AND AGREES THAT SUCH WAIVER IS A MATERIAL INDUCEMENT FOR EACH PARTY TO ENTER INTO THIS AGREEMENT AND TO PERFORM THEREUNDER.

12.5 Assignment. Except as expressly set forth otherwise in this Agreement, no Party may assign its rights under this Agreement, in whole or in part, without the prior written consent of the other Party. Notwithstanding the foregoing, Gotcha may assign this Agreement and its rights and obligations hereunder to a successor entity, in whole or in part, upon written notice to City. Nothing herein shall be construed to prevent Gotcha from delegating its duties hereunder to its Affiliates, provided that Gotcha in any event shall remain responsible for its obligations hereunder irrespective of any such delegation.

12.6 Approval of Sub-Providers.

a. If after the start of this Agreement, the Gotcha wishes to use sub-providers, at no additional costs to the City, then Gotcha shall submit a written request to the City Manager or his/her designee for consent to add sub-providers, including the names of the sub-providers and the reasons for the request at least five (5) days in advance from when Gotcha wishes to use the sub-providers. The City Manager or his/her designee may consent or reject such requests in his/her sole and absolute discretion.

b. Each sub-provider shall be required to furnish proof of workers' compensation insurance and shall also be required to carry general and automobile insurance in conformity to the insurance required to be carried by Gotcha as defined in Exhibit C. In addition, any tasks or services performed by sub-providers shall be subject to each provision of this Agreement.

c. The requirement of this Section shall not apply to persons who are merely providing materials, supplies, data or information which Gotcha then analyzes and incorporates into its work product.

12.7 Binding Effect; Survival. This Agreement shall be binding upon, and will inure to the benefit of, the Parties and their successors and valid assigns. The obligations of the Parties and the provisions of this Agreement that by their nature survive the termination hereof, including those obligations as expressly stated in this Agreement, shall survive and inure to the benefit of the Parties, their successors and valid assigns.

12.8 No Third Party Beneficiaries. Except as expressly set forth otherwise in this Agreement, this Agreement is intended solely for the benefit of the Parties and their respective successors and valid assigns, and is not intended to confer any benefits upon, or create any rights in favor of, any other party other than the Parties.

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12.9 Cumulative Remedies. All rights and remedies of a Party set forth in this Agreement shall be in addition to all other rights and remedies available at law or in equity including, without limitation, a right to specific performance, and temporary and permanent injunctive relief, to the extent permitted under applicable law.

12.10 No Waiver. No waiver of any provision of this Agreement shall be effective unless the same shall be in writing and signed by the Party making such waiver, and any such waiver shall apply only to the specific occasion which is the subject of such waiver or consent and shall not apply to the occurrence of the same or any similar event on any future occasion. No delay express waiver of any provision of this Agreement shall be deemed to be or shall constitute a waiver of any other provision whether or not similar, and no waiver shall constitute a continuing waiver. Any delay in enforcement of any provision hereof shall not constitute a waiver thereof.

12.11 Entire Agreement; Construction. This Agreement, including its preamble, recitals, the Scope of Work, and any and all exhibits, appendices and valid amendments, constitutes the entire agreement and understanding of the Parties and supersedes all prior or contemporaneous agreements, understandings or representations, written or oral, by the Parties. The headings in this Agreement are provided for convenience of reference only and shall not affect the construction of any text. Any reference to the singular shall also include a reference to the plural, and vice versa, as the context requires. This Agreement shall be construed as drafted by all of the Parties, and no provision of this Agreement shall be interpreted for or against any Party on the basis that a Party, its Affiliates or counsel drafted such provision. In the event of any conflict between any term or provision of this Agreement and any term or provision of any exhibit hereto, the term or provision of this main document shall prevail.

12.12 Amendment. This Agreement may not be modified or amended unless done so in a writing signed by the Parties.

12.13 Severability. If any term or provision of this Agreement is held by a court of competent jurisdiction to be void, voidable, illegal, invalid or otherwise unenforceable under Applicable Law, such provision shall be severed from this Agreement, and the remaining provisions of this Agreement shall remain in full force and effect.

12.14 Counterparts. This Agreement may be executed in one or more counterparts, each of which, including counterparts executed electronically through verifiable means, shall be deemed to be an original for all purposes.

12.15 Independent Counsel; Costs. The Parties acknowledge and agree that the terms and conditions of this Agreement have been freely and fairly negotiated. Each Party acknowledges that in executing this Agreement it has relied solely on its own judgment, belief and knowledge, and such advice as it may have received from its own counsel, and that it has not been influenced by any representation or statement made by the other Party or such Party's Affiliates, including its counsel. Each Party shall pay its own fees and expenses incurred in connection with the negotiation, drafting and execution of this Agreement, and in respect of the transactions contemplated by this Agreement (including, without limitation, attorney's fees and costs).

12.16 Further Assurances. From time to time, as and when reasonably requested by a Party or its successors or assigns, the other Parties shall execute and deliver, or cause to be executed and delivered, such

documents and instruments, and shall take, or cause to be taken, such further or other actions as may be reasonably necessary, to carry out the purposes set forth in this Agreement.

[Remainder of Page Intentional Blank; Signatures Appear on Following Page]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

GOTCHA	City of Flagstaff
By: _____	By: _____
Name:	Name: Greg Clifton
Title:	Title: City Manager
Date:	Date: _____

[Signature Page to Agreement]

EXHIBIT A

SCOPE OF WORK

SEE ATTACHED

SCOPE OF WORK

I. GENERAL INFORMATION

The City of Flagstaff ("City"), in cooperation with Northern Arizona University ("NAU"), is seeking Proposals from qualified and reputable firms to establish a term contract for a bike share system.

The City is seeking to award a term contract for a bike share system to the Proposer that can best provide an innovative bike share system that supports the City's Climate Action and Adaptation goals, ensures that services are accessible and available to traditionally underserved members of the community, and provides the best overall value to the Flagstaff community and NAU.

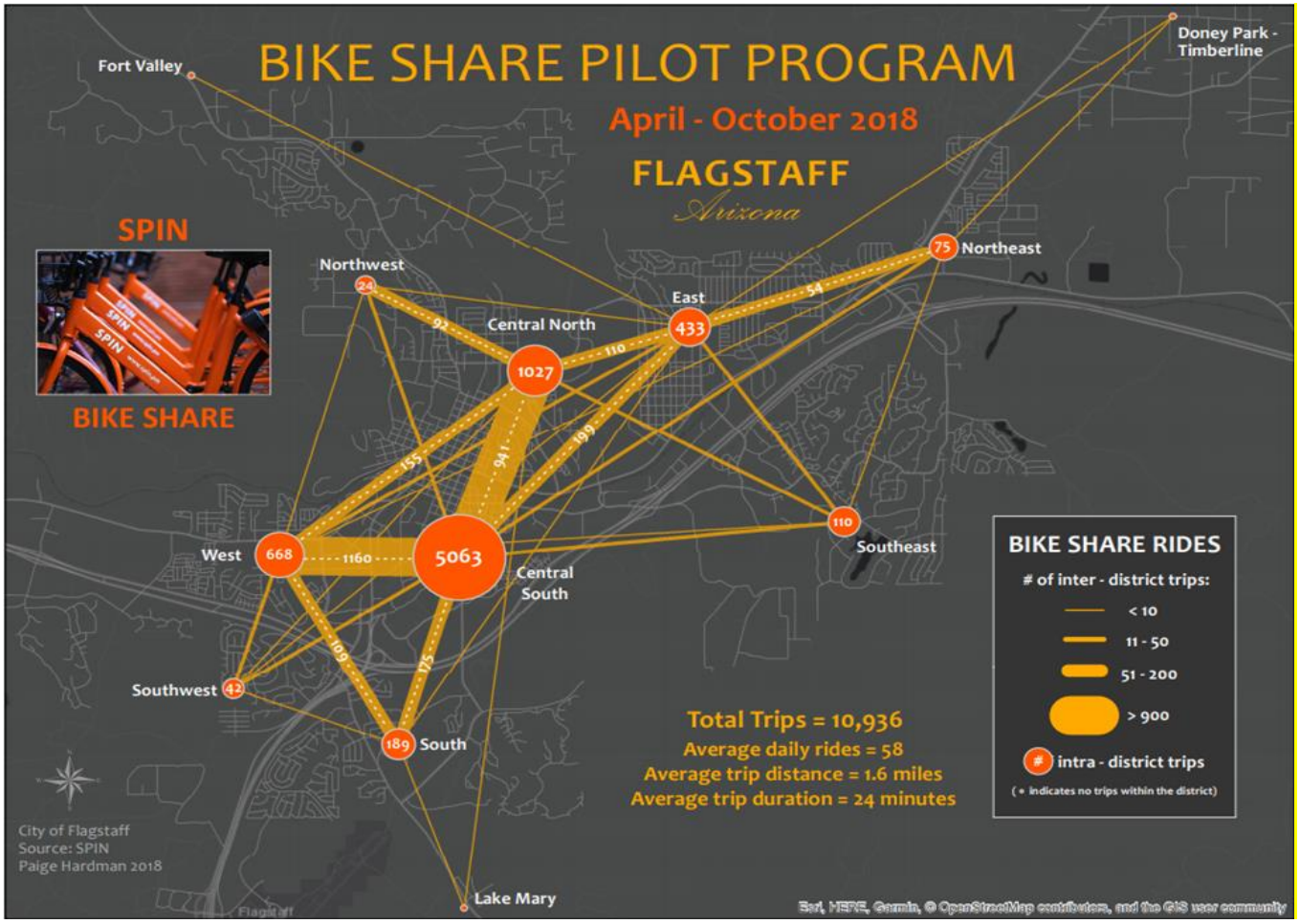
The initial term of the contract will be for a two (2)-year period, with the ability to renew for up to four (4) additional one (1)-year terms based on the successful performance of the Contractor(s) and the needs of the City.

II. SCOPE OF WORK

A. Introduction

The City, in cooperation with NAU, is seeking proposals from interested and qualified Proposers to provide and operate a multi-year bike share program. The system shall be designed to serve both the Flagstaff community at large and the NAU campus. The proposals should be innovative, proposing a hybrid bike system that incorporates dockless and designated parking areas. Designated parking areas will be determined by the City, NAU, and transportation partners, including the Northern Arizona Intergovernmental Public Transportation Authority ("NAIPTA") and the Downtown Business Alliance ("DBA"). The system shall include at least 250 bicycles for the initial deployment and must be flexible and scalable for expansion to include more bikes and/or additional technologies (such as scooters) once the bike share system is well established.

The City and NAU conducted a six-month pilot dockless bike share program, the results of which were promising for a successful long-term bike share system. The pilot program confirmed the community's interest in multi-modal transit and the potential for capturing future riders. Pilot data is represented on the following page:



Month	Rides	Average Trip Distance (miles)	Total Miles Traveled	Average Trip Time (minutes)	Average of Deployed vs Rentable Bikes*	CO_2 Savings (pounds)
April (11th – 30th)	775	1.77	1,380	22.28	237 / 212	1,518
May	2,288	1.04	2,375	23.28	260 / 173	2,612
June	2,715	0.86	2,340	24.41	227 / 184	2,574
July	2,218	1.09	2,418	26.79	186 / 180	2,660
August	1,553	1.55	2,406	24.72	154 / 140	2,647
September	1,128	2.00	2,206	20.37	95 / 83	2,427
October (1st – 12th)	254	2.74	706	17.99	61 / 54	776
TOTALS:	10,931	1.58	13,831	23.96	174 / 147	15,214

Preference will be given to Proposers who can demonstrate the ability to incorporate class 1 or 2 electric pedal assist or "e-bikes" into their initial deployment and provide goals for "e-bike" expansions. Proposals shall include all equipment as well as operation services, including but not limited to; program data, system rebalancing, 24-hour customer support, equipment maintenance, redeployment management, webpage management, mobile app management, engagement in the community and establishing a trusted presence. Proposals shall include a complete back-end management system with real-time location tracking of individual bicycles through on-board monitoring technology.

Additionally, proposals may be contingent on the applicants' ability to secure sponsorships to meet funding requirements in order to meet minimum system size requirements and future expansion needs. It is preferred that the bike share system be self-financed, with the user fees and ad revenues where permitted by City Code (for example, City sign code does not allow for advertising on stations) and NAU approval, covering any compensation and system costs.

B. Scope of Goods and Services

Proposers are encouraged to submit proposals for a system that meets these requirements:

1. Bicycles:
    a. Shall be durable all-weather and corrosion resistant for year-round outdoor use and storage
    b. Shall be in new condition upon delivery
    c. Shall be specifically designed for bike share use
    d. Shall include front and rear lights, preferably self-powered and automatic
    e. Shall include a storage basket capable of supporting loads of up to 20 pounds
    f. Shall provide effective gearing ratio appropriate for steep local terrain (preferably a range equivalent to 7 or more gears)
    g. Shall have fenders
    h. Shall have a bell
    i. Shall have puncture resistant tires
    j. Shall have a reliable intuitive braking system
    k. Shall be uniform and consistently branded (all branding and advertising must be approved by the City and NAU to ensure that it does not conflict with existing codes, marketing, advertising, and branding contracts)
    l. Shall be one-size-fits-all with step-trough frame and adjustable seat
    m. Shall be warrantied for mechanical defects
    n. Shall be equipped with tracking system, i.e. GPS or RFID
    o. Shall include a minimum of 10% electric assist bicycles at launch date with an operational goal of 25% or more electric assist bicycles
    p. Based on outreach to community partners, including the City of Flagstaff Disability Awareness Commission, allocate a percentage of the fleet to ADA compliant bicycles

2. Designated parking locations, hubs, and dockless:
    a. Will include designated parking locations identified by the City, NAU and community partners
    b. May incorporate/use existing public bike parking
    c. May be new locations that are approved and identified for public bike parking (must be in line with City and NAU policies)

d. Shall have distinct identifying signage or other markings to identify the locations as part of the system.
e. Describe how the Proposer will manage bicycles parked in prohibited locations or in an improper manner.
f. Describe how will communication be managed through the app and website

3. Software:
   a. Shall be an iOS and Android compatible mobile app for users to check real time bike availability at any parking location and to perform bike rental transactions
   b. Shall be a website and/or app for membership sign up, system map with station location information and details on renting and using the docking stations and bicycles, detailed bicycle safety precautions, etc.
   c. Shall offer variably priced membership options for short term, long term, one-time use, member organizations, etc.
   d. Shall offer pricing and membership promotions including the ability to accept discount codes
   e. Shall provide multi-lingual instructions capability
   f. Proposer shall provide an equity plan for users without cell phones to access system.

4. Community Engagement Plan:
   a. Shall provide a preliminary plan that outlines efforts to get involved with the community.

5. Equity Plan
   a. Shall provide a preliminary plan that outlines how equity considerations will be built into the system.

C. Technology and Reporting Capabilities

System should provide users with real time system information including station status and bike locations through web and mobile technology. System can primarily depend on smartphone or web-based customer interface. However, the system would preferably have a strategy to facilitate users who do not own a smartphone.

Customer safety agreement must include:

1. Riders under eighteen (18) shall wear helmets whiles riding a bicycle

2. Bicycles shall be parked in appropriate parking zones

System should provide regular and on-demand customizable reports for the City, NAU, and transportation partners. Data related to such areas as system utilization, distribution, maintenance reports, financial reports and general system performance shall be made available to City and NAU account managers with monthly reports available upon request with the following information:

1. Ridership data/statistics (frequency, duration, distance by day, time, and location)

2. Total calories burned by riders

3. Estimated greenhouse gas emission reduction

4. Revenue and membership data

5. Crash/accident/damage/incident data

6. Bicycle and kiosk maintenance data

7. Station rebalancing data

8. Customer complaints

9. Total miles covered by riders

D. System Maintenance Rebalancing and Repair

Successful Proposer will be responsible for providing all maintenance for system and bicycles. Successful Proposer should provide comprehensive maintenance protocols for system equipment, bicycles and software upgrades. Existing municipal or public bike racks used as part of the system may still be maintained by the appropriate local authority. Successful Proposer will ensure that bicycles will be distributed effectively across the system. Successful Proposer shall ensure that at least 90 percent of bicycles are available and safely operable at all times. Bicycles needing maintenance should be immediately blocked from use and the repair process should be initiated within 48 hours. The successful Proposer shall detail a bicycle maintenance program that ensures that broken bicycles are removed from service and repaired within a 48-hour timeframe. Bicycle maintenance and storage locations shall be provided by the vendor. During periods of extended severe winter weather, a portion of system bicycles may be taken off line and stored indoors with approval from the City and NAU.

1. At a minimum, the following tasks shall be performed at least once every four (4) week period:
    a. Inspect drive train for proper functioning and lubrication
    b. Inspect handlebar for proper centering and tightness
    c. Inspect tires for proper inflation
    d. Inspect brakes for excessive wear and ensure proper working order
    e. Inspect saddle for proper tightness
    f. Inspect shifters for proper functioning
    g. Inspect lights for proper functioning
    h. Ensure components such as the basket, bell, and advertising components are properly attached
    i. Clean bicycle and bicycle components

2. At a minimum, the following work shall be performed annually, and on an as-needed basis:
    a. Clean entire drive train
    b. Inspect spoke tension and true wheels
    c. Inspect tires for excessive wear and replace, if necessary

3. Successful Proposer assumes all responsibility for costs, repair, and replacement for damage(s) to bicycles and their service vehicles

E. Customer Service

1. Successful Proposer shall provide all customer service and support. Customer service should be available 24/7 with U.S.-based on-call support services with a phone wait/call back time not to exceed 3 minutes. On-call maintenance/repair staff should be capable of responding to maintenance calls within 48 hours. Customer complaints received by the City or NAU will be forwarded to customer service provided by the successful Proposer. Emergency calls such as bicycles improperly parked or blocking building/street access shall be responded to within 1 hour.

2. Select member(s) of the City and NAU would have the ability to relocate improperly parked bicycles if immediate assistance was needed.

F. Marketing and Sponsor Relations

1. Successful Proposer will be expected to provide support in securing and managing system sponsorships.

2. Successful Proposer shall have the ability to make presentations to prospective sponsors.

3. Successful Proposer should able to manage finances associated with sponsorships and direct associated revenue back into the system or offset funding from the City and NAU.

4. Preference will be given to Proposers partnering with local organizations and businesses.

III. PROPOSAL REQUIREMENTS

The bike share system would preferably be self-financed, with the user fees and advertising revenues covering any compensation and system costs. Advertising must be pre-approved by the City and NAU and not in conflict with any existing City and or NAU contracts. Proposer shall describe their pricing model for bicycle rentals and any proposed revenue sharing as part of their proposal.

A. Infrastructure and Technology of the System

1. Describe the scope of the initial implementation, including number of bicycles and recommended placement and number of hubs or kiosks (if applicable).

2. Provide a detailed description of the bicycles and any equipment to be used, including manufacturing origin. Include information on any related hardware needed to operate and/or maintain the bicycles. Description should include all mechanical specifications, including information regarding the gearing, suspension, seat, branding, any onboard technology, and all other amenities (i.e. basket, bell, locks).

3. Describe the system modularity and expansion capability for hubs or kiosks (if applicable), bicycles, and technology.

4. Describe any safety features that would be included in this system.

5. Describe all reporting features available to the City and NAU (i.e. system utilization, bike distribution, customer feedback, membership levels).

6. Describe all power requirements including any proposed use of solar power, if applicable.

7. Describe how the system will be compliant with the Americans with Disabilities Act and provide ADA bicycles.

8. Describe any information (i.e. safety, way finding) to be placed on bicycle and equipment (if applicable). Describe all mobile applications available for the system, on what platforms they are available, and who is responsible for maintenance and upgrades.

9. Information on the warranty associated with the product the firm is proposing and any extended warranty (include the price) that might be available.

B. Operations and Maintenance

1. Provide recommendations on what equipment and level of staffing would be required to sustain the system.

2. Provide maintenance manual/protocol for the bicycles and any other needed infrastructure or equipment including but not limited to any batteries used by bicycles or station/kiosks. Provide a proposed timeline for replacement.

3. Describe software maintenance protocols and procedures for implementing software upgrades at the request of the City and NAU.

4. Describe any bicycle balancing and redistribution protocols.

5. Describe any established troubleshooting protocol for system outages.

6. Describe the realistic timeline for deployment after a system has been selected.

7. Describe how to handle abandoned bicycles, bicycles improperly parked, those blocking ADA ramps or those blocking entrances to buildings, etc.

C. Membership

1. Provide a description of proposed membership categories and payment options, including recommended membership pricing based on the system size, demographics, population, and discounts for specific groups, etc.

2. Provide a detailed description (including photos/illustrations) of how the system will function from a user's perspective. This should include both annual and short-term memberships.

3. Detail how your firm's proposed system can be integrated into existing forms of identification (i.e. the use of the existing NAU/City identification card or e-mail address).

4. Detail how your firm will protect the identity data of members.

D. Proposer Information

1. Provide a brief history of the firm and its experience, qualifications and success in providing the type of product requested.

2. Provide at least three references where similar goods and/or services have been provided. Include the name of the firm/organization, the complete mailing address, and the name of the contact person, email address and telephone number.

E. Marketing and Customer Service

1. Describe the marketing assistance that will be provided, if any.

2. Describe the potential for advertising, including a list of locations on bicycles and equipment that can accommodate customized messaging provided by the City and NAU.

3. Describe the type of customer service support that will be provided to users as well as to the City and NAU. A system that provides 24/7 customer service is preferred.

4. Describe the website that will be provided, if any. Include the services and information that will be provided on the website (i.e. membership sign-ups, safety recommendations, system map, etc.).

EXHIBIT B
INSURANCE REQUIREMENTS

1. In General. Contractor shall maintain insurance against claims for injury to persons or damage to property, arising from performance of or in connection with this Contract by the Contractor, its agents, representatives, employees or contractors.

2. Requirement to Procure and Maintain. Each insurance policy required by this Contract shall be in effect at, or before, commencement of work under this Contract and shall remain in effect until all Contractor's obligations under this Contract have been met, including any warranty periods. The Contractor's failure to maintain the insurance policies as required by this Contract or to provide timely evidence of renewal will be considered a material breach of this Contract.

3. Minimum Scope and Limits of Insurance. The following insurance requirements are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The City does not represent or warrant that the minimum limits set forth in this Contract are sufficient to protect the Contractor from liabilities that might arise out of this Contract, and Contractor is free to purchase such additional insurance as Contractor may determine is necessary.

   Contractor shall provide coverage at least as broad and with limits not less than those stated below.

   a. Commercial General Liability - Occurrence Form

General Aggregate	$2,000,000
Products/Completed Operations	$1,000,000
Each Occurrence	$1,000,000

   b. Umbrella Coverage $2,000,000

   c. Automobile Liability – Any Automobile or Owned, Hired and Non-owned Vehicles Combined Single Limit Per Accident for Bodily Injury & Property Damage $1,000,000

   d. Workers' Compensation and Employer's Liability

Workers' Compensation	Statutory
Employer's Liability: Each Accident	$500,000
Disease - Each Employee	$500,000
Disease - Policy Limit	$500,000

4. Self-Insured Retention. Any self-insured retentions must be declared to and approved by the City. If not approved, the City may require that the insurer reduce or eliminate such self-insured retentions with respect to the City, its officers, agents, employees, and volunteers. Contractor shall be solely responsible for any self-insured retention amounts. City at its option may require Contractor to secure payment of such self-insured retention by a surety bond or irrevocable and unconditional letter of credit.

5. Other Insurance Requirements. The policies shall contain, or be endorsed to contain, the following provisions:

   a. Additional Insured. In Commercial General Liability and Automobile Liability Coverages, the City of Flagstaff, its officers, officials, agents and employees shall be named and endorsed as additional insureds with respect to liability arising out of this Contract and activities performed by or on behalf of the Contractor, including products and completed operations of the Contractor, and automobiles owned, leased, hired or borrowed by the Contractor.

   b. Broad Form. The Contractor's insurance shall contain broad form contractual liability coverage.

   c. Primary Insurance. The Contractor's insurance coverage shall be primary insurance with respect to the City, its officers, officials, agents, employees and volunteers. Any insurance or self-insurance maintained by the City, its officers, officials, agents and employees, shall be in excess of the coverage of the Contractor's insurance and shall not contribute to it.

   d. Each Insured. The Contractor's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

   e. Not Limited. Coverage provided by the Contractor shall not be limited to the liability assumed under the indemnification provisions of this Contract.

   f. Waiver of Subrogation. The policies shall contain a waiver of subrogation against the City, its officers, officials, agents and employees for losses arising from work performed by Contractor for the City.

6. Notice of Cancellation. Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided, cancelled, reduced in coverage or in limits unless prior written notice has been given to the City. Notices required by this section shall be sent directly to the Buyer listed in the original Solicitation and shall reference the Contract Number:

   Attention: Matt Luhman, Senior Procurement Specialist
   Contract No. 2019-60
   Purchasing Department
   City of Flagstaff
   211 W. Aspen Ave.
   Flagstaff, Arizona 86001

7. Acceptability of Insurers. Contractor shall place insurance hereunder with insurers duly licensed or approved unlicensed companies in the State of Arizona and with a "Best's" rating of not less than A-: VII. The City does not represent or warrant that the above required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

8. Certificates of Insurance. The Contractor shall furnish the City with certificates of insurance (ACORD form) as required by this Contract. The certificates for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf. Any policy endorsements that restrict or limit coverage shall be clearly noted on the certificate of insurance. The City project/contract number and

project description shall be noted on the certificates of insurance. The City must receive and approve all certificates of insurance and endorsements before the Contractor commences work.

9. Policies. The City reserves the right to require, and receive within ten (10) days, complete, certified copies of all insurance policies and endorsements required by this Contract at any time. The City shall not be obligated, however, to review any insurance policies or to advise Contractor of any deficiencies in such policies and endorsements. The City's receipt of Contractor's policies or endorsements shall not relieve Contractor from, or be deemed a waiver of, the City's right to insist on strict fulfillment of Contractor's obligations under this Contract.

10. Modifications. Any modification or variation from the insurance requirements in this Contract must have the prior approval of the City's Attorney's Office in consultation with the City's Risk Manager, whose decision shall be final. Such action will not require a formal Contract amendment but may be made by their handwritten revision and notation to the foregoing insurance requirements.

Bike Share Solicitation

Nicole Antonopoulos

August 27, 2019

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

Background

The City launched a pilot bike share program April 2018 – October 2018

- On average 199 bikes in circulation
- 14,000 miles rode in six months
- Lessons learned and input from community, transportation partners, and City commissions informed scope of work for solicitation

Joint solicitation with NAU issued in April 2019

Bike Share Solicitation

Solicitation requested a bike share company that:

- Provides an innovative bike share system that supports the City's Climate Action and Adaptation Plan goals
- Ensures that services are accessible and available to traditionally underserved members of the community
- Conducts community education on cycling safety
- Provides the best overall value to the Flagstaff community and NAU
- NAU will be awarding their own contract with Gotcha Mobility

Gotcha Mobility

The evaluation committee was made up of Flagstaff transportation partners including NAU, NAIPTA, FMPO, Bicycle Advisory Committee, and various City staff

Gotcha Mobility was the top scoring bidder based on their:

1. Financial model
2. Comprehensive rate plan
3. Social inclusion strategy
4. Community engagement plan
5. Reinforcement of rider behavior

Gotcha Mobility

Gotcha only offers a **hybrid bike fleet**

- Therefore all 250 bikes are a hybrid pedal/ class 1 electric
- This leaves it up to the consumer on which type of bike they would like to rent



Thank you.

Nicole Antonopoulos

Sustainability Manager

nantonopoulos@flagstaffaz.gov

928.213.2149

10. D.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Elaine Averitt, Planning Development Manager
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Approval of Final Plat Request by 66th and Fourth, LLC, for Final Plat approval for The Trax - Phase 2, a commercial subdivision consisting of 4 lots and 3 tracts on approximately 8.74 acres, located at 2511 East Route 66 in the HC, Highway Commercial Zone. **(Subdivision of 8.74 acres into 4 lots located at 2511 E. Route 66)**

STAFF RECOMMENDED ACTION:

Staff recommends the City Council approve the final plat and authorize the Mayor to sign both the plat and City/Subdivider Agreement when notified by staff that the documents are ready for recording.

Executive Summary:

In March 2015, a preliminary plat for all three phases of The Trax commercial subdivision was approved by City Council. Later in 2015, a final plat was also approved for The Trax - Phase 1, located at the southwest corner of Route 66 and Fourth Street. The current request for Final Plat approval of Phase 2 includes the undeveloped land located at the southeast corner of Route 66 and Fourth Street. Approval of this Final Plat will allow the development of a Holiday Inn hotel (Lot 10) which received Site Plan approval in 2018, and future commercial development on Lots 9, 11, and 12. See Sheet 1 of the Final Plat attachment for the Vicinity Map.

Financial Impact:

No financial liabilities are anticipated by the approval of this final plat.

Policy Impact:

There are no policy impacts affiliated with this Final Plat.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Council Goals

Economic Development - Grow and strengthen a more equitable and resilient economy.

Team Flagstaff Strategic Plan

Strategic Priority #3: Foster a resilient and economically prosperous city.

Flagstaff Regional Plan

Goal T.6. Provide for bicycling as a safe and efficient means of transportation and recreation.
Goal ED.9. Promote redevelopment and infill as a well-established means to accomplish a variety of community economic, planning, and environmental goals.

Has There Been Previous Council Decision on This:

June 17, 2014: City Council approved a Regional Plan amendment (Resolution No. 2014-26).
July 15, 2014: City Council approved a Development Agreement (Resolution No. 2014-14); and the City of Flagstaff and Evergreen Devco, Inc. entered into the Second Amendment of the Purchase and Sale Agreement.
August 25, 2014: City Council approved the Third Amendment and the Fourth Amendment of Purchase and Sale Agreement between the City of Flagstaff and Evergreen-TRAX , LLC.
March 3, 2015: City Council approved a Preliminary Plat (PPPL2014-0006).

Options and Alternatives:

1) Approve the final plat with no conditions.
2) Approve the final plat with added conditions.
3) Deny the final plat based on non-compliance with the approved preliminary plat, the Zoning Code, the Subdivision Code, and/or the Engineering Design Standards and Specifications for New Infrastructure.

Background/History:

The Trax is a commercial development consisting of approximately 27.2 gross acres of land located at the southwest and southeast corners of Route 66 and Fourth Street and is adjacent to approximately one mile of the BNSF railway. A preliminary plat for the entire development was approved by City Council in March 2015 and a final plat for Phase 1 only (west of Fourth Street) was approved by City Council in June 2015. The developer/owner of the subject site east of Fourth Street is currently requesting final plat approval for Phase 2. The Inter-Division Staff approved a site plan for a Holiday Inn hotel on Lot 10 of Phase 2 in May 2018. Civil engineering plans for Phase 2 were approved with conditions in July 2019. Once the final plat for Phase 2 is approved, building plans can be submitted for the Holiday Inn. The preliminary plat report to the Planning & Zoning Commission dated January 21, 2015 is attached for additional background information. Note that in February 2016, the Inter-Division Staff reviewed and approved a preliminary plat modification of Phase 2 (aka "Parcel B") to revise the plat to include four lots instead of five. Phase 2 now consists of Lots 9, 10, 11 and 12. Three small tracts (A, B, and C) are associated with future right-of-way dedications; two to ADOT for driveways on Route 66 and one to the City of Flagstaff for a driveway on Fourth Street.

Key Considerations:

The City Council reviews final plat applications to ensure that the final plat meets the requirements of City Code Title 10, *Flagstaff Zoning Code;* Title 11, *General Plans and Subdivision Code*; and Title 13, *Engineering Design Standards and Specifications*. All of the applicable city codes were reviewed by staff for this final plat application and found to meet the requirements.

Expanded Financial Considerations:

None

Community Benefits and Considerations:

- The proposed infill commercial development anticipates uses that include restaurants, hotels and retail shops which will compliment nearby employment centers and add to the vitality of adjacent neighborhoods and the region.
- The development will include completion of urban services and infrastructure, and high pedestrian, bicycle and transit connectivity.
- A Flagstaff Urban Trail System trail will be constructed along the rear portion of the shopping center adjacent to the railway, compatible with the Flagstaff Urban Trail System plan. The developer will be required to complete the pedestrian sidewalk system along Route 66 and Fourth Street (at new driveway locations), and complete street lighting.
- In 2018 the owner participated in a Gunnison's prairie dog translocation project with Habitat Harmony. Approximately 100 prairie dogs were humanely trapped and re-established in the Petrified Forest National Park.

Community Involvement:

Inform. No public hearings or public outreach are required by either the Zoning Code or the Subdivision Code as part of the final plat subdivision review process.

Attachments:
Final Plat Application
Final Plat
City Subdivider Agreement
P&Z Staff Report, Preliminary Plat, Jan. 2015
Presentation

City of Flagstaff — Community Development Division

211 W. Aspen Ave
Flagstaff, AZ 86001
www.flagstaff.az.gov
P: (928) 213-2618
F: (928) 213-2609

RECEIVED JAN 22 2019

JAN 27 2019

Date Received	Application for Subdivision Review	File Number
JAN 22 2019		PZ-17-00203-03

Property Owner(s) 66th & Fourth, LLC		**Phone**
Mailing Address 3599 Lee Circle	**City, State, Zip** Prescott, AZ 86301	**Email**
Applicant(s) Brad Christensen		**Phone** 928-776-9780
Mailing Address 3599 Lee Circle	**City, State, Zip** Prescott, AZ 86301	**Email** brad@ponderosahotels.com
Project Representative Stephen C. Irwin, PE		**Phone** 928-773-0354
Mailing Address 110 West Dale Avenue	**City, State, Zip** Flagstaff, AZ 86001	**Email** sirwin@swiaz.com

Requested Review:
☐ Development Master Plan ☐ Conceptual Plat ☐ Preliminary Plat P&Z and Council
☐ Modified Subdivision ☐ Preliminary Plat ☒ Final Plat- Council

Project Name:	**Site Address**	**Parcel Number**
Trax East - Holiday Inn & Suites	2511 E. Route 66	APN #107-13-009
Proposed Use Commercial	**Existing Use** Undeveloped	**Subdivision, Tract & Lot Number** The Trax - Unit 2

Zoning District	**Regional Plan Category**	**Flood Zone**	**Size of Site (Sq. ft. or Acres)**
Highway Commercial - HC	Suburban	Zone X	8.52 ac

Property Information:
☐ Yes ☒ No Located in an existing Local/National Historic District? (Name: _____)
☐ Yes ☒ No Existing structures are over 50 years old at the time of application?
☒ Yes ☐ No Subject property is undeveloped land?

Surrounding Uses (Res, Com, Ind)	**North**	**South**	**East**	**West**
	Commercial	Industrial	Undeveloped	Commercial

Proposed Use:	**Number of Lots**	**Number of Units**	**Number of acres per use**	**Building Square Feet**
Commercial	4		8.52 ac	24,000 sf

Please complete a *"Subdivision Review Application"* and provide an initialed *"Application and Information Checklist"* form along with the required number of plans and information as appropriate for a Development Master Plan, Conceptual, Preliminary or Final Plat. **Incomplete submittals will not be scheduled.**

Property Owner Signature: (required)	**Date:**	**Applicant Signature:**	**Date:**
Brad Christensen	1-15-2019	Brad Christensen	1-15-2019

For City Use

Date Filed: 1-22-19	**Case Number (s)**	PZ-17-00203-03	
P & Z Hearing Date: NA for F-Plat		**Publication and Posting Date:** NA	
Council Hearing Date: 8-27-19		**Publication and Posting Date:** NA	
Fee Receipt Number: 1904277	**Amount:** $1,840.00	**Date:** 1-23-19	

Action by Planning and Zoning Commission: NA	**Action By City Council:**
☐ Approved	☐ Approved
☐ Denied	☐ Denied
☐ Continued	☐ Continued

Staff Assignments	**Planning**	**Engineering**	**Fire**	**Public Works/Utilities**	**Stormwater**
	Elaine	Jeremy	Kent	Scott Tim	Doug

2-1-19: Admin. Complete, begin Substantive Review (due 2/12)
Used 9 of 26 days!
2-19-19: RFC (10 days left)
7-8-19: RFC (3 days left) 7-12-19 IDS Appr w/ Conditions

PLOTTED: Jul 26, 2019–9:01am

DEDICATION

STATE OF ARIZONA
SS.
COUNTY OF COCONINO

KNOW ALL MEN BY THESE PRESENTS: That 66 and Fourth, LLC (An Arizona Limited Liability Company), as owner, hereby publishes this plat as and for THE TRAX – PHASE 2. A subdivision of a portion of land situated in the West Half of Section 13,, Township 21 North, Range 7 East, of the Gila and Salt River Meridian, Coconino County, Arizona, as shown platted hereon, and hereby declares that said plat sets forth the locations and gives the dimensions and measurements of the parcels, streets, tracts and easements constituting same and that each parcel, street, tract and easement shall be known by the number or name given to each, respectively, on said plat.

The Owner hereby dedicates to the City of Flagstaff:

1. an easement over, under and across that certain public drainage easement as depicted and described hereon for the purpose of protecting the public. This easement entitles the City to act as necessary to maintain drainage facilities.
2. all public utility easements (P.U.E.) shown hereon for the benefit of all authorized utility companies for public utility and access purposes only.
3. a public access easement shown hereon for the benefit of access purposes only.

IN WITNESS WHEREOF: 66 and Fourth, LLC, an Arizona limited liability company, has hereunto caused its name to be signed.

Done at Flagstaff, Arizona, this _____ day of _____ 2019,

By: Dakota 66th and Fourth, LLC
Its: Managing Member

By: JVT America, Inc.
Its: Managing Member

By: _____
(owners Name)
Its: Manager

ACKNOWLEDGEMENT

STATE OF ARIZONA
SS.
COUNTY OF COCONINO

On this _____ day of _____, 2019, before me, the undersigned personally appeared, _____, Manager of _____ an Arizona Corporation, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein constrained.

IN WITNESS WHEREOF I hereunto set forth my hand and official seal

_____
NOTARY PUBLIC

My Commission Expires: _____

CITY OF FLAGSTAFF APPROVALS

CITY OF FLAGSTAFF
It is hereby certified that this plat has been officially approved for the record by the Council of the City of Flagstaff, Coconino County, Arizona, on the ____ day of _____, 2019.

BY: _____ Mayor

ATTEST: _____ City Clerk

It is hereby certified that this plat has been officially approved for the record by the City of Flagstaff Planning Director and City Engineer, on the ____ day of _____, 2019.

BY: _____ Planning Director
BY: _____ City Engineer

LENDER:

BANKERS TRUST COMPANY, AN IOWA STATE CHARTERED BANK

BY: _____
ITS: _____

UTILITY COMPANY CONTACTS

APS
CONTACT: RYAN WIESNER
2200 E. HUNTINGTON
FLAGSTAFF, AZ 86004
RYAN.WIESNER@APS.COM
PHONE: (928) 773–6447

UNISOURCE ENERGY SERVICES
CONTACT: MARTIN CONBOY
2901 W SHAMRELL BLVD #110
FLAGSTAFF, AZ 86001
MCONBOY@UESAZ.COM
PHONE: (928) 226–2269

CENTURYLINK
CONTACT: JASON DALE
112 NORTH BEAVER STREET
FLAGSTAFF, AZ 86001
JASON.DALE@CENTURYLINK.COM
PHONE: (928) 779–4931

ALTICE USA
CONTACT: SANFORD YAZZIE
1601 SOUTH PLAZA WAY
FLAGSTAFF, AZ 86001
SANFORD.YAZZIE@ALTICEUSA.COM
PHONE: (928) 266–0672

UTILITY COMPANY APPROVAL

ARIZONA PUBLIC SERVICE

RYAN WIESNER (BY LETTER) 12/10/18
BY: DATE:

UNISOURCE ENERGY SERVICES

MARTIN CONBOY (BY LETTER) 11/05/18
BY: DATE:

CENTURYLINK

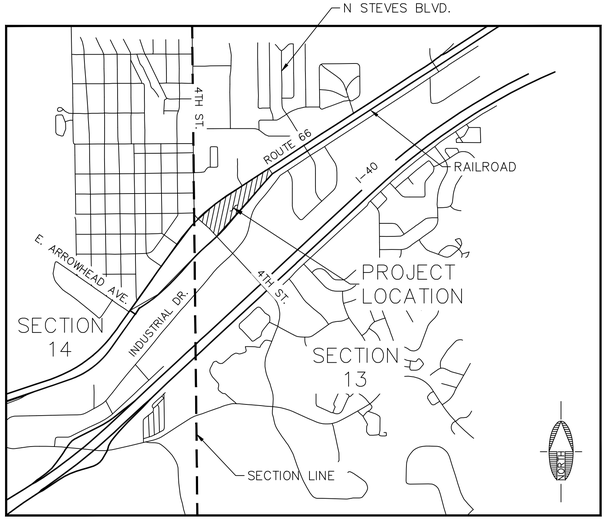
JASON DALE (BY LETTER) 11/05/18
BY: DATE:

ALTICE USA

SANFORD YAZZIE (BY LETTER) 11/05/18
BY: DATE:

FINAL PLAT OF
THE TRAX - PHASE 2
FLAGSTAFF, ARIZONA

LOCATED IN SECTION 13, TOWNSHIP 21 NORTH, RANGE 7 EAST, GILA AND SALT RIVER MERIDIAN, CITY OF FLAGSTAFF, COCONINO COUNTY, ARIZONA



VICINITY MAP
N.T.S.

PROJECT OWNER:

66 AND FOURTH, LLC.
3599 LEE CIRCLE
PRESCOTT, AZ 86301

CIVIL ENGINEER:

SHEPHARD–WESNITZER INC.
STEPHEN IRWIN #58405
110 WEST DALE AVE
FLAGSTAFF, AZ 86001
(928) 773–0354

SURVEYOR:

SHEPHARD–WESNITZER, INC.
AARON D. BORLING, RLS #48756
110 W. DALE AVE.
FLAGSTAFF, AZ 86001
(928) 773–0354

SHEET INDEX

SHEET NO.	DRAWING NO.	SHEET TITLE
1	FP1	COVER SHEET
2	FP2	OVERALL BOUNDARY
3	FP3	LOT GEOMETRY
4	FP4	EASEMENTS

PROJECT INFORMATION:

THE TRAX – PHASE 2

NUMBER OF LOTS: 4
GROSS AREA: 8.74 ACRES
NET AREA: 8.52 ACRES

1. THE PROJECT IS LOCATED WITHIN THE CITY OF FLAGSTAFF WATER SERVICE AREA AND HAS BEEN DESIGNATED AS HAVING AN ASSURED WATER SUPPLY.
2. ALL UTILITIES, INCLUDING STREET LIGHTS AND ELECTRICAL LINES INSTALLED WITH THIS PROJECT SHALL BE PLACED UNDERGROUND.
3. DEVELOPMENT AND USE OF THIS SITE WILL CONFORM TO ALL APPLICABLE CITY OF FLAGSTAFF CODES AND ORDINANCES.
4. NEW IMPERVIOUS AREA: 3.70 AC
TOTAL INCLUDES ROADWAY IMPROVEMENTS, SIDEWALKS, BUILDING PADS AND ASSOCIATED PARKING LOTS.
5. THE CITY OF FLAGSTAFF PROVIDES WATER [UTILITY] SERVICE PURSUANT TO STATE LAW, AND IS CURRENTLY OPERATING UNDER A DESIGNATION OF ADEQUATE WATER SUPPLY GRANTED BY THE ARIZONA DEPARTMENT OF WATER RESOURCES, APPLICATION NO. 41–900002.0002.
6. ACCESS ACROSS THE LOTS IS PROVIDED PER THE EASEMENTS AND MAINTENANCE AGREEMENT, INSTRUMENT #XXXXXXX, OFFICIAL RECORDS OF COCONINO COUNTY.
7. EXCEPT FOR CONSTRUCTION AND IMPROVEMENTS BY GOVERNMENTAL ENTITIES AND CERTIFICATED PUBLIC UTILITIES, CONSTRUCTION AND IMPROVEMENTS WITHIN UTILITY EASEMENTS SHALL BE LIMITED TO THE FOLLOWING; REMOVABLE WOOD, WIRE OR SECTION–TYPE FENCING; CONSTRUCTION, STRUCTURES OR BUILDING EXPRESSLY APPROVED IN WRITING BY ALL PUBLIC UTILITIES WHICH USE OR SHALL USE THE UTILITY EASEMENT.
8. FUTURE DEVELOPMENT ON EACH LOT SHALL PROVIDE DETENTION/LID FOR THE SECTION OF ROADWAY/DRIVEWAY WITHIN SAID LOT. THE SOUTHWEST PORTION OF LOT 9 SHALL DRAIN TO DETENTION/LID UNDERGROUND SYSTEM ON LOT 10. THE WESTERN PORTION OF LOT 11 SHALL BE DRAINED TO THE UNDERGROUND DETENTION/LID SYSTEM ON THE EAST SIDE OF LOT 10. LOTS 11 AND 12 CONTAIN TEMPORARY DETENTION/LID BASINS THAT ARE DESIGNED TO ACCOMMODATE RUNOFF FOR PORTIONS OF THE DRIVEWAYS, PER THE FINAL DRAINAGE REPORT FOR THE TRAX EAST–HOLIDAY INN & SUITES (DATED FEB. 1, 2018). ANY DEVELOPMENT ON THESE LOTS THAT RESULT IN THE REMOVAL OF THE TEMPORARY DETENTION/LID BASINS SHALL INCLUDE AN ONSITE DETENTION/LID BASINS LARGE ENOUGH TO ACCOMMODATE RUNOFF FROM THE DRIVEWAYS, OR THE CONSTRUCTION OF AN OFFSITE DETENTION/LID BASIN ON AN ADJACENT VACANT LOT TO TREAT AND RELEASE SAID RUNOFF.
9. THE OWNER(S) SHALL BE SOLELY RESPONSIBLE FOR THE OPERATION, MAINTENANCE, AND LIABILITY FOR ALL DETENTION FACILITIES; AND, THE CITY OF FLAGSTAFF MAY PERIODICALLY INSPECT SAID DETENTION FACILITIES TO VERIFY THAT REGULAR MAINTENANCE ACTIVITIES ARE BEING PERFORMED ADEQUATELY.
10. RIGHT–OF–WAY WILL BE DEDICATED TO ADOT AND ACCEPTED THROUGH A RESOLUTION OF ESTABLISHMENT BY THE ARIZONA TRANSPORTATION BOARD AND THROUGH A SEPARATE LEGAL DOCUMENT.
11. EXCEPT FOR CONSTRUCTION AND IMPROVEMENTS BY GOVERNMENTAL ENTITIES AND CERTIFIED PUBLIC UTILITIES, CONSTRUCTION AND IMPROVEMENTS WITHIN ANY UTILITY EASEMENTS SHALL BE LIMITED TO ONLY THE FOLLOWING: (ORD. 1997, 6–15–99)
A. REMOVABLE WOOD, WIRE OR SECTION–TYPE FENCING; (ORD. 2000–08, 6/6/00)
B. CONSTRUCTION, STRUCTURES OR BUILDING EXPRESSLY APPROVED IN WRITING BY ALL PUBLIC UTILITIES WHICH USE OR SHALL USE THE UTILITY EASEMENT.

SUMMARY OF TRACTS:
TRACT A: FUTURE ADOT RIGHT–OF–WAY DEDICATION – 3,142 SF (0.072 AC)
TRACT B: FUTURE ADOT RIGHT–OF–WAY DEDICATION – 6,314 SF (0.145 AC)
TRACT C: FUTURE COF RIGHT–OF–WAY DEDICATION – 658 SF (0.015 AC)

FLOOD ZONE CLASSIFICATION:

THE SUBJECT PARCEL IS LOCATED WITHIN ZONE X OF FEMA FIRM MAP #04005C6828G, EFFECTIVE SEPTEMBER 3, 2010. ZONE X IS DESCRIBED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

ZONING:

EXISTING ZONING: HIGHWAY COMMERCIAL (HC)

THE ENTIRE PROJECT AREA IS WITHIN THE CITY OF FLAGSTAFF ZONING "HIGHWAY COMMERCIAL (HC)" PER CITY OF FLAGSTAFF OFFICIAL ZONING MAP 9 & 10. THIS PROJECT WILL NOT INVOLVE REZONING.

CITY OF FLAGSTAFF ZONING CODE CODE SEC. 10–40.30.040 (HC)

–MAX. GROSS FAR 3.0
–MAX. BUILDING HEIGHT 60'
–FRONT SET BACK 0'
–SIDE INTERIOR 0',
15' ADJACENT TO RESIDENTIAL
–SIDE EXTERIOR 10'
–REAR 0',
15' ADJACENT TO RESIDENTIAL
–MIN. LOT AREA 9,000 SF
–MIN. WIDTH 60'
–MIN. DEPTH 100'
–STREET OR PERIPHERAL BUFFER 10'

RESOURCE PROTECTION OVERLAY ZONE:

THIS PROPERTY IS NOT WITHIN THE CITY OF FLAGSTAFF RESOURCE PROTECTION OVERLAY ZONE; THEREFORE, THERE ARE NO RESOURCES REQUIRING PROTECTION ON THIS PROPERTY.

CERTIFICATE OF LAND SURVEYOR

This is to certify that the survey of the property described and platted hereon was made under my direction and supervision and is accurately represented on this plat.
I also certify that the plat is in substantial conformance to the approved tentative plat and that this plat is correct and accurate as shown to the best of my knowledge and belief.

Registered Land Surveyor
_____

Date _____

PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

C.O.F. #PZ-17-00203

FLAGSTAFF ARIZONA

TRAX EAST – HOLIDAY INN & SUITES

COVER SHEET

JOB NO: 17043
DATE: JUL 19
SCALE: AS SHOWN
DRAWN: KMF
DESIGN: KMF
CHECKED: SCI/ADB

REVISIONS

NO.	DESCRIPTION	DATE	BY

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.8934 fax
www.swiaz.com
Shephard Wesnitzer, Inc.

Call at least two full working days before you plan to excavate
ARIZONA811 Arizona Blue Stake, Inc.
Dial 8–1–1 or 1–800–STAKE–IT (782–5348)

DRAWING NO.
FP1

SHT NO. 1 OF 4

FILE: P:\2017\17043\DRAWINGS\PLATS\FINAL\17043 – COVER.DWG KBAYER

PLOTTED: Jul 10, 2019–6:11pm

COORDINATE SYSTEM DETAILS

LINEAR UNIT: INTERNATIONAL FEET
GEODETIC DATUM: NAD 83 (CONUS)
VERTICAL DATUM: NAVD 88, REFERENCED FROM SWI CONTROL POINT "GEMINI"
SYSTEM: CITY OF FLAGSTAFF LOW DISTORTION PROJECTION (2005)

PROJECTION:
TRANSVERSE MERCATOR

LATITUDE OF GRID ORIGIN:	35° 10' 00" N
LONGITUDE OF CENTRAL MERIDIAN:	111° 37' 00" W
NORTHING AT GRID ORIGIN:	0 FT
EASTING AT CENTRAL MERIDIAN:	70,000 FT
CENTRAL MERIDIAN SCALE FACTOR:	1.000333 (EXACT)

ALL MEASURED DISTANCES AND BEARINGS SHOWN HEREON ARE GRID VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT GRID DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.

THE BASIS OF BEARINGS IS TRUE GEODEDIC NORTH; NOTE THAT THE MEASURED GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

ORTHOMETRIC HEIGHTS (ELEVATIONS) WERE TRANSFERRED TO THE SITE FROM SWI CONTROL POINT "GEMINI" USING GPS WITH NGS GEOID MODEL "GEOID03". ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE PUBLISHED ELEVATION OF THIS STATION.

THE SURVEY WAS CONDUCTED USING GPS REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM. A PARTIAL LIST OF POINT COORDINATES FOR THIS SURVEY IS GIVEN BELOW (ADDITIONAL COORDINATES ARE AVAILABLE UPON REQUEST). LOCAL NETWORK ESTIMATES ARE GIVEN AT THE 95% CONFIDENCE LEVEL AND ARE BASED ON AN APPROPRIATELY CONSTRAINED LEAST–SQUARES ADJUSTMENT OF OVER–DETERMINED AND STATISTICALLY INDEPENDENT OBSERVATIONS.

POINT #3019 = FOUND 3" ADOT BRASS CAP IN HAND WELL

LATITUDE = 35°12'38.61391"N	NORTHING = 76726.607 FT	ESTIMATED ACCURACY
LONGITUDE =111°36'48.50795"W	EASTING = 70953.940 FT	HORIZ = ±0.027 FT
ELLIPSOID HEIGHT = 6801.801 FT	ELEVATION = 6877.603 FT	VERT = ±0.035 FT

POINT #3020 = FOUND 2–1/2" BRASS CAP "CITY OF FLAGSTAFF RLS 16544"

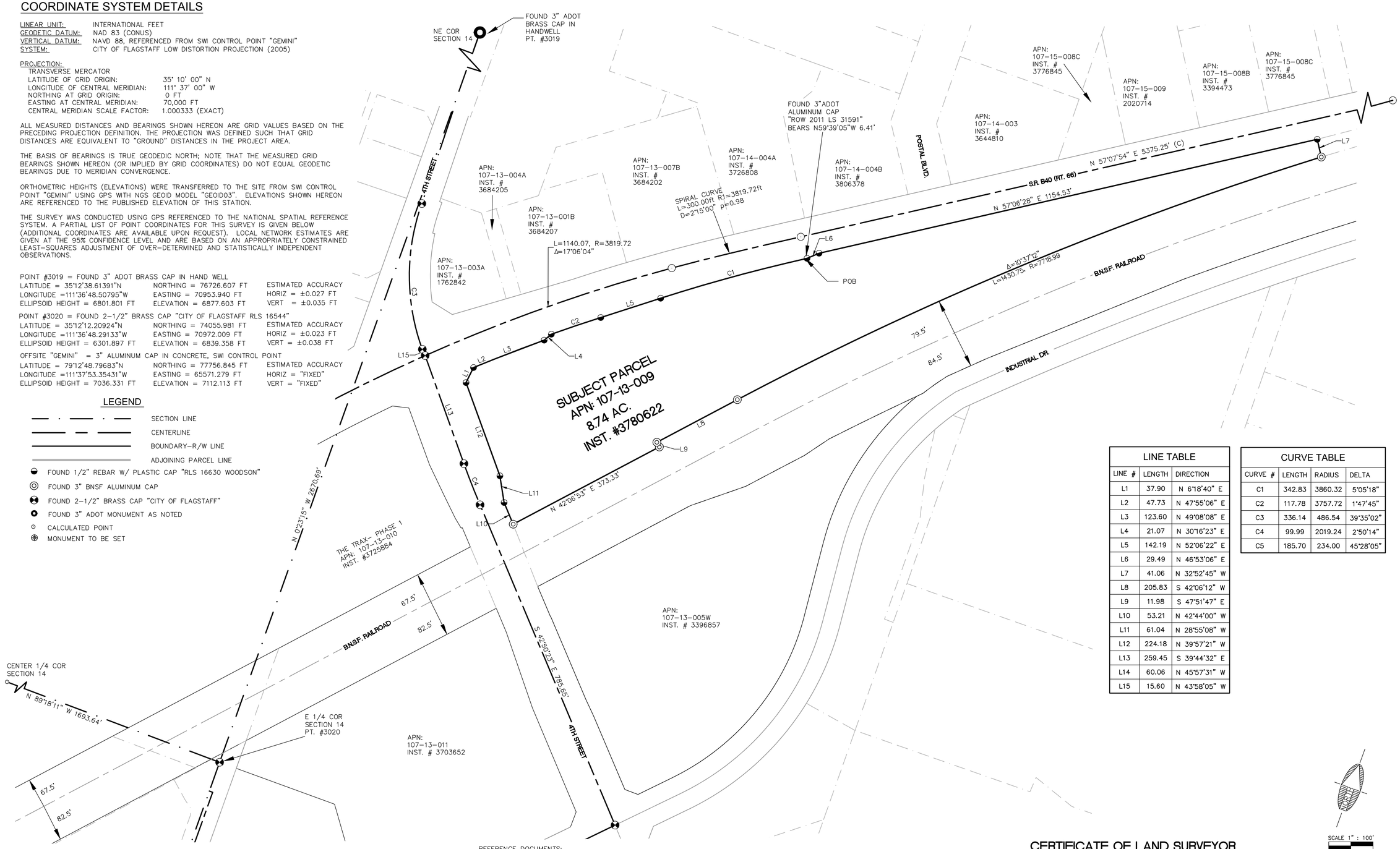
LATITUDE = 35°12'12.20924"N	NORTHING = 74055.981 FT	ESTIMATED ACCURACY
LONGITUDE =111°36'48.29133"W	EASTING = 70972.009 FT	HORIZ = ±0.023 FT
ELLIPSOID HEIGHT = 6301.897 FT	ELEVATION = 6839.358 FT	VERT = ±0.038 FT

OFFSITE "GEMINI" = 3" ALUMINUM CAP IN CONCRETE, SWI CONTROL POINT

LATITUDE = 79°12'48.79683"N	NORTHING = 77756.845 FT	ESTIMATED ACCURACY
LONGITUDE =111°37'53.35431"W	EASTING = 65571.279 FT	HORIZ = "FIXED"
ELLIPSOID HEIGHT = 7036.331 FT	ELEVATION = 7112.113 FT	VERT = "FIXED"

LEGEND

- SECTION LINE
- CENTERLINE
- BOUNDARY–R/W LINE
- ADJOINING PARCEL LINE
- FOUND 1/2" REBAR W/ PLASTIC CAP "RLS 16630 WOODSON"
- FOUND 3" BNSF ALUMINUM CAP
- FOUND 2–1/2" BRASS CAP "CITY OF FLAGSTAFF"
- FOUND 3" ADOT MONUMENT AS NOTED
- CALCULATED POINT
- MONUMENT TO BE SET



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	37.90	N 6°18'40" E
L2	47.73	N 47°55'06" E
L3	123.60	N 49°08'08" E
L4	21.07	N 30°16'23" E
L5	142.19	N 52°06'22" E
L6	29.49	N 46°53'06" E
L7	41.06	N 32°52'45" W
L8	205.83	S 42°06'12" W
L9	11.98	S 47°51'47" E
L10	53.21	N 42°44'00" W
L11	61.04	N 28°55'08" W
L12	224.18	N 39°57'21" W
L13	259.45	S 39°44'32" E
L14	60.06	N 45°57'31" W
L15	15.60	N 43°58'05" W

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	342.83	3860.32	5°05'18"
C2	117.78	3757.72	1°47'45"
C3	336.14	486.54	39°35'02"
C4	99.99	2019.24	2°50'14"
C5	185.70	234.00	45°28'05"

NOTE:

ALL DIMENSIONS SHOWN HEREON ARE "MEASURED" UNLESS OTHERWISE NOTED.

REFERENCE DOCUMENTS:

INST #3396857 OFFICIAL RECORDS OF COCONINO COUNTY, CITY OF FLAGSTAFF CONSOLIDATION MAP PREPARED BY PLATEAU ENGINEERING

INST #3491704 OFFICIAL RECORDS OF COCONINO COUNTY, ALTA SURVEY PREPARED BY WOODSON ENGINEERING AND SURVEYING, INC.

ADOT RIGHT–OF–WAY PLANS, S.R. B40 M–951–6–801

INST #3725884, OFFICIAL RECORDS OF COCONINO COUNTY FINAL PLAT TRAX– PHASE 1

INST #3701458, OFFICIAL RECORDS OF COCONINO COUNTY, RESULTS OF SURVEY PREPARED BY SHEPHARD–WESNITZER, INC.

SCALE 1" : 100'
0 50 100

CERTIFICATE OF LAND SURVEYOR

This is to certify that the survey of the property described and platted hereon was made under my direction and supervision and is accurately represented on this plat.
I also certify that the plat is in substantial conformance to the approved tentative plat and that this plat is correct and accurate as shown to the best of my knowledge and belief.

Registered Land Surveyor
_____

Date _____

PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

C.O.F. #PZ–17–00203

FLAGSTAFF ARIZONA

TRAX EAST – HOLIDAY INN & SUITES

OVERALL BOUNDARY

JOB NO: 17043
DATE: JUL 19
SCALE: AS SHOWN
DRAWN: TNC
DESIGN: SCI
CHECKED: SCI

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.8934 fax
www.swiaz.com
Shephard Wesnitzer, Inc.

REVISIONS

NO.	DESCRIPTION	DATE	BY

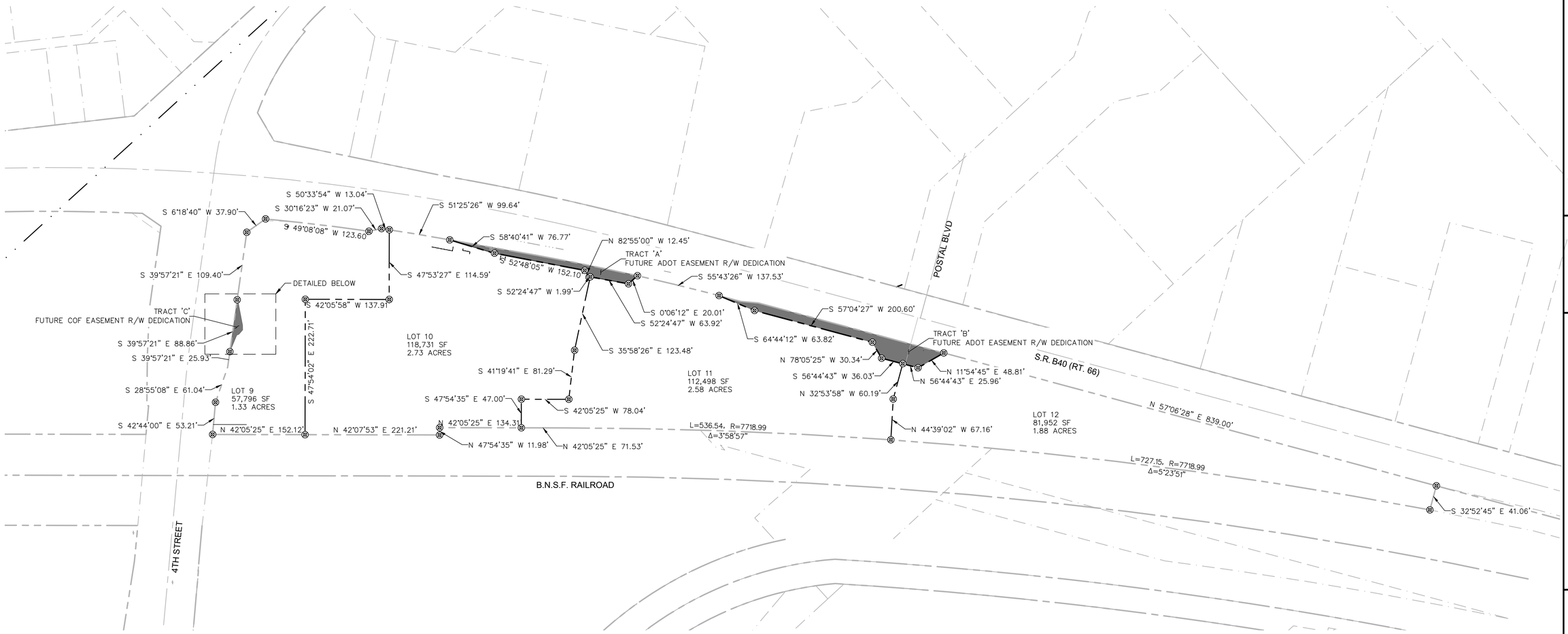
Call at least two full working days before you dig, it's the law!
ARIZONA811 Arizona Blue Stake, Inc.
Dial 8–1–1 or 1–800–STAKE–IT (782–5348)

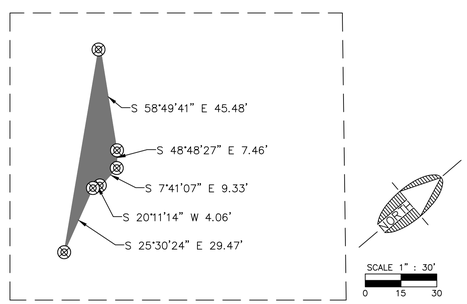
DRAWING NO.
FP2

SHT NO. 2 OF 4

FILE: P:\2017\17043\DRAWINGS\PLATS\FINAL\7043– FP2 OVERALL BOUNDARY.DWG SRWIN

PLOTTED: Jul 10, 2019-6:12pm





TRACT 'C'

CERTIFICATE OF LAND SURVEYOR

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Registered Land Surveyor

_____

Date _____

PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

C.O.F. #PZ-17-00203

LOT GEOMETRY

TRAX EAST – HOLIDAY INN & SUITES

FLAGSTAFF
ARIZONA

JOB NO:	17043
DATE:	JUL 19
SCALE:	AS SHOWN
DRAWN:	TNC
DESIGN:	SCI
CHECKED:	SCI

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0354
928.774.6934 fax
www.swiaz.com

SWI Shephard Wesnitzer, Inc.

NO.	DESCRIPTION	DATE	BY

REVISIONS

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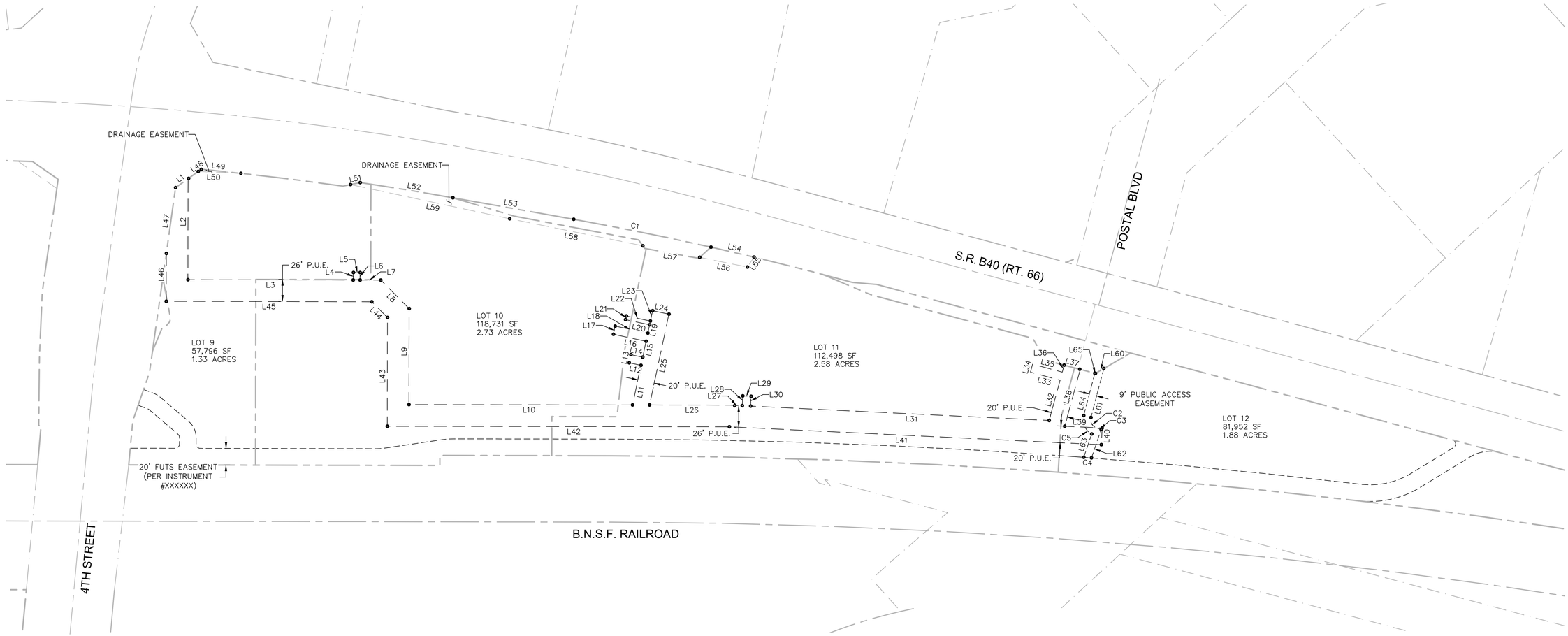
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

DRAWING NO.
FP3

SHT NO. 3 OF 4

FILE: P:\2017\17043\DRAWINGS\PLATS\FINAL\17043- FP3 LOT GEOMETRY.DWG SRWIN

PLOTTED: Jul 10, 2019-6:13pm



LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	18.45	S 6°25'10" W
L2	121.21	N 47°53'27" W
L3	198.30	S 42°06'53" W
L4	9.00	S 45°52'51" E
L5	8.00	S 42°06'33" W
L6	9.00	N 47°06'31" W
L7	24.96	N 42°05'12" E
L8	48.21	S 87°06'33" W
L9	115.26	N 47°53'27" W
L10	268.26	S 42°05'25" W
L11	48.63	S 35°58'26" E
L12	14.50	N 54°01'34" E
L13	10.00	S 35°58'26" E
L14	14.50	S 54°01'34" W
L15	19.51	S 35°58'26" E
L16	40.11	N 54°01'34" E
L17	10.00	S 35°58'26" E
L18	40.11	S 54°01'34" W
L19	10.23	N 35°58'26" W
L20	29.52	N 54°01'34" E
L21	4.57	S 35°58'26" E
L22	29.52	S 54°01'34" W
L23	12.73	N 35°58'26" W
L24	20.00	S 54°01'34" W
L25	111.44	N 35°58'26" W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L26	96.41	S 42°05'25" W
L27	14.88	S 44°45'11" W
L28	11.78	S 45°14'49" E
L29	10.00	S 44°45'32" W
L30	11.78	N 45°14'49" W
L31	358.67	S 44°45'11" W
L32	50.11	N 32°51'31" W
L33	36.85	S 57°08'29" W
L34	10.00	N 32°51'31" W
L35	36.85	N 57°08'29" E
L36	8.67	N 32°51'31" W
L37	20.00	S 56°44'43" W
L38	70.72	N 32°41'05" W
L39	44.97	S 44°45'11" W
L40	20.00	N 45°14'49" W
L41	446.85	N 44°45'11" E
L42	410.52	N 42°05'25" E
L43	130.50	S 47°53'27" E
L44	26.63	N 87°06'33" E
L45	246.71	N 42°08'11" E
L46	57.37	S 47°53'27" E
L47	79.77	S 39°57'21" E
L48	4.60	S 6°25'10" W
L49	47.62	S 47°55'35" W
L50	51.15	N 44°30'37" E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L51	11.92	N 30°16'23" E
L52	112.67	N 51°19'28" E
L53	147.29	N 52°06'37" E
L54	52.93	N 55°05'45" E
L55	14.23	S 14°59'29" E
L56	58.55	S 53°29'03" W
L57	69.66	S 53°29'03" W
L58	162.94	S 53°29'03" W
L59	195.42	S 54°07'08" W
L60	11.66	N 11°54'45" E
L61	60.73	N 33°15'17" W
L62	36.13	N 29°16'34" W
L63	29.60	N 29°16'34" W
L64	52.51	N 33°15'17" W
L65	0.73	N 56°44'43" E

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	168.08	3860.32	2°29'41"
C2	15.83	10.50	86°22'12"
C3	5.67	219.00	1°28'58"
C4	9.29	7739.03	0°04'08"
C5	25.99	19.50	76°22'12"

LEGEND

PUBLIC UTILITY EASEMENT

FUTS EASEMENT

SLOPE AND DRAINAGE EASEMENT

SCALE 1" : 60'
0 30 60

CERTIFICATE OF LAND SURVEYOR

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I also certify that the plat is in substantial conformance to the approved tentative plat and that this plat is correct and accurate as shown to the best of my knowledge and belief.

Registered Land Surveyor

_____

Date _____

PRELIMINARY

NOT FOR CONSTRUCTION, BIDDING OR RECORDING

C.O.F. #PZ-17-00203

FLAGSTAFF ARIZONA

TRAX EAST – HOLIDAY INN & SUITES

EASEMENTS

JOB NO:	17043
DATE:	JUL 19
SCALE:	AS SHOWN
DRAWN:	TNC
DESIGN:	SCI
CHECKED:	SCI

NO.	DESCRIPTION	DATE	BY
	REVISIONS		

110 W. Dale Avenue
Flagstaff, AZ 86001
928.773.0334
928.774.8934 fax
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SWI Shephard Wesnitzer, Inc.

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DRAWING NO.
FP4

SHT NO. 4 OF 4

FILE: P:\2017\17043\DRAWINGS\PLATS\FINAL\17043-FP4 EASEMENTS.DWG SRWIN

CITY / SUBDIVIDER AGREEMENT
CITY OF FLAGSTAFF, ARIZONA

This Agreement is entered into by and between the CITY OF FLAGSTAFF, a municipal corporation duly created and existing under the laws of the State Arizona, hereinafter referred to as CITY; and 66th and Fourth, LLC Subdivider, hereinafter referred to as SUBDIVIDER.

W I T N E S S E TH

WHEREAS, 66th and Fourth, LLC (Subdivider) desires to subdivide property within the City of Flagstaff, Arizona known as TRAX – PHASE 2; and

WHEREAS, CITY is agreeable to accepting said subdivision as proposed; providing that the subdivider constructs the subdivision in accordance with City standards and as set forth in the approved preliminary plat, and while fulfilling the obligations set forth below, which the subdivider hereby assumes; and

WHEREAS, building permit(s) is (are) required and will be issued following execution of this agreement;

NOW, THEREFORE, in consideration of the subdivision and the mutual covenants of the parties hereinafter expressed, the parties hereto agree as follows:

1. SUBDIVIDER agrees to construct all improvements in conformance with the CITY'S Subdivision Regulations and the "General Construction, Standards and Specifications" of the CITY, and to employ a responsible supervisor.

2. SUBDIVIDER further agrees to dedicate all streets and rights-of-way to the CITY for public use and to offer all public improvements to the CITY for acceptance into the CITY system.

3. The CITY agrees to accept the Subdivision as platted and to accept ownership of public improvements upon their completion and approval by the CITY.

4. In the event that the CITY should be required to institute any action for the enforcement of this agreement, SUBDIVIDER, shall be required to pay a reasonable attorney's fee in addition to all other costs assessed in any such action.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed on their own behalf and by the duly authorized officials and officers on the day and year herein written.

(Signed): _____

Brad Christensen, Manager – 66th and Fourth LLC

Notary Public State of Arizona
Yavapai County
Julia Ann Hindman
My Commission Expires 03/18/2022

STATE OF ARIZONA)
) ss
County of Yavapai)

SUBSCRIBED AND SWORN to before me this 9th day of July, 2019 by ___
_____.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal.

_____
Notary Public

My Commission expires:

Dated this _____ day of _____ 20_____ in Flagstaff, Coconino County, Arizona.

By: _____
Mayor

ATTEST:

_____
City Clerk

PLANNING & DEVELOPMENT SERVICES REPORT
PRELIMINARY PLAT

PPPL2014-0006

DATE: **January 21, 2015**
MEETING DATE: **January 28, 2015**
REPORT BY: **Elaine Averitt**
CONTACT: **928-213-2616**

REQUEST:

A request for Preliminary Plat approval from Evergreen-Trax, LLC, for a commercial development known as The Trax, on 27.2 acres located at the southwest and southeast corners of Route 66 and Fourth Street within the Highway Commercial (HC) zone (conditional).

STAFF RECOMMENDATION:

Staff recommends the Planning and Zoning Commission forward the preliminary plat to the City Council with a recommendation for approval with conditions.

PRESENT LAND USE:

Undeveloped land.

PROPOSED LAND USE:

A commercial development, consisting of retail, service and office uses.

NEIGHBORHOOD DEVELOPMENT:

North:	Route 66, then Commercial Uses; Highway Commercial (HC) zone;
East:	Undeveloped Land; Light Industrial (LI) zone;
South:	BNSF Railway, then Industrial Uses and Undeveloped Land; Light Industrial (LI) and Highway Commercial (HC) zones; Aquaplex is south of Unit 2; Light Industrial-Open (LI-O) zone;
West:	Undeveloped Land and Industrial Uses; Light Industrial (LI) zone.

REQUIRED FINDINGS:

The Planning and Zoning Commission shall find the proposed preliminary plat meets the requirements of the City Code Title 10 (Flagstaff Zoning Code); City Code Title 11 (General Plans and Subdivisions); and City Code Title 13, (Engineering Design Standards and Specifications for New Infrastructure).

STAFF REVIEW

Background

In May of 2014, the Planning Commission reviewed and approved a Regional Plan amendment, under the 2001 *Regional Land Use and Transportation Plan* to change the land use designation of 33.6 acres of property, located at Route 66 and Fourth Street and Huntington Drive and Fourth Street, from Office/Business Park/Light Industrial and Light/Medium Industrial to Community/Regional Commercial. A concurrent Zoning Map Amendment (rezoning)

request to amend 33.6 acres from Light Industrial (LI) and Light Industrial-Open (LI-O) to Highway Commercial (HC) zone was reviewed and approved by the Planning Commission. In July 2014, City Council approved requests for the referenced Regional Plan amendment and rezoning. In October 2014, Evergreen purchased the 33.6 acres of property from the City of Flagstaff and immediately sold Area D (the 6.54-acre parcel located at the northwest corner of Huntington Dr. and Fourth St.) to a private developer; thus Area D is not part of the preliminary plat. A preliminary plat application consisting of 27.2 gross acres of land and proposing 18 lots was reviewed by staff in November and December 2014. The preliminary plat was approved by the Inter-Division Staff (IDS) with conditions on December 19, 2014. Several conditions of approval required by Traffic staff have been completed, with the exception of two technical omissions that will need to be shown on the civil construction plans for Unit 1 regarding street lights, and the condition agreed to by the developer regarding extension of the dual left turn lane on Huntington Drive.

Introduction

The site is located at the intersection of Route 66 and Fourth Street, and is adjacent to approximately one mile of the Burlington Northern Santa Fe railway, as seen on the attached Preliminary Plat drawing (Sheet 2). As shown on the Phasing Plan (Sheet 8), Unit 1 is located west of Fourth Street and extends to just west of First Street in the vicinity of the Spruce Avenue Wash. Unit 1 contains Lots 1 through 8 and the conceptual Site Plan shows a convenience store/gas station, a retail anchor (Sportsman's Warehouse intends to break ground soon), two drive-through restaurants, a multi-tenant retail shop, and three single-tenant buildings. Unit 2 is located east of Fourth Street and extends to east of Postal Boulevard. Unit 2 contains Lots 9 through 13 and the conceptual Site Plan depicts six commercial buildings. Unit 3 is located west of Spruce Avenue Wash and extends to just west of Arrowhead Avenue. Unit 3 contains lots 14 through 18 and the conceptual Site Plan shows four commercial buildings, including a 4-story hotel. A Flagstaff Urban Trail System (FUTS) trail will be constructed in phases along the entire development, located adjacent to the railway. The historic trestle bridge over Spruce Ave. Wash will be preserved in accordance with the development agreement that was approved with the rezoning.

The site is currently vacant, undeveloped and un-subdivided land. Following construction plan approvals, Evergreen-Trax, LLC, intends to provide the development with new public and private infrastructure that includes roadway work, FUTS trail construction, water, sewer, and storm water infrastructure. The developer anticipates that Unit 1 will develop first and will submit a final plat for Unit 1 following approval of the Preliminary Plat. Civil construction plans for Unit 1 have been submitted and are currently in review. Final plats will be submitted for Units 2 and 3 at a later date. The proposed timing of development will be dictated by market demand; however, the developer anticipates having the first users break ground by 2015, with others to follow between 2015-2022.

General Plan/Specific Plan Conformance

The 2001 *Regional Land Use and Transportation Plan* was still in effect at the time of the Regional Plan and zoning map amendment application for The Trax development. In late May 2014, the *Flagstaff Regional Plan 2030* was ratified by voters and is the current guiding Regional Plan. The current plan designates the entire subject site as "Existing Employment/Industrial" and a portion of the site west of Fourth Street is also designated "Urban-Future."

An Employment Center may include mixed use; research and development offices; medical offices; office space; business park; retail, restaurant, and tourism center; light-industrial; heavy industrial; and live-work spaces (IX-59).
As described in the Regional Plan amendment report, "the majority of this land which was previously contiguous to other light industrial properties is now separated by the railroad tracks (North) and located directly across from existing commercial development on Route 66. It was anticipated that these parcels abutting to Route 66 should

no longer support Industrial uses or heavy truck traffic thus the designation in the Regional Plan as a redevelopment area." The designation in the 2001 Regional Plan as a Redevelopment Area supported the proposed commercial development which anticipates uses that include restaurants, hotels, shopping, convenience stores, and gas stations, which will compliment nearby employment centers and add to the vitality of adjacent neighborhoods and the region.

"Urban" area characteristics include a desired pattern of minimum 2-story buildings, Floor Area Ratios of 0.5 and higher, mixed land uses, urban services and infrastructure, and high pedestrian, bicycle and transit connectivity (IX-35). The proposed commercial development will include some 2+-story buildings and some one-story buildings. The FAR will be below 0.5 and there will be a narrower mix of land uses. These aspects are not consistent with the "Urban" area intent; however, they are compatible with the existing commercial development on the north side of Route 66. Aspects of the development which are consistent with the "Urban" intent include: completion of urban services and infrastructure, and high pedestrian, bicycle and transit connectivity. The proposed development is also consistent with the goal of Commercial Development being, "located … along regional commercial and neighborhood commercial corridors (IX-35)."

Zoning Requirements

As mentioned in the background section above, a Zoning Map Amendment (rezoning) request to amend 33.6 acres from Light Industrial (LI) and Light Industrial-Open (LI-O) to Highway Commercial (HC) zone was reviewed and approved by the Planning Commission in May 2014 and by the City Council in July 2014. The Zoning Map Amendment was adopted with two conditions which ensure that the property is developed in accordance with the conceptual plans approved with the rezoning, and that all terms within the Development Agreement are fully satisfied (see attached rezoning ordinance for specific language). This Preliminary Plat application is in compliance with the zoning code, subdivision requirements, as well as the Zoning Map amendment (COF Ordinance No. 2014-14).

The property is zoned HC, Highway Commercial zone. The anticipated uses are permitted uses in the HC zone. The proposed development, with a gross floor area ratio (gross FAR) averaging approximately 0.16, is less than 3.0 which is the maximum FAR allowed in the HC zone per the Flagstaff Zoning Code (Section 10-40.30.040). The FAR calculation is: 195,000 sq ft (4.47 ac) / 27.2 ac = 0.16 FAR. The actual FAR may end up being higher or lower, depending on actual leasing and sales to future commercial tenants.

The proposed lots within the TRAX subdivision meet the minimum lot size and dimension requirements for lots in the HC zone: 9,000 sq ft minimum area, 60 feet minimum width and 100 feet minimum depth. The minimum lot size in the subdivision is 34,206 sq ft (Lot 8, 0.79 acres). The maximum lot size is 126,336 sq ft (Lot 18, 2.9 acres).

The Flagstaff Zoning Code requires the subdivision to comply with the landscape Street Buffer standards, Parking Lot landscaping/screening, and Landscaping around Buildings (Foundation Planting; Section 10-50.60.040). A landscaped buffer will also be required between the FUTS trail and parking lots/driveways at the rear of the property. As each lot comes through the development review process, each site plan will be required to demonstrate that the landscaping standards meet all requirements.

This development is located within Lighting Zone 3, per Lighting Zone Map 10-90.50. The maximum lumens for a commercial development within Zone 3 is 100,000 lumens per acre (Zoning Code, Table 10-50.70.050.A., pg. 50.70-6). Outdoor lighting compliance will be ensured during site plan review as each commercial building, or group of buildings, goes through the development review process.

In accordance with Section 10-50.20.020.A. of the Zoning Code (pg. 50.20-1), architectural design standards apply to applications for site plan review involving commercial development. Final design compliance for the commercial development will be ensured during site plan review. The conceptual elevations provided by the applicant for the rezoning case demonstrated the intent of the design standards in the Zoning Code. In general, the applicant intends to ensure that building designs maintain the natural setting by incorporating a range of styles that are well-suited for a mountain town and incorporate many of the raw materials that are representative of the surrounding area. These materials include founders finish and split face masonry (tan and red), board & batten, board formed concrete, timber supports, rusted and galvanized metal roofing/awnings and paint colors such as "Weathered Leather" and "Aged Eucalyptus."

Natural Resources

The mapped Resource Protection Overlay zone is present on a small portion of Unit 1 and on all of Unit 2. However, there are no native tree resources present on these properties due to the historic location of the railroad and the railroad re-location project. In addition, there are no floodplain or slope resources in this area.

SYSTEMS ANALYSIS:

Access and Traffic

A Traffic Impact Analysis (TIA) dated December 2013, was prepared by the developer's engineer as a requirement for the Zoning Map Amendment. The City's Traffic Engineer and ADOT accepted the TIA in May 2014, with conditions.

Access to the development will be created along Route 66 at Arrowhead Drive, First Street, Second Street, Postal Boulevard and two additional minor driveways. Access will be created from Fourth Street to the east and west areas of the shopping center. A new signalized intersection will be constructed at First Street and Route 66. Deceleration turn lanes will be constructed along Route 66 and Fourth Street. At Arrowhead Drive and Postal Boulevard, new fourth legs will be added to the existing intersections with Route 66. A Flagstaff Urban Trail System trail will be constructed along the rear portion of the shopping center adjacent to the railway, compatible with the Flagstaff Urban Trail System plan. The developer will be required to complete the pedestrian sidewalk system along Route 66 and Fourth Street (at new driveway locations), and complete street lighting.

Water and Wastewater

All water services will be provided in accordance with Engineering Design Standards. The proposed water and sewer mains into the site will be public. A public water and sewer impact analysis was prepared by the City for the proposed development as part of a rezoning application in August 2008. After reviewing the TRAX Concept Plans dated July 27, 2011, the City of Flagstaff Utilities Department concluded that the proposed site plans reveal no significant water and sewer changes. As long as water and sewer demands do not increase from the original analysis, no additional analysis work will be required. However, the city required that the onsite water and sewer system be addressed in the Engineer's Design Reports; these reports have been submitted for Phase 1 of this development and are currently in review by city staff. According to the 2008 water and sewer impact analysis, the existing off-site and proposed on-site sewer and water system infrastructure were deemed adequate to accommodate the development, and no off-site improvements were required.

Each (un-subdivided) parcel has an 8-inch PVC water main stubbed out for development of this land. Within the Route 66 right-of-way are 18-inch diameter ductile iron water transmission lines. All new on-site infrastructure

will have to be designed and built to connect to the public water system and will be required to provide a looped water system. Fire hydrants will be provided throughout Phase 1 with no more than 400 feet in between fire hydrants, per the International Fire Code (IFC). Future phases will also meet the IFC standards.

The nearest sewer main that allows for gravity flow from this site is located in Spruce Avenue Wash. This existing 14-inch trunk line turns into a 21-inch diameter PVC line that follows the alignment of Spruce Avenue Wash. This 21-inch interceptor line has sufficient capacity to convey all anticipated sewage flows generated by this development.

Stormwater

The Stormwater Manager reviewed and accepted the Drainage Impact Analysis that was provided with the Conceptual Site Plan for the zoning map amendment. The report demonstrated that there are no concerns of downstream flooding impacts to property and no rise in 'Lake Continental.' In general, the site will be graded to drain towards the south, where runoff will be diverted to various detention basins and LID features located throughout the site.

Since the zoning case, a Final Drainage Report has been submitted (currently in review) for Trax Phase 1, which includes the proposed Sportsman's Warehouse building, new driveway entrances at Route 66 and Fourth Street, and new driveways to provide access to the Sportsman's Warehouse. According to the report, the drainage scheme for The Trax development is for the developer of each lot/parcel to provide stormwater detention and LID measures for their development and the adjacent access drive(s). The access drives are proposed to be graded so that stormwater runoff will drain to the proposed lots. Offsite runoff originating from the storm drain inlets along Route 66 will be conveyed to Spruce Avenue Wash via a new storm drain system. Underground detention systems (StormTech or equivalent) are proposed under several parking lot areas. Temporary, above ground detention basins are proposed as interim measures to contain the 100-year storm until the Phase 1 permanent structures have been completed. In conclusion, the detention facilities and outlet structures are designed to reduce post development runoff rates to be equal or below the existing peak runoff rates.

RECOMMENDATION:

The Inter-Division Staff approved the preliminary plat with conditions on December 19, 2014. It is recommended that the Planning and Zoning Commission approve the preliminary plat and forward their recommendation to the City Council, subject to the remaining IDS conditions of approval of 12/19/2014:

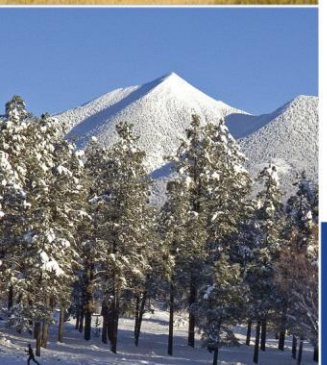
1. All new street lights that are required to be constructed on Route 66 between Arrowhead and 4th St, shall be constructed along with Unit 1.
2. Show the existing streetlight on 4th street that is adjacent to Unit 2.
3. The extension of the dual left turn lane on Huntington requires widening of the eastbound side of the road in order to accommodate the added storage, gap, and relocated taper. This must be constructed prior to the development of the Parcel on the northwest corner of Huntington and 4th St. or before construction permits for the last parcel in Unit 1 (which ever comes first). In the interim, the added storage of the dual left turn lane may be achieved by restriping the existing turn and travel lanes. Staff will work with the engineer during development of the public improvement plans for Unit 1 to design an acceptable striping plan.

Attachments:

- Preliminary Plat Application
- Location Map
- Letter of Approval and IDS conditions of approval, 12/19/2014
- Zoning Map Amendment report to P&Z, dated May 6, 2014
- Zoning Map Amendment, Ordinance No. 2014-14
- Preliminary Plat “The Trax” (8 sheets)







City of Flagstaff

Request: Final Plat for The Trax – Phase 2

PZ-17-00203-03

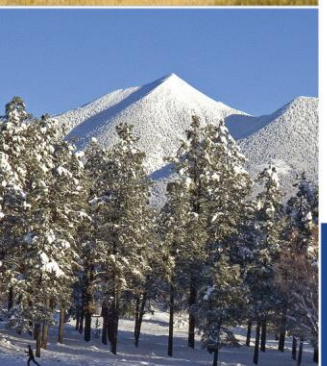
City Council Meeting - August 27, 2019

City Hall, Council Chambers

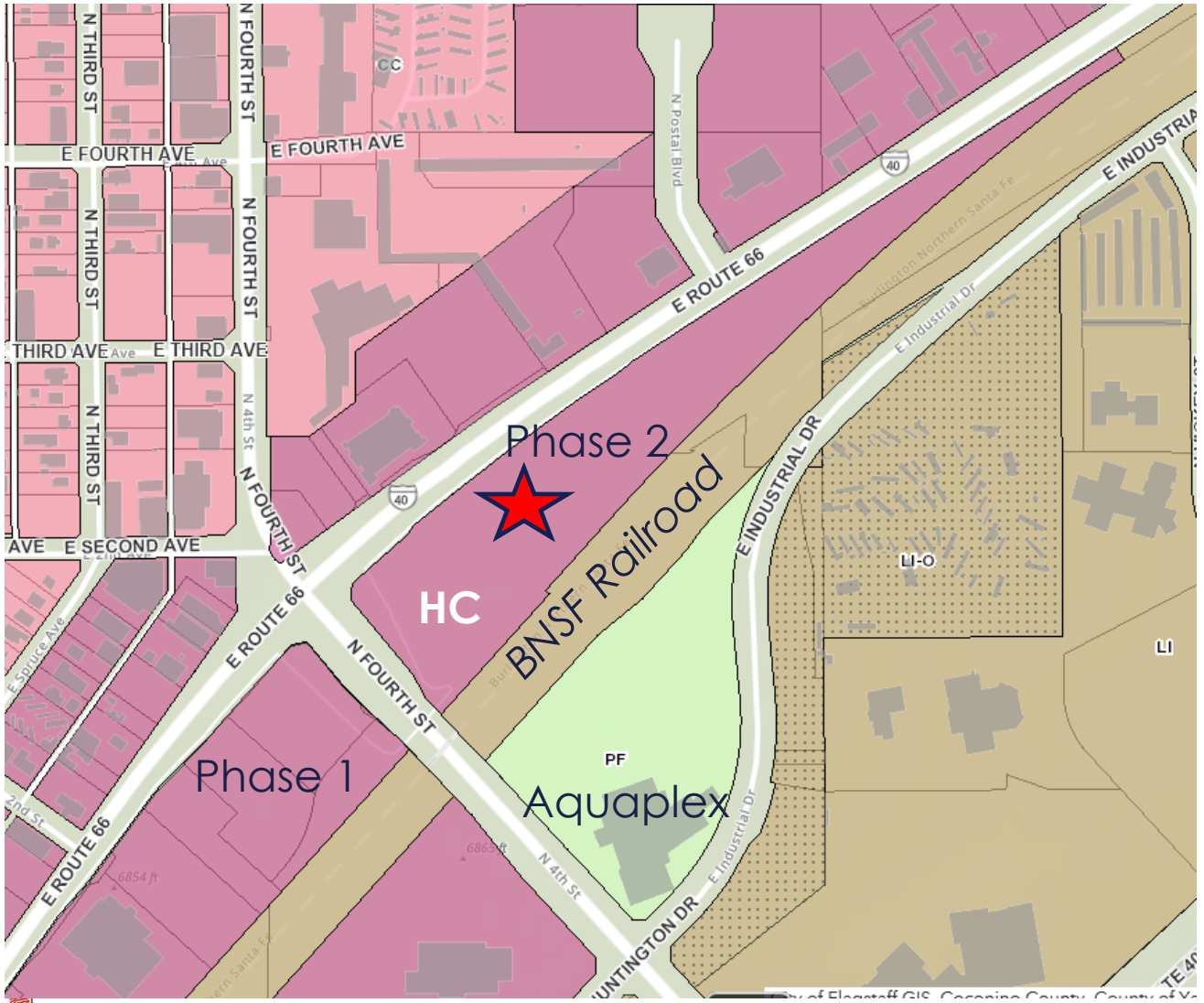








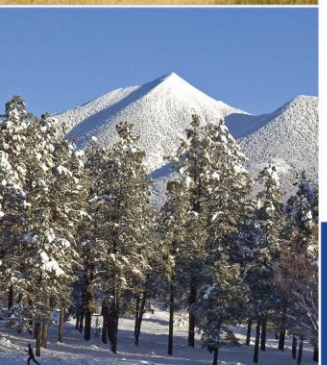
Vicinity Map with Zoning



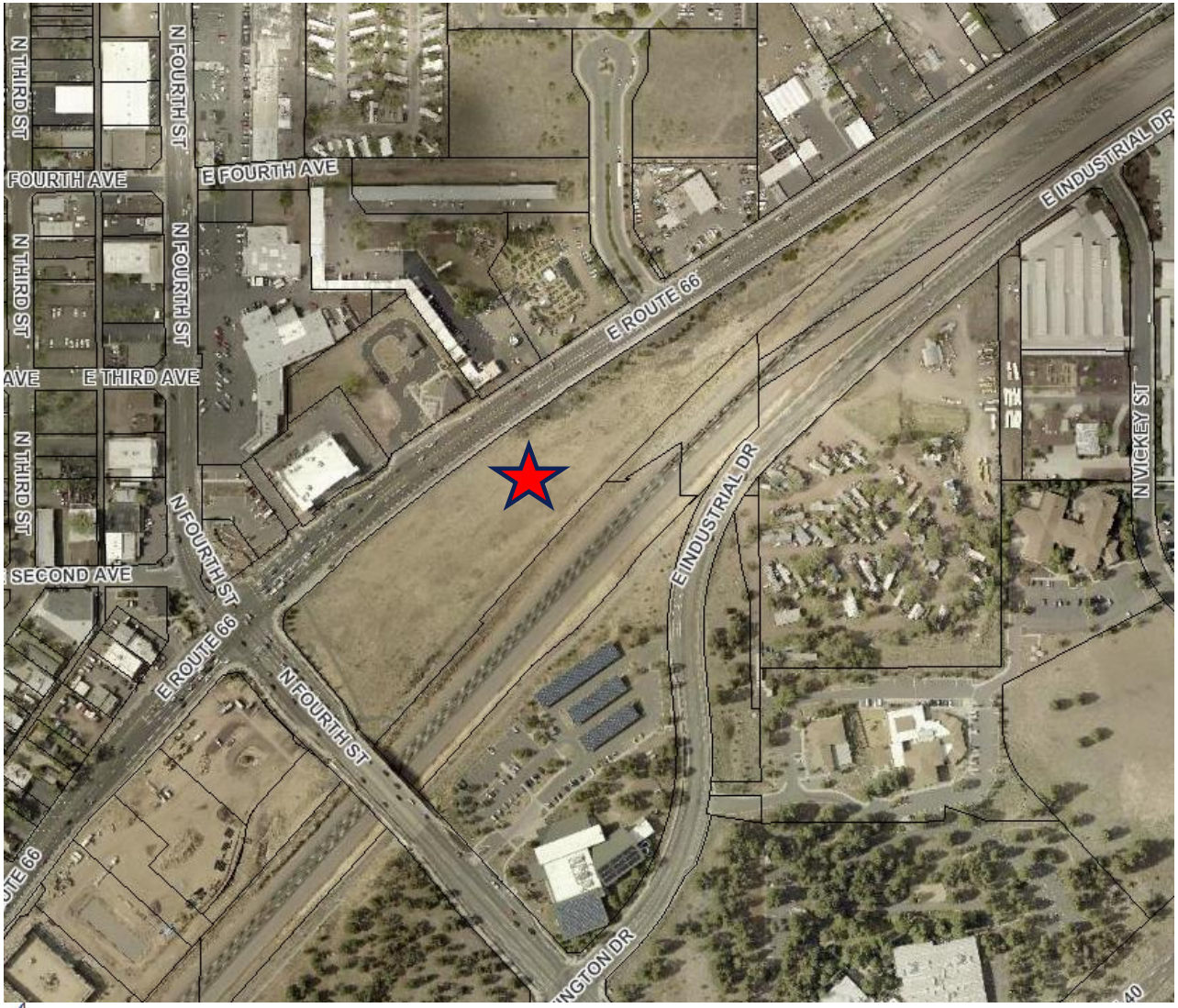

HOTEL
MONTE VISTA
BABBITT
BROTHERS
TRADERS
FLAGSTAFF
ARIZONA





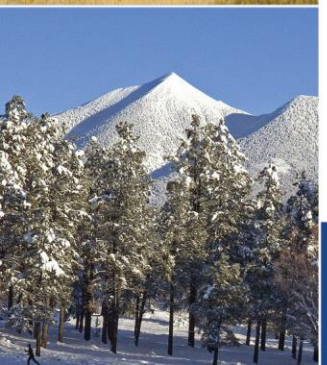


Aerial


N THIRD ST
N FOURTH ST
FOURTH AVE
E FOURTH AVE
E INDUSTRIAL DR
E ROUTE 66
N THIRD ST
N FOURTH ST
E THIRD AVE
N VICKEY ST
N THIRD ST
N FOURTH ST
SECOND AVE
E ROUTE 66
N FOURTH ST
E INDUSTRIAL DR





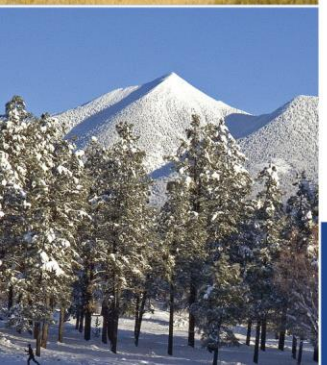


Final Plat
66th and Fourth, LLC
The Trax – Phase 2

- A request for Final Plat approval for a commercial subdivision consisting of 4 lots and 3 tracts located at 2511 E. Route 66 on approximately 8.74 acres, in the Highway Commercial (HC) Zone.
- There is a Resource Protection Overlay on the property; however, there are no resources requiring protection.







Background

In March 2015, a preliminary plat for all three phases of The Trax commercial subdivision was approved by City Council.

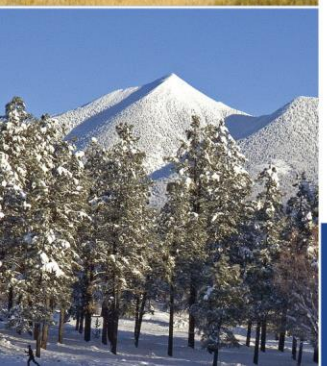
Later in 2015, a final plat was also approved for The Trax – Phase 1, located at the southwest corner of Route 66/4th St.

Phase 2 includes the undeveloped land located at the southeast corner of Route 66 and Fourth St.

Approval of this final plat will allow the development of a Holiday Inn hotel on Lot 10, which received Site Plan approval in 2018.







Final Plat of The Trax – Phase 2
Final Plat Findings

Flagstaff Zoning Code: The proposed subdivision is in conformance with development standards for the Highway Commercial zone.

General Plans & Subdivisions Code: The proposed development has been reviewed and approved by city staff to meet all requirements of a final plat.

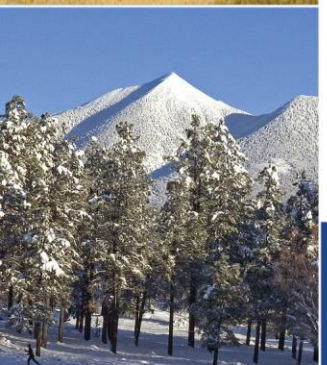
Engineering Design Standards and Specifications:

All engineering-related standards including utility easements and stormwater management have been reviewed and approved by city staff.

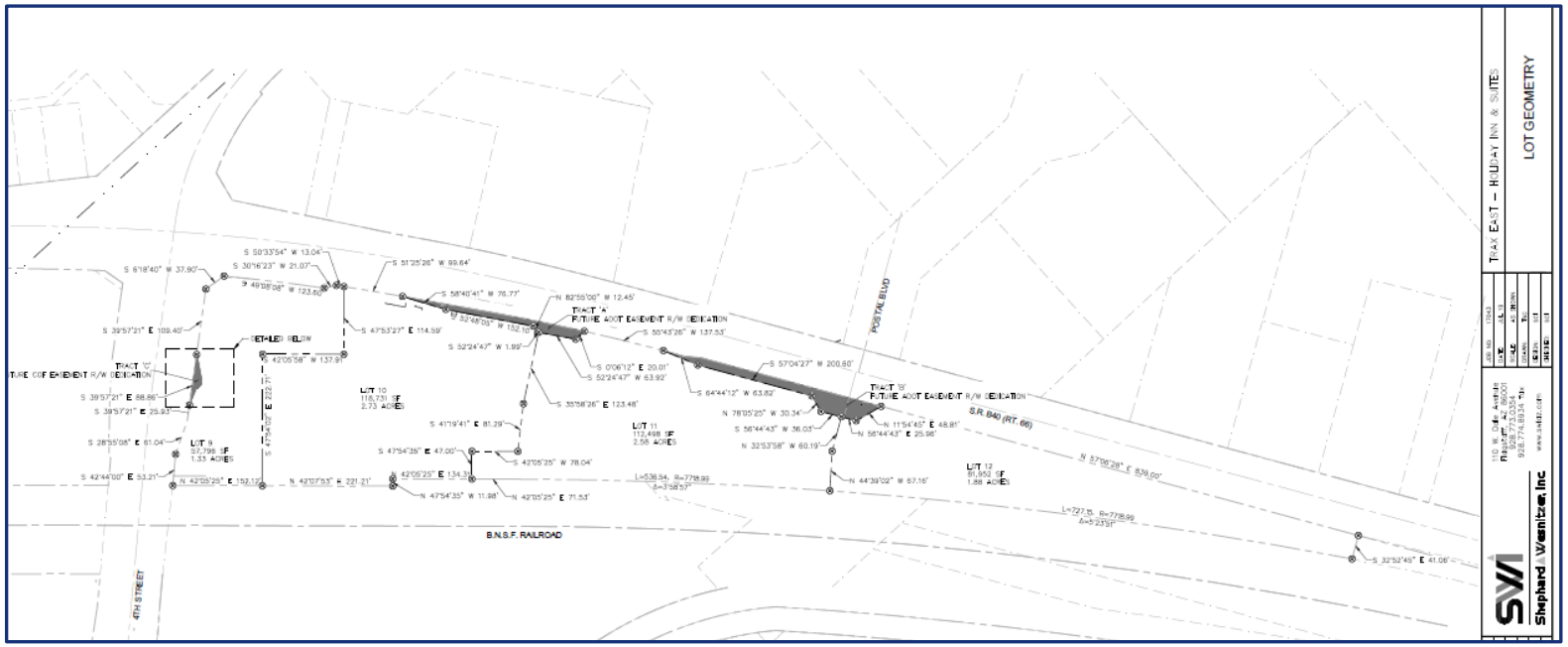








Final Plat

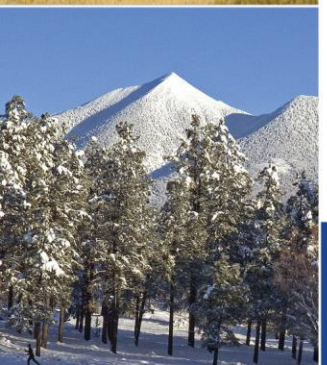


LOTS 9, 10, 11, 12

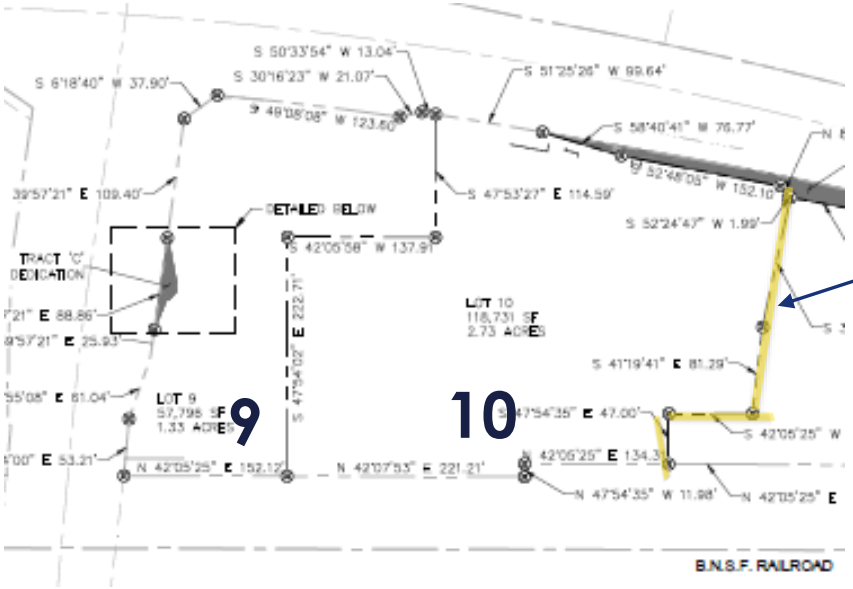




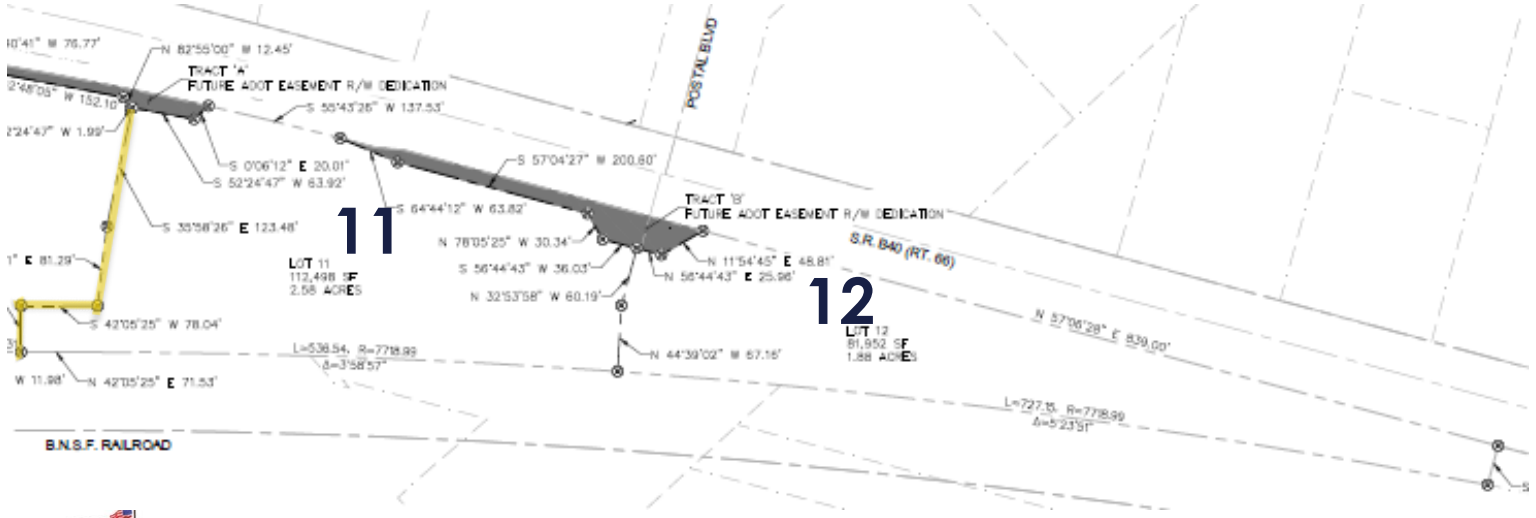




Final Plat

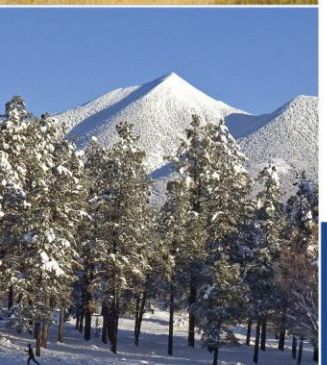


Match Line









Recommendation

In accordance with the findings, staff recommends the City Council approve the Final Plat and authorize the Mayor to sign both the plat and City/Subdivider Agreement when notified by staff that the documents are ready for recording.

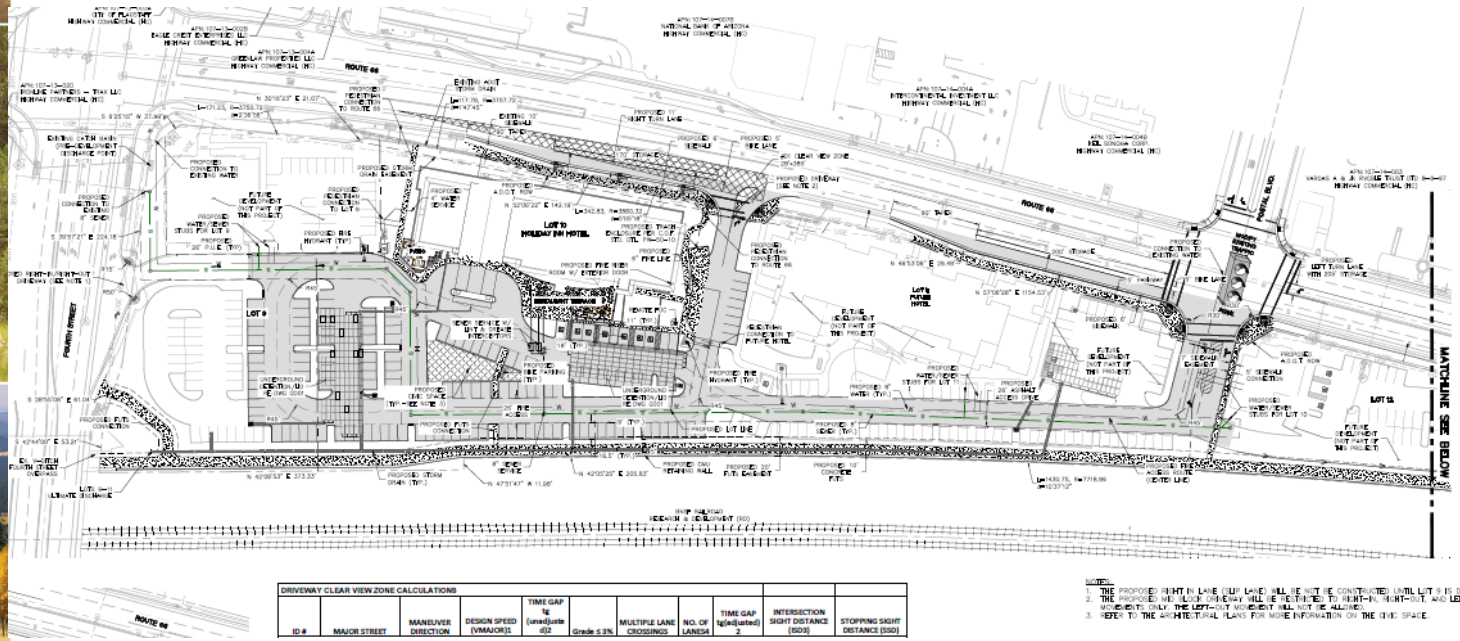








Holiday Inn Site Plan
For Information Only



DRIVEWAY CLEAR VIEW ZONE CALCULATIONS

ID #	MAJOR STREET	MANEUVER DIRECTION	DESIGN SPEED (VMAJOR)	TIME GAP tg (used)ste d)2	Grade ≤ 3%	MULTIPLE LANE CROSSINGS	NO. OF LANES4	TIME GAP tg(as(uated) 2	INTERSECTION SIGHT DISTANCE (ISDS)	STOPPING SIGHT DISTANCE (SSD)

NOTES:
1. THE PROPOSED RIGHT IN LANE ONLY LANE WILL BE NOT BE CONSTRUCTED UNTIL LOT 9 IS DEVELOPED.
2. THE PROPOSED MID-BLOCK DRIVEWAY WILL BE RESTRICTED TO RIGHT-IN, RIGHT-OUT, AND LEFT-IN MOVEMENTS ONLY. THE LEFT-OUT MOVEMENT WILL NOT BE ALLOWED.
3. REFER TO THE ARCHITECTURAL PLANS FOR MORE INFORMATION ON THE CIVIC SPACE.

HOLIDAY INN & SUITES
CIVIL SITE PLAN

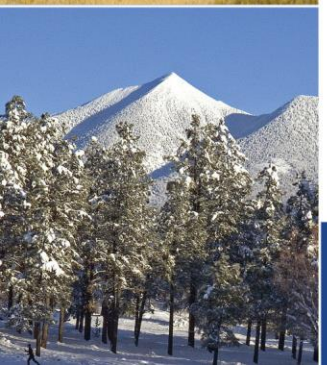
Shephard Wesnitzer, Inc.
110 W. Dale Avenue
Flagstaff, AZ 86001
928.774.8934 Tel
www.swiaz.com

CITY OF FLAGSTAFF ARIZONA ESTABLISHED 1882
TEAM FLAGSTAFF
WE MAKE THE CITY BETTER
SERVICE CITY OF FLAGSTAFF SERVING OUR COMMUNITY

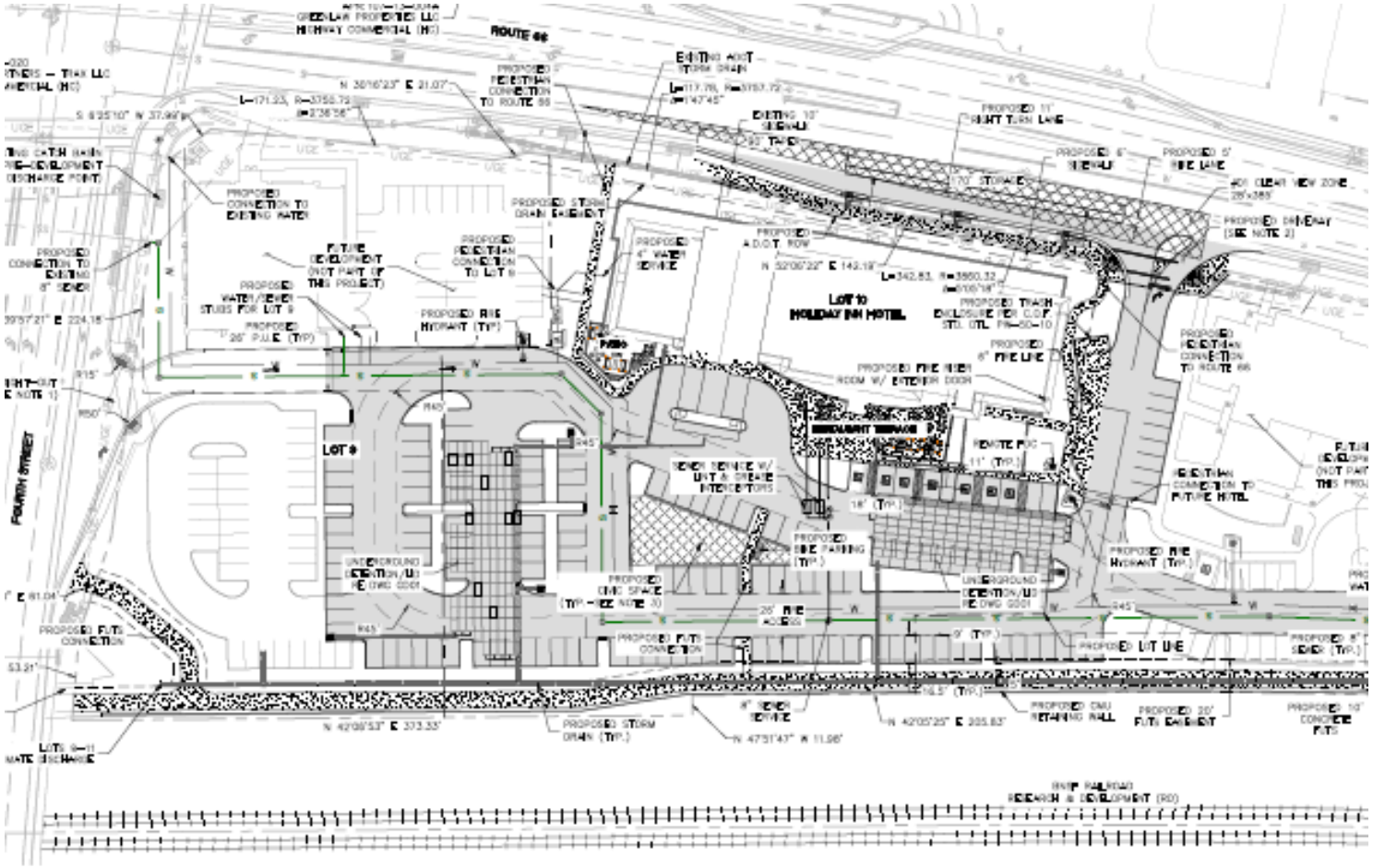








Holiday Inn Site Plan Enlargement


ROUTE 66
LOT 10
HOLIDAY INN HOTEL
LOT 9
FOURTH STREET
PROPOSED FIRE HYDRANT (TYP.)
PROPOSED CONNECTION TO EXISTING WATER
PROPOSED STORM DRAIN EASEMENT
PROPOSED 6" WATER SERVICE
PROPOSED 6" FIRE LINE
PROPOSED 11' RIGHT TURN LANE
PROPOSED 5' SIDEWALK
PROPOSED 26' P.U.E. (TYP.)
PROPOSED FIRE RISER ROOM W/ EXTERIOR DOOR
PROPOSED TRASH ENCLOSURE FOR LOT 9 STILL UTIL.
PROPOSED PEDESTRIAN CONNECTION TO ROUTE 66
PROPOSED PEDESTRIAN CONNECTION TO FUTURE HOTEL
PROPOSED BIKE PARKING (TYP.)
PROPOSED CMU RETAINING WALL
PROPOSED LOT LINE
PROPOSED 25' FUTE EASEMENT
PROPOSED 10' CONCRETE PATH
PROPOSED FUTE CONNECTION
PROPOSED STORM DRAIN (TYP.)
PROPOSED 8" SEWER (TYP.)
PROPOSED 25' FIRE ACCESS
PROPOSED ONE SPACE (TYP. - SEE NOTE 3)
UNDERGROUND ELECTRIC/U.S. WEST (TYP.) CONDUIT
SEWER SERVICE W/ UNIT # SEWER INTERCEPTOR
RESTAURANT TERRACE
FUTURE DEVELOPMENT (NOT PART OF THIS PROJECT)
PROPOSED WATER/SEWER STUBS FOR LOT 9
PROPOSED CONNECTION TO EXISTING 8" SEWER
EXISTING 10' SIDEWALK TIES
EXISTING ADOT STORM DRAIN
PROPOSED 5' FIRE LANE
PROPOSED 5' SIDEWALK
PROPOSED ADOT ROW
PROPOSED 26' DRIVEWAY (SEE NOTE 2)
PROPOSED PEDESTRIAN CONNECTION TO ROUTE 66
PROPOSED FUTE CONNECTION
PROPOSED 8" SEWER SERVICE
PROPOSED FUTE CONNECTION
PROPOSED FIRE HYDRANT (TYP.)
PROPOSED 8" SEWER (TYP.)
PROPOSED 10' CONCRETE PATH
PROPOSED 25' FIRE ACCESS
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EXISTING ADOT STORM DRAIN
EXISTING 10' SIDEWALK TIES
PROPOSED 11' RIGHT TURN LANE
PROPOSED 5' SIDEWALK
PROPOSED 5' FIRE LANE

10. E.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Genevieve Pearthree, Associate Planner
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Approval of ~~Final~~ Preliminary Plat: Request from TLC PC Golf, LLC, for Preliminary Plat approval for Club Cabin Condominiums at the Estates at Pine Canyon Unit 1.

STAFF RECOMMENDED ACTION:

The Planning and Zoning Commission recommends (4-0 vote) the City Council approve the Preliminary Plat.

Executive Summary:

This is a request for Preliminary Plat approval for a four-unit residential condominium subdivision known as Club Cabin Condominiums at the Estates at Pine Canyon Unit 1 located at 3000 S. Clubhouse Circle on 10.88 acres in the R1 (Single-Family Residential) Zone. See the attached vicinity map, Preliminary Plat, and Planning and Zoning Commission Staff Summary for more information.

Financial Impact:

No financial liabilities are anticipated by the approval of this Preliminary Plat.

Policy Impact:

There are no policy impacts affiliated with this Preliminary Plat.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Council Goals
Economic Development - Grow and strengthen a more equitable and resilient economy.

Team Flagstaff Strategic Plan
Work in partnership to enhance a safe and livable community.

Flagstaff Regional Plan
Policy LU.2.2. Design new development to coordinate with existing and future development, in an effort to preserve viewsheds, strengthen connectivity, and establish compatible and mutually supportive land uses.
Policy LU.5.1. Encourage development patterns within the designated growth boundaries to sustain efficient infrastructure projects and maintenance.
Policy LU.5.2. Promote infill development over peripheral expansion to conserve environmental

resources, spur economic investments, and reduce the cost of providing infrastructure and services. Policy LU.5.3. Promote compact development appropriate to and within the context of each area type: urban, suburban, and rural.

Has There Been Previous Council Decision on This:

None.

Options and Alternatives:

1. Approve the Preliminary Plat with no conditions, as recommended by the Planning and Zoning Commission.
2. Approve the Preliminary Plat with conditions.
3. Deny the Preliminary Plat based on non-compliance with the Zoning Code, the Subdivision Code, and/or the Engineering Design Standards and Specifications for New Infrastructure.

Background/History:

On February 8, 2016 the Inter-Division Staff approved a site plan for four (4) new 2,808 square-foot detached residential units on 10.88 acres in the R1 (Single-Family Residential) Zone. In June 2016 and February 2017, the applicant received building permits to construct the first two (2) Club Cabins, which are now complete. A parking lot to the north of the cabins provides parking access. The cabins are on an already disturbed site (the former practice putting green), for which Civil Plans were approved as part of the original Estates at Pine Canyon Unit 1 subdivision in 2004. The Inter-Division Staff approved the Preliminary Plat on June 7, 2019, and on June 26, 2019 the Planning and Zoning Commission forwarded the Preliminary Plat to City Council with a recommendation of approval.

Key Considerations:

The 2016 site plan approval of the project signifies it complies with the standards in Title 10: Zoning Code and Title 13: Engineering Design Standards and Specifications for New Infrastructure. Thus, the developer was permitted to commence construction. However, the developer has opted to create a Condominium Plat to separate ownership of each unit from ownership of the land beneath. In this case, the units are defined as the airspace extending 40’ above the building footprint. The airspace includes all components of each structure, including porches and balconies. Shared areas such as the sidewalks and the parking area are considered “common elements.”

The four proposed units also comply with the regulations in Title 11: General Plans and Subdivisions, as evidenced by Inter-Division Staff and Planning and Zoning Commission approval of the Preliminary Plat earlier this year.

The findings for this development request relate to subdivision plats; additional information about zoning is for reference only. Please see attachments for more information.

Community Benefits and Considerations:

The Club Cabin Condominiums at the Estates at Pine Canyon Unit 1 will provide a place to stay for Pine Canyon members and their families, and prospective Pine Canyon residents.

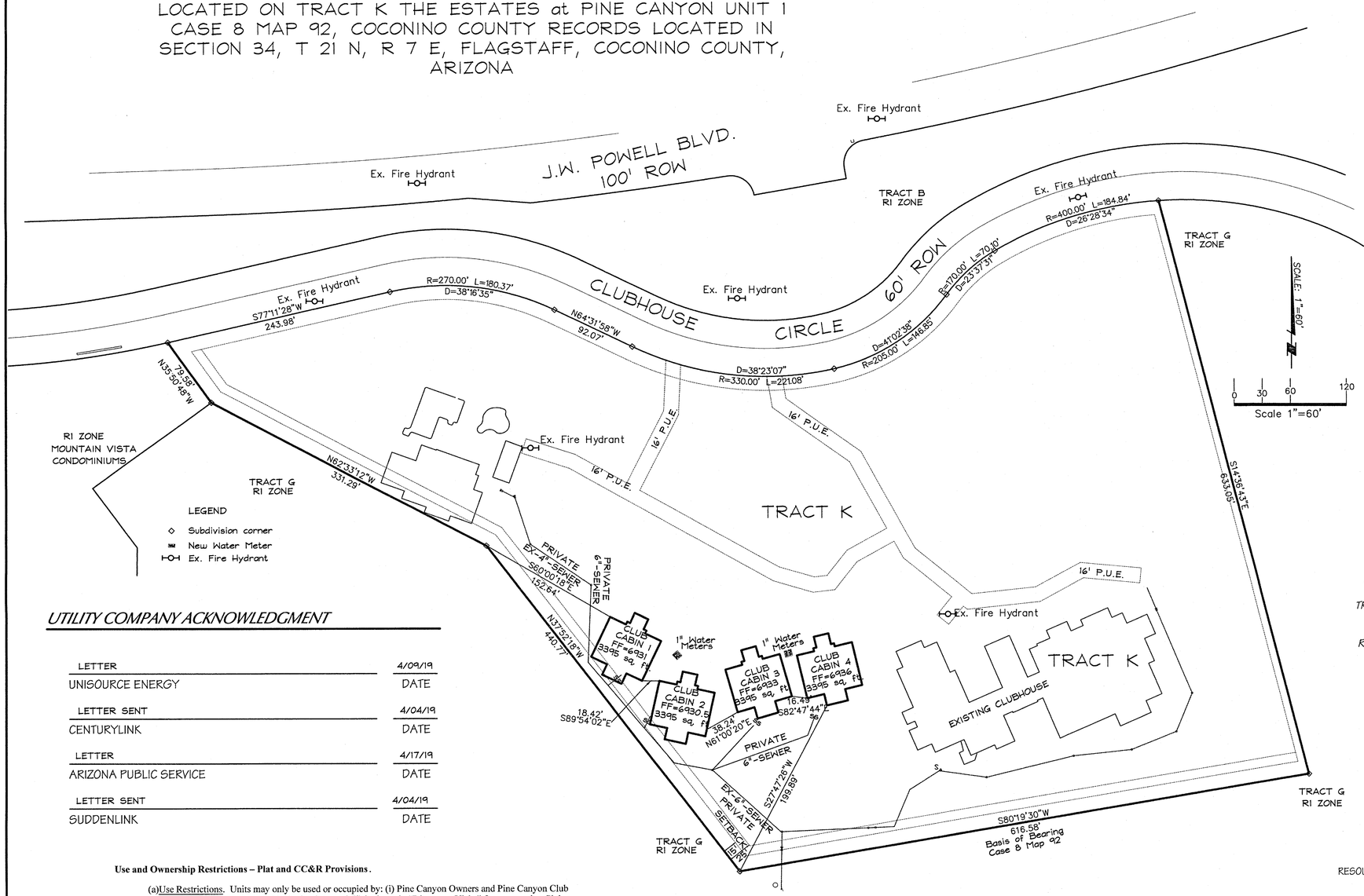
Community Involvement:

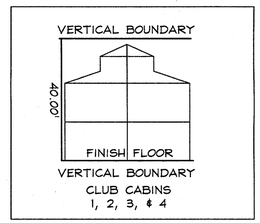
Inform. No public hearings or public outreach are required by either the Zoning Code or the Subdivision Code as part of the Preliminary Subdivision Plat review process.

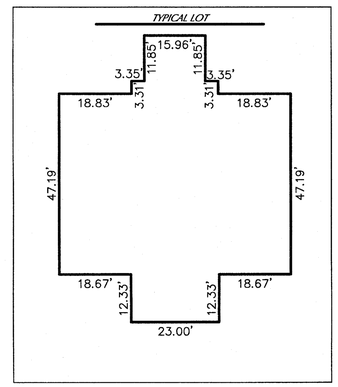
Attachments: Preliminary Plat - Club Cabin Condominiums at the Estates as Pine Canyon Unit 1
Vicinity Map
Planning and Zoning Commission Staff Summary
Presentation Slides

PRELIMINARY PLAT
FOR
CLUB CABIN CONDOMINIUMS AT
THE ESTATES AT PINE CANYON UNIT 1

LOCATED ON TRACT K THE ESTATES at PINE CANYON UNIT 1
CASE 8 MAP 92, COCONINO COUNTY RECORDS LOCATED IN
SECTION 34, T 21 N, R 7 E, FLAGSTAFF, COCONINO COUNTY,
ARIZONA







UTILITY COMPANY ACKNOWLEDGMENT

LETTER	4/09/19
UNISOURCE ENERGY	DATE
LETTER SENT	4/04/19
CENTURYLINK	DATE
LETTER	4/17/19
ARIZONA PUBLIC SERVICE	DATE
LETTER SENT	4/04/19
SUDDENLINK	DATE

Use and Ownership Restrictions – Plat and CC&R Provisions.

(a)Use Restrictions. Units may only be used or occupied by: (i) Pine Canyon Owners and Pine Canyon Club Members, and their families and invited guests; and (ii) invite only "Discovery Visits" for prospective Club Members and members of the public with a demonstrated interest in purchasing a Lot within the Pine Canyon Community. No single stay may exceed 21 contiguous days.

(b)Ownership Restrictions. Units may only be owned by: (i) the Pine Canyon Club; or (ii) Pine Canyon Club Members. Units may be: (i) transferred between Pine Canyon Club Members; or (ii) if a Unit owner dies or surrenders the underlying Club Membership for any reason, the Unit may be transferred or willed to a Club Member (collectively, "Permitted Transfers").

(c) **Maintenance and Repair**. The Pine Canyon Club shall be solely responsible for the operation, maintenance and repair of each Unit.

(d)**Insurance**. The Pine Canyon Club shall maintain casualty and general liability insurance with respect to each Unit.

(e)**Enforcement**. The City shall have the right to enforce the covenants and restrictions set forth in Paragraphs (a) through (d), above.

TRACT K

TRACT K OF THE ESTATES at PINE CANYON UNIT 1, CASE 8 MAP 92, COCONINO COUNTY RECORDS. TRACT K WAS RESERVED BY THE OWNER AND DEVELOPER FOR GOLF COURSE OR ASSOCIATED USES. TRACT K WAS RESERVED FOR PINE CANYON GOLF CLUB.

ADEQUATE WATER SUPPLY

THE CITY OF FLAGSTAFF PROVIDES WATER (UTILITY) SERVICE PURSUANT TO STATE LAW AND IS CURRENTLY OPERATING UNDER A DESIGNATION OF ADEQUATE WATER SUPPLY GRANTED BY THE ARIZONA DEPARTMENT OF WATER RESOURCES, APPLICATION No. 41-900002.0002.

THIS PLAT IS FOR A CONDOMINIUM SUBDIVISION ONLY. NO NEW INFRASTRUCTURE IS A PART OF THIS PROJECT. CABINS 1 AND 2 HAVE BEEN BUILT. STORMWATER, UTILITIES, FIRE, BUILDING AND SAFETY, TRAFFIC, PUBLIC WORKS, PLANNING, AND ENGINEERING HAVE APPROVED THE SITING, LOCATION, DENSITIES, PROPOSED/EXISTING UTILITIES, BUILDING PLANS, PARKING, TRASH COLLECTION, LANDSCAPING, RESOURCE PROTECTION AT SITE PLAN APPROVAL. NO CHANGES TO THE APPROVED SITE PLAN ARE PERMITTED WITHOUT A SITE PLAN MODIFICATION.

PARCEL DATA

SUBDIVISION:	CLUB CABIN CONDOMINIUMS @ THE ESTATES at PINE CANYON UNIT 1
TRACT:	K OF THE ESTATES at PINE CANYON UNIT 1
PARCEL ADDRESS:	3000 CLUBHOUSE CIRCLE
APN NUMBER:	105-10-167
TOTAL ACREAGE:	10.881±
EXISTING USE:	CLUBHOUSE & CAMP PINE CANYON
PROPOSED USE:	4 CLUB CABIN CONDOMINIUMS
RESOURCE PROTECTION OVERLAY:	YES
ZONING:	R1 - SINGLE FAMILY RESIDENTIAL
OWNER:	TLC PC GOLF LLC 1201 E. JOHN WESLEY POWELL BLVD. FLAGSTAFF, AZ 86005 (928)779-5700

PINE CANYON

TOPOGRAPHIC SURVEY WAS PERFORMED IN JANUARY OF 2014 AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
23950
KENT V. HOTSENPILLER
Prepared 6/06/19

SHEET NO. 1 OF 3

COF PROJECT #

Mogollon Inc
ENGINEERING & SURVEYING
411 W Santa Fe Avenue
Flagstaff, Arizona 86001
Phone: 928-214-0214

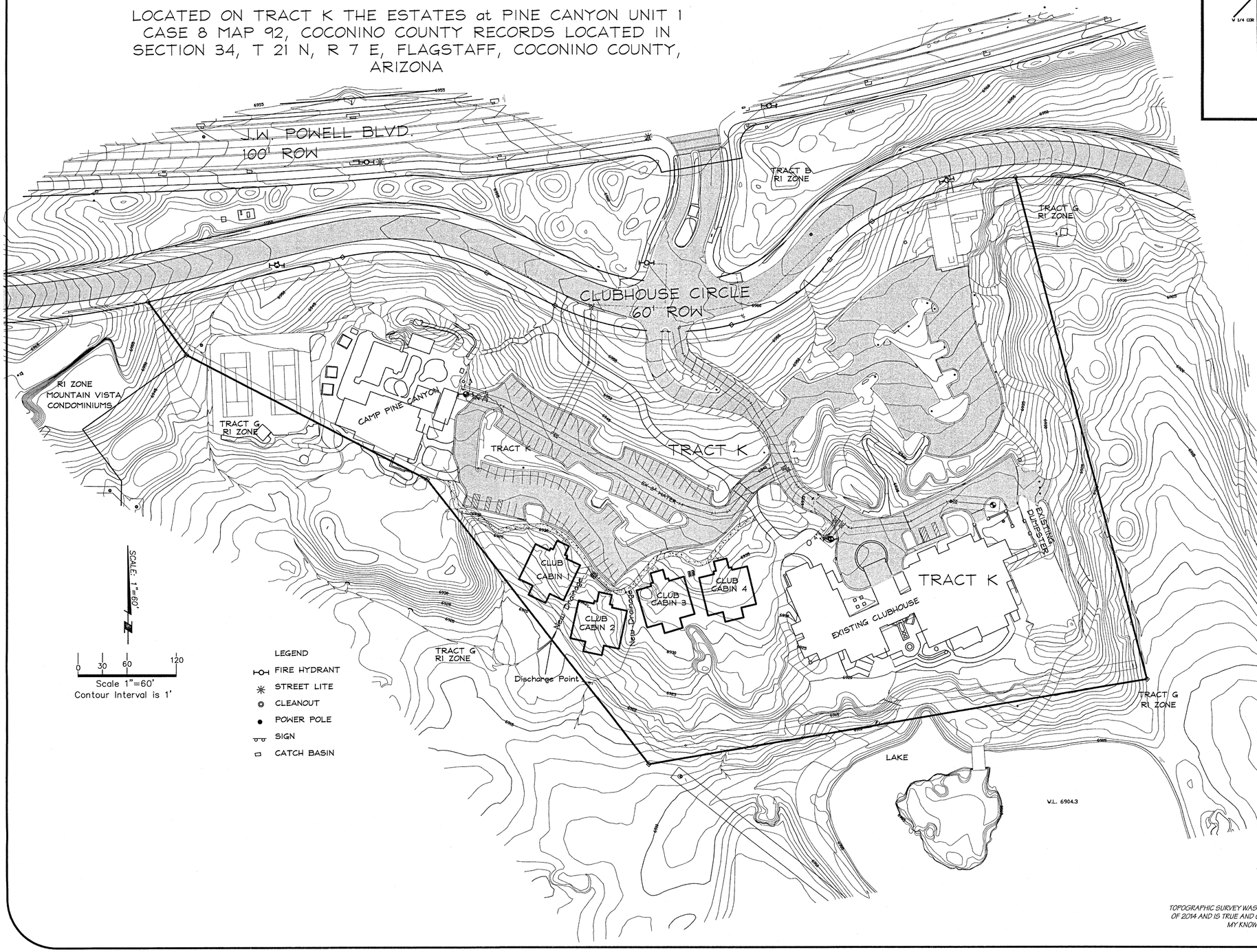
6/06/19
MES# 15169

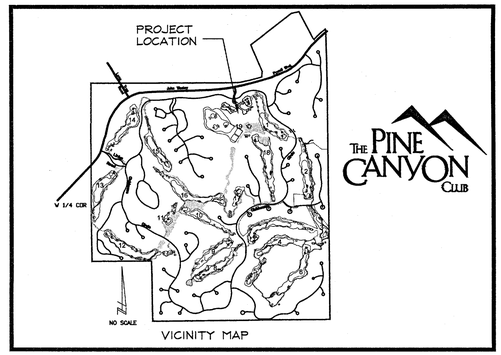
PRELIMINARY PLAT
CLUB CABIN CONDOMINIUMS
AT PINE CANYON

DATE: 6/06/19
DESIGNED BY:
DRAWN BY:
CHECKED BY:
PROJECT NO. 15169
FN: plat-3.dwg
VERT SCALE:
HOR SCALE: 1"=60'
REVISIONS:

PRELIMINARY PLAT
FOR
CLUB CABIN CONDOMINIUMS AT
THE ESTATES AT PINE CANYON UNIT 1

LOCATED ON TRACT K THE ESTATES at PINE CANYON UNIT 1 CASE 8 MAP 92, COCONINO COUNTY RECORDS LOCATED IN SECTION 34, T 21 N, R 7 E, FLAGSTAFF, COCONINO COUNTY, ARIZONA





DRAINAGE NOTES:
STORMWATER WILL BE DISCHARSED ONTO TRACT G. IT WILL SHEET FLOW ACROSS THE DRIVING RANGE AND END IN THE LAKE WHERE IT WILL BE RECYCLED FOR IRRIGATION. EXISTING DRAINAGE DITCHES WILL BE RECONFIGURED TO ACCOMMODATE NEW DRAINAGE. SEE DRAINAGE REPORT SUBMITTED WITH SITE PLAN FOR IMPERVIOUS SURFACE AND DRAINAGE SCHEME.

UTILITY NOTES:
4 NEW WATER METERS BE INSTALLED FOR DOMESTIC WATER TO EACH UNIT. 6" PRIVATE SEWER SERVICE WILL BE RECONFIGURED AND USED FOR WASTEWATER DISPOSAL. DRY UTILITIES WILL BE INSTALLED FROM EXISTING LINE TO SERVICE THE CABINS.

PARKING:
EXISTING PARKING = 172 SPACES
PARKING REQUIREMENTS:
CLUBHOUSE 31,445 sq. ft.
CAMP PINE CANYON = 3,100 sq. ft.
34,545 sq. ft. @1 SPACE PER 250 sq. ft. = 138 SPACES REQUIRED
FOUR CABINS @2.25 SPACES PER 2+ BEDROOM = 9 NEW SPACES REQUIRED
138 + 9 = 147 SPACES REQUIRED
172 SPACES EXISTING

LANDSCAPE NOTES:
236 lf /cabin = 1888 lf new building
1 landscape tree/25 lf of building = 76 trees required
1 existing tree = 2 landscape trees

TRASH PICKUP NOTE:
TRASH WILL BE PICKED UP BY CLEANING SERVICE AND DUMPSTERS AT CLUBHOUSE WILL BE UTILIZED.

TREE RESOURCE NOTE:
NO TREES TO BE REMOVED EXCEPT THOSE SHOWN ON THE APPROVED SITE PLAN.

TOPOGRAPHIC SURVEY WAS PERFORMED IN JANUARY OF 2014 AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

PINE CANYON

SHEET NO. 2 OF 3

COF PROJECT #

Mogollon Inc
ENGINEERING
SURVEYING
411 W Santa Fe Avenue
Flagstaff, Arizona 86001
Phone: 928-214-0214

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
23950
KENT W. HOTSENPILLER

6/06/19
MES# 15169

PRELIMINARY PLAT
CLUB CABIN CONDOMINIUMS
AT PINE CANYON

REVISIONS:

PROJECT NO. 15169
FN: plat3-2.dwg
VERT. SCALE:
HOR. SCALE: 1"=60'

DATE: 6/06/19
DESIGNED BY:
DRAWN BY:
CHECKED BY:

PRELIMINARY PLAT
FOR
CLUB CABIN CONDOMINIUMS AT
THE ESTATES AT PINE CANYON UNIT 1

LOCATED ON TRACT K THE ESTATES at PINE CANYON UNIT 1
CASE 8 MAP 92, COCONINO COUNTY RECORDS LOCATED IN
SECTION 34, T 21 N, R 7 E, FLAGSTAFF, COCONINO COUNTY,
ARIZONA



SCALE: 1"=60'

0 30 60 120
Scale 1"=60'
Contour Interval is 1'

PRE DEVELOPMENT TREE POINTS

1 POINT TREES			
2 POINT TREES	107 x 1	=	107
4 POINT TREES	76 x 2	=	152
8 POINT TREES	77 x 4	=	308
20 POINT TREES	44 x 8	=	352
	3 x 20	=	60
TOTAL TREE POINTS		=	979
50% OF TOTAL		=	490

POST DEVELOPMENT TREE POINTS

1 POINT TREES	107 x 1	=	107
2 POINT TREES	76 x 2	=	152
4 POINT TREES	77 x 4	=	308
8 POINT TREES	44 x 8	=	308
20 POINT TREES	3 x 20	=	60
TOTAL TREE POINTS		=	979
TREE SAVE PERCENTAGE			100

1 POINT TREES
2 POINT TREES
4 POINT TREES
8 POINT TREES
20 POINT TREES

SLOPE RESOURCE
EXISTING 17-24.99% SLOPE: 0 acres
EXISTING 25%-34.99%: 0 acres
EXISTING 35% SLOPE: 0 acres
SLOPE DISTURBANCE: 0 acres

FLOODPLAINS
NO URBAN FLOODPLAIN ON-SITE
NO RURAL FLOODPLAIN ON-SITE

TREE RESOURCE NOTE:
NO TREES TO BE REMOVED.
CABINS 1 AND 2 ARE BUILT. CABINS 3 AND 4 ARE TO BE CONSTRUCTED ON THE EXISTING PRACTICE PUTTING GREEN. THE AREA WHERE THESE CABINS ARE TO BE BUILT HAS BEEN DISTURBED DURING THE CONSTRUCTION OF THE GREEN.

PINE CANYON

TOPOGRAPHIC SURVEY WAS PERFORMED IN JANUARY OF 2014 AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

SHEET NO. 3 OF 3

COF PROJECT #

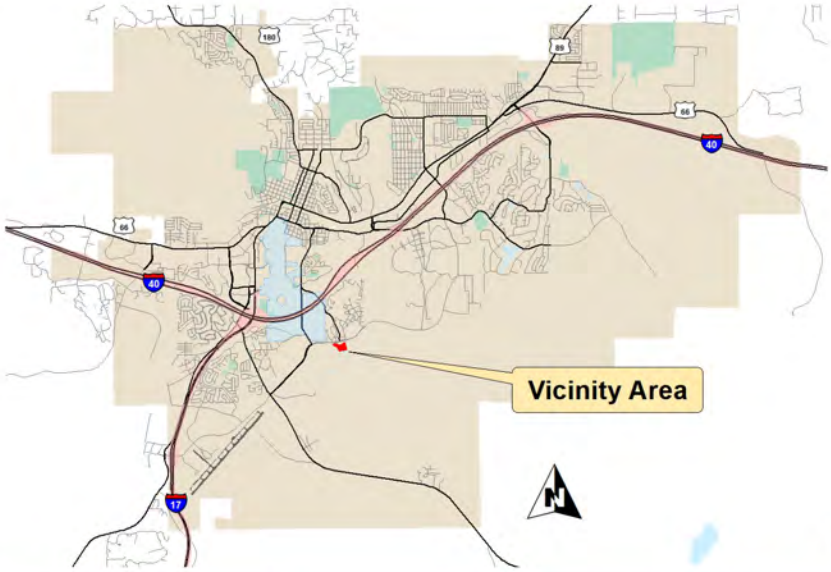
Mogollon Engineering & Surveying Inc
411 W Santa Fe Avenue, Flagstaff, Az. 86001
P.O. Box 1852, Flagstaff, Az. 86002
Phone: 928-214-0214 • Fax: 928-913-0015

REGISTERED LAND SURVEYOR
CERTIFICATE NO.
23950
KENT Y. HOTSENPILLER
PREPARED
6/6/19
ARIZONA U.S.A.

6/06/19
MES# 15169

PRELIMINARY PLAT
CLUB CABIN CONDOMINIUMS
RESOURCE PLAN

DATE: 6/06/19
DESIGNED BY:
DRAWN BY:
CHECKED BY:
PROJECT NO. 15169
FN: plat-tree.dwg
VERT. SCALE:
HOR. SCALE: 1"=60'
REVISIONS:



3000 S Clubhouse Circle

E JW POWELL BLVD
E TELLURIDE DR
S PINYON JAY DR
E JW POWELL BLVD
S CLUBHOUSE CIR
E BENT TREE CIR
S CLUBHOUSE CIR
E ELYSIAN CT
S TOURMALINE DR
E LA SERENA DR

PLANNING & DEVELOPMENT SERVICES REPORT
PRELIMINARY PLAT: Pine Canyon Club Condos

PZ-18-00168-01

DATE: June 19, 2019
MEETING DATE: June 26, 2019
REPORT BY: Genevieve Pearthree

REQUEST:

TLC PC Golf LLC requests preliminary plat approval for Club Cabin Condominiums at the Estates at Pine Canyon Unit 1—a 4-unit residential condominium subdivision at 3000 S. Clubhouse Circle. The condominium plat is on the 10.88-acre Tract K of the Estates at Pine Canyon Unit 1 subdivision in the R1 (Single-Family Residential) Zone.

STAFF RECOMMENDATION:

Staff recommends the Planning and Zoning Commission forward the preliminary plat to the City Council with a recommendation for approval.

PRESENT LAND USE:

Tract K consists of the Pine Canyon Clubhouse, Camp Pine Canyon, tennis courts, and a parking lot. Two (2) of the four (4) proposed Club Cabins have already been built.

PROPOSED LAND USE:

The Club Cabin Condominiums at the Estates at Pine Canyon Unit 1 is residential condominium subdivision development that consists of four (4) condominium dwelling units located on 10.88-acres.

NEIGHBORHOOD DEVELOPMENT:

North: Vacant land, R1 Zone; J.W. Powell Blvd.
South: Golf Course and single-family residential units, R1 Zone
East: Golf course, R1 Zone
West: Mountain Vista Condominiums and golf course, R1 Zone

REQUIRED FINDINGS:

The Planning and Zoning Commission shall find the proposed preliminary plat meets the requirements of the City Code Title 10, Flagstaff Zoning Code; City Code Title 11, General Plans and Subdivisions; and City Code Title 13, Engineering Design Standards and Specifications. The site plan for the project was approved in 2016. Civil plans for the original Estates at Pine Canyon Subdivision (including Tract K) were approved in the 2004.

STAFF REVIEW:

Introduction

On February 8, 2016 the Inter-Division Staff approved a site plan for four (4) new 2,808 sq. ft., detached residential units (PZ-15-00111-01) on Tract K of the Estates at Pine Canyon Unit 1 subdivision plat. In June 2016 and February 2017, the applicant received commercial building permits to construct the first two (2) Club Cabins.

Tract K was reserved on the original Estates at Pine Canyon Unit 1 subdivision plat by the owner and developer for the golf course and associated uses. The subdivision plat and original zoning case also designated Tract K as a clubhouse and for the use of the Pine Canyon Golf Club members. The Club Cabin Condominiums are an accessory use to the primary use as a clubhouse, per the Zoning Code. Section 10-80.20.010 defines "Accessory Use" as a "subordinate use of a building, other structure, or use of land that is: 1) Clearly incidental to the use of the main building, other structure, or use of land; 2) Customarily used in connection with the main building, other structure, or primary use of the land; and 3) Located on the same lot with the main building, other structure, or primary use of the land." Further, the Club Cabin Condominiums at the Estates at Pine Canyon Unit 1 subdivision plat contains ownership and use restrictions, as well as CC&Rs, to ensure that the subdivisions meets the Tract K requirements in the original Estates at Pine Canyon Unit 1 subdivision plat. See *Type of Plat* below for more information.

ZONING REQUIREMENTS

The property is zoned R1 (Single-Family Residential), which has the following required setbacks:

Front:	15' min.; 25' min. for parking	Provided (min.): Greater than 25'
Side, Exterior	20' min.	Provided (min.): Greater than 20'
Side, Interior	8' min.	Provided: (min.): Greater than 8'
Rear:	25' min.	Provided (min.): 23'[1]

[1]The applicant was granted a Minor Modification to Development Standards in May 2016 to permit a 2-foot encroachment into the rear setback to protect tree resources.

Type of Plat

This application is for a condominium plat, which takes a multi-unit complex, such as the subject property, and creates the potential for individually owned units. The preliminary plat delineates all the elements affiliated with the individual units. In this case, the units are defined as the airspace extending 40' above where the building meets the ground. The airspace includes all components of each structure, including porches and balconies. Shared areas such as the sidewalks and the parking area are considered "common elements." Tract "K" contains all areas outside of the units and is dedicated to the owner association as a common element.

Once the plat is complete, the Pine Canyon Club will own and maintain the units per the original requirements of Tract K in the Pine Canyon Estates Unit 1 subdivision plat. Further, the use of the units is limited to current and prospective Pine Canyon Club members. In contrast to a typical condominium plat (in which a buyer of a unit receives a recordable deed to the individual unit purchased, including the right to sell, mortgage, etc., that unit and sharing in joint ownership of any common grounds, parking areas and access), the use and

ownership of these condominiums will be governed by the *Use and Ownership Restrictions – Plat and CC&R Provisions* stated on the plat cover page:

a) Use Restrictions. Units may only be used or occupied by: i) Pine Canyon Owners and Pine Canyon Club Members, their families, and invited guests; and ii) "Discovery Visits" for prospective Club Members and members of the public with a demonstrated interest in purchasing a lot within the Pine Canyon Community. No single stay shall exceed 21 contiguous days.
b) Ownership Restrictions. Units may only be owned by: i) the Pine Canyon Club; or ii) Pine Canyon Club members. Units may be: i) transferred between Pine Canyon Club Members; or ii) if a Unit owner dies or surrenders the underlying Club Membership for any reason, the Unit may be transferred or willed to a Club Member (collectively, "Permitted Transfers").
c) Maintenance and Repair. The Pine Canyon Club shall be solely responsible for the operation, maintenance and repair of each Unit.
d) Insurance. The Pine Canyon Club shall maintain casualty and general liability insurance with respect to each Unit.
e) Enforcement. The City shall have the right to enforce the covenants and restrictions set forth in Paragraphs (a) through (d), above.

Parking

Parking access is from several surface lots north of the Club Cabins. These lots are also used for Clubhouse and associated activities. The Club Cabins require nine (9) parking spaces: four (4) cabins at 2.25 spaces per 2+ bedroom unit. The existing parking lots provide 172 spaces, which is far greater than the 138 spaces required to support the Clubhouse and Camp Pine Canyon (34,545 sq. ft. at one [1] space required per 250 sq. ft.). Therefore, there is more than enough parking to satisfy the Club Cabin parking needs.

Landscaping

The applicant submitted and received approval for a landscaping plan as part of the site plan for the Pine Canyon Club Cabins. Landscaping requirements for 76 trees (and associated shrubs and groundcover) are met through existing and new vegetation.

Natural Resources

The subject property is in a Resource Protection Overlay Zone, and Tract K is reserved for natural resource protection. A Natural Resources Protection Plan was included as part of the 2016 site plan approval of the Pine Canyon Club Cabins. However, no trees are proposed to be removed, nor are steep slopes proposed to be disturbed, for the construction of the Club Cabins. They are located on the existing practice putting green—an area that was already disturbed as part of the construction of the original Estates at Pine Canyon Unit 1 subdivision. Further, a Minor Modification to Development Standards was approved in May 2016 to Unit 1 and Unit to encroach into the rear setback for the purpose of saving resource trees.

SYSTEMS ANALYSIS:

Access and Traffic

The subject property is south of J.W. Powell Blvd. at the intersection with Clubhouse Circle. Pedestrians and vehicles can access the site at the Pine Canyon entrance on J.W. Powell. A Transportation Impact Analysis (TIA) was not required because the project is categorized as a "very small development." These developments are often exempted from TIAs at the discretion of City Engineer per Title 13-05-002-0003 of City of Flagstaff (CoF) City Code. The Pine Canyon Club will maintain the parking spaces, sidewalks, and associated infrastructure.

Water and Wastewater

The Club Cabins require the installation of four (4) new water meters (one per unit), in addition to the reconfiguration of a 6" private sewer line for waste water disposal. Dry utilities have been installed from the existing line to service the cabins. A Water and Sewer Impact Analysis was not required because the peak hour demand will be less than the equivalent flow of ten (10) single-family dwelling units, per Titles 13-05-002-0001 and 13-05-002-0002 of the CoF City Code. The Pine Canyon Club will be responsible for maintaining water and sewer service.

Stormwater

As part of the site plan application Stormwater reviewed and approved a drainage report to analyze the potential for damage to adjacent properties and downstream drainage capacity. As part of preliminary plat application, the applicant was required to provide drainage documentation clarifying conformance with the previous drainage plan for Tract K. The applicant was also required to provide impervious surface calculations, which are very small compared to the size of Tract K. A Stormwater requirement for the final plat is for the applicant to add a special note per SMDM Section 9.1(j), Final Plats; Covenants, Conditions, and Restrictions (CC&R's); and/or Development, stating that (1) the owner(s) shall be solely responsible for the operation, maintenance, and liability for all detention facilities; and, (2) the City of Flagstaff may periodically inspect said detention facilities to verify that regular maintenance activities are being performed adequately.

RECOMMENDATION:

Staff recommends the Planning and Zoning Commission forward the Preliminary Plat to the City Council with a recommendation for approval.

ATTACHMENTS:

- Application
- Preliminary Plat with Natural Resource Protection Plan (3 sheets, 24 x 36")

Club Cabin Condominiums at the Estates at Pine Canyon Unit 1 Subdivision

Preliminary Plat Approval Request

City Council| August 27, 2019

Genevieve Pearthree | Associate Planner

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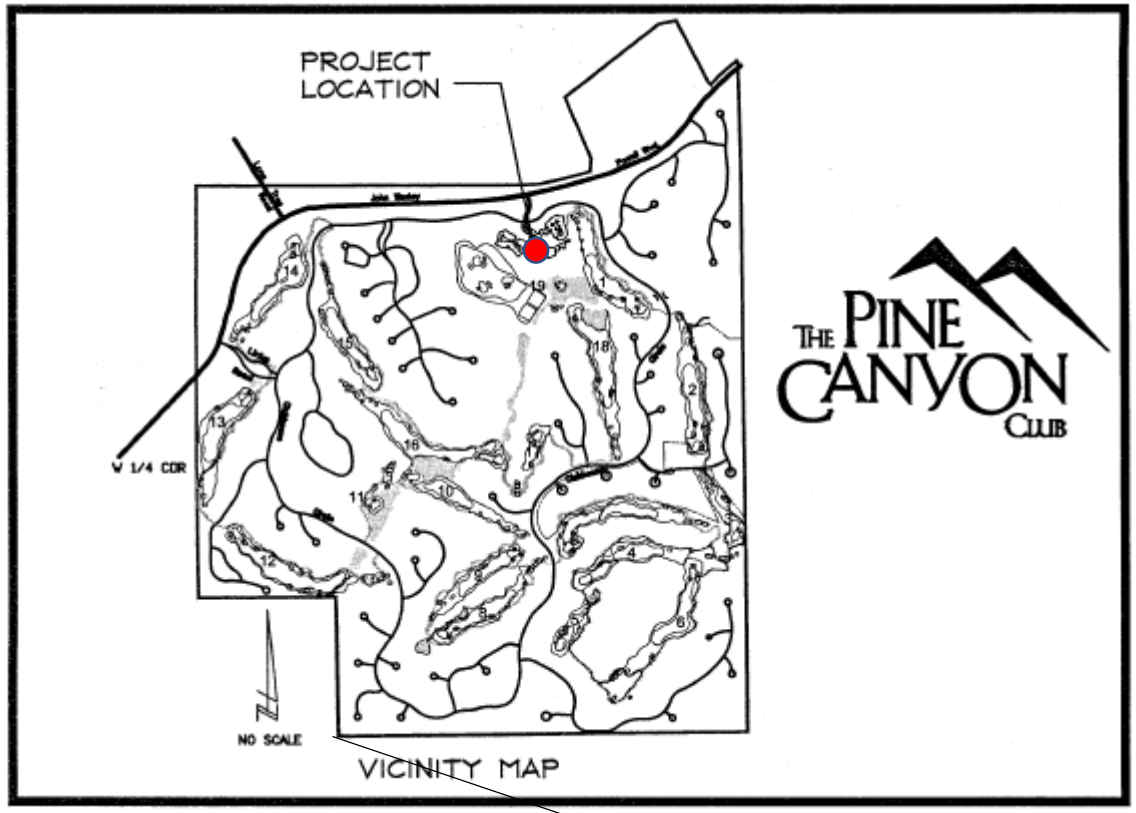
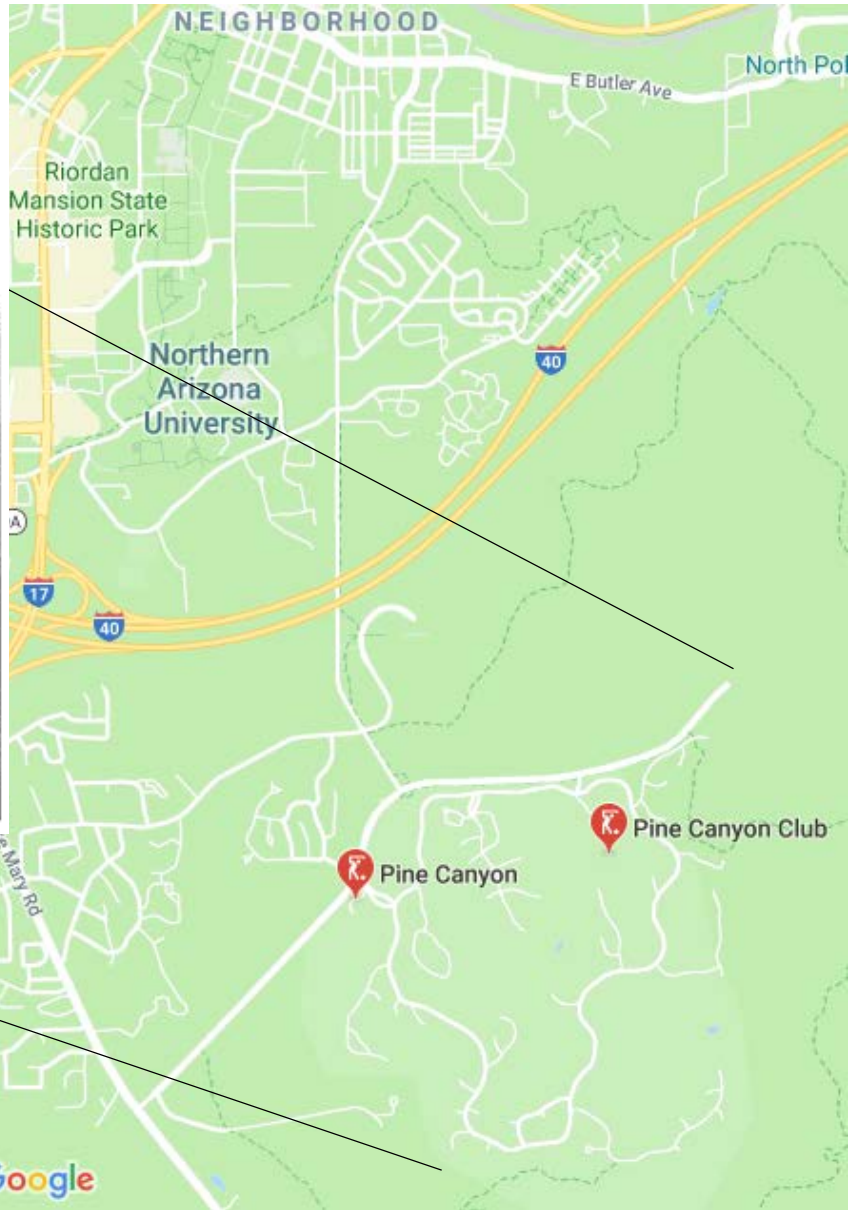
Request Overview

- Request from TLC PC Golf LLC for preliminary plat approval for a 4-unit residential condominium subdivision at 3000 S. Clubhouse Circle
- Condominium plat creates the ability for individually-owned units
  - Ownership of airspace extends 40-ft. above the footprint of each Club Cabin (includes porches, decks, balconies, etc.).

Vicinity Map





Background – Site Plan Approval

- Inter-Division Staff Review approved the site plan in February 2016 based on compliance with all development standards
  - Building permits issued in June 2016 and February 2017
  - Two of the four cabins are already constructed

- **Focus of Preliminary Plat development request:** owner decided to create a condominium project to enable individually-owned units

Preliminary Plat

Overall Layout

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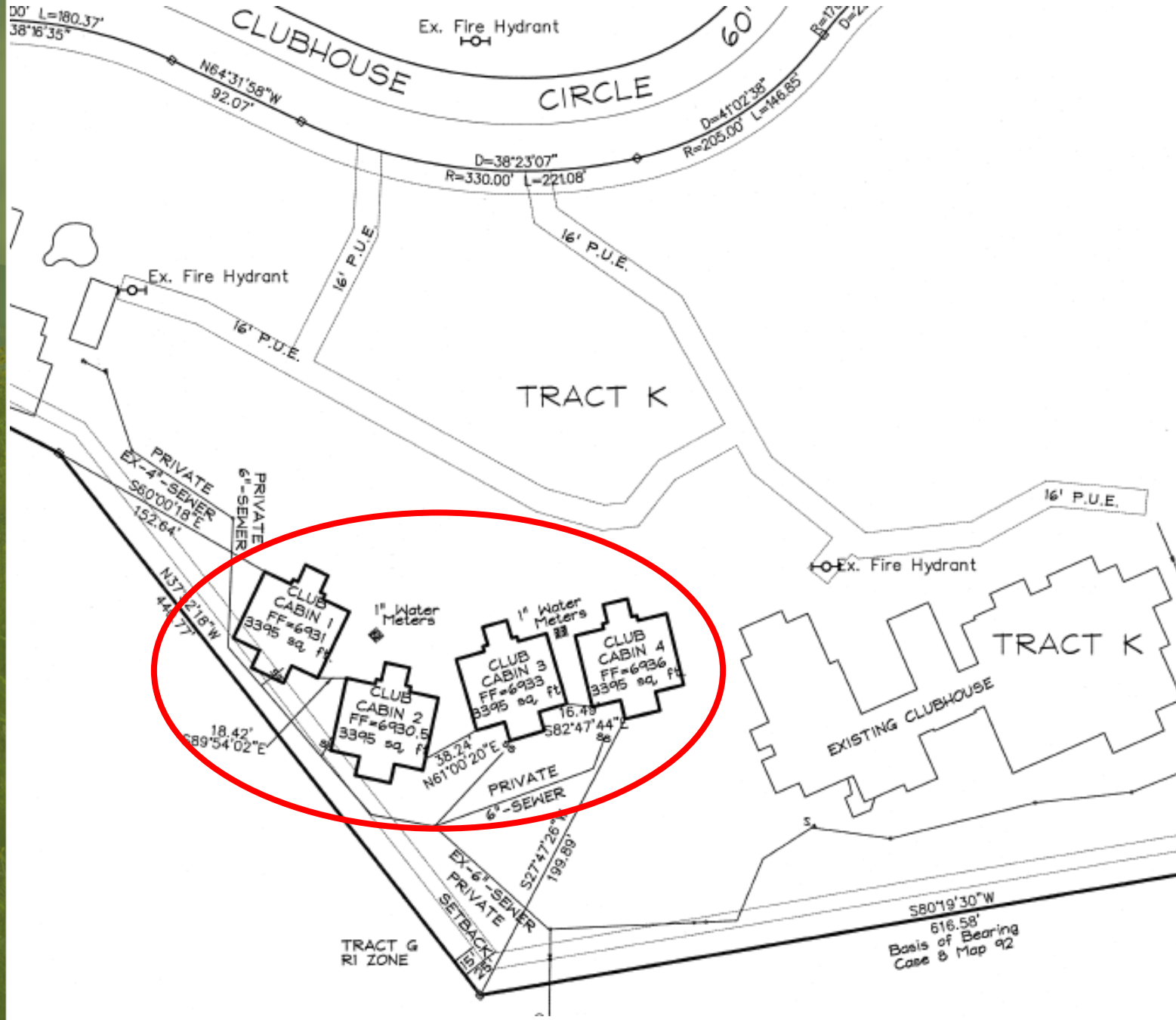
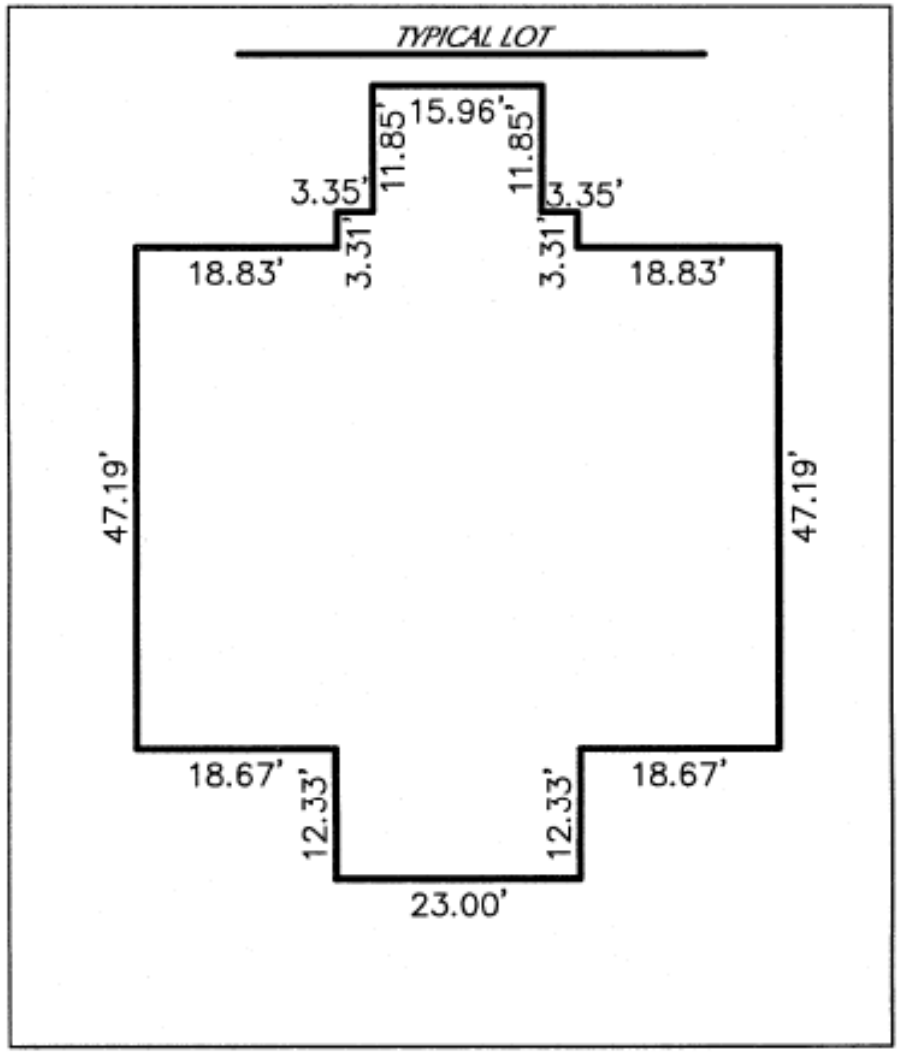
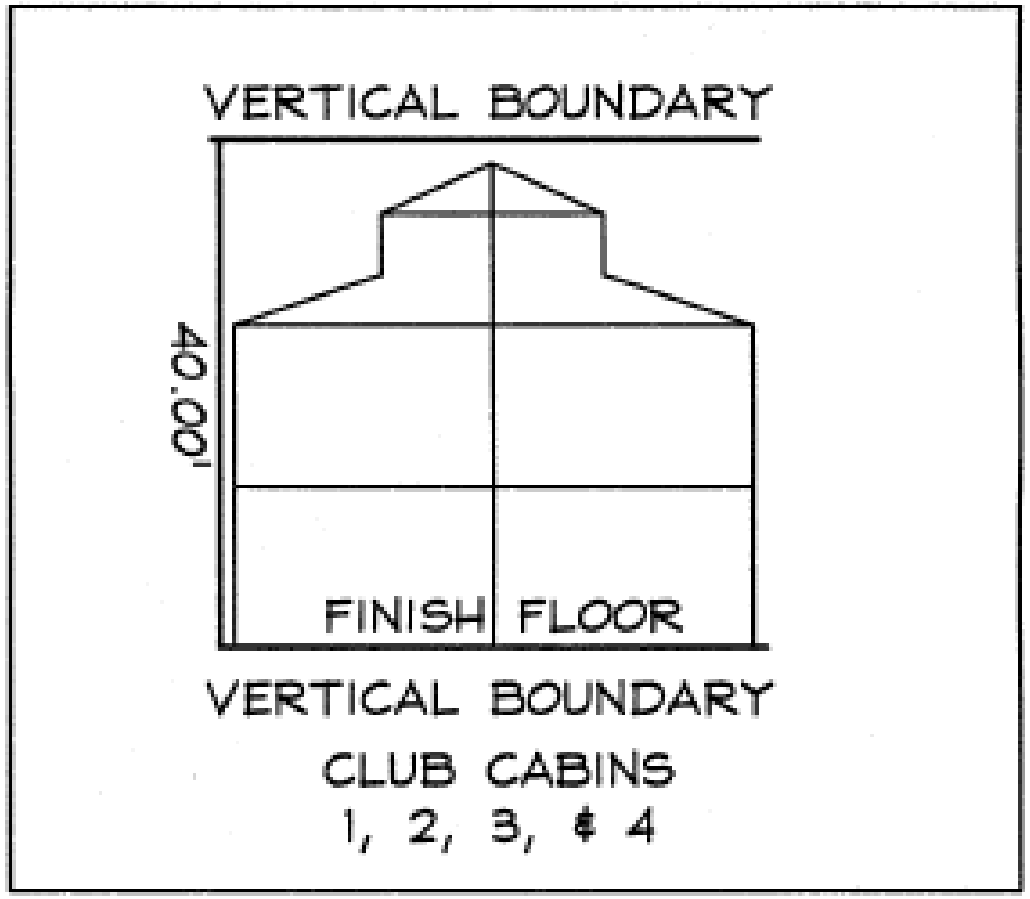


Plat Unit Airspace Ownership

Typical Lot



Vertical Boundary



Building Elevations

Front



Rear



Findings and Recommendation

Required Findings

- Staff and the Planning and Zoning Commission have found that the **preliminary plat meets the requirements** of:
  - City Code Title 10, Flagstaff Zoning Code
  - City Code Title 11, General Plans and Subdivisions
  - City Code Title 13, Engineering Design Standards and Specifications

Staff Recommendation

- The Planning and Zoning Commission recommended (4-0 vote) that the City Council approve the preliminary plat

10. F.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Jenny Niemann, Climate & Energy Specialist
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Approval of Contract: APS Level 2 Electric Vehicle Charging Pilot Agreement # 231283.

STAFF RECOMMENDED ACTION:

Approve APS Level 2 Electric Vehicle Charging Pilot Agreement # 231283.

Executive Summary:

Staff is requesting approval of an agreement with APS to install four electric vehicle (EV) charging stations at the Flagstaff City Hall west parking lot, 211 W Aspen Street.

This installation is part of an APS pilot program, Take Charge AZ, to offer free EV charging stations to government agencies. APS will provide for the installation, electric infrastructure and maintenance of the chargers.

This agreement represents an exciting opportunity to partner with APS, participate in an APS study of EV charging operations, and provide EV infrastructure at a reduced cost to the City.

The EV chargers will support the future growth of City's EV fleet. ParkFlag received the City's first EV last fiscal year. When it is determined an equipment purchase is needed, the City will first consider electric vehicles if appropriate models are available. Both EV charging stations and EV fleet purchases support the goals of the Climate Action and Adaptation Plan, by reducing emissions from transportation.

The EV chargers will also be available for use by the public when the City Hall parking lot is available for public use.

Financial Impact:

There are four types of financial costs associated with the EV charging stations:

- **Electrical infrastructure upgrades**: APS is providing infrastructure upgrades at no cost to the City.
- **EV charging stations**: The City and APS are sharing the cost of the EV charging stations, at a one-time cost of $9,733.00 to the City's Fleet Services section (001-06-154-0552-3-4402). The City has chosen to upgrade to networked EV chargers, which are more appropriate for monitoring fleet vehicle use, collecting real-time data and facilitating use of the charging stations when appropriate. The networked charging stations will also allow the City to make the stations available to City employees and to open stations to the public (for a fee).

- **Networking fees**: The City will pay networking fees of $1,120 annually, to operate and monitor the charging stations. Networking fees are included in Fleet Service's ongoing annual budget (001-06-154-0551-3-4231).
- **Electricity use through the chargers**. The City will pay for any electricity costs associated with using the chargers. The chargers will be metered separately and be placed on a time-of-use service plan to encourage use of the equipment when solar energy is abundant and energy prices are lower. City departments and the public will be charged for the cost of the electricity used.

Policy Impact:

Both EV charging stations and EV fleet purchases support the goals of the Climate Action and Adaptation Plan, by reducing emissions from transportation.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

The EV charging stations support Council's goal of implementing the Climate Action and Adaptation Plan. Relevant actions in the CAAP include:

- Action TLU-3-B: Develop public-private partnerships to develop electric vehicle charging stations at City facilities.
- Action TLU-3-L: Partner with private entities, such as APS, to prepare electricity infrastructure for electric vehicle charging demand.

Regional Plan:

- Goal E&C.1. Proactively improve and maintain the region’s air quality.
- Goal E&C.2 Reduce Greenhouse gas emissions.

Has There Been Previous Council Decision on This:

The City Council adopted the Climate Action and Adaptation Plan on November 20, 2018. This Plan includes goals and strategies to increase electric vehicle infrastructure and adoption.

Attachments: Presentation
Updated Contract with Edit
Appendix B

APS Take Charge AZ EV Charging Stations

August 27, 2019

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APS's Take Charge AZ Pilot Program

- Provides EV Charging stations at municipal buildings.
- Will assess EV charging behavior and its effects on electricity usage and rates.
- Supports fleet conversions to EVs.

Charging Stations at City Hall

- Four charging stations in the City Hall west parking lot.
- Upgrading to **networked chargers.**
- Will support the City's growing electric vehicle fleet.
  - First two EVs purchased this summer.

Charging Stations at City Hall

- Supports the Climate Action and Adaptation Plan goals related to:
  - Electric fleet vehicles
  - Charging infrastructure
  - Greenhouse gas emissions from transportation.
- Charging stations will also be available to the public when the lot is publicly accessible.

Questions?

Thank You!

Greg Conlin
Fleet Services Manager

GConlin@flagstaffaz.gov
928-213-2186

Jenny Niemann
Climate and Energy Specialist

JNiemann@FlagstaffAZ.gov
928-213-2150

Note: this agreement has been revised from the version included in the draft agenda packet. One revisions located on page 4.

APS LEVEL 2 ELECTRIC VEHICLE CHARGING PILOT AGREEMENT # 231283

This Electric Vehicle Charging Station Pilot Agreement ("Agreement") between Arizona Public Service Company ("APS") and City of Flagstaff ("Customer"), is effective as of _____, 2019 (the "Effective Date").

Customer's Charging Stations will be located at: 211 W Aspen Street, Flagstaff, AZ 86001

Background

APS is conducting an Electric Vehicle Charging Pilot Program (the "Program"), whereby APS is installing Level 2 charging stations at certain APS Customer's location. The Program is being conducted in order for APS to assess electric vehicle ("EV") consumer purchasing, EV driver charging behavior, and other relevant information regarding the use of EV charging stations. APS has selected Customer to participate in the Program.

Customer acknowledges that APS cannot fully determine Customer's eligibility in the Program until after execution of this Agreement and that Customer eligibility will be determined by APS, in its sole discretion.

APS and Customer Agree as follows:

1. Definitions:

    a. **Charging Station**: A UL/ETL certified electrical device that provides power to an EV using a standard J1772 Plug connector and cable. The Charging Station will be a Level 2 type, capable of providing up to 7kW of power to an EV. The Charging Stations will be either pedestal mounted, with two chargers on each pedestal, or wall mounted. Each Customer will receive a maximum of 4 plugs.

    b. **Charging Station Area**: the area where the Charging Stations are installed and used, and where designated parking spots for EV charging are located.

    c. **Environmental Contamination**: any and all actual or threatened releases, discharges, spills, or the presence of Hazardous Substances within the Property.

    d. **Environmental Laws**: any and all applicable federal, state, local, or municipal law, statute, code, regulation, or policy (including without limitation common law) governing the use, storage, treatment, or disposal of Hazardous Substances or otherwise relating to the protection, conservation, or preservation of the natural environment or natural resources, including ambient air, wildlife or plant species, surface water or groundwater resources, or soil and other subsurface strata.

    e. **Hazardous Substances**: any liquid, solid, or gaseous substance or material (including petroleum and petroleum products) that is designated, classified or regulated as,

either, a solid or hazardous waste, a hazardous substance or material, a contaminant, or a pollutant under any Environmental Law, or which becomes so designated, classified, or regulated

f. **Infrastructure**: the electrical equipment required to provide power to the Charging Station. The equipment may include a transformer, underground conduits, cables, meters, disconnects (on/off switches), concrete pads, and signage.

g. **Property**: the entirety of the property owned or leased by Customer that is included in the address listed at the top of the agreement.

h. **Site**: any part of the Property subject to the Utility Easement with the exception of the meter pedestal, Charger and cable between the two described in Section 3(b).

2. General Terms

a. Except as set forth in subsection (d) below, APS will, at no cost to Customer, design, construct, and install all necessary Infrastructure and Charging Stations at the Site.

b. APS will own, operate, and maintain the Infrastructure and Charging Stations. APS's routine maintenance of the Charging Stations will be limited to semi-annual inspections of the Charging Stations, testing, and firmware upgrades. Customer's inspection obligations are set forth in Section 5.

c. If, for any reason, Customer's existing electrical infrastructure cannot accommodate installation of the Infrastructure or Charging Stations, or there are other technical or Site related issues of any kind that, in APS's sole discretion, prevent APS from installing the Infrastructure or Charging Stations, APS may terminate this Agreement upon written notice to Customer. Termination of this Agreement will be effective as of Customer's receipt of APS's notice of termination.

d. Based on estimates to install the Infrastructure and Charging Stations, both are being provided at no charge to Customer. In the event that, as a result of an unusual design or technical issue associated with the Site, APS or it's subcontractor is required to bill the Customer the for any additional costs, APS will notify Customer in writing if additional charges are required to the Customer (the "Customer Cost Allocation"). Customer will have 30 days following receipt of APS's written notice of a Customer Cost Allocation to notify APS in writing, if Customer will pay the Customer Cost Allocation or terminate this Agreement. The signatory on behalf of the Customer must have proper authority to authorize the customer cost allocation on behalf of their company. Customer's notice that it is electing to terminate this Agreement will serve as Customer's termination of this Agreement.

e. Customer will work with APS and its contractors to schedule and allow for the following activities: site inspection to verify eligibility, necessary permitting and inspections, installation, and all other reasonably necessary activities. Customer will

also provide APS with ; existing as built one-line electrical drawings identifying connections for electrical power; existing electrical load designs and layouts of actual connected loads, and any other documents reasonably requested by APS.

f. Customer will permit APS to post signage on or near the Charging Stations identifying that the Charging Stations are being provided by APS and otherwise providing pertinent information about the Charging Stations, APS, or the Program.

g. In order reduce peak demand for electricity and reduce the Customer's bill, the Charging Stations could be shut off during the hours of 3pm and 8pm each weekday.

h. In the event of an emergency or other situation where APS must gain immediate access to the Site, APS must be able to access the Charging Stations and Infrastructure without delay (*i.e.*, access to the Charging Stations or Infrastructure cannot be locked or gated unless immediately accessible by a Customer representative who is on duty 24 hours a day). In all other situations, Customer will provide APS access to the Charging Stations upon 24 hours verbal notice.

i. Customer will keep trees, bushes, and hedges trimmed so that the Charging Stations remain unobstructed, as required when initially installed.

j. Customer will not modify the Site in any way that may impact the operation or use of the Charging Stations without the prior written approval of APS.

k. In APS's discretion, APS may replace the Charging Stations with new Charging Stations. If Customer paid for any infrastructure or fees for networking the Charging Stations, APS will ensure Customer has comparable functionality.

l. The APS Charging Stations must remain isolated electrically and separately metered from all other electrical equipment, unless agreed to otherwise by APS in writing.

m. APS, in collaboration with Customer, will take any action which, in their reasonable judgment, is necessary to ensure the Charging Stations and Infrastructure are being properly maintained and operated, and to ensure the Charging Stations are meeting the objectives of the Program.

3. Certain Other Terms of Service

a. Customer's monthly APS electric bill for the Charging Stations will include the energy used by the Charging Stations. For the dedicated Charging Stations meter, Customer must enroll in APS's E-32XS Demand Service Plan. APS may, in its sole discretion revise the list of eligible Service Plans at any time. If during the term of this Agreement an EV Service Plan becomes available, APS may require Customer to enroll in that Service Plan. Customers may choose the service plan that works best for them.

This paragraph, 3(b) was revised to add more detail to allow abandonment of the easement if necessary.

b. Customer must execute an easement to APS in the form and substance of the standard Utility Easement. Among other things, the Utility Easement Agreement will provide APS with the right to leave the Infrastructure in place if the Charging Stations are removed. Notwithstanding the foregoing, after the term of this Agreement as set forth in Sections 7 or any earlier termination provided for in this Agreement, if Customer requests APS to modify or abandon the Utility Easement, APS shall reasonably agree to such requests. All such costs associated with any modification or abandonment of the Utility Easement, including the removal of any equipment (meter, chargers and services), conduit, or otherwise, shall be borne solely by APS. Notwithstanding the foregoing, in no event shall APS be required to modify or abandon any new transformers, and associated infrastructure to install those new transformers as part of this pilot program.

c. An officer or Mayor of Customer must sign the Utility Easement and this Agreement.

d. If customer is a lessee of the Property, an officer or Mayor of the owner of the Property must sign the Utility Easement Agreement and an officer or Mayor of both the Customer and the owner of the Property must sign this Agreement.

4. Consent to Share Information.

a. As part of the Program, APS will collect and use the following information from the dedicated meter installed at the Site: total energy usage of the Charging Stations and information regarding performance of the Charging Stations (uptime, maintenance, utilization, and the like).

b. Customer agrees that APS may use the information described in subsection (a) for any reason, so long the information does not identify the Customer.

5. Additional Customer Obligations.

a. Customer must perform weekly safety inspections (snow, debris, clear and safe access) of the Charging Station Area and immediately notify APS at the APS phone number listed on APS provided signage, if it observes any of the conditions listed on the APS Charging Station Inspection Checklist, which is attached here as Appendix A.

b. Customer must advise employees and any other third persons using the Charging Stations, if the Charging Stations are not available between 3pm and 8pm daily.

c. Customer is responsible for all typical parking related matters, including, but not limited to arrangement and painting of parking/painted lines, and the like with the exception that APS will mark the parking spots with “Reserved Electric Vehicle Parking”.

d. Customer agrees to encourage employees to participate in APS provided surveys regarding the Charging Stations and provide APS with related information regarding charging usage and the like, as reasonably requested by APS.

e. Customer agrees that APS may use the information described in subsection (d) for any reason, so long the information does not identify the Customer.

6.

7. Term. The Program is intended to be in effect for five years following installation of the Charging Stations. APS, however, reserves the right to terminate this Agreement at any time, without liability to Customer. Unless terminated earlier as set forth in this Agreement, this Agreement will terminate on the fifth anniversary of the In-Service Date.

8. Shut Off and Termination for Cause.

   a. If, in APS's reasonable opinion, a safety condition related to the Infrastructure or Charging Stations exists, APS may immediately shut off the Charging Stations and any impacted Infrastructure.

   b. If: (i) a safety conditions exists that is not being caused by APS or (ii) Customer is otherwise in default of this Agreement (each of (i) or (ii) being a "Default"), then Customer will have 30 days following receipt of APS's written notice identifying the Default to remedy the same. If Customer has not remedied the Default within the 30 day cure period, APS may terminate this Agreement immediately, upon Customer's receipt of APS's notice of termination.

9. Termination. Upon termination of this Agreement for any reason, APS will notify Customer in writing of termination of this Agreement and Customer will notify APS within 30 days of receipt of APS's written notice whether it intends to take ownership of the Charging Stations or require that APS remove the Charging Stations.

   a. If Customer notifies APS that it is electing to have APS remove the Charging Stations, APS will remove the Charging Stations within 60 days after receipt of Customer's written notice and APS will disconnect and abandon the Infrastructure in place or remove it as it deems fit (pursuant to the Utility Easement).

   b. If Customer notifies APS that it is electing to take ownership of the Charging Stations after five years, APS will transfer title to Customer. Upon transfer of title of the Charging Stations, Customer will assume sole and full responsibility for the operation and maintenance of the Infrastructure and Charging Stations. Prior to the transfer of title to Customer, APS will perform a fair market value analysis of the Charging Stations and provide the information to Customer in writing.

10. Tax Implications. If Customer elects to take ownership of the Charging Stations and the Charging Stations have a fair market value, Customer may incur a tax burden as a result of taking possession of the Charging Stations. APS advises that Customer should consult a tax advisor regarding possible tax liability resulting from the transfer of ownership (please note: current U.S. tax code requires APS to generate a Form 1099 if the System value is $600 or more). APS will still maintain ownership of the Infrastructure and easement of the Infrastructure.

11. Exclusion of Damages. Neither party will be liable to the other party for any indirect, consequential, special, or punitive damages for any actions resulting from or arising out of this agreement, whether based on contract, tort (including negligence), strict liability, contribution, or otherwise.

12. Environmental Liability.

    a. APS shall retain all liability arising from and responsibility to address, and the Customer shall not any assume such liability or responsibility for, Environmental Contamination caused by APS's installation, operation, and maintenance of the Infrastructure or Charging Stations, including any and all losses, costs, damages, or obligations (including without limitation any environmental remediation or corrective action obligations).

    b. Customer shall retain all liability arising from and responsibility to address, and APS shall not any assume such liability or responsibility for, pre-existing Environmental Contamination within the Site prior to the Effective Date or any Environmental Contamination caused by Customer after the Effective Date, including any and all losses, costs, damages, or obligations (including without limitation any environmental remediation or corrective action obligations).

    The indemnification obligations in this paragraph will survive any expiration or termination of this Agreement.

COMPANY	ARIZONA PUBLIC SERVICE COMPANY
By:_____	By:_____
Title: _____	Title: _____
Signature: _____	Signature: _____

PROPERTY OWNER

(If different from company)

By:_____

Title: _____

Signature: _____

Appendix A

APS Take Charge AZ – Customer Charger Inspection

To be Performed Weekly

Date: _____

Time: _____

Name of Inspector: _____

Location of Chargers: _____

ENSURE A SAFE WORK AREA PRIOR TO INSPECTION.

If there are critical safety concerns with your charges, please contact APS immediately!

Walk down all charging stations, inspect for the following:

i. Any signs of damage or physical contact with vehicle
ii. Note damage or issues in comment box

Detail	Good	Bad	Comment
Charger Body			
Charger Cord			
Connector/Plug			
Any Exposed Wiring			
Meter			
Meter Pedestal			

Appendix B

APS Take Charge AZ – ChargePoint Networked Charger Option

ChargePoint Option

Commercial or Industrial Customers accepted into the APS Take Charge AZ Pilot may elect to select from Clipper Creek HCS-40R non-networked chargers to ChargePoint CT4021-GW1 networked chargers by executing Appendix B.

ChargePoint Networked Charger Capabilities

ChargePoint CT4021-GW1 networked chargers provide the following capabilities:

- OCPP Capable: Native support for OCPP in ChargePoint stations and an easy process to integrate other stations to the ChargePoint Network using OCPP.
- EMP & CPO Roaming: Seamless communication between the driver, station and clearinghouse.
- Station Locations & Availability: Complete visibility of stations and their availability make it easy for drivers to find a compatible charger.
- Access Control: Manage and control access to charging stations based on well-defined policies. Enhance the value for the station owner with the right level of control.
- Flexible Pricing: Provide the station owner with pricing controls that are in line with station usage. Provide flexibility to update pricing as usage changes.
- Authorization, Authentication & Accounting: Ensure safe and secure payment for charging. Security measures include the pseudonymization and encryption of personal data and other capable security measures that ensure the ongoing confidentiality, integrity, availability and resilience of the network.
- Power Management: Ensure that charging stations never draw more power than the site can provide.
- Driver Notifications: Notify EV drivers about station availability, state of charge and other key messages to enhance your relationship with drivers.
- Queueing (Waitlist): Increase utilization of stations and charge more vehicles by enabling drivers to get in a virtual queue for stations.
- Fleet Services: Integrate with fleet systems (fleet management, route monitoring, etc.) to provide critical data and insights.
- Station Support: ChargePoint responds quickly and effectively to any situation that occurs at a station.
- Scalability: Support the growth of stations worldwide. Provide consistent, high-quality functionality without any delays.

Additional Fees, Invoicing, and Payment Terms

Customer will enter into a separate agreement with ChargePoint, Inc for networking services. Networking fees up to $280 per port per year. This will total up to $1,120 per year. First year fees will be included in the invoice from the installer as noted below. Subsequent years will be invoiced by ChargePoint, Inc.

Customer will be invoiced by the installer and will pay the additional fees as outlined below:

1. One-time installation fee not to exceed $750.
2. One-time equipment upgrade fee of $7,863.
3. First year networking fee up to $1120.

Payment terms will be net 30 days.

COMPANY

By: _____

Title: _____

Signature: _____

ARIZONA PUBLIC SERVICE COMPANY

By: _____

Title: _____

Signature: _____

15. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Alaxandra Pucciarelli, Planning Development Manager - AP
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Adoption of Ordinance No. 2019-27: Direct to Ordinance Zoning Map Amendment, by Miramonte Arizona, LLC, for Ponderosa Parkway of approximately 11.97 acres located at 1650 East Ponderosa Parkway from the Rural Residential (RR) zone to the High Density Residential (HR) zone. The development site is located within the Resource Protection Overlay (RPO).

STAFF RECOMMENDED ACTION:

Staff recommends the City Council, in accordance with the findings presented by staff, approve the requested Direct to Ordinance Zoning Map Amendment for Ponderosa Parkway, LLC (PZ-17-00227-03) and take the following action:

At the August 27, 2019 Council Meeting:
1) Hold the Public Hearing
2) Read Ordinance No. 2019-27 by title only for the first time
3) City Clerk reads Ordinance No. 2019-27 by title only (if approved above)

At the September 3, 2019 Council Meeting:
1) Read Ordinance No. 2019-27 by title only for the final time
2) City Clerk reads Ordinance No. 2019-27 by title only (if approved above)
3) Adopt Ordinance No. 2019-27

Executive Summary:

A Direct to Ordinance Zoning Map Amendment application for Ponderosa Parkway LLC for approximately 11.97 acres at 1650 East Ponderosa Parkway from Rural Residential ("RR") zone to High Density Residential ("HR") zone for the purpose of developing a multi-family residential development. Please refer to the attached area context map.

The Flagstaff Planning and Zoning Commission voted (3-1) to forward the request with a recommendation of approval. The Planning & Zoning Commission is considering the item on August 14, 2019. A presentation will be attached prior to final agenda distribution.

Financial Impact:

The Direct to Ordinance Zoning Map Amendment has no financial impact.

Policy Impact:

The Direct to Ordinance Zoning Map Amendment has no policy impact.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Council Goals:

Support development and increase the inventory of public and private affordable housing for renters and home-owners throughout the community.

Regional Plan:

A complete analysis of the Regional Plan goals and policies is included in the attached Planning and Zoning Commission staff report.

Team Flagstaff Strategic Plan:

Strategic Priority #4: Work in partnership to enhance a safe and livable community.

Has There Been Previous Council Decision on This:

There has not been previous Council decision on this item.

Options and Alternatives:

The City Council may approve the application as proposed, approve the application with modified conditions, or deny the application.

Adoption of Ordinance 2019-27 will have the effect of approving the rezoning application, subject to conditions listed in the Ordinance.

Background/History:

The applicant is proposing to amend the City of Flagstaff's Rural Residential (RR) zone for an 11.97-acre parcel to High Density Residential (HR) zone. The parcel is located on East Ponderosa Parkway, just north of Route 66, behind the existing commercial development. The proposed development will consist of 169 multi-family residential for-sale units, constructed as 13 three-story buildings. Each building will consist of 13 units ranging from 500 to 1,300 square feet in size. The remainder of the parcel will be common area regulated by the homeowners' association and the property manager. These areas include tree and steep slope resources, common open space amenities, private access easements, drainage, stormwater detention facilities, and civic space.

Key Considerations:

To obtain up to a possible 25% density bonus, this project is meeting the standards listed in Section 10-30.70.040. There are four sections which must be met: 1) Water Resource Protection, 2) Transportation/Air Quality, 3) Waste Reduction During Construction, and 4) Energy Efficiency.

To meet the Water Resource Protection requirement, the landscape design for the development shall not include an oasis zone (hydrozone 1) as otherwise permitted in Section 10-50.60.050(C), Oasis Allowance, and Section 10-50.60.060, Hydrozones. The Transportation/Air Quality requirements are achieved because the development site is located within at least one-quarter mile of a bus stop. In addition, the development is located within at least one-quarter mile of a FUTS trail. The applicant is also considering providing for electric vehicle charging. To achieve the Waste Reduction During Construction requirements, the new development shall have a written solid waste program that includes a plan for the recycling or reuse of all paper, cardboard, plastics, and metals; a plan for the recycling or reuse of all lumber scraps so that they are diverted from the landfill; and a plan for the diversion of all masonry and

cementitious materials so that they are diverted from the landfill. The Energy Efficiency component is achieved by applying the HERS rating system. The applicant shall obtain independent third-party verification that the minimum HERS rating has been achieved.

The applicant has also committed to provide 16 “Attainable Housing Units.” These units do not meet all of the City's guidelines for qualifying as "Affordable Housing." These units will be disbursed throughout the development to the greatest extent feasible (with no exterior difference between the attainable and market rate units). The units will be sold at or below 100% of the Area Median Income (“AMI”) affordability level.

Community Benefits and Considerations:

The applicant identifies this project as a multi-family development which provides entry-level ownership opportunities and much needed “Attainable Housing” for moderate income residents.The project includes 16 for-sale housing units for up to 100% area median income (AMI).The proposed project facilitates efficient use of the current commercial and transportation corridors and contributes to the growth of a preexisting mixed-use neighborhood.The required civic space also provides an amenity to the community and protects a cluster of existing ponderosa pines adjacent to the existing commercial development to the south.

Community Involvement:

Public hearings before the Planning and Zoning Commission and City Council are conducted in conjunction with requests for Direct to Ordinance Zoning Map Amendments. In accordance with State Statute, notice of the public hearing was provided by placing an ad in the Daily Sun, posting notices on the property, and mailing a notice to all property owners within 1,000 feet (exceeding the minimum of 300 feet) of the site excluding rights-of-way.

The applicant held one neighborhood meeting regarding this case on May 1, 2019 at 5:30 pm. The meeting was held at the Flagstaff Aquaplex, located at 1702 North Fourth Street in Flagstaff. Per the sign-in sheets, ten (10) individuals attended the meeting. A Neighborhood Meeting Report, attached, was prepared in response to the questions, comments and concerns presented. The meeting began with an introduction of the proposed development by the Applicant, with an overview of the development’s components and design. In a charrette-style interaction, the Applicant encouraged attendees’ written contribution of any comments or concerns about the proposed development, which were then discussed with the group.

The applicant requested to waive the requirement for a second meeting. This request was approved by the Planning Director.

No letters or emails from the public has been received as of the writing of this report.

Expanded Options and Alternatives:

- (Recommended Action): The City Council may approve the Direct to Ordinance Zoning Map Amendment Application by reading and adopting Ordinance No. 2019-27.
- The City Council may approve the Direct to Ordinance Zoning Map Amendment Application with modified conditions.
- The City Council may deny the Direct to Ordinance Zoning Map Amendment Application.

Attachments: Ord. 2019-27
Presentation

Staff Report
Application
Area Context Map
Legal Notice
Project Narrative
Regional Plan Analysis
Citizen Participation Plan and Meeting Report
Draft Development Agreement
NAIPTA Correspondence and Draft Agreement
Plan Set Page 1
Plan Set Page 2
Plan Set Page 3
Plan Set Page 4
Plan Set Page 5
Plan Set Page 6
Floorplans
Elevations Page 1
Elevations Page 2
Elevations Page 3
Elevations Page 4
Electrical Site Plan
Landscape Plan Page 1
Landscape Plan Page 2
Landscape Plan Page 3
Landscape Plan Page 4

ORDINANCE NO. 2019-27

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF ZONING MAP TO REZONE APPROXIMATELY 11.97 ACRES OF REAL PROPERTY LOCATED AT 1650 EAST PONDEROSA PARKWAY, FROM RURAL RESIDENTIAL ("RR") TO HIGH DENSITY RESIDENTIAL ("HR"); PROVIDING FOR SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, Ponderosa Parkway, LLC (the "Applicant"), applied for a Zoning Map Amendment for approximately 11.97 acres of land located at 1650 East Ponderosa Parkway, Coconino County, Arizona, a legal description of which is provided in Exhibit "A" attached hereto ("the Property"), for the purpose of multi-family residential development.

WHEREAS, in furtherance of the Applicant's reasons for the rezone, the Applicant has applied to the City of Flagstaff to amend the zoning of the Property from Rural Residential (RR) zone to High Density Residential (HR) zone for 11.97 acres; and

WHEREAS, the Applicant conducted a neighborhood meeting on May 1, 2019 to discuss the proposed Zoning Map Amendment with the surrounding community, as required by Section 10-20.50.040 of the Flagstaff Zoning Code; and

WHEREAS, the Council finds that the Applicant has complied with all application requirements set forth in Chapter 10-20 of the Flagstaff Zoning Code; and

WHEREAS, the Council has read and considered the staff reports prepared by the Planning Division and all attachments to those reports, the Applicant's application, the narrative provided by the Applicant, and the Council finds that the proposed Zoning Map Amendment, subject to the conditions set forth below, meets the findings required by Section 10-20.50.040(F)(1)(a) of the Flagstaff Zoning Code.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. The foregoing recitals are incorporated as if fully set forth herein.

SECTION 2. The amendment requested in the application is consistent with and conforms to the goals of the General Plan.

SECTION 3. The amendment requested in the application will not be detrimental to the public interest, health, safety, convenience or welfare of the City and will add to the public good as described in the General Plan.

SECTION 4. The affected site is physically suitable in terms of design, location, shape, size, operating characteristics, and the provision of public and emergency vehicle access and public

services and utilities to ensure that the amendment requested in the application will not endanger, jeopardize or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

SECTION 5. The Zoning Map designation for the Property is hereby amended from Rural Residential (RR) zone to High Density Residential (HR) zone for 11.97 acres, as depicted in Exhibit "A", through the approval of the application and all other documents attached to the staff summary submitted in support of this ordinance.

SECTION 6. The City is specifically relying on all assertions made by the Applicant, or the applicant's representatives, whether authorized or not, made at the public hearing on the zone change application unless the assertions were withdrawn on the record. Those assertions are hereby incorporated into this ordinance.

SECTION 7. That the Zoning Map Amendment be further conditioned upon the Applicant's satisfaction of the following conditions proposed by the Planning and Zoning Commission, as augmented by staff:

CONDITIONS:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 28, 2019. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. All other requirements of the Zoning Code and other City codes, ordinances and regulations, shall be met by the proposed development.
3. All terms, conditions, and restrictions detailed within the "Development Agreement Miramonte at Ponderosa Parkway Condominiums" must be fully satisfied.
4. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classifications of Rural Residential (RR) in accordance with A.R.S. § 9-462.01.

SECTION 8. That City staff is hereby authorized to take such other and further measures and actions as are necessary and appropriate to carry out the terms, provisions and intents of this Ordinance.

SECTION 9. If any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 10. This ordinance shall become effective sixty (60) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 3rd day of September, 2019.

_____

MAYOR

ATTEST:

_____
CITY CLERK

APPROVED AS TO FORM:

_____
CITY ATTORNEY

Exhibits:
Exhibit A – Legal Description

Exhibit “A”

Legal Description of Property

Official Records of Coconino County 3814115
Patty Hansen - Recorder 05/02/2018 11:46:28 AM Pgs: 19
PIONEER TITLE AGENCY SWF $20.00

WHEN RECORDED, RETURN TO:

Ponderosa Parkway, LLC
4578 North 1st Avenue, Suite 160
Tucson, Arizona 85718
Attn: Christopher Kemmerly

70504643-JRK

SPECIAL WARRANTY DEED

For the consideration of Ten Dollars ($10.00) and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned, **Franz R. Lupton Jr., as trustee of the Frantz R Lupton Jr Separate Property Trust Dated 12/03/1996**, as to an undivided 13.3334% co tenancy interest; **Senex Arizona, Inc.,** an Arizona corporation, as to an undivided 13.3333% co tenancy interest; **The Kramer Family Limited Liability Company**, an Arizona limited liability company, as to an undivided a 13.3334% co tenancy interest; **Green Mesa Developments LLC**, a Colorado limited liability company, as to an undivided 13.3333% co-tenancy interest; **Kenneth Bates**, a married man as his sole and separate property, as to an undivided 13.3333% co-tenancy interest; **Edward Rudnitsky**, a married man as his sole and separate property, as to an undivided 6.0000% co-tenancy interest; and **Barry Werner**, a married man as his sole and separate property, as to an undivided 27.3333% co-tenancy interest; collectively, (the, **"Grantor"**), does hereby convey to Ponderosa Parkway, LLC an Arizona limited liability company (the, **"Grantee"**), the real property situated in Coconino County, Arizona, and legally described on Exhibit A attached hereto and incorporated herein by this reference, together with all rights and privileges appurtenant thereto (the **"Property"**), together will all improvements and fixtures thereon and all rights, benefits, privileges, entitlements and appurtenances pertaining thereto, held or owned by Grantor, including, without limitation, to the extents such rights exist; any right, title and interest of Grantor in and to (i) any property lying in or under the bed of any street, alley, road or right-of-way, open or proposed, abutting or adjacent to the Property; (ii) the strips, gaps or gores, if any, between the Property and abutting property; (iii) all water, water rights, oil, gas or other mineral interests in, on, under or above the Property; (iv) all rights and interests to receive any condemnation awards from any condemnation proceeding pertaining to the Property; (v) all sewer rights, water courses, wells, ditches and flumes located on or appurtenant the Property.

SUBJECT TO all matters of record and all matters an accurate survey or proper inspection of the Property would reveal (the **"Exceptions"**);

TO HAVE AND TO HOLD such interest in the Property, with all and singular the rights, privileges, appurtenances and immunities thereto belonging or in any way appertaining unto the Grantee and unto Grantee's successors and assigns forever, and that Grantor will defend the title to said interest in the Property unto Grantee against the claims and demands of all persons claiming by, through or under Grantor and no other, except for the Exceptions as set forth above.

UNOFFICIAL COPY

Except for the limited title warranty expressly set forth herein: (a) the Property is hereby conveyed in an "AS IS," "WHERE IS" and "WITH ALL FAULTS" basis and condition; and (b) Grantor makes no additional representations or warranties of any kind whatsoever, either express or implied, with respect to the Property; including but not limited to representations or warranties with respect to the use, condition (including the environmental condition), occupation or management of the Property, or compliance with applicable statutes, laws, codes, ordinances, regulations, requirements, covenants, conditions and restrictions (whether or not of record).

In accordance with A.R.S. § 33-404, the names and addresses of the beneficiaries under the FRANTZ R LUPTON JR SEPARATE PROPERTY TRUST DATED 12/03/1996 are set forth on Schedule A to this instrument.

[Signatures appear on the following pages]

Unofficial Copy

Exhibit "A"

PARCEL NO. 1:

A portion of the parcels of land described in Document No. 3376344 and re-recorded in Document No. 3385837 and Document No. 3228142, records of Coconino County, Arizona, located in the Southwest quarter of Section 14, Township 21 North, Range 7 East, Gila and Salt River Base and Meridian, Coconino County, Arizona, described as follows:

COMMENCING AT THE Southwest corner of Section 14, monumented with a USDI/BLM Brass Cap dated 1981 from which point the West quarter corner of Section 14, monumented with a 3" aluminum cap marked "LS 26406" bears North 01 degrees 35 minutes 29 seconds West, 2720.59 feet;

THENCE North 88 degrees 39 minutes 25 seconds East along the South line of the Southwest quarter of Section 14 and along the North lines of the parcels of land described in Document No. 3101540 and Document No. 3086724, a distance of 498.81 feet to the Northwest corner of the parcel of land described in Docket 2035, page 815 and to the Northeast corner of the parcel of land described in Document No. 3086724, monumented with a ½" iron pipe;

THENCE North 88 degrees 47 minutes 13 seconds East along the South line of the Southwest quarter of Section 14 and along the North line of the parcel of land described in Docket 2035, page 815, a distance of 134.25 feet to the West right-of-way line of Ponderosa Parkway, as conveyed to the City of Flagstaff in Instrument No. 3555011, records of Coconino County, Arizona;

THENCE North 88 degrees 41 minutes 10 seconds East along the South line of the Southwest quarter of Section 14, and along the North line of the parcel of land described in Docket 1108, page 138, a distance of 107.25 feet to the West line of Parcel 1 as described in Docket 1827, page 471;

THENCE North 88 degrees 41 minutes 10 seconds East along the South line of the Southwest quarter of Section 14, a distance of 9.80 feet to the East right-of-way line of said Ponderosa Parkway;

THENCE North 88 degrees 41 minutes 10 seconds East along the South line of the Southwest quarter of Section 14, a distance of 99.88 feet to the East line of Parcel 1 as described in Docket 1827, page 471, and to the West line of the parcel of land described in Document No. 3227936;

THENCE North 18 degrees 26 minutes 19 seconds West along the East line of Parcel 1 described in Docket 1827, page 471 and along the West line of the parcel of land described in Document No. 3227936, a distance of 153.89 feet to the Southwest corner of the parcel of land described in Document No. 3385837, monumented with a 4" concrete post, and the TRUE POINT OF BEGINNING, hereinafter referred to as Point "A";

Unofficial Copy

THENCE North 18 degrees 13 minutes 20 seconds West along the East line of Parcel 1 and along the West line of the parcel of land described in Document No. 3385837, a distance of 110.98 feet to the East right-of-way line of said Ponderosa Parkway, hereinafter referred to as Point "D";

THENCE Northerly along the East right-of-way line of said Ponderosa Parkway, along a curve to the right, having a radius of 765.00 feet and a central angle of 5 degrees 57 minutes 54 Seconds, an arc distance of 79.64 feet (chord bearing North 21 degrees 22 minutes 04 seconds East, chord distance 79.61 feet);

THENCE North 24 degrees 21 minutes 00 seconds East along the East right-of-way line of said Ponderosa Parkway, 137.50 feet;

THENCE Northerly along the East right-of-way line of said Ponderosa Parkway and its Northerly extension as conveyed to the City of Flagstaff by easement recorded in Instrument No. 3613223, records of Coconino County, Arizona, along a curve to the left, having a radius of 884.74 feet and a central angle of 20 degrees 00 minutes 01 seconds, an arc distance of 308.84 feet (chord bearing North 14 degrees 21 minutes 00 seconds East, chord distance 307.27 feet);

THENCE Northerly along said East right-of-way line of Ponderosa Parkway, along a curve to the left, having a radius of 1648.76 feet and a central angle of 18 degrees 07 minutes 31 seconds, an arc distance of 521.57 feet (chord bearing North 04 degrees 42 minutes 46 seconds West, chord distance 519.40 feet), to the North line of the parcel of land described in Document No. 3385837;

THENCE South 81 degrees 54 minutes 10 seconds East along the North line of the parcel of land described in Document No. 3385837, a distance of 429.72 feet to the Northeast corner of the parcel of land described in Document No. 3385837;

THENCE South 31 degrees 18 minutes 30 seconds East, 665.41 feet to the South line of the parcel of land described in Document No. 3228142 and to the North line of the parcel of land described in Docket 1947, page 830;

THENCE North 73 degrees 06 minutes 23 seconds West along the South line of the parcel of land described in Document No. 3228142 and along the North line of the parcel of land described in Docket 1947, page 830, a distance of 98.22 feet to the Southeast corner of the parcel of land described in Document No. 3385837, monumented with a 5/8" capped rebar marked "LS 26406";

Thence South 71 degrees 29 minutes 36 seconds West along the South line of the parcel of land described in Document No. 3385837 and along the North line of the parcel of land described in Docket 1947, page 830, a distance of 320.96 feet to the Northwest corner of the parcel of land described in Docket 1947, page 830, monumented with a 5/8" capped rebar marked "LS 13010";

Unofficial Document

THENCE South 18 degrees 30 minutes 41 seconds East along the South line of the parcel of land described in Document No. 3385837 and along the West line of the parcel of land described in Docket 1947, page 830, a distance of 251.55 feet to the Northeast corner of the parcel of land described in Document No. 3340460, monumented with a 5/8" capped rebar marked "LS 26406", hereinafter referred to as Point "B";

THENCE South 71 degrees 32 minutes 55 seconds West along the South line of the parcel of land described in Document No. 3385837 and along the North line of the parcels of land described in Document No. 3340460 and Document No. 3227936, a distance of 566.31 feet to the TRUE POINT OF BEGINNING.

PARCEL NO. 2:

An easement for motorized vehicle access, as reserved in deed recorded in Instrument No. 3555008, records of Coconino County, Arizona, over a portion of that parcel described as Parcel 1 in Deed recorded in Docket 1827, Page 471, records of Coconino County, Arizona, located in the Southwest quarter of Section 14, Township 21 North, Range 7 East, Gila & Salt River Base and Meridian, Coconino County, Arizona, more particularly described as follows:

COMMENCING at the Southwest corner of said Section 14, monumented with a USDI/BLM brass cap dated 1981, from which point the West quarter corner of Section 14, monumented with a 3 inch aluminum cap, LS 26406, bears North 01° 35' 29" West, 2720.59 feet (Basis of Bearings for this description);

THENCE North 88° 39' 25" East along the South line of the Southwest quarter of Section 14 and along the North line of the parcels described in Instrument Nos. 3101540 and 3086724, records of Coconino County, Arizona, and along the South line of the parcel described in Instrument No. 3469519, records of Coconino County, Arizona, a distance of 375.60 feet to the Southeast corner of said parcel described in Instrument No. 3469519 and to the Southwest corner of the parcel described as Parcel 1 in Instrument No. 3478120, records of Coconino County, Arizona, monumented with a nail in concrete;

THENCE North 88° 40' 08" East along the South line of the Southwest quarter of Section 14, and along the North line of the parcel described in Instrument No. 3086724, records of Coconino County, Arizona, and along the South line of said Parcel 1 of Instrument No. 3478120, a distance of 123.29 feet to the Northeast corner of said parcel described in Instrument No. 3086724, and to the Northwest corner of the parcel described in Docket 2035, Page 813, records of Coconino County, Arizona, monumented with a ¾ inch iron pipe;

THENCE South 18° 35' 16" East along the East line of said parcel described in Instrument No. 3086724 and along the West line of said parcel described in Docket 2035, Page 813, a distance of 111.28 feet to the Southwest corner of said parcel described in Docket 2035, Page 813 and the Northwest corner of the parcel described in Docket 2072, Page 530, records of Coconino County, Arizona;

Unofficial Document

THENCE South 18° 35' 16" East along the East line of said parcel described in Instrument No. 3086724 and along the West line of said parcel described in Docket 2072, Page 530, a distance of 140.00 feet to the North line of the 105 foot wide right-of-way for Route 66, monumented with a 5/8 inch rebar with aluminum cap marked ARENCO LS 13010;

THENCE North 71° 20' 15" East along the South line of said parcel described in Docket 2072, Page 530, and along the North right-of-way of said Route 66, a distance of 100.50 feet to the Southeast corner of said parcel described in Docket 2072, Page 530 and to the Southwest corner of the parcel described in Docket 1108, Page 138, records of Coconino County, Arizona, monumented with a scribed X in concrete;

THENCE North 71° 20' 15" East, along the South line of said parcel described in Docket 1108, Page 138 and along the North right-of-way line of said Route 66, a distance of 108.53 feet to the Southeast corner of said parcel described in Docket 1108, page 138 and to the Southwest corner of the parcel described as Parcel 3 in said Docket 1827, Page 471, monumented with a scribed X in concrete;

THENCE North 71° 20' 15" East along the south line of said Parcel 3 in Docket 1827, Page 471 and along the South line of the parcel described as Parcel 1 in said Docket 1827, Page 471, and along the North right-of-way line of Route 66, a distance of 126.70 feet to the Southeast corner of said Parcel 1 in said Docket 1827, Page 471 and to the Southwest corner of the parcel described as Parcel 3 in Instrument No. 3227936, records of Coconino County, Arizona;

THENCE North 18° 35' 24" West, along the East line of Parcel 1 in said Docket 1827, Page 471 and along the West line of Parcel 3 in said Instrument No. 3227936, a distance of 300.51 feet to the Northwest corner of said Parcel 3 in Instrument No. 3227936 and to a point on the South line of the parcel described in Instrument No. 3385837, records of Coconino County, Arizona, monumented with a 4 inch by 4 inch concrete post, being the TRUE POINT OF BEGINNING;

THENCE North 80° 01' 56" West, a distance of 55.29 feet to a non-tangent curve whose radius bears South 87° 17' 01" East;

THENCE Northerly along a curve to the right having a radius of 300.43 feet and a central angle of 09° 33' 20", an arc distance of 50.10 feet (chord bearing North 07° 29' 39" East, chord distance 50.05 feet);

THENCE South 80° 01' 56" East, a distance of 30.60 feet to the East line of Parcel 1 in said Docket 1827, Page 471, and to the South line of said parcel described in Instrument No. 3385837;

THENCE South 18° 16' 17" East, along the East line of Parcel 1 in said Docket 1827, Page 471, and along the South line of the parcel described in said Instrument No. 3385837, a distance of 56.75 feet to the TRUE POINT OF BEGINNING.

Unofficial Document

Miramonte at Ponderosa Parkway

Direct to Ordinance

Zoning Map Amendment

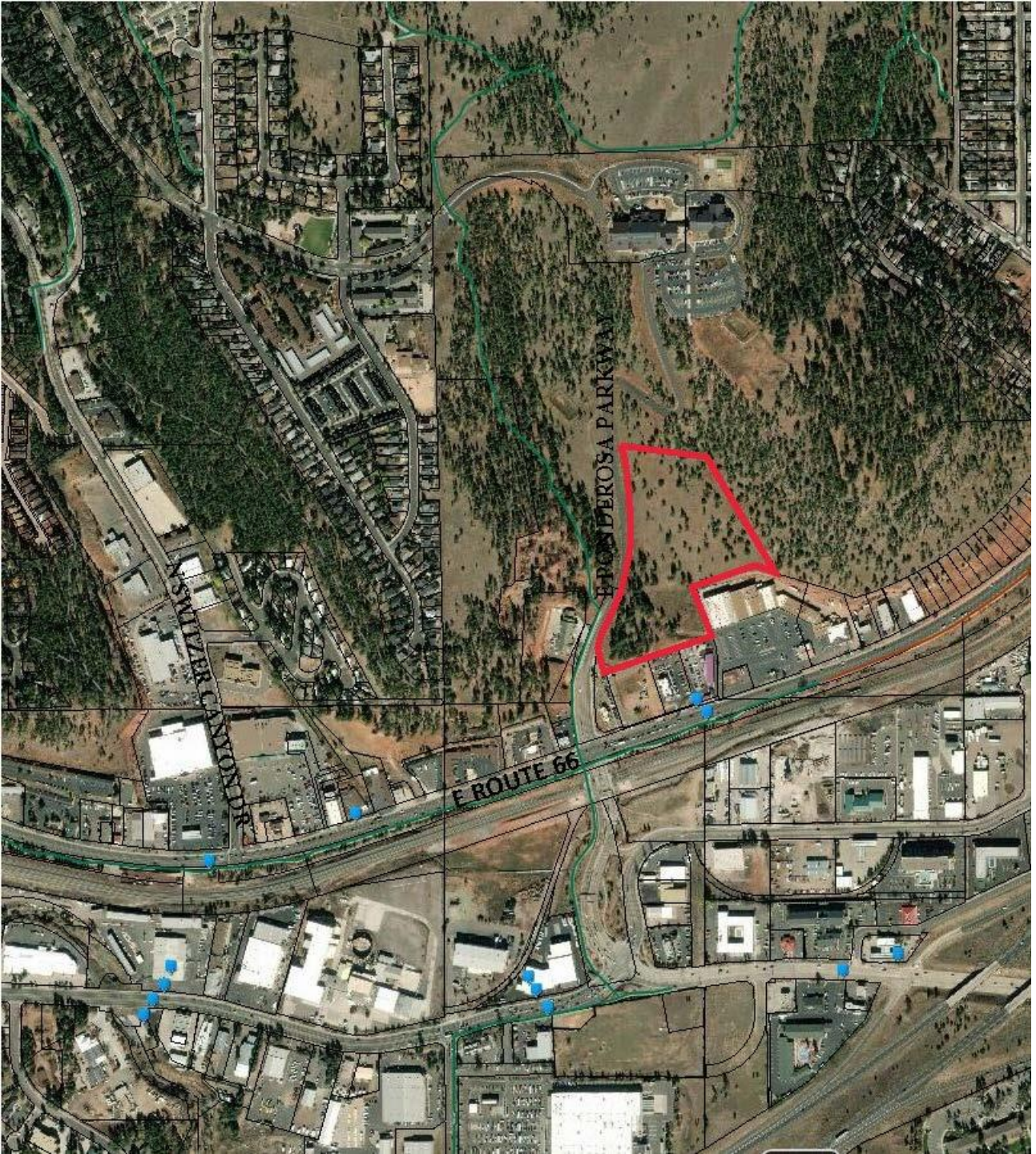
Alaxandra Pucciarelli

Planning Development Manager

CITY OF FLAGSTAFF · ARIZONA · ESTABLISHED 1882 ·

TEAM FLAGSTAFF

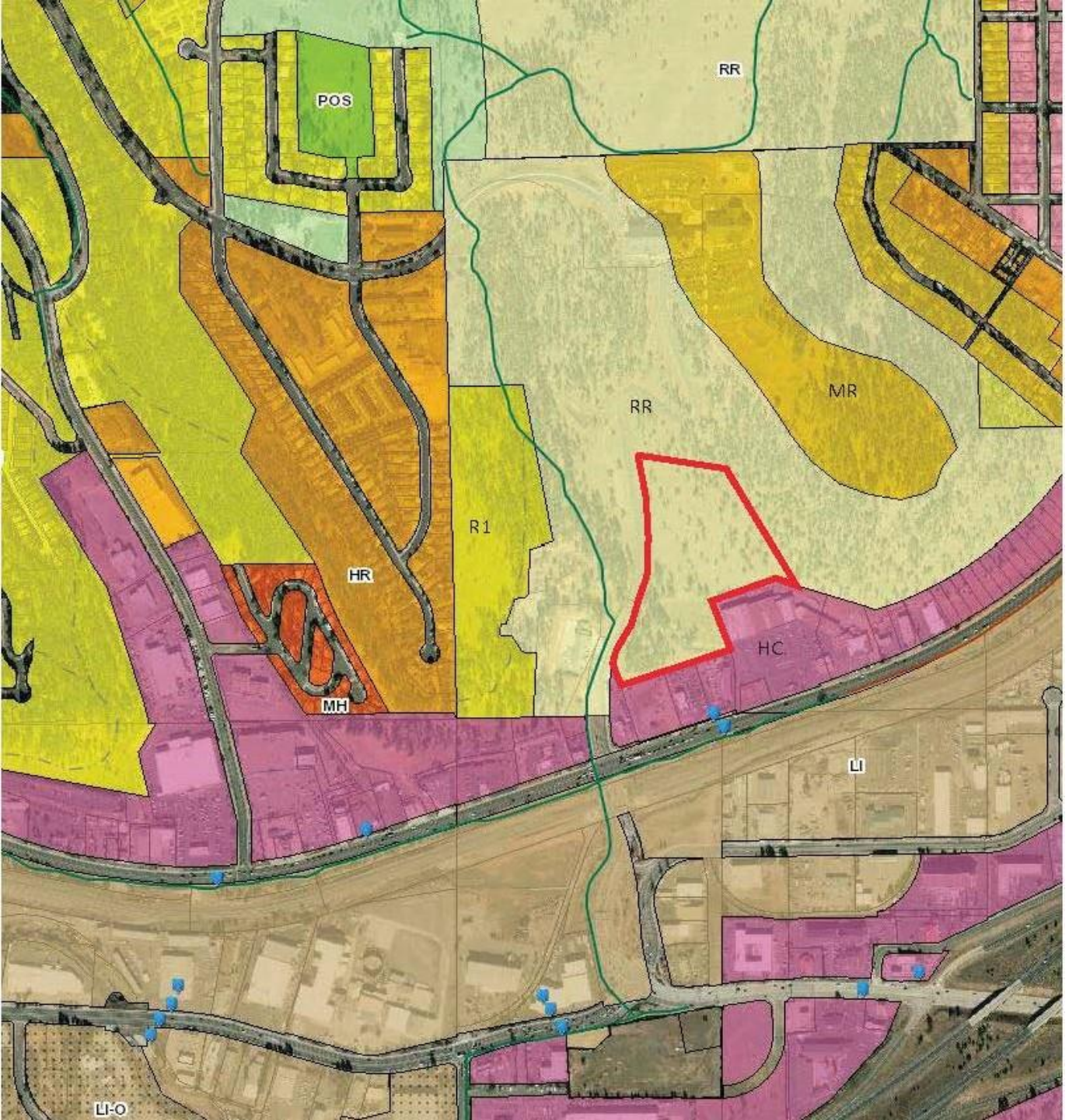
WE MAKE THE CITY BETTER



Vicinity Map

- 11.97 acres undeveloped land

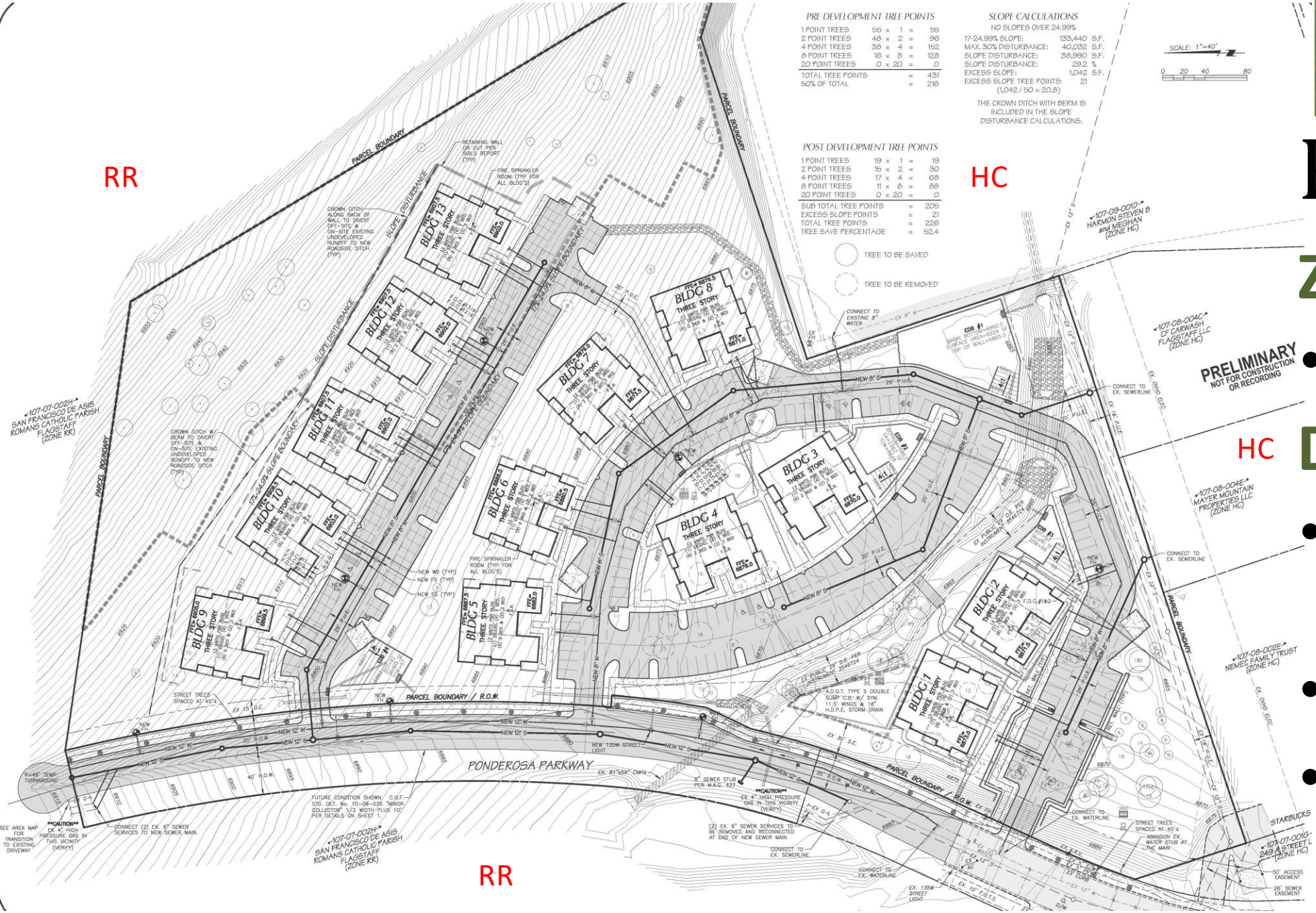
- Catholic Church and School
- Switzer Mesa and Sunnyside neighborhoods
- Starbucks, Culvers, Clean Freak Car Wash
- Fire Station



Area Context Map

- Rural Residential (RR)
- Highway Commercial (HC)

- FUTS trail system
- NAIPTA bus stops



Proposal:

Zoning:

- RR to HR zone

Development:

- 13 three-story buildings
- Parking
- Site Amenities

Proposed Density

Policy:

- HR zone allows 10-22 units per acre in RPO
- Regional Plan supports 13 units per acre in Suburban Activity Center

Proposed:

- 11.97 acres x 13 = 156 units
- Residential Sustainable Building Standards may provide a 25% density bonus = 39 additional units
- 169 total proposed units (195 permitted units)

Density Bonus

Sustainability Standards:

- Water Resource Protection
- Transportation/Air Quality
- Waste Reduction During Construction
- Energy Efficiency



Attainable Housing Units

Attainable Housing:

- 10% min. of units to be sold at or below 100% AMI affordability level
- Unit mix dictated by buyers' preference and construction timing
- Initial sales price at least 25% lower than market rate units
- Deed restriction may terminate



Proposed Unit Mix

Unit Type	Units per Bldg	Total Units	Total Bdrms
Studio	1	13	13
1 Bed/1 Bath	4	52	52
2 Bed/2 Bath	6	78	156
3 Bed/2 Bath	2	26	78
Total	13	169	299

Resource Protection

Tree Resources

- Requires 50% of tree canopy to be saved
- Proposal: 52.4%

Steep Slope Resources

- Requires 70% of slope to be saved
- Proposal: 70.8%



Common Open Space & Civic Space

Common Open Space

- Requires 15% (78,176 sq ft)
- Accessible to the tenants
- Provides 55% (287,130 sq ft)



Common Open Space & Civic Space

Civic Space

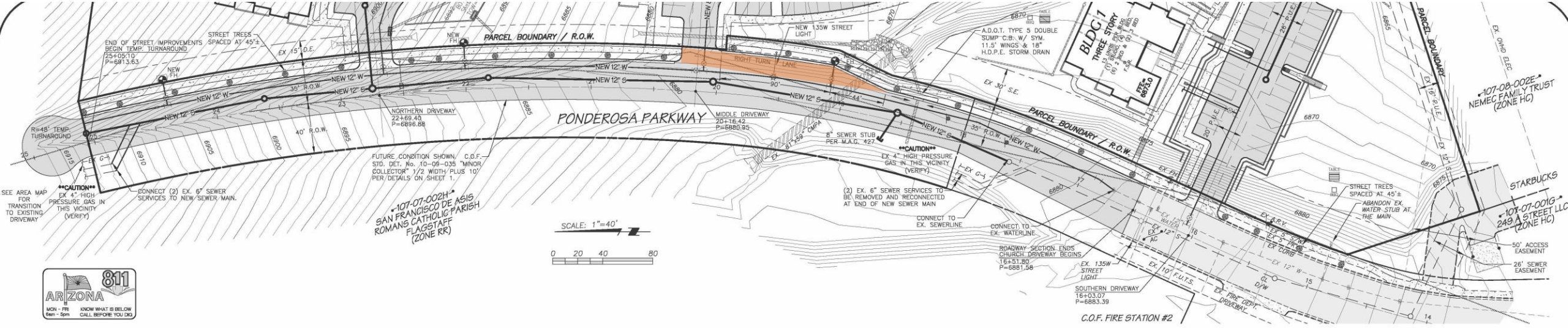
- Requires 5% (26,059 sq ft)
- Must be accessible to the public
- Provides 5.4% (27,990 sq ft)



Public Systems Impact Analysis

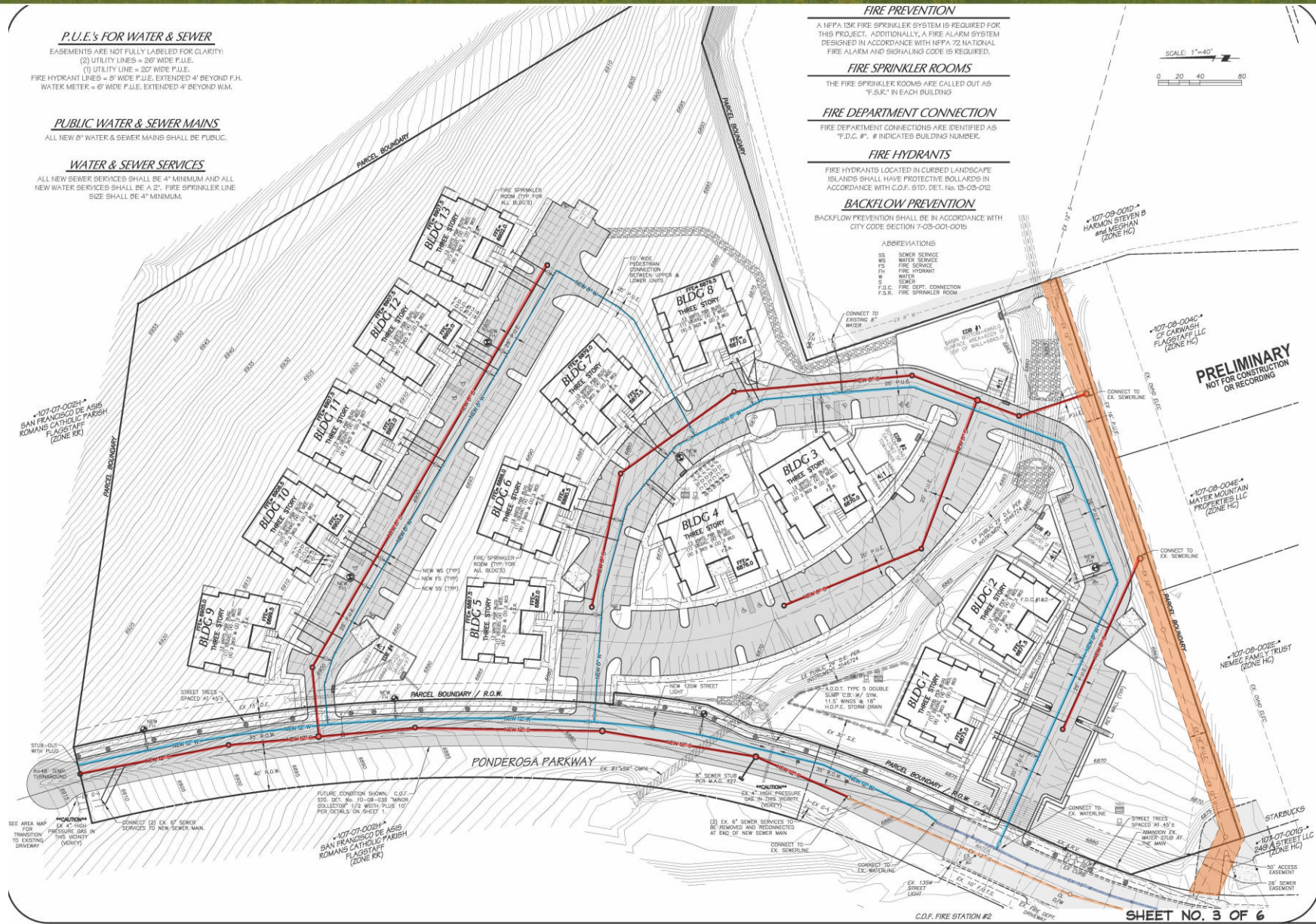
Right Turn Lane

- Required at Middle drive (serves 6 buildings)
- Not Required at South drive (2 buildings) or North drive (5 buildings)



Public Systems Impact Analysis

Public Utilities



Public Systems Impact Analysis

Stormwater

- Site includes 4 Extended Detention Basins (EDB)
- Will infiltrate and meter out Runoff Capture Volume (ROCV)



Findings

Finding #1: Conformance with the General Plan

- Existing Suburban Area and Future Suburban Activity Center
- Integration of open space qualities into built environment
- Area in need of residential units
- Mutual benefit of existing commercial activity
- Connections to alternate modes of transportation

Finding #1: Finding is met

Findings

Finding #2: Community Benefits and Public Good

- Entry level ownership opportunities
- 16 for-sale “Attainable Units”
- Efficient use of commercial and transportation corridors
- Contributes to mixed-use neighborhood
- Required Civic space is amenity to community and protects ponderosa pines

Finding #2: Finding is met

Findings

Finding #3: Site is Physically Suitable

- Meets applicable codes and requirements
- Mitigates any impacts determined by impact analyses

Finding #3: Finding is met

Development Agreement

Purpose of the agreement:

- Administration of the “Attainable Housing” units
- Sustainability Bonus requirements

Citizen Participation

Neighborhood Meeting

- May 1, 2019
  - 10 individuals attended
- The requirement for a second meeting was waived by the Planning Director

Recommendation

Staff recommends the Commission, in accordance with the findings presented, forward the Direct to Ordinance Zoning Map Amendment request to the City Council with a recommendation for approval of case PZ-17-00227-03, subject to the following four conditions, which will be included into the zoning map amendment ordinance:

1) The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 28, 2019. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.

2) All other requirements of the Zoning Code and other City codes, ordinances and regulations, shall be met by the proposed development.

3) All terms, conditions, and restrictions detailed within the "Development Agreement Miramonte at Ponderosa Parkway Condominiums" must be fully satisfied.

4) In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classifications of Rural Residential (RR) and Estate Residential (ER) in accordance with A.R.S. § 9-462.01.

PLANNING AND DEVELOPMENT SERVICES REPORT
DIRECT TO ORDINANCE ZONING MAP AMENDMENT

PUBLIC HEARING
PZ-17-00227-03

DATE: August 02, 2019
MEETING DATE: August 14, 2019
REPORT BY: Alaxandra Pucciarelli

REQUEST:
Direct to Ordinance Zoning Map Amendment, by Miramonte Arizona, LLC, of approximately 11.97 acres located at 1650 East Ponderosa Parkway from the Rural Residential (RR) zone to the High Density Residential (HR) zone. The development site is located within the Resource Protection Overlay (RPO).

STAFF RECOMMENDATION:
Staff recommends the Planning and Zoning Commission, in accordance with the findings presented in this report, forward the Direct to Ordinance Zoning Map Amendment request to the City Council with a recommendation for approval.

PRESENT LAND USE:
The subject property is approximately 11.97 acres of undeveloped land. The parcel is currently owned by Ponderosa Parkway, LLC.

PROPOSED LAND USE:
The developer proposes the construction of 169 multi-family residential condominium units built in 13 three-story buildings consisting of 13 units each. The development will include 10% "attainable" for-sale units. The site contains the required civic space, common open space, protected tree and slope resources, and on-site surface parking.

NEIGHBORHOOD DEVELOPMENT:
See the attached area context map.

North: San Francisco de Asis Church zoned Rural Residential (RR) and Medium Density Residential (MR)
East: Village Shopping Center zoned Highway Commercial (HC)
South: Commercial uses (including Starbucks, Culvers, and Clean Freak Car Wash) zoned Highway Commercial (HC)
West: City of Flagstaff Fire Station zoned Rural Residential (RR)

I. Project Introduction

A. Background

The applicant is proposing to amend the City of Flagstaff's Rural Residential (RR) zone for an 11.97-acre parcel to High Density Residential (HR) zone. The parcel is located on East Ponderosa Parkway, just north of Route 66, behind the existing commercial development. The proposed development will consist of 169 multi-family residential for-sale units, constructed as 13 three-story buildings. Each building will consist of 13 units ranging from 500 to 1,300 square feet in size. The remainder of the parcel will be common area regulated by the homeowners' association and the property manager. These areas include tree and steep slope resources, common open space amenities, private access easements, drainage, stormwater detention facilities, and civic space.

B. Proposed Rezoning and Development Plan

The applicant, Miramonte Arizona, LLC, is requesting rezoning approval to permit the development of for-sale condominiums consisting of 169 units. The 13 three-story buildings contain 13 units each, ranging from one to three-bedroom units. The unit mix includes the following:

UNIT DESCRIPTION	NO. OF UNITS PER BLDG.	NO. OF UNITS TOTAL
Studio	1	13
1 Bed/1 Bath	4	52

2 Bed/2 Bath	6	78
3 Bed/2 Bath	2	26
	13	169

The minimum density requirement in the HR zone is 10 units per acre and the maximum density allowed is 22 units per acre (within the RPO). However, the site is located within a Suburban Activity Center which supports a maximum density of 13 units per acre. Based on the entire project area (11.97 acres) the Regional Plan supports a total 156 units. The applicant has committed to meeting the City's Residential Sustainable Building Standards. In return for 100% of the units meeting HERS 50 Standard, the applicant may have up to a 25% bonus. This bonus results in an additional 39 units allowed for a total of 195 units, although the proposal is for only 169 units.

The HR zone permits a maximum building height of 60 feet, or 65 feet for buildings with roofs with a pitch greater than 6:12. However the Regional Plan limits building height in a suburban area to three-stories. The highest roofline of the proposed three-story buildings will be just under 48 feet from finished grade.

II. Staff Site Plan Review

On May 28, 2019, the Inter-Department Staff (IDS) approved an application for Site Plan Review of the proposed development subject to successfully obtaining a Direct to Ordinance Zoning Map Amendment (rezoning). A copy of the application is attached to this report.

A. Zoning – City of Flagstaff Zoning Code

If this Direct to Ordinance Zoning Map Amendment request is approved, approximately 11.97 acres will be rezoned to the High Density Residential (HR) zone. Development of the site will be conditioned to the approved site plan and a final development agreement. Any substantial change to the approved site plan would require a new rezoning request and further review and approvals by the Planning and Zoning Commission and City Council. The Site Plan provided includes a preliminary grading plan, preliminary utility plan, resource protection plan, building floor plans and elevations, exterior lighting plan, and preliminary landscaping plan.

i. Site Planning Standards

In accordance with Section 10-30.60.030 of the Zoning Code a site analysis was completed in conjunction with the concept plan for this project that examines the topography of the site, solar orientation, existing/native vegetation types, view corridors, climate, subsurface conditions, drainage swales and stream corridor, and the built environment and land use context.

ii. Resource Protection

There is a Resource Protection Overlay zone on the subject site. The Zoning Code requires 50% of the tree resources to be saved. The developer proposes to save 52.4% of the existing tree resources. In addition to saving trees throughout the site, the site plan shows clusters of trees to be saved at the southern end of the site and along the natural drainage channel. At the northern portion of the site, there is steep slopes that must be protected. The Zoning Code requires 70% of the slope area to be protected. The proposed development protects 70.8% of the slope resources.

iii. Open Space & Civic Space

The HR zone requires 15% of the gross lot area to be Common Open Space (Table 10-40-30.030.A). A minimum of 78,176 square feet of open space is required for the proposed residential project. The applicant is proposing 287,130 square feet of common open space, which is 55% of the site area. Most of the open space is positioned at the northern portion of the site, where the protected steep slope is located.

Section 10-30.60.060.B.1.b of the Zoning Code requires developments with 50 or more dwelling units to provide a minimum of 5% of the site as Civic Space. This space must be accessible to the general public. A

total of 26,059 square feet of civic space is required for this project. The site plan identifies a total of 27,990 square feet of civic space within the residential development, which is 5.4% of the site area. The civic space is divided into three locations on the site. All three include a picnic table and BBQ. The largest area is located at the south corner of the parcel, where the existing ponderosa pines trees will be preserved. This space also serves to buffer the commercial uses from the proposed residential use.

iv. Pedestrian and Bicycle Circulation Systems

The applicant will be installing a 5-foot-wide parkway and 5-foot wide sidewalk along the east side of Ponderosa Parkway. On site, the applicant has proposed sidewalks connecting the buildings, parking areas, the public sidewalks, and the recreational areas. Each building provides bike racks, and the existing FUTS on the west side of Ponderosa Parkway continues into an extensive trail system on McMillian Mesa and ties into Buffalo Park.

v. Compatibility and Architectural Design Standards

Compatibility does not mean "the same as" but rather it refers to how well a new development is sensitive to the character of existing development. The Zoning Code breaks down compatibility into three categories: Patterns of Development, Scale, and Continuity.

Patterns of Development include streetscapes, site relationships, signage, and landscape features. The buildings located along the street frontage have direct pedestrian ties into the public sidewalk. As the development continues up the hillside, the buildings step with the existing topography.

Scale refers to similar or harmonious proportions, overall height and width, the visual intensity of the development, and the building massing. The development breaks up its mass into separate structures that step up the hillside.

Continuity encompasses patterns of development and scale, but also site development, building forms, texture, materials, details, and colors. As further discussed in the Community Character review under the Regional Plan, the building exteriors are in a style compatible with the Flagstaff area. The exterior colors will complement the natural surroundings including utilizing native materials such as malpais stone veneer. The preservation of native pines in and around the buildings adds to the quintessential natural Flagstaff look.

vi. Landscaping

Landscaping plans are not required in conjunction with a Direct to Ordinance Zoning Map Amendment. The applicant provided a conceptual landscaping plan, showing all landscape areas and tree locations. The conceptual plan generally meets the requirements of parking lot landscaping, street buffer landscaping, building foundation, and peripheral buffer landscaping found within Section 10-50.60 of the Zoning Code.

vii. Outdoor Lighting

The subject property is located within Lighting Zone II and is allowed a total of 50,000 lumens per acre. Outdoor lighting plans are not required in conjunction with a Direct to Ordinance Zoning Map Amendment. The developer provided a conceptual outdoor lighting plan. A final lighting plan will be reviewed for compliance at the time of building permit submittal.

viii. Parking

Based on the requirements for market rate units, 302 spaces are required. Guest parking requires an additional 26 parking spaces. This results in 328 total required parking spaces. Since the development is located within a quarter mile of a bus stop, the applicant has taken a 10% reduction in the number of required spaces. By both providing bike racks and protecting resource trees in the parking area there is an additional reduction of 10% allowed. These reductions result in the requirement for 262 parking spaces. The proposed development includes

273 surface parking spaces, including 8 ADA accessible parking stalls. There are also 7 motorcycle parking spaces.

ix. Historic/Cultural Resources

A Cultural Resource Letter Report was completed for the subject property on February 12, 2019. The report states that no archaeological or historic resources of any kind were observed on the property.

B. Public Systems Impact Analysis

i. Traffic/Right-of-Way Impact

The size of this proposed development does not trigger a full Traffic Impact Analysis. In this case, an analysis was required to determine if the access driveways met warrants for a right turn deceleration lane. The analysis showed that the middle driveway, which serves the greatest number of units, required a right turn lane, as shown on the site plan.

ii. Water and Wastewater Impact

A Water and Sewer Impact Analysis (WSIA) was completed by the City on November 30, 2018. The proposed development is located within the City of Flagstaff urban growth boundary and can be served by City water and sewer utilities. Currently there is no infrastructure in the ground on-site to support this development, so all on-site sewer and water systems will have to be designed and built. No off-site water or sewer improvements will be required. It is the developer's responsibility to design and construct all on-site and connecting water infrastructure per the City of Flagstaff Engineering Standards.

Water

The existing 12" water main stops just north of the project's first driveway. The applicant plans to extend the 12" water main across the entire frontage. Extending the waterline in the right-of-way shall be done according to City of Flagstaff Standards.

Wastewater

There is an existing 12" sewer line running within a public utility easement along the southern boundary that will serve this project. The developer also plans to extend the existing 12" sewer line along the Ponderosa Parkway frontage. Tapping the sewer line in the easement and constructing the sewer in the right-of-way shall be done according to City of Flagstaff Standards.

iii. Stormwater Analysis

The project's overarching drainage concept is to provide peak flow stormwater discharge mitigation (detention), partial stormwater runoff volume mitigation (LID ROCV) and improvement to the water quality of site discharges (LID) and onsite stormwater conveyance improvements. Development of the site will meet the peak flow mitigation, total volume mitigation and water quality requirements through the use of surface water storage systems classified as extended detention basins (EDB), which consist of a detention and a retention storage capacity as well as filtration components. As part of the rezoning request a Drainage Impact Analysis (DIA) is required. The intent is to determine any potential adverse downstream drainage impacts and to identify mitigation options. The project is providing on-site volume mitigation required by the DIA to remove any volumetric increases in stormwater runoff from the site. The total volume of stormwater runoff discharged from the site will be mitigated by the retention volume provided within aforementioned EDB's. Water quality improvements consisting of sediment capture components will be incorporated with the use of Low Impact Development (LID) Integrated Management Practices (IMPs) including sediment traps at inlets to any surface storage systems, and filtration system located within the EBDs. The project will provide the attenuation required to reduce the post development peak runoff to the pre-development rates for the 10-year and 100-year storms.

Per these requirements the developer will mitigate the potential for downstream impacts. Based on the proposed site mitigation measures, the project will not have any additional impacts to the downstream drainage conditions.

C. Residential Sustainable Building Standards

To obtain up to a possible 25% density bonus, this project is meeting the standards listed in Section 10-30.70.040. There are four sections which must be met: 1) Water Resource Protection, 2) Transportation/Air Quality, 3) Waste Reduction During Construction, and 4) Energy Efficiency.

To meet the Water Resource Protection requirement, the landscape design for the development shall not include an oasis zone (hydrozone 1) as otherwise permitted in Section 10-50.60.050(C), Oasis Allowance, and Section 10-50.60.060, Hydrozones. The Transportation/Air Quality requirements are achieved because the development site is located within at least one-quarter mile of a bus stop. In addition, the development is located within at least one-quarter mile of a FUTS trail. The applicant is also considering providing for electric vehicle charging. To achieve the Waste Reduction During Construction requirements, the new development shall have a written solid waste program that includes a plan for the recycling or reuse of all paper, cardboard, plastics, and metals; a plan for the recycling or reuse of all lumber scraps so that they are diverted from the landfill; and a plan for the diversion of all masonry and cementitious materials so that they are diverted from the landfill. The Energy Efficiency component is achieved by applying the HERS rating system. The applicant shall obtain independent third-party verification that the minimum HERS rating has been achieved.

III. Direct to Ordinance Zoning Map Amendment

An application for a Direct to Ordinance Zoning Map Amendment shall be submitted to the Planning Director and shall be reviewed and a recommendation prepared. The Planning Director's recommendation shall be transmitted to the Planning and Zoning Commission in the form of a staff report prior to a scheduled public hearing. The recommendation shall include: an evaluation of the consistency and conformance of the proposed amendment with the goals and policies of the General Plan and any applicable specific plans; the grounds for the recommendation based on the standards and purposes of the zones set forth in Section 10-40.20 (Establishment of Zones) of the Zoning Code; and, whether the amendment should be granted, granted with conditions to mitigate anticipated impacts caused by the proposed development, or denied.

Direct to Ordinance Zoning Map Amendments shall be evaluated based on the following findings:

A. Finding #1:

The proposed amendment must be found to be consistent with and in conformance with the goals and policies of the General Plan and any applicable specific plans. If the application is not consistent with the General Plan, and any other applicable specific plan, the applicable plan must be amended in compliance with the procedures established in Chapter 11-10 of the City Code (Title 11: General Plans and Subdivisions) prior to considering the proposed amendment.

i. General Plan/Flagstaff Regional Plan (FRP 2030) Process and Analysis Summary

When staff performs a Regional Plan (the "Plan") analysis, staff reviews all maps, text, and goals and policies to determine which are the most relevant in relation to the proposed application. The Plan's Future Growth Illustration on Maps 21 and 22 (same map; one is regional scale and one city scale) and the text of the Plan provide supplemental information for the interpretation of goals and policies. In the case of any conflict between the Future Growth Illustration and the Plan's goals and policies, the goals and policies will prevail. The Future Growth Illustration has two types of land use designations: "Area Types" describe the place-making context of Urban, Suburban, Rural, or Employment, and "Place Types" such as activity centers, corridors, and neighborhoods which provide the framework for the density, intensities, and mix of uses within the area types.

Staff has identified that the subject property is designated as Existing Suburban and is located within a Future Suburban Activity Center on the Plan's Future Growth Illustration. A Suburban Activity Center is an area typically located at the intersection of two collectors or neighborhood streets, with vertical or horizontal mixed use, serving the surrounding neighborhoods. The City's desired Suburban Activity Centers Characteristics include a density of 6-13 units per acre for residential only developments.

ii. <u>Applicable General Plan Goals and Policies</u>

As part of its review, staff identified relevant Regional Plan Goals and Policies that could be applied to support or not support the proposed Zoning Map Amendment. These goals and policies are located within the applicant's narrative. The following is a discussion of how the project generally meets or conflicts with goals and policies in each chapter.

a. Environmental Planning & Conservation (Air Quality, Climate Change and Adaptation, Dark Skies, Ecosystem Health, Environmentally Sensitive Lands, Natural Quiet, Soils, and Wildlife)

The parcel consists of native ponderosa pine trees, slope resources, and a waterway which will be preserved. A stand of ponderosa pine trees is located off Ponderosa Parkway near the retail businesses. This stand of trees will be preserved which serves to buffer the commercial uses from the residential, provide patrons of the commercial business with a visually appealing natural environment, and provide native habitat for wildlife. Policy OS.1.5 encourages the integration of open space qualities into the built environment. The project breaks up the mass of the development, steeps the design to work with the topography, and protects trees throughout the site.

b. Water Resources (Water Sources, Water Demand, Stormwater and Watershed Management, and Water Quality)

As shown on Map 21, and referenced in Policy WR.4.3. "Development requiring public utility services will be located within the Urban Growth Boundary," the Property is located within the Urban Growth Boundary. There is existing water infrastructure in Ponderosa Parkway and existing sewer adjacent to the site that can support the proposed project. There are no off-site improvements required for sewer or water service. The proposed development complies with the findings of the Drainage Impact Analysis discussed in the Public Systems Impact Analysis section of this report.

In addition, the existing waterway across the southeastern portion of the property will be maintained, as well as the majority of existing trees growing along side it. Policy WR.5.1 encourages development to preserve and restore existing natural watercourse corridors.

c. Efficient Use of Energy Goals and Policies

The Regional Plan Policy E.1.4 promotes cost-effective, energy-efficient technologies and design in all new buildings for residential construction. The project proposes to include several design features that help increase energy efficiency as listed in the developer's narrative. In addition, the applicant has committed to meeting, and in some cases exceeding, the Residential Sustainable Building Standards required by the code to receive a density bonus.

d. Community Character (Scenic Resources and Natural Setting, Heritage Preservation, Community Design, and Arts, Sciences and Education)

Although the Project will be located on a hillside, it is set back behind a row of commercial uses. The buildings will be three-stories tall but will not be built on the top of the slope. This should keep the buildings from protruding above the top of hill and interfering with view corridors of surrounding residential properties as encouraged in Policy CC.1.1. The building exteriors are in a style compatible with the Flagstaff area. Exterior colors will complement the natural surroundings including utilizing native materials such as malpais stone

veneer. The homeowners' association will be tasked with ensuring the Project remains well maintained and visually appealing. As discussed above, the preservation of native pines in and around the buildings adds to the quintessential natural Flagstaff look. Policy CC.1.2. states that development should continue to define and further develop the community character by incorporating the natural setting into the built environment at all design scales.

e. Growth Areas & Land Use (Reinvestment, Greenfield, Urban Area, Suburban Area, Rural Area, Employment Area, Special Planning Area, and Activity Centers)

The Project is located within an area identified as an activity center which includes an older strip mall and four newer commercial properties along Route 66. An influx of residents to this area, in walking/biking/bus distance will continue to spur development of the current businesses and increase employment opportunities. Sidewalks, trails, bike paths, and permanent bus routes are already in place for connectivity from the Project to nearby retail and commercial businesses. The Project itself is designed to provide pedestrian flow and access to the adjacent commercial area. Because the Project meets many of the redevelopment goals, the FRP30 supports flexibility and a rezoning of the parcel to encourage a project with higher densities such as the one proposed. The rezoning would bring more residents into the area for the mutual benefit of the preexisting commercial activity. A more concentrated residential use in this area lessens the need for development towards the peripheral of the urban growth boundary. To the extent the development consists of new construction on a vacant lot, the project meets multiple FRP30 greenfield policies. The multi-family units range from studio to 3-bedroom. The applicant has committed to provide 16 "Attainable Housing Units." These units will be disbursed throughout the development to the greatest extent feasible (with no exterior difference between the attainable and market rate units). The units will be sold at or below 100% of of the Area Median Income ("AMI") affordability level.

The Ponderosa Parkway/ Route 66 area has been clearly designated as a future activity center. FRP30 and Flagstaff's High Occupancy Housing Specific Plan acknowledge that activity centers are the most appropriate locations for high density residential development. The visual appearance of the project was designed to be compatible with the natural setting and surrounding area. Given the hilly topography in the activity center, the location of the commercial development strung along the corridor, and real estate available for residential construction, a mixed-use project on this parcel would be geographically isolated. Instead of mixing uses on a single parcel, the project provides a residential component to compliment the more disbursed commercial and recreational uses nearby. The immediate connectivity to alternative transportation and major roadways, ties these uses together to create an activity center that blends the pre-existing with the new in a way that suites the location. In this location, this mix of uses across parcels is fitting. The increase in vehicular traffic resulting from an increased density to the project location will not infringe on nearby residential areas. The only vehicular access to the project is from Route 66 onto Ponderosa Parkway. Beyond that, Ponderosa Parkway terminates on private church property without a public outlet to the McMillan Mesa area. Both roadways and public portion of Ponderosa Parkway are built out to accommodate high volumes of traffic and the City fire station. In addition, the project will have three entrances off Ponderosa Parkway, the second entrance from Route 66 includes a right turn lane. The entrances provide good flow within the development and accommodates Ponderosa Parkway peak flow times.

This project can foster the planned growth in the activity center in a manner compatible with many goals and policies of the FRP30, including Goal LU.18. Develop well designed activity centers and corridors with a variety of employment, business, shopping, civic engagement, cultural opportunities, and residential choices and Policy LU.18.4. Encourage developers to provide activity centers and corridors with housing of various types and price points, especially attached and multifamily housing.

f. Transportation (Mobility and Access, Safe and Efficient Multimodal Transportation, Environmental

Considerations, Quality Design, Pedestrian Infrastructure, Bicycle Infrastructure, Transit, Automobile, Passenger Rail and Rail Freight, Air Travel, and Public Support for Transportation)
The location of project meets FRP30 goals by tying into current existing energy efficient alternative transportation systems, namely the Flagstaff Urban Trail System (FUTS), bus routes for NAIPTA (Northern Arizona Intergovernmental Public Transportation Authority), and roadways with bike lanes or shoulders within the pedestrian shed. One NAIPTA bus stop is located near the project while additional stops on two other bus routes are located within a reasonable walking distance giving bus riders access to multiple routes with minimal transfers. The developer and NAIPTA are exploring participation in NAIPTA's EcoPass program so the homeowners' association can provide bus passes to residents thereby encouraging bus ridership and supporting NAIPTA. The Ponderosa Parkway and Route 66 intersection has traffic lights and crosswalks for a safe pedestrian crossing. Residents can take advantage of these modes of transportation to access employment and recreation. The FUTS trail overlaps the Arizona Trail near the project which also leads to McMillian Mesa and the trail system at Buffalo Park. The Project proposes 5 bike racks for each building to accommodate over 60 bikes throughout the development. Because the Project is centrally located near a railroad crossing, residents will have easy access to other parts of town by way of the Butler Road corridor and I-40 in addition to Route 66.

g. Neighborhoods, Housing, and Urban Conservation
Rezoning to a higher density is appropriate given the zoning and uses surrounding the parcel. Approximately one-third of the parcel is framed by Highway Commercial (HC) zoning, primarily built out as retail with separate access points. The commercial and residential uses will not share a driveway. A higher density development would be mutually beneficial to these commercial neighbors. Another third of the parcel abuts Ponderosa Parkway. The land on the west side of Ponderosa Parkway is zoned Rural Residential (RR), but includes a City fire station. The remainder of the parcel is lined with RR zoning that is currently vacant. However, the natural features of the area limit feasible construction. The slope on a portion of the parcel serves as a buffer between the lower density property adjacent to parcel and the proposed higher density. Although later residential construction may fill in around the parcel, the proposed higher density is effectively insulated.

h. Economic Development
The Project's contribution to the Suburban Activity Center and redevelopment of a mixed-use neighborhood are discussed above. The project helps achieve Goal ED.8: to promote the continued physical and economic viability of the region's commercial districts by focusing investment on existing and new activity centers.

B. <u>Finding #2</u>
To meet the finding the proposed amendment must be determined not to be detrimental to the public interest, health, safety, convenience, or welfare of the City of Flagstaff (the "City"); and will add to the public good as described in the General Plan.

The applicant identifies this project as a multi-family development which provides entry-level ownership opportunities and much needed "Attainable Housing" for moderate income residents. The project includes 16 for-sale housing units for up to 100% area median income (AMI). The proposed project facilitates efficient use of the current commercial and transportation corridors and contributes to the growth of a preexisting mixed-use neighborhood. The required civic space also provides an amenity to the community and protects a cluster of existing ponderosa pines adjacent to the existing commercial development to the south.

C. <u>Finding #3</u>
To meet the finding the affected site must be determined to be physically suitable in terms of design, location, shape, size, operating characteristics; and the provision of public and emergency vehicle access, public services, and utilities to ensure that the requested zone designation and the proposed or anticipated uses and/or development will not endanger,

jeopardize, or otherwise constitute a hazard to the property or improvements in the vicinity in which the property is located.

Staff believes that the proposed application meets this finding. The Inter-Division Staff reviewed the application and concluded that the site was suitable for the proposed development. The IDS team based its conclusion on the review of all applicable codes and requirements as well as impact analysis for the site. Any potential impacts were mitigated by the applicant and no off-site improvements are required to serve this development.

IV. DEVELOPMENT AGREEMENT

A draft development agreement, attached to this report, has been prepared and continues to be negotiated throughout the review of this project. The primary purpose of this agreement is to set out roles and responsibilities in regard to the administration of the Attainable Housing units and the Residential Sustainable Building Standards.

V. CITIZEN PARTICIPATION

Public hearings before the Planning and Zoning Commission and City Council are conducted in conjunction with requests for Direct to Ordinance Zoning Map Amendments. In accordance with State Statute, notice of the public hearing was provided by placing an ad in the Daily Sun, posting notices on the property, and mailing a notice to all property owners within 1,000 feet (exceeding the minimum of 300 feet) of the site excluding rights-of-way.

The applicant held one neighborhood meeting regarding this case on May 1, 2019 at 5:30 pm. The meeting was held at the Flagstaff Aquaplex, located at 1702 North Fourth Street in Flagstaff. Per the sign-in sheets, ten (10) individuals attended the meeting. A Neighborhood Meeting Report, attached, was prepared in response to the questions, comments and concerns presented. The meeting began with an introduction of the proposed development by the Applicant, with an overview of the development's components and design. In a charrette-style interaction, the Applicant encouraged attendees' written contribution of any comments or concerns about the proposed development, which were then discussed with the group.

The applicant requested to waive the requirement for a second meeting. This request was approved by the Planning Director.

No letters or emails from the public has been received as of the writing of this report.

RECOMMENDATION:

Staff recommends the Planning and Zoning Commission, in accordance with the findings presented in this report, forward the Direct to Ordinance Zoning Map Amendment request to the City Council with a recommendation for approval of case PZ-17-00227-03, subject to the following four conditions which will be included into the zoning map amendment ordinance:

1. The subject property must be developed in accordance with the approved site plan and the conditions of approval dated May 28, 2019. Modifications (other than minor modifications) to the approved site plan will require an amendment to this Direct to Ordinance Zoning Map Amendment request.
2. All other requirements of the Zoning Code and other City codes, ordinances and regulations, shall be met by the proposed development.
3. All terms, conditions, and restrictions detailed within the "Development Agreement Miramonte at Ponderosa Parkway Condominiums" must be fully satisfied.
4. In the event the property is rezoned and the Developer fails to obtain final Civil Plan approval within two (2) years of the effective date of the rezoning ordinance, then the City may schedule a public hearing before the City Council for the purpose of causing the zoning on the Property to revert to the former classifications of Rural Residential (RR) in accordance with A.R.S. § 9-462.01.

Attachments:

- Application
- Area Context Map
- Legal Notice
- Project Narrative
- Regional Plan 2030 Analysis
- Citizen Participation Plan and Meeting Report
- Draft Development Agreement
- NAIPTA correspondence and draft agreement
- Approved Site Plans

RECEIVED
MAY 16 2019

City of Flagstaff — Community Development Division

211 W. Aspen Ave
Flagstaff, AZ 86001
www.flagstaff.az.gov
P: (928) 213-2618
F: (928) 213-2609

RECEIVED
FEB 21 2019

PREZ/PGM

Application for Zoning Map Amendment and/or Minor Regional Plan Amendment

Date Received	File Number
JAN 22 2019	PZ-17-00227-03

Property Owner(s)	Title	Phone	Email
Ponderosa Parkway, LLC	Owner		jkemmerly@miramontehomes.com
Mailing Address			**City, State, Zip**
4578 N. 1st Ave, Ste 160			Tucson, Az 85750
Applicant(s)	**Title**	**Phone**	**Email**
Miramonte Arizona, LLC	Developer	520-237-6116	jkemmerly@miramontehomes.com
Mailing Address			**City, State, Zip**
102 S. Mikes Pike St			Flagstaff, Arizona 86001
Project Representative)	**Title**	**Phone**	**Email**
Jack Kemmerly	VP of Land Development	520-237-6116	jkemmerly@miramontehomes.com
Mailing Address			**City, State, Zip**
102 S. Mikes Pike St			Flagstaff, Arizona 86001

Requested Review ☒ Zoning Map Amendment ☐ Minor Regional Plan Amendment ☐ Continued

Site Address	Parcel Number(s)	Subdivision, Tract & Lot Number
1650 E. Ponderosa Parkway	107-07-002-E	
Existing Zoning District	**Proposed Zoning District:**	**Existing Regional Plan Land Use Category**
Rural Residential	High Density Residential (HR)	Suburban Activity Center
Existing Use	**Proposed Use**	
Vacant	Multi-Family Residential	

Property Information:
- ☐ Yes ☒ No Located in an existing Local/National Historic District? (Name: _____)
- ☐ Yes ☒ No Existing structures are over 50 years old at the time of application?
- ☒ Yes ☐ No Subject property is undeveloped land?

Requested Urban Growth Boundary Change (If Applicable)	Proposed Regional Plan Land Use Category
	(same) Suburban Activity Center

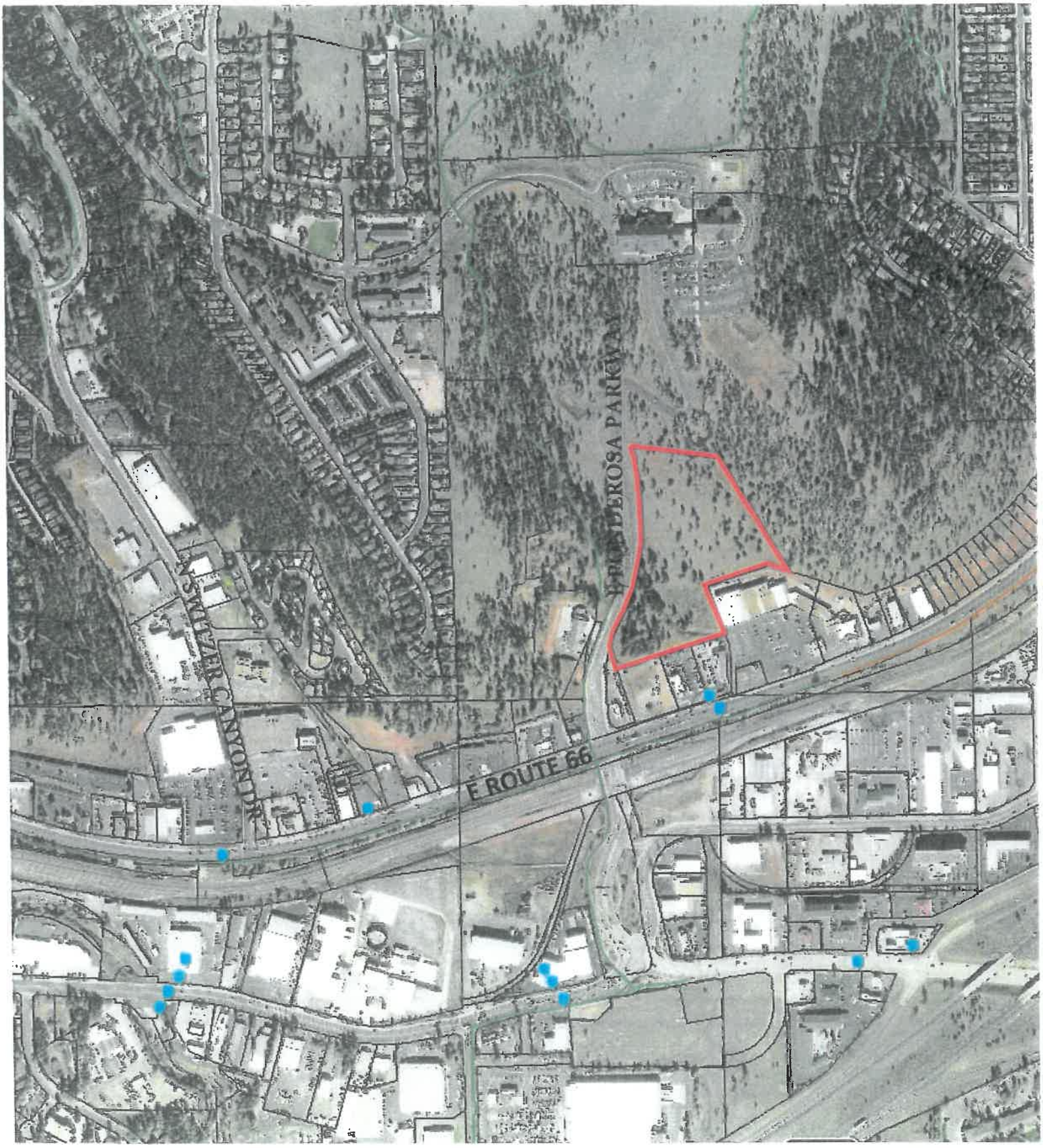
Property Owner Signature(required)	Date:	Applicant Signature	Date:
	1/22/19		1/22/19

For City Use

Date Filed:	File Number(s):		Type of Zoning Map Amendment:
P & Z Hearing Date:	Publication and Posting Date:		☐ Small scale
Council Hearing Date:	Publication and Posting Date:		☐ Medium scale
Fee Receipt Number: 1903838	Amount:	Date:	☐ Large scale
			☐ Multi-phase scale

Action by Planning and Zoning Commission:	Action by City Council:
☐ Approved	☐ Approved
☐ Denied	☐ Denied
☐ Continued	☐ Continued

Staff Assignments	Planning	Engineering	Fire	Public Works/Utilities	Stormwater
	Max	Dana	Kent	Scott Kim	Doug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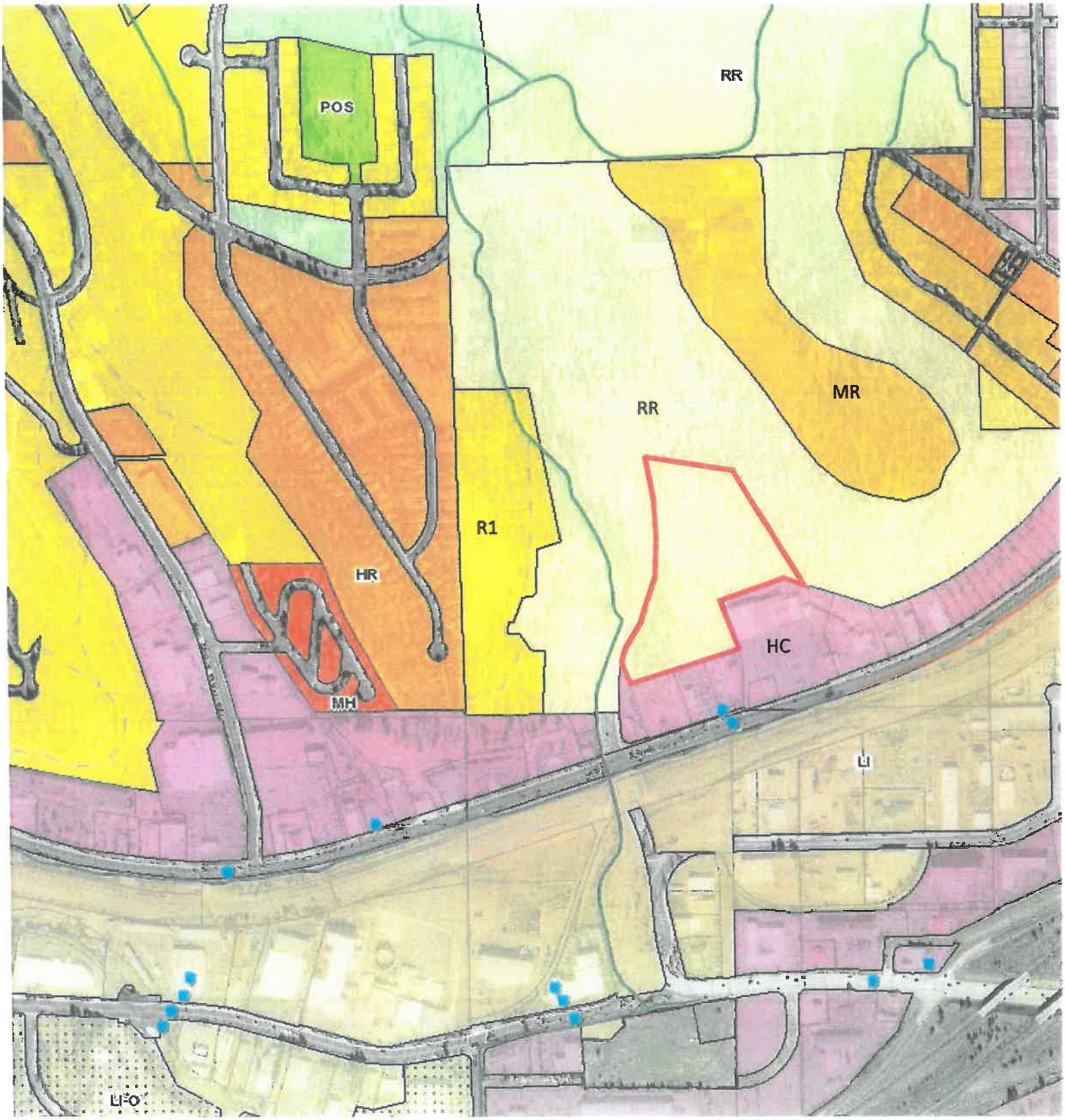
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NOTICE OF PUBLIC HEARINGS

NOTICE IS HEREBY GIVEN that the Flagstaff Planning and Zoning Commission will hold a Public Hearing on Wednesday, August 14, 2019, at 4:00 p.m. and the Flagstaff City Council will hold a Public Hearing on Tuesday, August 27, 2019, at 6:00 p.m. to consider the following:

A. Explanation of Matters to be considered:

1. A proposed amendment to the official City of Flagstaff zoning map to rezone 11.97 acres from Rural Residential (RR) to High Density Residential (HR) for the purpose of multi-family residential development.

The site currently consists of land owned by Ponderosa Parkway LLC at 1650 East Ponderosa Parkway.

B. General Description of the Affected Area:
Approximately 11.97 acres, Coconino County Assessor's Parcel Number 107-07-002E, situated in the SW Quarter of Section 14, Township 21 North, Range 7 East, located at 1650 East Ponderosa Parkway, City of Flagstaff, Coconino County, Arizona.

The Council hearing for these items may be continued if the Planning and Zoning Commission has not given a recommendation.

Interested parties may file comments in writing regarding the proposed amendment or may appear and be heard at the hearing dates set forth above. Maps and information regarding the proposed amendment are available at the City of Flagstaff, Planning and Development Services Section, 211 West Aspen Avenue.

Unless otherwise posted, all Planning and Zoning Commission and City Council meetings are held in the Council Chambers of City Hall, 211 West Aspen Avenue, Flagstaff, Arizona.

PROPOSED ZONING MAP AMENDMENT
From Rural Residential (RR) to High Density Residential (HR) for the purpose of multi-family residential development



ADDRESS: 1650 East Ponderosa Parkway,
APN: 107-07-002E
ACRES: Approximately 11.97 Acres
City of Flagstaff
Coconino County

FOR FURTHER INFORMATION CONTACT

Alaxandra Pucciarelli
Planning Development Manager
Planning & Development Services
211 West Aspen Avenue
Flagstaff, Arizona 86001
(928) 213-2640
apucciarelli@flagstaffaz.gov

Jack Kemmerly
Ponderosa Parkway, LLC
Miramonte Homes, LLC
102 S. Mikes Pike Street
Flagstaff, Arizona 86001
(928) 774-0028
jkemmerly@miramontehomes.com

Publish: July 27, 2019

Miramonte at Ponderosa Parkway

Zoning Map Amendment - Narrative

Introduction

Ponderosa Parkway, LLC (Applicant) is proposing to amend the City of Flagstaff's Rural Residential (RR) designation for parcel 107-07-002-E to a High Density Residential (HR) use. The proposed multifamily development will consist of 169 for-sale residential condominium units in 13 buildings on the now-vacant parcel. The buildings will modestly rise three-stories and be thoughtfully arranged to preserve a stand of native ponderosa trees and retain open space on the most publicly visible portions of the parcel. In addition to entry-level ownership pricing of the development, ten percent of the total units will be part of a private affordable housing program facilitated by the condominium homeowners' association. In addition, the project will utilize sustainable building practices including water resource protection, energy efficiency, transportation/air quality, and waste reduction during construction.



Figure 1: Proposed building type rendering

August 5, 2019

Application Procedure

The Zoning Map Amendment will be performed through the Direct Ordinance with a Site Plan Submittal process. The proposed project conforms with the Flagstaff Regional Plan 2030 and does not require a Regional Plan Amendment. Ponderosa Parkway, LLC made their first Site Plan submittal to the City of Flagstaff on 10/30/18. This Site Plan entitlement was approved on 5/28/19 by Community Development Staff. This will be a Large-Scale Zoning Map Amendment (100+ residential units) as designated by the City of Flagstaff Zoning Code. A Water Sewer Impact Analysis (WSIA) completed on 12/6/18 concluded that the existing water and sewer infrastructure in Ponderosa Parkway is adequate to serve the proposed project. The proposed HR use meets the intent of the Suburban Activity Center.

Improvements

The 11.96-acre parcel will contain 13 condominium buildings with 13 units each ranging from 500 to 1,300 sf in size. The remainder of the parcel will be common area regulated by a new established Homeowners Association & Property Manager. Common areas will include tree & slope resources, amenities, private access easements, drainage, and detention basins.

Regional Plan Analysis

The proposed project meets the intent of the Regional Plan's Suburban Activity Zone completing the mix of uses in the designated Ponderosa Parkway/Route 66 future activity center. The multi-family use compliments the newer commercial developments fronting Route 66 and will help add value to the older Village Shopping Center to the east of the parcel. The 13 condominium buildings will be built into the hillside stepping with the sloping topography and preserving the top of the hillside visible from Route 66. The project delivers a much-needed housing supply of for-sale units to Flagstaff's missing middle-income working class. The project's goal is to offer a variety of units for sale at less than $300,000 in the heart of the city just minutes from downtown. As a mixed-income development, 10% of the units will be deed restricted as part of the private attainable housing program.

Being centrally located and along major corridors, residents will have multiple transportation options available to them including NAIPTA's Mountain Line, bicycle, and pedestrian accessibility. Each unit will be provided a NAIPTA Mountain Line EcoPass by the Homeowner's Association to further entice residents to utilize alternate means of transportation other than personal vehicles that congest Flagstaff's infrastructure. Ponderosa Parkway Condominiums are also located directly along the Arizona Trail, a National Scenic Trail that begins at the US-Mexico border and runs all the way north to Utah. This connects both pedestrians and bicyclists to endless trail systems throughout the FUTS Trail network and beyond for leisure or daily commutes. As identified in the Regional Plan and reinforced by Flagstaff's High Occupancy Housing Plan

(which this project is not subject to), activity centers including this area are the most appropriate locations for higher occupancy housing development as proposed by the Ponderosa Parkway Condominiums.

Attainable Housing

Sixteen condominium units in the Development (10% of the total) will be designated "attainable" units as part of the Ponderosa Parkway Private Mixed-Income Housing Program to be governed by the condominium unit's deed restrictions and be facilitated by the condominium HOA and a contracted third-party nonprofit organization. These Attainable Units are similar "affordable" housing in the City's community land trust program, yet in a condominium, all owners have an undivided interest in the land as part of the legally defined "common elements." This legal ownership structure precludes participation in a community land trust where affordable homes include a ground lease to individual buyers. Through deed restrictions and the HOA, Ponderosa Parkway's private attainable housing program incorporates elements of a community land trust into a private program to bring a new affordable option to Flagstaff home buyers – condominiums.

As with other "affordable" housing, the initial sale of Attainable Units is limited to income eligible buyers for a maximum sales price. Here, eligible buyers would be households of one to 4 persons with an income of 100 percent or less of the City of Flagstaff's Area Median Income Limits (AMI) for the current year. The initial sales price will be no greater than 100 percent AMI maximum home prices for the eligible buyer's income limit.

The Attainable Units will have the same floorplans and exterior appearance as market rate units and be available beginning in the first phase of development. The Attainable Units include studios through three-bedroom units with the unit-mix dictated by the buyer's preference and timing. This flexibility allows the development and delivery of these units to be determined by the qualified buyer's demand. Buyers of Attainable Units will have the same rights and obligations as members of the condominium HOA as owners of market rate units. Energy efficiency features standard on all units will help lower the utility costs for owners across the Development.

As a private program, the Ponderosa Parkway Private Mixed-Income Housing Program should not require City resources to implement. Instead, the HOA will be tasked with operating the program and will have authority to implement and enforce rules and restrictions applicable to all condominium owners, such as limits on short term rentals. To ensure the program starts off well, the Applicant/HOA will contract with a third party nonprofit organization to qualify buyers. The intention is to utilize the same organization that the City of Flagstaff contracts with to qualify buyers for its affordable housing programs. Currently, Housing Solutions of Northern Arizona is

contracted with the City and has graciously provided resources and information for Applicant in creation of the Ponderosa Parkway attainable housing program.

Attainable Units must be owner occupied and the entire Development, both attainable and market rate units, will be subject to rules and restrictions limiting short terms rentals. Ponderosa Parkway Condominium is intended to be a housing community for Flagstaff's work force.

Sustainable Building Standards

The proposed development will meet the standards of Section 10-30.70.040 of the City of Flagstaff Zoning Code for residential sustainable building practices which would entitle Applicant to a housing density bonus of 25%. Applicant will only utilize 8% of the bonus. Each residential building (which includes both market rate and attainable units) in the Project will meet or exceed an energy efficiency score of 50 or lower on the HERS rating system (Home Energy Rating System) and be certified by an independent third party. The appliances included with each unit are ENERGY STAR rated. Other standard features in all units include LED lighting (interior and exterior), use of open cell foam insulation in attics & walls, and low-VOC and formaldehyde free materials (i.e., carpet, cabinets, paint). The project will be pre-wired for six electric vehicle charging stations and is ideally located for use of alternative transportation methods.

In the landscaping plan, Applicant will not include an "oasis zone" of high or moderate water use plants that it would otherwise be entitled to. Low water use, native, and drought tolerant plants will be emphasized with seasonal automatic drip watering systems. Reuse of native materials from the site for landscaping and other construction purposes is planned. The dry creek traversing the parcel will not be relocated and to the extent feasible, native plants will be preserved along the banks. Instead of concrete, the interior sidewalks will be constructed of brick pavers.

Land Development

The parcel consists of slope resources which will be preserved per City of Flagstaff requirements noted on the attached Site Plan. The existing dry creek routed through the southeastern portion of the property will be maintained, with a driveway traversing the eastern edge of the channel. The site will drain within the proposed roadways and their drainage infrastructure which include onsite detention on the east edge of the parcel as noted. New water, solid & liquid waste, gas, electric, and low-volt lines will be installed in the proposed private driveways for the multi-family buildings.

Property & Materials Management

The Property's drive aisles, parking, and surface improvements will be maintained by the Homeowners Association & Property Manager. This includes all snow removal and regular

maintenance activities. This also includes snow removal on the Ponderosa Parkway sidewalk and maintenance of the Ponderosa Parkway landscaping in the right of way. Five double dumpster enclosures are shown throughout the project on the attached Site Plan and meet the minimum 3 cubic yards of trash and recycling each per 20 units. All turning radii meet City of Flagstaff Engineering Standards and trash collection vehicular movement requirements.

Community Benefit

With the applied-for rezoning, the Flagstaff community gains a multi-family development which provides entry-level ownership opportunities plus much needed attainable housing for moderate to low-income (up to 100 percent AMI) residents. The proposed HR use meets the intent of the Suburban Activity Center. The proposed project is located within the Suburban Activity Center at Ponderosa Parkway and Route 66. A higher density residential use is consistent with the Flagstaff Regional Plan 2030 that encourages compact development in current activity centers. The requested rezoning will not change the Regional Plan area or place type. It will simply allow for higher density at an appropriate location which facilitates efficient use of the current commercial & transportation corridors, and contributes to the growth of a preexisting mixed-use neighborhood. Additional information about the suitability of the site for the proposed amendment is included in the Regional Plan analysis.

An Arizona Developer in Our Community

Finally, the Applicant-developer Miramonte Homes is an Arizona based company founded in Tucson, Arizona in 1992. Miramonte now has a Flagstaff office with its principals residing in the Flagstaff community and invested in its future through numerous notable civic organizations, City and County boards, commissions including participation in crafting the Flagstaff Regional Plan 2030, the County Comprehensive Plan, the County Engineering Plan, etc. Miramonte's completed projects throughout Flagstaff and Arizona reflect a track record of quality construction, responsible planning, and meaningful community involvement.

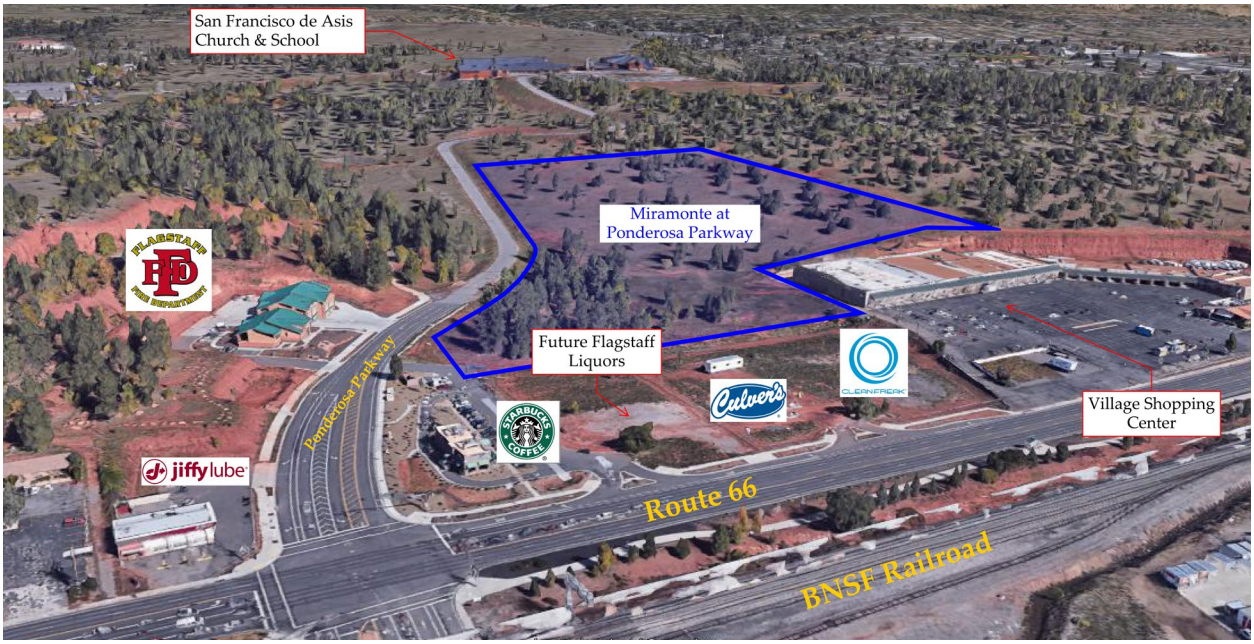
Legal

Sixteenth: SW Quarter: SW Section: 14 Township: 21N Range: 07E PCL LAND SW4 SEC 14; COM SW COR SEC 14; TH N 88-40-05 E 498.63'; TH N 88-46-22 E 94.31'; TH N 88-33-15 E 97.00'; TH N 88-33-15 E 17.13'; TH N 88-49-16 E 33.06' TO PT ON CURVE,RADIUS N 83-36-13 E; TH NLY 266.06' ALNG SAID CURVE, HAVING CENTRAL ANGLE OF 22-52-57 & RADIUS OF 666.20' TPOB; TH CONTINUING NLY 91.43' ALNG SAID CURVE, CENTRAL ANGLE OF 07-51-49 RADIUS 666.20'; TH N 24-20-59 E 100.00' TO BEG OF CURVE CONCAVE TO W, RADIUS PT N 65-39-01 W; TH NLY 161.97' ALNG SAID CURVE, CENTRAL ANGLE OF 16-52-24, RADIUS 550.00'; TH CONTINUING ALNG SAID CURVE 30.02', CENTRAL ANGLE 03-07-38; TH N 04-20-59 E 128.87' TO BEG OF CURVE CONCAVE TO W, RADIUS PT N 85-39-01 W; TH NLY 516.81' ALNG SAID CURVE, CENTRAL ANGLE OF 11-36-44, RADIUS 2550.00';TH S 81-54-10 E 435.11'; TH S 25-00-00 E 595.79'; TH S 71-30-21 W 320.98'; TH S 18-30-39 E 251.55'; TH S 71-29-50 W 566.31'; TH N 18-16-58 W 121.42' TPOB.

Miramonte at Ponderosa Parkway

Regional Plan 2030 Analysis

Ponderosa Parkway, LLC (Applicant) is proposing to amend the City of Flagstaff's Rural Residential (RR) designation for parcel 107-07-002-E to a High Density Residential (HR) use in connection with the Miramonte at Ponderosa Parkway project. As part of the rezoning, the project must be assessed for compatibility with the Flagstaff Regional Plan 2030 (FRP30). The Project is not only consistent with, but also assists the community to meet many of the City's important development goals and policies set forth in the FRP30 including providing the residential component of the future Suburban Activity Center at Ponderosa Parkway / Route 66.



Introduction

The Miramonte at Ponderosa Parkway condominium project (Project) will consist of 169 multi-family residential units built in 13 buildings on an approximately 11.97-acre vacant parcel. The buildings will be 3-stories tall and consist of 13 units each. The remainder of the parcel will be common area to include tree & slope resources, amenities, private access easements, drainage, and detention basins. The Project will be regulated and maintained by a new established homeowners' association.

August 5, 2019

The development will include 16 attainable housing units dispersed throughout the project for qualified buyers (up to 100 percent area-median income (AMI)). Both the market rate and attainable housing units are currently proposed as for-sale condominiums. By allowing the rezoning, the Flagstaff community gains a compact multi-family development in a current activity center which provides entry-level ownership opportunities and much needed attainable housing for moderate income residents.

Overview

FRP30 notes that the national trend is moving towards smaller houses, smaller lots, multi-family, and multi-generational housing; yet the primary construction over the last 10 years in Flagstaff has been single family home subdivisions (FRP30 IX-3). This Project offers alternatives to these subdivisions that is in line with national trends by placing a multi-family development in a current activity center. Instead of building out towards the edges of the development boundaries, this Project ties into preexisting infrastructure, commercial opportunities, and transportation options to access employment in a central location. According to FRP30, the parcel is in a Suburban Activity Center centered at Ponderosa Parkway and Route 66. The requested rezoning will not change the FRP30 area or place type, it will simply allow for higher density at an appropriate and economically viable location. In FRP30, activity centers are considered the most appropriate location for higher occupancy housing developments.

Narrative

The right project at the right site. To casual observers, hearing about a project on Ponderosa Parkway may conjure ideas of more construction on the beloved open space atop McMillan Mesa, that is not accurate with the proposed development. The Project location is tucked behind a row of commercial buildings (including Starbucks, Culvers, and Clean Freak car wash) and is bounded by a large strip mall along Route 66.



Figure 1: View looking north from Route 66 at Starbucks (left), Culvers (middle), & Clean Freak Car Wash (right)

Efforts to incorporate and preserve the natural environment and resources reflect the thoughtful layout of the development. The proposed 169 units will not be housed in a single monolithic building that dominates the neighborhood. Instead, the units are dispersed through 13 attractive

buildings that modestly rise three stories. The buildings are strategically placed on the parcel and incorporated into native stands of trees to create an appealing, natural layout for residents.

The buildings will not rise above the hill or interfere with the viewshed of the surrounding residential areas or neighboring church. They will be appropriately built "into" the hillside instead of "on top" the hillside. This is a more costly building approach, but results in the preservation of an unbroken expanse of hillside at the top of the slope and parcel, the portion most visible to the public from nearby roadways. Lower portions of the development will be shielded from public view with stands of native ponderosa pines to be preserved per the proposed Site Plan.

Homebuying choices for the working class. The Project may be of higher density, but it is not structured to be a student housing development. Attainable units must be primarily owner occupied and all units will be subject to restriction requiring rentals be to a minimum thirty days to encourage owner-occupancy, not vacation rentals. The Project will be marketed as an option for Flagstaff's working residents facing ever rising housing costs. In addition to the for-sale permanent attainable housing component, the units are priced so that home ownership is available to this working middle class. The Project will feature a range of units including studios, one-bedroom, two-bedroom, and three-bedroom condominium units to accommodate families of all sizes at varying price points, all of which will be ENERGY STAR certified by a third party. The Applicant aims to offer a variety of units at less than $300,000. The energy efficiency of the residences and common areas will keep utility expenses in check.

The Project increases an overlooked option – condominiums – to the homebuying residents of Flagstaff. These units will be newly constructed in a community designed from the outset as permanent residences, a benefit that may be lacking in condominiums converted from rental apartments.

FRP30 notes that the growth areas in the last 10 years have primarily been single family subdivisions. This condominium development offers the Flagstaff community a choice of something other than a single-family home on a lot. With the homeowner's association responsible for maintenance and repairs of the common areas and building exteriors, condominiums provide an option for residents to age in place. The Project's close proximity to public transportation further extends independent living feasibility.

A residential addition paired with pre-existing commercial uses. The parcel is currently zoned Rural Residential, and the proposed rezoning seeks to continue the residential nature, albeit with a higher density. Although some new projects may provide mixed use within the project itself,

mixed uses on this parcel would undermine the future Activity Center contemplated by FRP30. Instead, the Project provides the residential component required to create mixed-use across the broader activity center. This is an appropriate scale given the location on Route 66 and pre-existing commercial uses. The very convenient alternative transportation ties these uses together and creates a new sense of place lacking in the current area.

Moreover, the adjacent commercial uses will benefit from the increased foot traffic within walking and biking distance. At the time of this submittal, there is no business operating at the former Albertson's grocery store a very short walking distance of the Project. Currently, the minimal residential uses in the area suggest that consumers are either passing by or "commuting" in to patronize the businesses. This Project infills a critical residential gap in the space between the east and west sides of town instead of creeping towards the edges of the development boundary further drawing consumers away from the pre-existing commercial activities.

To satisfy the City's goal of Ponderosa Parkway / Route 66 growing into a Suburban Activity Center, there must be residential options available. The High Occupancy Housing Specific Plan recognizes that activity centers are an appropriate location for this increased density.

The community benefits from the injection of density at a site where the infrastructure and commercial uses support it. The development is proposed in an area along Route 66 currently seeing little residential growth or options for such growth. This unique parcel in the heart of Flagstaff along major corridors and in close proximity to public transportation, bicycle, and pedestrian sidewalk and trail options that should be high-density residential to maximize these benefits listed for future homeowners. This project provides much needed connections and infill infrastructure from the downtown through the 4th Street corridor as championed in the Regional Plan.

The most relevant FRP30 goals and policies are discussed and identified below and organized roughly into topics covered by the corresponding FRP30 chapters.

Growth Areas & Land Use – FRP30 Chapter IX

The Project is located within an area specifically identified as an Activity Center in the FRP30 which includes an older strip mall and four newer commercial properties along Route 66. Just beyond the Project's pedestrian shed is a shopping center where the anchor store front sits vacant. An influx of residents to this area, in walking/biking/bus distance may spur development of the current under endorsed businesses and increase employment opportunities. Sidewalks, trails, bike paths, and permanent bus routes are already in place for connectivity from the Project to three schools, a Community Center, and the area retail and businesses. The Project itself is designed to provide stress-free pedestrian flow and access to the adjacent commercial area.

Because the Project meets many of the redevelopment goals and the Activity Center goals, the FRP30 specifically supports flexibility and a rezoning of the parcel to encourage a project with higher densities such as the one proposed. The rezoning would bring more residents into the area for the mutual benefit of the preexisting commercial activity. A more concentrated residential use in this area lessens the need for development towards the peripheral of the urban growth boundary.

This project also contributes to the community by meeting or exceeding the following Goals and Policies of the Flagstaff Regional Plan;

> Goal LU.1: Invest in existing neighborhoods and activity centers for the purpose of developing complete, and connected places.
>
> Policy LU.1.1. Plan for and support reinvestment within the existing city centers and neighborhoods for increased employment and quality of life.
>
> Policy LU.1.6. Establish greater flexibility in development standards and processes to assist developers in overcoming challenges posed by redevelopment and infill sites.
>
> Policy LU.1.7. Consider creative policy and planning tools (such as transfer of develop rights or transfer of development obligations) as a means to incentivize redevelopment and infill.
>
> Goal LU.5. Encourage compact development principles to achieve efficiencies and open space preservation.
>
> Policy LU.5.1. Encourage development patterns within the designated growth boundaries to sustain efficient infrastructure projects and maintenance.
>
> Policy LU.5.2. Promote infill development over peripheral expansion to conserve environmental resources, spur economic investments, and reduce the cost of providing infrastructure and services.
>
> Policy LU.5.3. Promote compact development appropriate to and within the context of each area type: urban, suburban, and rural.
>
> Policy LU.5.4. Encourage development to be clustered in appropriate locations as a means of preserving natural resources and open space, and to minimize service and utility costs, with such tools as Transfer of Development Rights (TDR).

To the extent the Project consists of new construction on a vacant lot, the Project also meets multiple FRP30 greenfield policies. Multi-family units ranging from studio to 3-bedroom with attainable housing disbursed throughout (with no exterior difference between the attainable and market rate units). As discussed in the transportation section below, the Project's access to alternative transportation facilitates connectivity to other areas.

> Policy LU.2.1. Design new neighborhoods that embody the characteristics of Flagstaff's favorite neighborhoods – that is, with a mix of uses, a variety of housing types and densities, public spaces, and greater connectivity with multimodal transportation options.
>
> Policy LU.2.2. Design new development to coordinate with existing and future development, in an effort to preserve viewsheds, strengthen connectivity, and establish compatible and mutually supportive land uses.

Suburban Areas – FRP30 Chapter IX

The Project's ideal central location provides convenient access to alternative transportation methods. A public-private partnership with NAIPTA is being actively negotiated for the Project's homeowners' association to purchase EcoPasses for each of the Project's 169 units. The Project is near NAIPTA bus stops going both directions on Route 66 with direct links to both the Downtown and Mall Connection Centers for transfers to all other NAIPA route lines. A short walk from the Project are bus stops for purple Route 7 (Butler, Huntington, Fourth Street) and green Route 3 (Butler, Soliere) shown on Figure 3. These lines also stop at the Greyhound station on Butler Avenue and near the Amtrak passenger rail station on Route 66 for out of town travel without parking hassles.

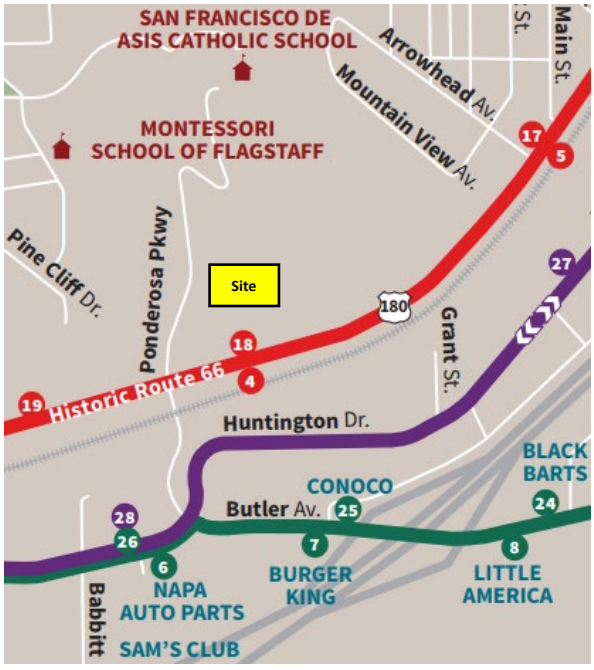


Figure 2: NAIPTA Route Map

The Project is also ideally located for making use of the Flagstaff Urban Trail System (FUTS) that runs along Ponderosa Parkway. From the Project, the FUTS can be taken to three schools, West to a community Center, North for recreational purposes to the McMillan Mesa trails and adjacent Buffalo Park trails with access to the Mt. Elden trail system. This portion of the FUTS also doubles as a section of the magnificent Arizona Trail, a legendary, and historic 800-mile trail crossing Arizona from Mexico to Utah. The FUTS trails, bike routes, and bike lanes near the Project (Figure 3) are well developed and mostly paved. The Route 66 trail provides paved FUTS trails along Route 66 in addition to the bike lanes on the road itself.

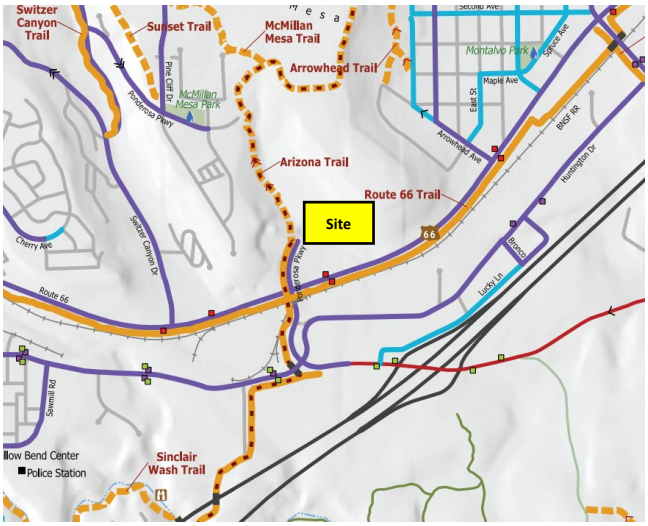


Figure 3: FUTS Trail Map


Figure 4: Butler Ave-Enterprise Underpass

All of this new infrastructure to the networks provides critical infill in the system from the Downtown area to Fourth Street and both North and South FUTS trails. The trails and paths on Ponderosa Parkway south of the railroad crossing have been improved to incorporate a trail underpass for trail users to safely navigate the Butler intersection. The residents of the Project will now benefit from the capital improvements made in the area to encourage alternative transportation.

Goal LU.13. Increase the variety of housing options and expand opportunities for employment and neighborhood shopping within all suburban neighborhoods.

Policy LU.13.1. Prioritize connectivity for walking, biking, and driving within and between surrounding neighborhoods.

Policy LU.13.2. Consider public transit connections in suburban development.

Policy LU.13.3. Consider retro-fitting suburbs for walkability and mixed-use.

Policy LU.13.4. Plan suburban development to include a variety of housing options.

Policy LU.13.9. Use open space and FUTS trails to provide walking and biking links from residential uses to employment, shopping, schools, parks, community centers, and neighborhoods.

Policy LU.13.10. Protect wildlife corridors where appropriate.

Policy LU.13.11. Promote cluster development as an alternative development pattern in appropriate locations as a means of preserving resources and to minimize service and utility costs.

Activity Centers – FRP 30 Chapter IX

The Ponderosa Parkway/ Route 66 area has been clearly designated as a future activity center. FRP30 acknowledges that activity centers are the most appropriate locations for higher occupancy housing development. Although not technically subject to the Flagstaff's High Occupancy Housing Specific Plan, this plan reiterates the community's desire to cluster denser uses in activity centers. As discussed elsewhere, the visual appearance of the Project was designed to be compatible with the natural setting and surrounding area. The Project will not have the outward appearance of a large student housing project that overshadows the surrounding area. Instead, it will generate a sense of place and a compatibility that is specifically designed to comply with the Activity Center goals and policies.

Given the hilly topography in the activity center, the location of the commercial development strung along the corridor, and real estate available for residential construction, a mixed-use project on this parcel would be geographically isolated and unobtrusive. Instead of mixing uses on a single parcel, the Project provides a residential component to compliment the more disbursed commercial and recreational uses nearby. The immediate connectivity to alternative transportation, major roadways, and the FUTS trail system ties these uses together to create an activity center that blends the pre-existing with the new in a way that suites the location. In this location, this mix of uses across parcels is fitting and absolutely contributes and conforms to the Activity Center concepts.

The increase in vehicular traffic resulting from an increased density to the Project location will not infringe on nearby residential areas. The only vehicular access to the Project is from Route 66 onto Ponderosa Parkway. Beyond that, Ponderosa Parkway terminates on private church property without a public outlet to the McMillan Mesa area. Both roadways and public portion of Ponderosa Parkway are built out to accommodate high volumes of traffic and the City fire station. In addition, the Project will have three entrances into the Project off Ponderosa Parkway, the second entrance from Route 66 includes a right turn lane. The entrances provide good flow within and from the development and accommodates Ponderosa Parkway peak flow times.

As noted, the area is designated as a "future" activity center. This is a thoughtful project that can foster the planned growth in the activity center in a manner compatible with many goals and policies of the FRP30 such as the ones cited below.

> Goal LU.18. Develop well designed activity centers and corridors with a variety of employment, business, shopping, civic engagement, cultural opportunities, and residential choices.
>
> Policy LU.18.1. Design activity centers and corridors appropriate to and within the context of each area type: urban, suburban, or rural.
>
> Policy LU.18.3. Redevelop underutilized properties, upgrade aging infrastructure, and enhance rights-of-way and public spaces so that existing activity centers and corridors can realize their full potential.
>
> Policy LU.18.4. Encourage developers to provide activity centers and corridors with housing of various types and price points, especially attached and multi-family housing.
>
> Policy LU.18.5. Plan for and support multi-modal activity centers and corridors with an emphasis on pedestrian and transit friendly design.
>
> Policy LU.18.6. Support increased densities within activity centers and corridors.
>
> Policy LU.18.8. Increase residential densities, live-work units, and home occupations within the activity center's pedestrian shed.
>
> Policy LU.18.9. Plan activity centers and corridors appropriate to their respective context and scale.
>
> Policy LU.18.13. Promote higher density development in targeted areas where economically viable and desired by the public.
>
> Policy LU.18.14. Endorse efficiency of infrastructure with compact development within targeted activity centers.
>
> Policy LU.18.18. New development within existing activity centers should enhance the existing street pattern to meet the goals and policies of the Regional Plan related to connectivity and complete streets.

Environmental Planning & Conservation; Open Space
FRP30 Chapters IV, V



Figure 5: Trees to be preserved north of Starbucks

The parcel consists of native ponderosa pine trees, slope resources, and a waterway which will be preserved. A large stand of naturally occurring ponderosa pine trees is located off Ponderosa Parkway near the retail businesses. This stand of trees will be preserved which serves to buffer the commercial uses from the residential, provide patrons of the commercial business with a visually appealing natural environment, and provide native habitat for wildlife.

During construction, methods to minimize disruption to slopes and natural resources such as native trees and plants will be employed. The Project will use native and/or drought tolerant plants in its new landscaping areas and utilize passive rainwater harvesting.

> Policy E&C.6.3. Promote protection, conservation, and ecological restoration of the region's diverse ecosystem types and associated animals.
>
> Policy E&C.6.8. Disturbed areas for improvements and landscaping for new developments shall emphasize the use of native, drought-tolerant or edible species appropriate to the area.
>
> Policy E&C.9.2. Construction projects employ strategies to minimize disturbed area, soil compaction, soil erosion, and destruction of vegetation.
>
> Policy OS.1.5. Integrate open space qualities into the built environment.

Water Resources – FRP30 Chapter VI

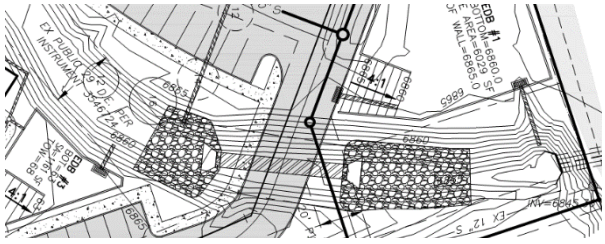


Figure 6: Proposed headwall on Site Plan

The existing waterway routed through the southeastern portion of the parcel will be maintained. The Project includes construction of a headwall east of building 2 to address and prevent additional erosion. Multiple onsite water detention areas will be located on the parcel, remaining flows will drain within the proposed roadways and their drainage

infrastructure. By limiting disruption to the slopes during construction, the native plant material will naturally address precipitation in those areas thereby limiting erosion.

A Water Sewer Impact Analysis (WSIA) was completed on 12/6/18 and concluded that the existing water and sewer infrastructure in Ponderosa Parkway is adequate to serve the proposed project.

> Policy WR.4.3. Development requiring public utility services will be located within the Urban Growth Boundary.
>
> Policy WR.5.1. Preserve and restore existing natural watercourse corridors, including the 100-year floodplain, escarpments, wildlife corridors, natural vegetation, and other natural features using methods that result in a clear legal obligation to preserve corridors in perpetuity, where feasible.
>
> Policy WR.5.3. Identify downstream impacts as the result of development, and provide for mitigation measures to address impacts. When possible, mitigations should be non-structural in nature.
>
> Policy WR.5.6. Implement stormwater harvesting techniques to support water conservation strategies by collecting and using local precipitation in the vicinity where it falls to support both human and overall watershed health needs.
>
> Policy LU.2.4. Utilize Low Impact Development (LID) strategies and stormwater best practices as part of the overall design for new development.

Energy – FRP30 Chapter VII

Energy efficient features and appliances will be standard for both market rate and attainable housing units. These features include LED lighting (interior and exterior), use of open cell foam insulation in attics & walls, and low-VOC and formaldehyde free materials (i.e., carpet, cabinets, paint). All buildings will be ENERGY STAR certified as verified by a certified third-party inspection company. Green Building construction practices will maximize efficiency, minimize waste and avoid pollution of the building site. Utilizing all onsite appropriate soils for backfills, etc. will also minimize our construction carbon footprint.

See the transportation for discussion of how the project contributes to energy efficient modes of transportation.

> Policy E.1.4. Promote cost-effective, energy-efficient technologies and design in all new and retrofit buildings for residential, commercial, and industrial projects.

Policy E.1.5. Promote and encourage the expansion and use of energy-efficient modes of transportation: a. Public transportation b. Bicycles c. Pedestrians

Community Character – FRP30 Chapter VIII

Although the Project will be located on a hillside, this residential area is set back behind a row of commercial and retail uses. The buildings will be three-stories tall, but will not be built on the highest slope portions of the parcel, therefore will not protrude above the top of hill and interfere with view corridors of surrounding residential properties. As with Applicant's other Miramonte developments in the City, the exterior of the buildings will be quality construction in an attractive style compatible with the Flagstaff area. Exterior colors will complement the natural surroundings including utilizing native materials such as malpais stone veneer. The homeowners' association will be tasked with ensuring the Project remains well maintained and visually appealing. As discussed above, the preservation of native pines in and around the buildings adds to the quintessential natural Flagstaff look.



Figure 7: Proposed building front entry

Policy CC.1.1. Preserve the natural character of the region through planning and design to maintain views of significant landmarks, sloping landforms, rock outcroppings, water courses, floodplains, and meadows, and conserve stands of ponderosa pine.

Policy CC.1.2. Continue to define and further develop the community character by incorporating the natural setting into the built environment at all design scales.

Policy CC.1.5. Design development patterns to maintain the open character of rural areas, protect open lands, and protect and maintain sensitive environmental areas.

Policy CC.1.6. Encourage cluster development to preserve open space, viewsheds, and scenic vistas.

Policy CC.3.1. Encourage neighborhood design to be respectful of traditional development patterns and enhance the overall community image.

Policy CC.3.2. Maintain and enhance existing buildings and blend well-designed new buildings into existing neighborhoods.

Policy CC.4.3. Employ design solutions that balance the interface of the natural and built environments, with the most urbanized core activity areas being the most built, and the most rural areas being the most natural.

Policy CC.4.4. Design streets and parking lots to balance automobile facilities, recognize human-scale and pedestrian needs, and accentuate the surrounding environment.

Policy CC.4.5. Encourage local landscaping using Xeriscape, low-impact principles, and native vegetation wherever possible.

Policy CC.4.6. Use landscaping to benefit the environment and improve aesthetics, in order to maximize the economic benefit that a well landscaped community provides.

Transportation; Recreation – FRP30 Chapters X, XV

The location of project meets FRP30 goals by tying in to current existing energy efficient alternative transportation systems, namely the Flagstaff Urban Trail System (FUTS), bus routes for NAIPTA (Northern Arizona Intergovernmental Public Transportation Authority), and roadways with bike lanes or shoulders within the pedestrian shed. One NAIPTA bus stop is located near the Project while additional stops on two other bus routes are located within a reasonable walking distance giving bus riders access to multiple routes with minimal transfers. The developer and NAIPTA are exploring participation in NAIPTA's EcoPass program so the homeowners' association can provide bus passes to Project residents thereby encouraging bus ridership and supporting NAIPTA.

The Ponderosa Parkway and Route 66 intersection has traffic lights and crosswalks for a safe pedestrian crossing. Residents can take advantage of these modes of transportation to access employment and recreation. The FUTS trail overlaps the famous 800 mile long Arizona Trail near

the Project which also leads to three schools, West to a community Center, North for recreational purposes to the McMillan Mesa trails and adjacent Buffalo Park. The Project proposes five bike racks for each building to accommodate a total of over 60 bikes throughout the development. The Project is also ideally located for making exceptional easy use of the Flagstaff Urban Trail System (FUTS) that runs along Ponderosa Parkway for transportation and recreational purposes.

Because the Project is centrally located near a railroad crossing, residents will have easy access to other parts of town by way of the Butler Road corridor and I-40 in addition to Route 66.

> Goal T.1. Improve mobility and access throughout the region.
>
> Policy T.1.1. Integrate a balanced, multimodal, regional transportation system.
>
> Policy T.1.3. Transportation systems are consistent with the place type and needs of people.
>
> Policy T.1.5. Manage the operation and interaction of all modal systems for efficiency, effectiveness, safety, and to best mitigate traffic congestion.
>
> Policy T.3.3. Couple transportation investments with desired land use patterns to enhance and protect the quality and livability of neighborhoods, activity centers, and community places.
>
> Policy Rec.1.1. Integrate active and passive recreational sites within walking distance throughout the region to promote a healthy community for all City and County residents and visitors.

Neighborhoods, Housing, & Urban Conservation – FRP30 Chapter XIII

Rezoning to a higher density is appropriate given the zoning and uses surrounding the parcel. Approximately one-third of the parcel is framed by Highway Commercial (HC) zoning, primarily built out as retail with separate access points. The commercial and residential uses will not share a driveway. A higher density development would be mutually beneficial to these Project neighbors.

Another third of the parcel abuts Ponderosa Parkway. The land on the west side of Ponderosa Parkway is zoned Rural Residential (RR), but includes a large local City fire station. The remainder of the parcel is lined with RR zoning that is currently vacant. However, the natural features of the area limit feasible construction. The slope on a portion of the parcel serves as a buffer between the lower density property adjacent to parcel and the proposed higher density. Although later residential construction may fill in around the parcel, the proposed higher density is effectively insulated.

Policy NH.1.1. Preserve and enhance existing neighborhoods.

Policy NH.1.2. Respect traditions, identifiable styles, proportions, streetscapes, relationships between buildings, yards, and roadways; and use historically appropriate and compatible building and structural materials when making changes to existing neighborhoods, especially in historic neighborhoods.

Policy NH.1.3. Interconnect existing and new neighborhoods through patterns of development, with complete streets, sidewalks, and trails.

Policy NH.1.4. Foster points of activities, services, increased densities, and transit connections in urban and suburban neighborhoods.

Goal NH.3. Make available a variety of housing types at different price points, to provide housing opportunity for all economic sectors.

Policy NH.3.1. Provide a variety of housing types throughout the City and region, including purchase and rental options, to expand the choices available to meet the financial and lifestyle needs of our diverse population.

Policy NH.3.5. Encourage and incentivize affordable housing.

Goal NH.6. Neighborhood conservation efforts of revitalization, redevelopment, and infill are compatible with and enhance our overall community character.

Policy NH.6.1. Promote quality redevelopment and infill projects that are contextual with surrounding neighborhoods. When planning for redevelopment, the needs of existing residents should be addressed as early as possible in the development process.

Policy NH 6.2. Use urban conservation tools to revitalize existing underutilized activity centers to their potential.

Economic Development – FRP30 Chapter XIV

The Project's superb contribution to the Suburban Activity Center and redevelopment of a mixed-use neighborhood are discussed above.

Goal ED.8. Promote the continued physical and economic viability of the region's commercial districts by focusing investment on existing and new activity centers.

Goal ED.9. Promote redevelopment and infill as a well-established means to accomplish a variety of community economic, planning, and environmental goals.

Conclusion

The Miramonte at Ponderosa Parkway condominium project contributes to the Flagstaff community by meeting and exceeding numerous Goals and Policies of the Flagstaff Regional Plan and providing a necessary residential component to develop the Ponderosa Parkway / Route 66 Activity Center and creating a sense of place in an otherwise underutilized area in the center of the City. The large, but visibly subtle build provides infill and higher density at an ideal location along a transportation corridor connected to infrastructure with the capacity to absorb the increase in use. These energy efficient residences geared toward working class residents offer convenient access to alternative transportation and provide economic support to pre-existing commercial uses within walking or biking distance. Preserving an expansive of hillside for open space, conservation of native Ponderosa pine stands, and preventing erosion from a waterway on the parcel benefits residents and the community. Assessing the Project against the Flagstaff Regional Plan demonstrates this is the right project at the right place.

Miramonte at Ponderosa Parkway

Zoning Map Amendment - Citizen Participation Plan

Introduction

Ponderosa Parkway, LLC (Applicant) is proposing to amend the City of Flagstaff's Rural Residential (RR) designation for parcel 107-07-002-E to a High Density Residential (HR) use. The proposed development will consist of 169 multi-family residential units built in 13 buildings on the vacant parcel. The buildings will be 3-stories tall and consist of 13 units each. The development will include 10 percent permanent affordable housing units up to 100 percent area-median income (AMI). The residential units are currently proposed as for-sale condominiums.

Citizen Participation Plan

Neighborhood Meetings

The Applicant will conduct two neighborhood meetings for interested citizens and adjacent property owners that wish to learn about the development and provide input to the development team. The development team will include the Applicant's development team, general contractor, architect, and land owners.

Meeting Structure

Introduction: Circulation of a sign-in sheet, and introduction of the proposed development by the Applicant, with an overview of the development's components and design.

Community Participation: In charrette-style interaction, the Applicant will encourage attendees' written contribution of any comments or concerns about the proposed development, and in particular will solicit attendees' desired community features, amenities, and specific points of concern.

Discussion: Upon collection of the attendees' written responses, the Applicant will discuss some of the comments received and facilitate an open forum discussion with attendees.

Post-Meeting One-on-One: Following the discussion stage, attendees will have the opportunity to discuss the project with various members of the Applicant's team including Project Management, Architects, and City Staff.

February 21, 2019

Record of Proceedings

The Applicant will create a written summary of the meetings, including the dates and locations of the meetings, copies of all letters and other notices of the meetings, the mailing list used by the Applicant, a map showing the location of property owners and potentially affected citizens, the number and names of attendees (including the sign-in sheet), a dated photograph of the sign required under Section 10-20.30.060(D)(6), a summary of concerns, issues and problems expressed during the meeting any materials or information shared by the Applicant with the attendees, and copies of all attendee written comments. This record of proceedings, together with the Director's Certification, will be submitted to the Director with the next formal submission of the Applicant. It also will be copied to all persons listing their names and addresses on the sign-in sheet. To the extent not expressly stated here, the record of proceedings will comply with Section 10-20.30.060(F).

Notice of Public Hearings & Community Meetings

Each property owner within 1,000 feet of the proposed development will be notified prior to each Community Meeting & Public Hearing per Section 10-20.30.080 of the Flagstaff Zoning Code. A form of notice is attached. The exact dates and locations of the meetings are yet to be determined. A map showing the 1000-foot notice area, as well as the mailing list, is attached. Citizens listed on the Registry of Interested Persons will be notified and included in the community meetings. The proposed notification methods will include mailed notifications, newspaper publication, and posting at the proposed development. The on-site sign will comply with the timing and technical requirements of Section 10-20.30.060(D)(6).

To: Alaxandra Pucciarelli & Tiffany Antol, Current Planning - City of Flagstaff
From: Jack Kemmerly, Miramonte Homes
Date: 5/1/19
RE: Ponderosa Parkway Neighborhood Meeting

Dear Alaxandra & Tiffany,

Thank you both for attending our Neighborhood Meeting this evening 5:30pm at the Aquaplex, ending at 6:15pm. We are pleased to report there were no negative comments received from attendees following the presentation of the project. We followed the same framework as our Public Participation Plan and have provided a summary of open-discussion questions below, attached the Attendee Comment Cards, and the Meeting Sign-In Sheet.

Please let us know if you need anything else from Miramonte Homes in the processing of our Neighborhood Meeting requirement for the Rezoning of 1650 E. Ponderosa Parkway.

Sincerely,

Jack Kemmerly
Ponderosa Parkway, LLC
Miramonte Homes

Meeting Attendee Open Discussion Q&A (5:50pm)

Q: Is Ponderosa the only thoroughfare and how many entrances will there be going into the site?
A: Ponderosa Parkway is the only thoroughfare accessing the site. There will be an internal network of two-lane access roads with parking built onsite. There are 3 entrances total on Ponderosa Parkway, the lower entrance and middle entrance connect for vehicular circulation.

Q: Is this project the first and final phase in this area? Are there any additional projects going towards the church?
A: The Ponderosa Parkway Condominiums (169 units in 13 buildings) is the first & final phase of development by Miramonte Homes in the Ponderosa Parkway area. There will be no additional phases outside of what is proposed on the 1650 E. Ponderosa Parkway parcel in this Zoning Map Amendment.

Q: Is there any green/open space?
A: There are Civic/Open spaces in various pockets throughout the community. They include new landscaping, existing Ponderosa Pine trees, BBQs, and tables. The grouping of trees to the north of the Starbucks driveway will remain.

Q: Who owns the adjacent land to the project?
A: The church owns the parcel that surrounds the north portion of the 1650 E. Ponderosa Parkway parcel, which is north of the Fire Station, north of the Village Shopping Centre, etc.

Q: What is the project time frame?
A: Land development would begin later in 2019 starting with the Ponderosa Parkway roadway improvements. Then proceeding with the on-lot mass grading activities. The project will likely take 3-4 years in its entirety depending on sales and subsequent building starts.

Q: How many total units?
A: 13 buildings with 13 units each for a total of 169 units.

Q: What is the price point?
A: Under $300,000 with 10% of the units being affordable housing up to 100% AMI.

Q: Are the 5 buildings on the hill going to be 3 story?
A: They will, but they will be cut into the hill and their foundations will step with the topography.

Q: Is there fencing surrounding the property?
A: No, the property will remain open. There will be safety railing where required by code for fall protection.

Q: How will these be set up so people working in our town who need affordable housing buy these as opposed to parents buying for students
A: We will be marketing towards the "Missing Middle," Flagstaff's working residents. Including police officers, fire fighters, city staff, nurses, etc who serve the community and hardly make enough to cover Flagstaff's rising living expenses. We will do everything we can to sell to locals.

Q: Can anyone buy the unit and rent it out to someone else?
A: We have a 30-day minimum rental period in the Condominium Declarations governed by the HOA. 1-2 day short term rentals will not be permitted as these Declarations run with the deed of everyone condominium unit.

Q: Why does it need to be 3 stories?
A: In order to make the project financially viable, the 4 units on the 3rd floors of each building are critical to the project's feasibility. This also drives down costs to be able to obtain lower construction pricing to pass onto buyers at lower purchase prices for these units. Also, to justify the high costs of excavating the large amount of rock necessary to develop this site, it is

essential to build more efficient vertically instead of covering more ground area and excavating more rock.

Q: How many parking spaces do you have per building?
A: We are required to have 273 parking spaces for the entire project by code, and we are providing 273 parking spaces.

[RECORDING HEADER AND MARGINS]

Return to:
City Clerk
City of Flagstaff
211 West Aspen Ave.
Flagstaff, AZ 86001

DEVELOPMENT AGREEMENT

Miramonte at Ponderosa Parkway Condominiums

THIS DEVELOPMENT AGREEMENT ("Agreement") by and between the City of Flagstaff, an Arizona municipal corporation ("City") and Ponderosa Parkway, LLC, an Arizona limited liability company ("Developer") (individually "Party" or collectively "Parties") is made this _____ day of _____, 2019.

RECITALS

A. A.R.S. § 9-500.05 authorizes City to enter into development agreements with landowners and persons having an interest in real property located in the City. City and Developer acknowledge this Agreement is a development agreement pursuant to this section.

B. Developer is the owner of real property located at 1650 E. Ponderosa Parkway, Flagstaff, Arizona (APN 107-07-002E), which is more specifically described in Exhibit "A" (the "Property").

C. Developer proposes to amend the City of Flagstaff's Rural Residential ("RR") zoning designation for the Property to High Density Residential ("HR"). Developer seeks a Zoning Map amendment by way of Direct Ordinance with a Site Plan process.

D. Developer proposes to develop the Property into a multi-family residential community consisting of up to 169 residential condominium units disbursed through thirteen (13) three-story buildings, civic spaces, and open areas. "Project" herein means the development of the Property for the uses, intensities, and densities currently shown in the submitted Site Plans.

E. Flagstaff City Code Division 10-30.70 provides for a density bonus incentive for new residential developments meeting certain residential sustainable building practices. The Project, as shown in the Site Plans, meets said requirements and is eligible for a density bonus, specifically.

    1. The landscape design for the Project will not include an "oasis zone" as otherwise permitted in Section 10-50.60.050(C) and Section 10-50.60.060 of the Flagstaff Zoning Code;

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2. The Project is located within at least one-quarter mile of a Flagstaff Urban Trail System (FUTS) trail or connected to it;

3. The Project site is located within at least one-quarter mile of a bus stop;

4. The Project will have a written solid waste program that includes a plan for recycling or reuse of paper, cardboard, plastics and metals; recycling or reuse of lumber scraps; and diversion of masonry, cementitious and possibly gypsum material from the landfill; and

5. Each residential building in the Project will meet or exceed an energy efficiency score of 50 or lower on the HERS rating system (Home Energy Rating System) and be certified by an independent third party.

F. Developer proposes to voluntarily deed restrict a minimum of ten percent (10%) of the proposed residential units in the Project for attainable housing as detailed below.

G. This Agreement is consistent with the Flagstaff Regional Plan 2030 in effect on the date this Agreement is executed.

H. The City has an interest in ensuring that the development of the Property complies with City standards for development and engineering improvements, and the City believes that development of the Property pursuant to this Agreement will result in planning, safety, and other benefits to the City and its residents.

I. The Developer acknowledges that development of the Property pursuant to this Agreement will be beneficial and advantageous to the Developer by providing assurances to the Developer that it will have the ability to develop the Property within the City pursuant to this Agreement, under the zoning described in Recital C above, and in accordance with the Site Plan.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises and agreements set forth herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and in order to fulfill the foregoing objectives, the Parties agree as follows:

INCORPORATION OF RECITALS

1. Each of the recitals set forth above is incorporated into this Agreement as though fully set forth herein.

DEVELOPMENT AND ENTITLEMENTS

2. Scope of Development. The City and Developer hereby acknowledge that the City of Flagstaff Development Review Staff approved, subject to conditions, the site plan and building

elevations for the Project attached hereto as Exhibit "B" and incorporated by this reference (collectively the "Site Plan"). The Site Plan sets forth the basic land uses, intensity and density of such uses, relative height, bulk and size of buildings and structures proposed by Developer for development within the Property. The Site Plan sets forth required improvements and dedications for the Project. As depicted on the Site Plan, the overall maximum number of multi-family condominium units on the Property is 169 with a total of 299 bedrooms. Notwithstanding the foregoing, the City acknowledges that, while the Developer intends to develop the Project in general conformance with the Site Plan, in order to make the Project economically viable and otherwise feasible, Developer may request amendments to the Site Plan. The City shall process all submittals made by Developer in conformance with its minor site plan modification process, and nothing contained herein shall preclude the City from the exercise of its normal review process and requirements in connection with its approval of such submittals.

3. Zoning Map Amendment. Developer hereby agrees to be subject to the terms, conditions, and stipulations of the rezoning ordinance for PZ-@@ (City Ordinance No. 2019-@@) and Site Plan (PZ-@@). Should the Flagstaff City Council decline to approve the zoning map amendment, this Agreement will automatically become null and void.

4. Housing Density Entitlement; Sustainable Building. Developer will meet the minimum standards under Flagstaff City Code Section 10-30.70.040 for residential sustainable building practices for all units (both attainable and market rate) making Developer eligible for a housing density bonus of 25%. Developer agrees to utilize only eight percent (8%) of the bonus to allow an additional 13 units above the maximum 156 units otherwise allowed for the parcel per the City of Flagstaff Code and Flagstaff Regional Plan 2030. Developer affirms Recital E above and agrees to incorporate the requirements of Recital E(1), (4) and (5), above, into the Project.

5. Development Standards. The development of the Property, as well as the requirements for off-site and on-site public improvements, will be governed by the Flagstaff Zoning Code, ordinances, regulations, rules, guidelines, and policies controlling permitted uses of the site, design review standards, the density and intensity of uses, and the maximum and minimum height and size of the buildings in existence as of the Effective Date of this Agreement will apply. For any development modifications made after five (5) years from the Effective Date of this Agreement, the current codes, ordinances, regulations, rules, guidelines, and standards in effect at the time of submittal shall apply. Regardless of the time of development, current City Engineering Standards, Building Code, Fire Code, and other Code provisions, regulations, rules, and guidelines will apply to the Project.

DEVELOPER OBLIGATIONS

6. Infrastructure Improvements. All on-site roadway, water, sewer, and stormwater improvements and any required public easements are identified on the Site Plan and will be completed by Developer.

7. Homeowners' Association. Prior to the submittal of the first application for a building permit to City and pursuant to a condominium declaration ("Declaration") by Developer,

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Developer will form one or more Arizona nonprofit corporations to serve as the homeowners' association(s) ("HOA") for the Project and exercise all rights and obligations as may be granted, undertaken, or assigned to the HOA(s). The Declaration will incorporate the requirements of this Agreement and further provide that either the HOA, a sub-association, or Developer (until such time as Developer, as "Developer," relinquishes control of the HOA(s) to the property owners, as provided in the Declaration) shall manage and maintain the common elements of the Project. The Declaration will identify the HOA that will be assigned all of the Developer's rights and obligations to operate the attainable housing components of the Project.

8. Adjacent Right-of-Way Landscaping Maintenance. All landscaping and irrigation in adjacent right-of-way areas along Ponderosa Parkway shall be maintained by the Developer or its assignee(s).

9. Drainage and Slope Easement. Developer and City will prepare and record a separate drainage and slope easement, including access to maintain the same, clarifying the previous conveyance to the City, as set forth in the Official Records of Coconino County in Instruments 3555010, 3555011, and 3546724.

10. Attainable Housing. The Project will designate a minimum of ten percent (10%) of the total residential condominium ownership units to be initially sold at or below 100% of the Area Median Income ("AMI") affordability level ("Attainable Units") as follows:

a. Attainable Units will range in size from studios to three (3) bedroom units and be dispersed through the Project as feasible. Attainable Units must be occupied by the owner(s) as a primary residence and cannot be rented. The Attainable Units will be available beginning in the first phase of construction with a unit-mix dictated by buyers' preference and construction timing.

b. Developer will assign responsibility for the attainable housing program to an HOA for the Project. Developer or its assignee intends to contract with a third party entity to manage and oversee the buyer income qualification of the attainable housing component of the Project.

c. *Deed Restrictions*. Attainable Units will be subject to permanent deed restrictions or other binding affordability restrictions that run with the land and require transfer of the Attainable Units to another income qualified household for a maximum sales price in a form agreed upon by the City of Flagstaff Housing Director or designee ("Deed Restrictions"). Prior to the conveyance of an Attainable Unit from Developer to a third party purchaser ("Initial Sale"), Deed Restrictions for the particular Attainable Unit incorporating the requirements of this Agreement and will be recorded by Developer in the official records of Coconino County.

d. *Initial Sale Price*. Developer agrees to restrict the Initial Sale of Attainable Units to purchasing households with a maximum household income at or below 100% of the AMI affordability level for Flagstaff based on then current figures as determined by the United States Department of Housing and Urban Development

("HUD") adjusted for household size ("Initial Sales Price"). In determining the Initial Sales Price, the eligible buyers housing expense ratio will not exceed thirty-five percent (35%) without approval by the Director of the City of Flagstaff Housing Section or designee. Developer will offer Attainable Units at a price point at least 25% lower than the market rates for comparable units.

e. *Resale Procedure*. Resale of Attainable Units will be regulated through the Deed Restrictions which will outline the maximum future resale price and define future buyer income eligibility and incorporate the relevant portions of this Agreement regarding attainable housing. The HOA assigned responsibility for the attainable housing program will establish the practical procedures consistent with the deed restriction document and this Agreement for when the owner of an Attainable Unit wishes to sell or transfer the unit. The procedures will address notification to the HOA, commission and payment for a market valuation of the unit (appraisal), and calculation of maximum resale price.

f. *Maximum Resale Price*. The maximum purchase price an Attainable Unit may be sold to a new eligible buyer will be equal to the lesser of: (1) the current appraised value of the Attainable Unit; or (2) the sum of then owner's purchase price of the Attainable Unit plus twenty five percent (25%) of the increase in the market value of the unit if not encumbered (determined by subtracting the purchase price from the current appraised value) ("Maximum Resale Price"). Resale of Attainable Units will be restricted to income eligible buyers with a maximum household income at or below 125% of the AMI affordability level for Flagstaff based on then current HUD figures as adjusted for household size. In determining the Maximum Sales Price, the eligible buyers' housing expense ratio will not exceed thirty-five percent (35%) without approval by the City of Flagstaff Housing Director or designee.

g. If an Affordable Unit is not under contract for sale within 120 days from the date the unit is first listed by the current owner with the Multiple Listing Service or similar real estate listing service, the Deed Restriction for that unit will terminate. If the Attainable Unit is sold without the Maximum Resale Price requirements, the difference between the Maximum Resale Price and the unrestricted market rate purchase price shall be paid to the City of Flagstaff for down payment assistance or comparable direct assistance for up to 125% AMI homebuyers.

h. *Conveyance to an Attainable Housing Program*. Developer may convey any Attainable Unit at the Initial Sale Price with deed restrictions agreed upon by the City of Flagstaff Housing Director or designee to a third party entity that operates an affordable housing program whether for affordable ownership or affordable rentals. An Owner of an Attainable Unit may convey the Unit at the Maximum Resale Price with deed restrictions agreed upon by the City of Flagstaff Housing Director or designee to a third party entity that operates an affordable housing program whether for affordable ownership or affordable rentals.

11. Materials Management. Developer agrees to incorporate infrastructure to support

residents' recycling activities on-site, including the provision of recycling collection locations near those dedicated for trash. During construction, Developer will have a written solid waste program that includes a plan for recycling or reuse of paper, cardboard, plastics and metals; recycling or reuse of lumber scraps; and diversion of masonry, cementitious and possibly gypsum material from the landfill. To the extent feasible, Developer will reuse native materials on-site.

12. Permits and Building Fees. Developer agrees and understands that upon the submittal date of any application or permit, the current fees in effect at the time of submittal shall apply to the Project.

DEFAULT; REMEDIES

13. Events Constituting Default. A Party shall be deemed to be in default under this Agreement if such Party breaches any obligation required to be performed by the respective Party within any time period required for such performance and such breach or default continues for a period of thirty (30) days after written notice thereof from the Party not in default.

14. Dispute Resolution. In the event that there is a dispute hereunder which the Parties cannot resolve between themselves, the Parties agree that there shall be a forty-five (45) day moratorium on litigation during which time the Parties agree to attempt to settle the dispute by nonbinding mediation before the commencement of litigation. The costs of any such mediation shall be divided equally between City and Developer or in a manner as the mediator may order. If the Parties do not agree to a binding resolution, a Party shall be free to initiate litigation upon the conclusion of mediation.

15. Developer's Remedies. In the event that City is in default under this Agreement and fails to cure any such default within the time period required therefore as set forth above, then, in that event, in addition to all other legal and equitable remedies which Developer may have, Developer may terminate this Agreement by written notice delivered to City.

16. City's Remedies. In the event that Developer is in default under this Agreement, and Developer thereafter fails to cure any such default within the time period described above, then, in that event, in addition to all other legal and equitable remedies which City may have, City may terminate this Agreement by written notice delivered to Developer.

17. Development Rights in the Event of Termination. Upon the termination of this Agreement as provided herein, Developer shall have no further rights to develop the Property pursuant to this Agreement.

18. No Personal Liability. No current or former member, official, or employee of City or Developer when acting within the scope of their official capacity shall be personally liable (a) in the event of any default or breach by City or Developer, as applicable; (b) for any amount that may become due to the nonbreaching Party or its successor or assign; or (c) pursuant to any obligation of City or Developer, as applicable, under the terms of this Agreement.

19. Liability and Indemnification. Developer shall indemnify, protect, defend and hold harmless the City, its Council members, officers, employees, and agents for, from and against any

and all claims, demands, losses, damages, liabilities, fines, charges, penalties, administrative and judicial proceedings and orders, judgments, remedial actions of any kind, including, without limitation, reasonable attorney's fees and costs of defense arising, directly or indirectly, in whole or in part, out of the performance of this Agreement by City or Developer, or nonperformance of this Agreement by the Developer.

GENERAL PROVISIONS

20. Effective Date and Term. This Agreement will be effective on the date of recordation, in accordance with A.R.S. § 9-500.05, after execution by Parties ("Effective Date"). The Agreement will automatically terminate thirty (30) years from the Effective Date.

21. Further Assurances. Each Party, promptly upon the request of the other, will take such further actions and will execute, acknowledge and deliver to the other any and all further instruments as may be necessary or proper to carry out the purpose and intent of this Agreement.

22. Successors and Assigns. All of the provisions hereof will inure to the benefit of and be binding upon the successors and assigns of the Parties pursuant to A.R.S. § 9-500.05(D), except as provided below. Developer's rights and obligations hereunder may only be assigned to a person or entity that has acquired the Property or a portion thereof and only by a written instrument, recorded in the official records of Coconino County, Arizona, expressly assigning such rights and obligations. All rights and obligations of Developer under this Agreement will constitute covenants that run with the land and will be binding on all of Developer's respective successors and assigns.

a. Notwithstanding the foregoing, City agrees that Developer's common element ownership, operation, and maintenance obligations provided by this Agreement may be assigned to HOA(s) to be established by Developer.

b. Notwithstanding the foregoing, City agrees that Developer's operation, oversight, and management of the attainable housing components of the Project provided by this Agreement may be assigned to HOA(s) to be established by Developer.

c. Notwithstanding any other provisions of this Agreement, Developer may assign all or part of its rights and duties under this Agreement to any financial institution from which such Developer has borrowed funds for developing the Property or a portion thereof.

23. Entire Agreement. This Agreement contains the entire understanding and agreement between the Parties with respect to the subject matter hereof and supersedes any prior written or oral understandings or agreements between the Parties. All exhibits attached hereto are incorporated herein by reference as though fully set forth herein.

24. Modification of Agreement. This Agreement may be amended or cancelled in whole or in part at any time by written amendment executed by the Parties or by their successor in interest or assigns. All amendments to this Agreement must be recorded in the official records of Coconino County, Arizona, within ten (10) days following execution, as required by A.R.S. § 9- 500.05(D).

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25. Waiver. No delay in exercising any right or remedy shall constitute a waiver thereof and no waiver by the Parties of the breach of any provision of this Agreement shall be construed as a waiver of any preceding or succeeding breach of the same or any other provision of this Agreement.

26. Counterparts. This Agreement may be executed in any number of counterparts, each of which will constitute an original, but all of which will constitute one and the same agreement.

27. Terms. Common nouns and pronouns will be deemed to refer to the masculine, feminine, neuter, singular, and plural, as the identity of the person may in the context require; and the word "person" or "party" will include a corporation, limited liability company, firm, partnership, proprietorship, or other form of association.

28. Descriptive Headings. The descriptive headings throughout this Agreement are for convenience and reference only, and the words contained therein will in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this Agreement.

29. Construction of Agreement. This Agreement has been arrived at by negotiation and will not be construed against either Party or against the Party who prepared the last draft.

30. Governing Law and Venue. This Agreement and the rights of the Parties shall be governed by and construed in accordance with the laws of the State of Arizona. and any litigation brought by either Party against the other to enforce the provisions of this Agreement must be filed in the Coconino County Superior Court or in the United States District Court for the District of Arizona, if appropriate under 28 U.S.C. § 1331.

31. Cancellation for Conflict of Interest. This Agreement is subject to the cancellation provisions of A.R.S. § 38-511.

32. Attorneys' Fees. In the event any action at law or in equity is instituted between the Parties in connection with this Agreement, the prevailing Party in the action will be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing Party, as well as expenses incurred in connection with the prosecution or defense of such action. For purposes of this Agreement, the term "attorneys' fees" or "attorneys' fees and costs" will mean the reasonable fees and expenses of in-house and outside counsel to the Parties hereto, which may include reasonable printing, photocopying, duplicating and other expenses, air freight charges, and fees billed for law clerks, paralegals and other persons performing services under the supervision of an attorney, and the reasonable costs and fees incurred in connection with the enforcement or collection of any judgment obtained in any such proceeding. The provisions of this Section will survive the entry of any judgment, and will not merge, or be deemed to have merged, into any judgment.

33. Negation of Partnership. The Parties specifically acknowledge that the Project will be developed as private property, that no Party is acting as the agent of any other Party in any respect, and that each Party is an independent contracting entity with respect to the terms,

covenants, and conditions contained in this Agreement. None of the terms or provisions of this Agreement are intended to create a partnership or other joint enterprise between the Parties.

34. No Obligation to Develop Property. Except as expressly set forth in this Agreement, neither City or Developer will be required to complete any part or all of the development of the Property.

35. No Third-Party Beneficiaries. City and Developer acknowledge and agree that the terms, provisions, and conditions of this Agreement are for the sole benefit of, and may be enforced solely by, City and Developer, and none of the terms, provisions, conditions, and obligations are for the benefit of or may be enforced by any third party.

36. Compliance with All Laws. Developer will comply with all applicable Federal, State, County and City laws, regulations and policies.

37. Time of the Essence. Time is of the essence in implementing the terms of this Agreement.

38. Authorization. The execution and performance of this Agreement has been duly authorized by all necessary laws, resolutions, or corporate actions of the respective Parties. The Parties to this Agreement represent and warrant that the persons executing this Agreement have full authority to bind the respective Parties.

39. Notices. All notices and communications provided for herein, or given in connection herewith, shall be validly made if in writing and delivered personally or sent by registered or certified United States Postal Service mail, return receipt requested, postage prepaid to:

To City:

City Manager
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

To Developer:

Ponderosa Parkway, LLC
102 S. Mikes Pike Street
Flagstaff, Arizona 86001

or to such other addresses as either party may from time to time designate in writing and deliver in a like manner. Any such change of address notice shall be given at least ten (10) days before the date on which the change is to become effective. Notices given by mail shall be deemed delivered seventy-two (72) hours following deposit in the United States Postal Service in the manner set forth above.

40. Recordation of Agreement and Subsequent Amendment; Cancellation. The City will record this Agreement, and any amendment or cancellation of it, in the official records of the Coconino County Recorder no later than ten (10) days after the City and the Developer execute the Agreement, amendment, or cancellation, as required by A.R.S. § 9-500.05.

WAIVER OF CLAIMS

DRAFT

41. Waiver of Claims for Diminution in Value. Developer hereby waives and fully releases any and all financial loss, injury, claims, and causes of action that the Developer may have, now or in the future, for any "diminution in value" and for any "just compensation" under the Private Property Rights Protection Act, codified in A.R.S §§ 12-1131 through 12-1138, in connection with the application of City's existing land use laws and including @Ordinance Number 2019- xx regarding the Property. This waiver constitutes a complete release of any and all claims and causes of action that may arise or may be asserted under the Act with regard to the subject Property. Developer agrees to indemnify, hold harmless, and defend City, its officers, employees, and agents, from any and all claims, causes of actions, demands, losses and expenses, including attorney's fees and litigation costs, that may be asserted by or may result from any of the present or future owners of any interest in the Property seeking potential compensation, damages, attorney's fees, or costs under the Act that they may have, as a result of the application of City's existing land use laws, including @Ordinance Number 2019-xx, upon the Property.

IN WITNESS WHEREOF, the City has caused this Agreement to be executed by its duly authorized representatives, and Developer has signed the same on or as of the day and year first above written.

[Signature page follows]

DRAFT

City of Flagstaff, an Arizona municipal corporation

_____
Coral Evans, Mayor
Date_____

Attest:

_____
City Clerk
Date_____

Approved as to form:

_____
City Attorney
Date_____

Ponderosa Parkway, LLC, an Arizona limited liability company

By_____
Its_____
Date_____

STATE OF ARIZONA)
) ss.
County of Coconino)

On this _____ day of _____, 2019, before me, the undersigned Notary Public, personally appeared _____, personally known to me or shown by satisfactory evidence to be the person whose signature appears above, and acknowledged to me that he signed the foregoing document for the purposes therein contained. IN WITNESS WHEREOF, I have set my hand and official seal.

_____
Notary Public

Seal:

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Exhibit A

Legal Description

Sixteenth: SW Quarter: SW Section: 14 Township: 21N Range: 07E PCL LAND SW4 SEC 14; COM SW COR SEC 14; TH N 88-40-05 E 498.63'; TH N 88-46-22 E 94.31'; TH N 88-33-15 E 97.00'; TH N 88-33-15 E 17.13'; TH N 88-49-16 E 33.06' TO PT ON CURVE, RADIUS N 83-36-13 E; TH NLY 266.06' ALNG SAID CURVE, HAVING CENTRAL ANGLE OF 22-52-57 & RADIUS OF 666.20' TPOB; TH CONTINUING NLY 91.43' ALNG SAID CURVE, CENTRAL ANGLE OF 07-51-49 RADIUS 666.20'; TH N 24-20-59 E 100.00' TO BEG OF CURVE CONCAVE TO W, RADIUS PT N 65-39-01 W; TH NLY 161.97' ALNG SAID CURVE, CENTRAL ANGLE OF 16-52-24, RADIUS 550.00'; TH CONTINUING ALNG SAID CURVE 30.02', CENTRAL ANGLE 03-07-38; TH N 04-20-59 E 128.87' TO BEG OF CURVE CONCAVE TO W, RADIUS PT N 85-39-01 W; TH NLY 516.81' ALNG SAID CURVE, CENTRAL ANGLE OF 11-36-44, RADIUS 2550.00';TH S 81-54-10 E 435.11'; TH S 25-00-00 E 595.79'; TH S 71-30-21 W 320.98'; TH S 18-30-39 E 251.55'; TH S 71-29-50 W 566.31'; TH N 18-16-58 W 121.42' TPOB.

DRAFT

From: Elizabeth Collins
To: Alaxandra Pucciarelli; Reid Miller
Cc: Kate Morley
Subject: NAIPTA residential ecoPASS
Date: Thursday, April 25, 2019 11:56:42 AM
Attachments: image002.png
Miramonte, residential ecopass 04.18.2019.doc

Hi Alaxandra and Reid, I wanted to give you an update on NAIPTA's conversation with Jack Kemmerly at Miramonte Homes. He was very interested in an agreement to provide an ecoPASS for each unit and bundle the cost into the HOA fee. NAIPTA was able to adapt our existing employer ecoPASS program into a residential ecoPASS. See attached agreement. I understand Jack is now taking this agreement to his HOA organization for review.

Please note that this agreement is a pilot program as we are currently going through a Fare Study. Part 3 of the agreement outlines this:
3. Pilot Program. It is understood that the initial rate of $33.20 per bed is deemed a pilot program and is subject to change after a Fare Study is conducted. However, this agreement will grandfather the proposed development and any future increase, if applicable, will be capped at ten percent (10%) in any given year.

NAIPTA intends to continue offering the residential ecoPASS program to developers as high-density housing developments are proposed. As we reach out to developers, appropriate City staff will be included on the email and updated on any agreements that are made.

Thank you, Bizzy

From: Jacki Lenners
Sent: Friday, April 19, 2019 9:42 AM
To: Jack Kemmerly <JKemmerly@miramontehomes.com>; Jennifer Mott <JMott@awdlaw.com>
Cc: Elizabeth Collins <ecollins@naipta.az.gov>; Kate Morley <kmorley@naipta.az.gov>; Heather Dalmolin <hdalmolin@naipta.az.gov>
Subject: Miramonte, residential ecopass 04.01.2019

Good Morning Jack and Jennifer,

Please find attached a draft of an ecoPASS agreement for Miramonte's residential project on Ponderosa Parkway. I know we went back and forth on the number of units/residents. For the purposes of this agreement, I assumed that fell in the 51-200 range which is the $33.50/pass price point. If it exceeds the 200 mark, the price would go down to $28.50 per pass.

I've copied our Administrative Director Heather Dalmolin on this email, as she oversees our legal agreements. Please feel free to reply all, or contact Heather directly, with any feedback, questions, etc.

Have a wonderful weekend…

Jacki

Jacki Lenners
Marketing Manager
Mountain Line
3773 N. Kaspar Dr., Flagstaff, AZ 86004
W: 928.679.8933
C: 602.791.6879
www.mountainline.az.gov

ML Logo for Email



Attention: This message is intended only for the individual to whom it is addressed and may contain information that is confidential or privileged. If you are not the intended recipient, or the employee or person responsible for delivering it to the intended recipient, you are hereby notified that any dissemination, distribution, copying or use is strictly prohibited. If you have received this communication in error, please notify the sender and destroy or delete this communication immediately.

AGREEMENT FOR TRANSIT PASSES

THIS AGREEMENT FOR TRANSIT PASSES ("Agreement") is entered into by, between and among the Northern Arizona Intergovernmental Public Transportation Authority, a corporate body and political subdivision of the State of Arizona ("NAIPTA"), and Miramonte Homes ("Developer") authorized to conduct business in the State of Arizona. NAIPTA and Developer are collectively referred to herein as "Parties," or individually as a "Party."

RECITALS:

A. NAIPTA is a public intergovernmental public transportation authority created pursuant to the provisions of Arizona Revised Statutes, Title 28, Chapter 26, and is responsible for providing certain public transit services in the City of Flagstaff, including the campus of Northern Arizona University.

B. Developer is the owner of Miramonte at Pondersosa Parkway, (the "Property"), within the City of Flagstaff.

C. Residents of the City have identified mitigation of traffic congestion as a significant community goal. Developer has proposed, as a means of mitigating traffic congestion, an agreement whereby the residents would purchase Residential ecoPASSes through their HOA fees for the next 10 years.

D. NAIPTA is authorized to enter into this Agreement with Developer pursuant to the provisions of A.R.S. § 28-9124.

AGREEMENT:

NOW, THEREFORE, in consideration of the foregoing recitals and mutual promises set forth in this Agreement, NAIPTA and Developer agree as follows:

1. Purpose. The purpose of this Agreement is to set forth the terms and conditions pursuant to which NAIPTA will provide to the Property a residential ecopass program for all households. The pass will provide access to all Mountain Line Transit routes within the City of Flagstaff.

2. Payment by Developer. Developer will pay NAIPTA the sum of $33.50 per bed for 10 years, adjusted annually to reflect changes in the Transportation Consumer Price Index, for the Term of this Agreement. Payments will be made in 4 equal quarterly installments of the annual fee due for total beds of _____, in advance, on the first day of each quarter beginning with July 1, 2019.

3. Pilot Program. It is understood that the initial rate of $33.20 per bed is deemed a pilot program and is subject to change after a Fare Study is conducted. However, this agreement will grandfather the proposed development and any future increase, if applicable, will be capped at ten percent (10%) in any given year.

4. **General Provisions.**

4.1 Term. This Term of this Agreement shall be for ten (10) years, unless terminated sooner as provided herein and will autorenew for 10 years in perpetuity unless notice is provided by either party no less than 180 days prior to the authorenewal.

4.2 Notices and Filings. All notices, filings, consents, approvals and other communications provided for herein or given in connection herewith shall be validly given, filed, made, delivered or served if in writing and (i) delivered personally, (ii) sent by recognized courier service for next business day delivery or (iii) sent by certified United States Mail, postage pre-paid and return receipt requested, if to:

NAIPTA:		Developer:
With Copy to:		With Copy to:

or to such other address or addresses as may hereafter be specified by notice given by any of the above for itself to the others. Any notice or other communication directed to either Party shall become effective upon the earliest of the following: (a) actual receipt by that Party; or (b) thirty-six (36) hours after deposit with the United States Postal Service, addressed to the Party.

4.3 Default. Failure or unreasonable delay by a Party to perform or otherwise act in accordance with any term or provision hereof shall constitute a breach of this Agreement. Any breach not cured within thirty (30) days after written notice is received from another Party, shall constitute a default under this Agreement; provided, however, that if the failure is such that more than thirty (30) days would reasonably be required to perform such action or comply with any term or provision hereof, then the Party shall have such additional time as may be necessary to perform or comply so long as the Party commences performance or compliance within said thirty (30) day period and diligently proceeds to complete such performance or fulfill such obligation. Any notice of a breach shall specify the nature of the alleged breach and the manner in which said breach may be satisfactorily cured, if possible. The thirty (30) day period shall not apply where an ordinance or statute requires NAIPTA to perform or otherwise act in a period in excess of thirty (30) days.

4.4 Dispute Resolution. If a dispute arises out of or relates to this Agreement and if the dispute cannot be settled through negotiation, the Parties agree that there shall be a forty-five (45) day moratorium on litigation while the parties first try in good faith to resolve the dispute by mediation before resorting to some other dispute

resolution procedure. Mediation will be self-administered and conducted under the CPR Mediation Procedures established by the CPR Institute for Dispute Resolution, 366 Madison Avenue, New York, New York 10017, (212) 949-6490, www.cpradr.org with the exception of the mediator selection provisions, or the procedures used by the Alternative Dispute Resolution ("ADR") Program at the Coconino County Superior Court. The parties shall agree upon a attorney mediator, failing which on the application of either party to the Director of the ADR Program ("Director") at the Coconino County Superior Court, an attorney mediator will be appointed promptly by the Director for that purpose. Each party agrees to bear its own costs in mediation. The Parties will not be obligated to mediate if an indispensable party is unwilling to join the mediation. This section does not constitute a waiver of a Party's right to initiate legal action if a dispute is not resolved through good faith mediation, or if provisional relief is required under the Arizona Rules of Civil Procedure.

4.5 Choice of Law and Venue. Any dispute, controversy, claim or cause of action arising out of or related to this Agreement shall be governed by the substantive law of the State of Arizona, without regard to principles of conflicts of law. The sole and exclusive venue for any such dispute shall be the Superior Court of the State of Arizona, in and for the County of Coconino, and each Party waives the right to object to venue in Coconino County or to remove an action from such court for any reason. The Parties confirm that this Section 5.6 has been separately bargained for and constitutes additional consideration for NAIPTA's entering into this Agreement.

4.6 Good Standing and Authority. The Parties represent and warrant that each is duly formed and validly existing under applicable state laws and that the individuals executing this Agreement on behalf of their respective Party are authorized and empowered to bind the Party on whose behalf each such individual is signing.

4.7 Assignment. The provisions of this Agreement are binding upon and shall inure to the benefit of the Parties, and all of their successors in interest and assigns; provided; however, that a party's rights and obligations hereunder may be assigned, in whole or in part, only to a person or entity that has acquired any applicable property rights and has expressly assumed all of the rights and obligations of the assigning party.

4.8 Third Parties. It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture or other agreement between the Parties. No term or provision of this Agreement is intended to, or shall be for the benefit of any person or entity not a party hereto, and no such other person or entity shall have any right or cause of action hereunder.

4.9 Waiver. No delay in exercising any right or remedy shall constitute a waiver thereof; and no waiver of any breach shall be construed as a waiver of any preceding or succeeding breach of the same or any other covenant, or condition of this Agreement. No waiver shall be effective unless it is writing and is signed by the Party asserted to have granted such waiver.

4.10 Further Documentation. The Parties agree in good faith to execute

such further or additional instruments and documents and to take such further acts as may be necessary or appropriate to fully carry out the intent and purpose of this Agreement.

4.11 Fair Interpretation. The Parties have been represented by counsel in the negotiation and drafting of this Agreement and this Agreement shall be construed according to the fair meaning of its language. The rule of construction that ambiguities shall be resolved against the Party who drafted a provision shall not be employed in interpreting this Agreement.

4.12 Heading The headings of this Agreement are for purposes of reference only and shall not limit or define the meaning of any provision of this Agreement.

4.13 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original but all of which shall constitute one and the same instrument.

4.14 Computation of Time. In computing any period of time under this Agreement, the date of the act or event from which the designated period of time begins to run shall not be included. The last day of the period so completed shall be included unless it is a Saturday, Sunday or legal holiday, in which event the period shall run until the end of the next day which is not a Saturday, Sunday or Legal holiday. The time for performance of any obligation or taking any action under this Agreement shall be deemed to expire at 5:00 p.m. (Arizona time) on the last day of the applicable time period provided herein.

4.15 Conflict of Interest. This Agreement is subject to the terms of Arizona Revised Statutes § 38-511.

4.16 Entire Agreement. This Agreement, together with the following Exhibits attached hereto (which are in incorporated herein by this reference) constitutes the entire agreement between the Parties.

All prior and contemporaneous agreements, representations and understandings of the Parties, oral or written are superseded by and merged in this Agreement.

[SIGNATURES APPEAR ON THE FOLLOWING PAGES]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date(s) written below.

NAIPTA:

By: _____

Date: _____

APPROVED AS TO FORM:

By: _____
Dickinson Wright PLLC
NAIPTA General Counsel

DEVELOPER:

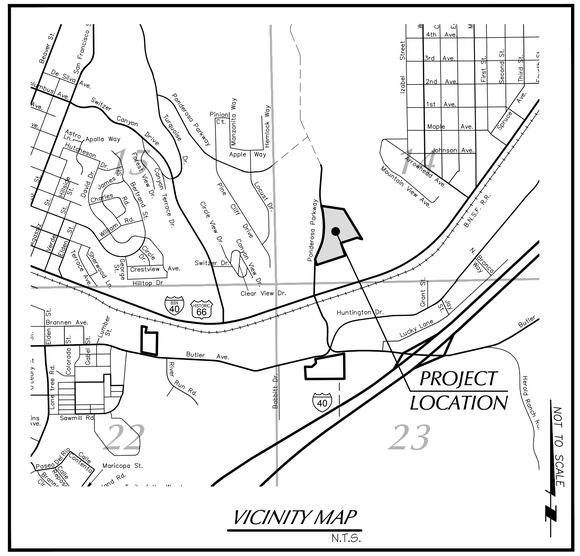
_____
an Arizona limited liability company

By: _____
Its: _____
Date: _____

.

LEGEND & ABBREVIATIONS

	CENTERLINE (CL or ℄)
	RIGHT OF WAY (R.O.W.)
	PROPERTY LINE (PL or ℗)
EX W	EXISTING WATER LINE
8"W	NEW WATER LINE (WL)
8"S	NEW SEWER LINE (SL)
FS	NEW FIRE SERVICE (FS)
WS	NEW WATER SERVICE (WS)
BSL	NEW BUILDLING SUPPLY LINE (BSL)
SS	NEW SEWER SERVICE (SS)
EX S	EXISTING SEWER MANHOLE
S	NEW SEWER MANHOLE (MH)
	EXISTING EDGE OF PAVEMENT / CURB
	NEW EDGE OF PAVEMENT / CURB
	PUBLIC UTILITY EASEMENT (PUE)
GL	GRADING LIMITS (GL)
EX OVHD	EXISTING OVERHEAD UTILITY LINE (EX OVHD)
	EXISTING FIRE HYDRANT (EX FH)
	NEW FIRE HYDRANT (FH)
	EXISTING WATER VALVE (EX WV)
	NEW WATER VALVE (WV)
	EXISTING WATER METER (EX WM)
	NEW WATER METER (WM)
	EXISTING STREET LIGHT (EX SL)
	NEW STREET LIGHT (SL)
X-ING	CROSSING
RP	RADIUS POINT
R	RADIUS
IS	INTERSECTION
DC	DEPRESSED CURB
BC	BACK OF CURB (TOP)
FC	FACE OF CURB (TOP)
BSW	BACK OF SIDEWALK
FSW	FACE OF SIDEWALK
C&G	CURB AND GUTTER
EOP	EDGE OF PAVEMENT
S/W	SIDEWALK
PKY	PARKWAY
D/W	DRIVEWAY
℄ or FL	FLOWLINE
EG	EXISTING GRADE
FG	FINISH GRADE
EOL	END OF LINE BLOWOFF
TS&V	TAPPING SLEEVE and VALVE
SDMH	STORM DRAIN MANHOLE
DB	DRAIN BASIN
CB	CATCH BASIN
TW	TOP OF WALL
GB	GRADE BREAK
(TYP)	TYPICAL
EX	EXISTING
SHT	SHEET
VG	VALLEY GUTTER
FF	FINISH FLOOR ELEVATION
EA	EACH
LF	LINEAL FEET
SF	SQUARE FOOT
SY	SQUARE YARDS
CY	CUBIC YARDS
D.E.	DRAINAGE EASEMENT
S.E.	SLOPE EASEMENT
G	GUTTER
P	PAVEMENT
C	CONCRETE
LT	LEFT
RT	RIGHT
TRANS	TRANSITION
B.F.P.	BACK FLOW PREVENTION
HC	HANDICAP
MES	MOGOLLON ENGINEERING & SURVEYING, INC.
C.O.F.	CITY OF FLAGSTAFF



VICINITY MAP
N.T.S.

INDEX TO SHEETS

1	COVER SHEET and PROJECT INFORMATION
2	PRELIMINARY GRADING
3	PRELIMINARY UTILITY PLAN
4	RESOURCE PROTECTION PLAN
5	AREA MAP & SITE ANALYSIS
6	PONDEROSA PARKWAY PLAN & PROFILE

UNIT COUNT and PARKING INFORMATION

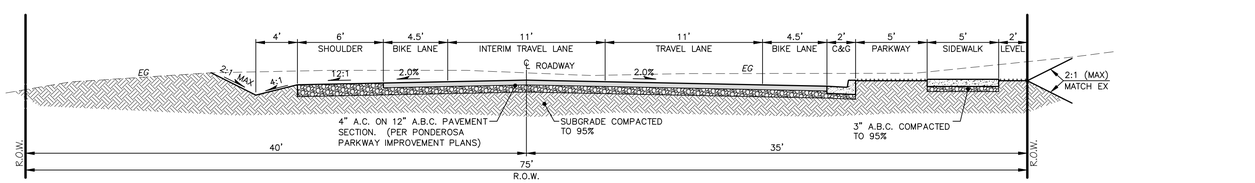
PARKING CALCULATIONS:	TOTAL No. OF UNITS		PARKING PER UNIT	REQUIRED PARKING SPACES
MARKET RATE UNITS				
STUDIO UNITS:	13	x	1.25	16.25 (16)
ONE BEDROOM UNITS:	52	x	1.5	78
TWO BEDROOM UNITS:	78	x	2	156
THREE BEDROOM UNITS:	26	x	2	52
TOTAL UNITS:	169			302

VISITOR PARKING: 0.25/EACH 2+ BEDROOM = 104*0.25 = 26

REQUIRED PARKING: 328 SPACES REQUIRED

PARKING REDUCTIONS:	20% MAXIMUM = 66 SPACE MAX. REDUCTION
10% PER 10-50.80.060 A (TRANSIT):	33 SPACE REDUCTION
5% PER 10-50.80.060 E (FOREST RESOURCES):	16 SPACE REDUCTION
5% MAX. PER 10-50.80.060 F (BIKE PARKING):	16 SPACE REDUCTION (5 BIKE RACKS / BUILDING) 64 BIKE RACKS / 4 = 16 SPACE REDUCTION
REQUIRED PARKING:	263 SPACES REQUIRED
TOTAL AUTOMOBILE PARKING PROVIDED:	273 (INCLUDING 8 H.C. SPACES)
TOTAL MOTORCYCLE PARKING PROVIDED:	7 (DOES NOT APPLY TO TOTAL)

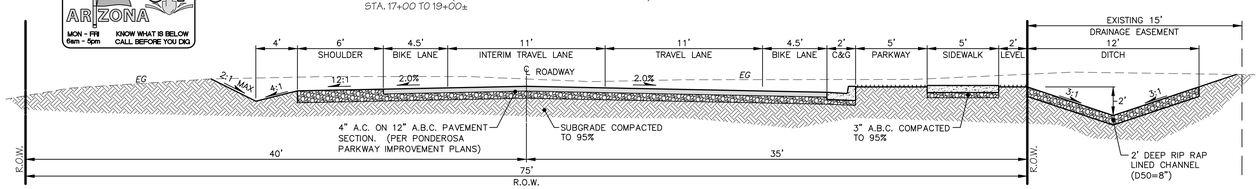
PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING



TYPICAL ROADWAY CROSS SECTION

(PUBLIC IMPROVEMENT) N.T.S.
MINOR COLLECTOR (C.O.F. STD. DET. No. 10-09-035 - MODIFIED)
STA. 17+00 TO 19+00±

811 ARIZONA
MON - FRI 6am - 5pm
KNOW WHAT IS BELOW CALL BEFORE YOU DIG



TYPICAL ROADWAY CROSS SECTION

(PUBLIC IMPROVEMENT) N.T.S.
MINOR COLLECTOR (C.O.F. STD. DET. No. 10-09-035 - MODIFIED)
STA. 19+00 TO 25+05±

SITE PLAN
FOR
PONDEROSA PARKWAY

LOCATED IN THE SW 1/4 OF SECTION 14,
TOWNSHIP 21 NORTH, RANGE 7 EAST, G&S.R.M.
FLAGSTAFF, COCONINO COUNTY, ARIZONA

SUSTAINABLE BUILDING STANDARD DENSITY BONUS

MEETS ALL THE MINIMUM STANDARDS AS SPELLED OUT IN THE DEVELOPMENT AGREEMENT PER C.O.F. ZONING CODE SECTION 10-30.70.040

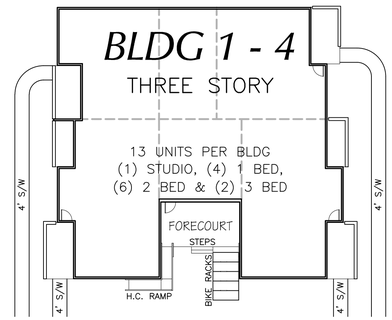
MAXIMUM UNITS ALLOWED PER THE REGIONAL PLAN:	156
PERCENTAGE OF UNITS MEETING HERS 50 STANDARD PER TABLE 10-30.70.303A	100%
DENSITY BONUS FOR 100% OF UNITS MEETING HERS 50 STANDARD:	25%
DENSITY BONUS:	156 x 0.25 = 39
MAXIMUM NUMBER OF UNITS ALLOWED AFTER DENSITY BONUS:	156 + 39 = 195
TOTAL NUMBER OF UNITS:	169 (AFTER DENSITY BONUS)

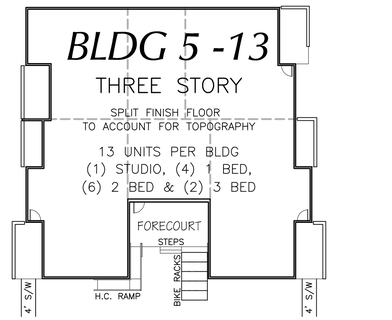
PROJECT INFORMATION

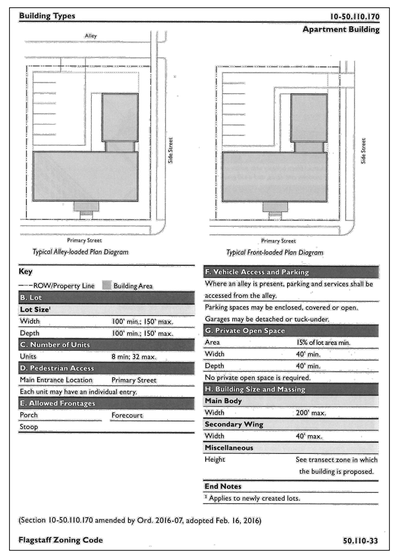
PROJECT NAME:	PONDEROSA PARKWAY
PROJECT LOCATION:	1650 E. PONDEROSA PARKWAY
ASSESSORS PARCEL NUMBER:	107-07-002E
TOTAL SQUARE FOOTAGE:	521,174 PRE R.O.W. DEDICATION
TOTAL ACREAGE:	11.9645± PRE R.O.W. DEDICATION
TOTAL SQUARE FOOTAGE:	519,944 POST R.O.W. DEDICATION
TOTAL ACREAGE:	11.9363± POST R.O.W. DEDICATION
CURRENT ZONING DISTRICT:	RR - RURAL RESIDENTIAL
PROPOSED ZONING DISTRICT:	HR - HIGH DENSITY RESIDENTIAL
REGIONAL PLAN DESIGNATION:	SUBURBAN ACTIVITY CENTER
ALLOWED DENSITY PER THE REGIONAL PLAN:	6 MIN. - 13 MAX. PER ACRE
MAXIMUM UNITS ALLOWED PER THE REGIONAL PLAN:	156
SUSTAINABLE BUILDING STANDARD DENSITY BONUS:	DENSITY BONUS OF 25% (SEE SUSTAINABLE BUILDING STANDARD DENSITY BONUS NOTE ON THIS SHEET)
TOTAL NUMBER OF UNITS:	169 (AFTER DENSITY BONUS)
DENSITY (UNITS PER ACRE):	14.13
CURRENT USE:	VACANT
PROPOSED USE:	CONDOS
FEMA FLOOD ZONE:	ZONE "X" (NO SHADING)
LOCATED WITHIN THE R.P.O. ZONE:	YES
OWNER/DEVELOPER:	PONDEROSA PARKWAY, L.L.C. MR. JACK KEMMERLY 2502 E. RIVER RD. TUCSON, AZ. 85718 (928) 774-0028

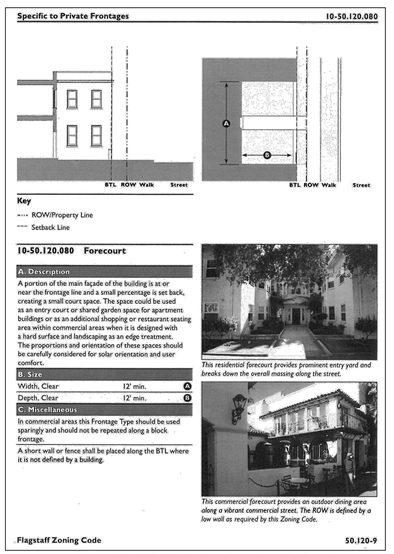
PRELIMINARY BUILDING FOOTPRINTS

SCALE: 1"=20'









Mogollon Inc
ENGINEERING & SURVEYING
411 W Santa Fe Avenue
Flagstaff, Arizona 86001
Phone: 928-214-0214

PONDEROSA PARKWAY
SITE PLAN FOR MIRAMONTE HOMES
COVER SHEET - PROJECT INFORMATION
8/5/19 MES# 18275

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

DATE: 8/5/19	REVISIONS: PER C.O.F. COMMENTS DATED 1/25/19
PROJECT NO. 18275	PER C.O.F. COMMENTS DATED 3/1/19
DESIGNED BY: RCI/PMH	PER C.O.F. COMMENTS DATED 5/2/19
DRAWN BY: RCI/PMH	PER C.O.F. E-MAIL DATED 8/2/19
CHECKED BY: RCI/PMH	FN: SHEET01.DWG VERT SCALE: N/A HOR SCALE: N/A

SHEET NO. 1 OF 6

COF PROJECT #PZ-17-00227-01

DEPARTURE SIGHT TRIANGLES
MINOR APPROACH
CLEAR VIEW ZONES

POSTED SPEED LIMIT PONDEROSA PARKWAY = 30
DESIGN SPEED = 30 MPH – PONDEROSA PARKWAY
14.5' FROM MAJOR ROAD TRAVEL WAY

CASE B1 LEFT TURN FROM MINOR (STOP CONTROL)
I.S.D. TO RIGHT=1.47(30)(7.5+0.5)=352.8' (355')

CASE B2 RIGHT TURN FROM MINOR (STOP CONTROL)
I.S.D. TO LEFT=1.47(30)(6.5)=286.6 (290')

NOTE: ALL MINOR ROAD APPROACH GRADES ARE LESS THAN 3%, NO ADJUSTMENT FOR GRADE FOR CASE B1 AND B2 (STOP CONDITION) IS REQUIRED PER A.A.S.H.T.O. STANDARDS.

APPROACH SIGHT TRIANGLES
PONDEROSA PARKWAY: 30 MPH

LOCATION	DIRECTION	ISD (FT)	% GRADE	ADJUSTMENT	ADJ. ISD (FT)
SOUTH DRIVEWAY	NB	140	−4.4%	1.1	154
	SB	140	+4.4%	1.0	140
MIDDLE DRIVEWAY	NB	140	+7%	0.9	126
	SB	140	−7%	1.1	154
NORTH DRIVEWAY	NB	140	+7%	0.9	126
	SB	140	−7%	1.1	154

NOTE: MINOR APPROACH DEPARTURE SIGHT TRIANGLES CONTROL.

OPEN SPACE

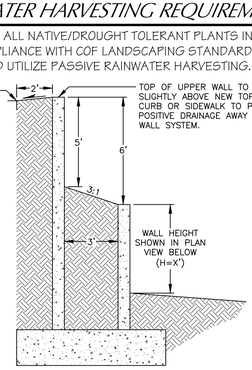
TOTAL LOT AREA:	521,174	S.F.
MINUS CIVIC SPACE:	27,990	S.F.
MINUS IMPERVIOUS SURFACES:	206,054	S.F.
EQUALS OPEN SPACE AREA:	287,130	S.F.
OPEN SPACE PERCENTAGE:	55.09	%

CIVIC SPACE

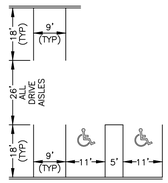
CIVIC SPACE 1:	6,655	S.F.
CIVIC SPACE 2:	4,160	S.F.
CIVIC SPACE 3:	17,175	S.F.
TOTAL CIVIC SPACE :	27,990	S.F.
CIVIC SPACE PERCENTAGE :	5.4	%

RAINWATER HARVESTING REQUIREMENTS

USE ALL NATIVE/DROUGHT TOLERANT PLANTS IN COMPLIANCE WITH COF LANDSCAPING STANDARDS AND UTILIZE PASSIVE RAINWATER HARVESTING.



PRELIMINARY TERRACED WALL DETAIL
PRIVATE IMPROVEMENT N.T.S.



TYPICAL DRIVE AISLE & PARKING SPACES
PRIVATE IMPROVEMENT N.T.S.

SCALE: 1"=40'
0 20 40 80

PARCEL BOUNDARY
S31°26'43"E 865.38'
17%-24.9% SLOPE BOUNDARY
17%-24.9% SLOPE
USABLE OPEN SPACE
SLOPE DISTURBANCE
RETAINING WALL OR CUT PER SOILS REPORT (TYP)
CROWN DITCH ALONG BACK OF WALL TO DIVERT OFF-SITE & ON-SITE EXISTING UNDEVELOPED RUNOFF TO NEW ROADSIDE DITCH (TYP)
DRAINAGE FLOW PATH (TYP)
CROWN DITCH W/ BERM TO DIVERT OFF-SITE & ON-SITE EXISTING UNDEVELOPED RUNOFF TO NEW ROADSIDE DITCH (TYP)
EX. RETAINING WALL
RIP RAP V-DITCH TO DIVERT DEVELOPED RUNOFF TO NEW EXTENDED DETENTION BASIN (TYP)
EX. TWIN 48"x42" C.B.C. INV.=6853.6±
NEW RETAINING WALLS (TYP.)
OUTLET STR.
EDB #1 BOTTOM=6860.0 SURFACE AREA=6029 S.F. TOP OF WALL=6865.0
EXISTING STORMWATER DISCHARGE LOCATION
TOTAL AREA=245 ACRES
Q2=54 CFS; Q10=131 CFS; Q100=306 CFS: PER FINAL DRAINAGE REPORT FOR San Francisco De Asis School and Church, COF DRB #08-083, Dated December 12, 2011.
HW AT Q100= 12.45' (6866.05)
QCAP=180 CFS @ HW/D=1.5 (6858.1)
QCAP=128 CFS @ LEFT OVERBANK OVERTOPPING (6857.1)
107-09-001D HARMON STEVEN B and MEGHAN (ZONE HC)
107-08-004C CF CARWASH FLAGSTAFF LLC (ZONE HC)
107-08-004E MAYER MOUNTAIN PROPERTIES LLC (ZONE HC)
107-08-002E NEMEC FAMILY TRUST (ZONE HC)
107-07-002H SAN FRANCISCO DE ASIS ROMANS CATHOLIC PARISH FLAGSTAFF (ZONE RR)
107-07-001G 249 A STREET LLC (ZONE HC)
BLDG 13 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 12 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 11 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 10 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 9 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 8 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 7 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 6 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 5 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 4 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 3 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 2 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
BLDG 1 THREE STORY (3 UNITS PER BLDG (1) 2 BED & (2) 3 BED)
CIVIC SPACE 1 6,655 S.F.
CIVIC SPACE 2 4,160 S.F.
CIVIC SPACE 3 17,175 S.F.
PRELIMINARY FINISH GRADES (TYP)
PRELIMINARY FINISH FLOOR ELEVATIONS
FIRE DEPT. TRUCK TURNAROUND PER D103.1
20' AISLE
26' AISLE
4'x4' MINI L.S. ISLAND (TYP)
5' L.S. ISLAND
6' L.S. ISLAND
BIKE RACK (TYP AT ALL BLDG'S)
DOUBLE DUMPSTER ENCLOSURE (TYP OF 5)
PEDESTRIAN BRIDGE
10' PEDESTRIAN CONNECTION
RET. WALLS
STAIRS TO BLDG 1&2
STAIRS TO CIVIC SPACE
RET. WALL (TYP)
RET. WALL HEIGHT (TYP)
20' GAP IN TERRACED WALL TO HELP PROTECT AN EX. 20" DBH PINE TREE (SEE SHT. 4)
DRAIN BASIN
STORM DRAIN (TYP)
ROOF DRAIN (TYP)
NEW 6' S/W
NEW 4' S/W
NEW 5' S/W
NEW 5' PKY
NEW CURB
NEW 30" CMP DRIVEWAY CULVERT
NEW RIPRAP V-CHANNEL 3:1 SIDES; D=2'
EX 15" D.E. STOP SIGN
STOP SIGN
R=1648.76' L=521.38' D=18°07'07" T=262.89'
POST R.O.W. R=895.74' L=90.98' D=05°49'11" T=45.53'
POST R.O.W. R=884.74' L=308.84' D=20°00'51" T=156.01'
POST R.O.W. R=884.74' L=174.60' D=11°18'25" T=87.58'
POST R.O.W. N25°35'59"E 45.98'
POST R.O.W. N65°29'41"W 11.00'
R.O.W.
PARCEL BOUNDARY
EX. PUBLIC 29' D.E. PER INSTRUMENT 3546724
EX. PUBLIC 30' D.E. PER INSTRUMENT 3546725
EX. 30' S.E.
EX. 16" P.U.E.
EX. OHP ELEC.
EX. 10' CONC. PUTS
EX. 81"x59" CMPA
EX. A.C. PAVEMENT AND EX. ROADSIDE DITCH TO BE REMOVED AND REPLACED WITH C.O.F. STD. DET. No. 10-09-035 'MINOR COLLECTOR' 1/2 WIDTH PLUS 10' PER DETAILS ON SHEET 1.
SEE SHEET 3 FOR NEW ROADWAY CONDITION.
PONDEROSA PARKWAY
40' R.O.W.
75' R.O.W.
35' R.O.W.
NEW 26' WIDE M.A.G. 251 D/W
CLEARVIEW ZONE 355' RT. (NORTH D/W)
CLEARVIEW ZONE 290' LT. (SOUTH D/W)
CLEARVIEW ZONE 290' LT. (MIDDLE D/W)
CLEARVIEW ZONE 155' RT. (MIDDLE D/W)
EX EOP
NEW EOP
EX A.C.
EX CURB
NEW CURB
23' BOC
10'
QCAP=270 CFS @ HW/D=1.5
STARBUCKS
50' ACCESS EASEMENT
26' SEWER EASEMENT
C.O.F. FIRE STATION #2

IMPERVIOUS SURFACES

NEW BUILDINGS:	78,689	S.F.
CONCRETE SIDEWALKS:	25,645	S.F.
ON-SITE A.C. PAVEMENT:	99,585	S.F.
TRASH ENCLOSURES:	2,135	S.F.
TOTAL IMPERVIOUS SURFACES:	206,054	S.F.
ROCV REQUIRED:	206,054 x 1/12 = 17,172 C.F.	

LOW IMPACT DEVELOPMENT AREA PROVIDED

L.I.D. BASIN	IMPERVIOUS SURFACE (S.F.)	R.O.C.V. REQ'D (C.F.)	R.O.C.V. DEPTH (FT.)	TOTAL ROCV & RET. PROVIDED (C.F.)	ROVC & RET. DEPTH (FT.)	LOCATION
E.D.B. No. 1	105,777	8,815	1.45'	18,520	3.00'	SURFACE
E.D.B. No. 2	68,563	5,714	2.44'	5,873	2.50'	SURFACE
E.D.B. No. 3	14,187	1,182	1.00'	3,765	3.00'	SURFACE
E.D.B. No. 4	17,512	1,459	1.92'	2,547	3.00'	SURFACE

NOTE: FINAL DRAINAGE DESIGN WILL INFILTRATE AND RETAIN (WITH METERING IN 24 TO 36 HOURS) A 100-YEAR DEVELOPED VOLUME SUFFICIENT TO REDUCE TOTAL 100-YEAR VOLUME DISCHARGED FROM THE SITE TO LESS THAN PRE-DEVELOPED 100-YEAR VOLUME.

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

Mogollon Inc
ENGINEERING & SURVEYING
411 W. Santa Fe
Flagstaff, Arizona 86001
Phone: 928-214-0214

5/16/19
MES# 18275

PONDEROSA PARKWAY
SITE PLAN FOR MIRAMONTE HOMES
PRELIMINARY GRADING PLAN

DATE:	5/16/19
PROJECT NO.	18275
FN:	SHEET-02.DWG
VERT SCALE:	N/A
HOR SCALE:	1"=40'
DESIGNED BY:	MME
DRAWN BY:	MME
CHECKED BY:	KVH

REVISIONS PER C.O.F. COMMENTS DATED 11/6/18
PER C.O.F. COMMENTS DATED 1/25/19
PER C.O.F. COMMENTS DATED 3/11/19
PER C.O.F. COMMENTS DATED 5/2/19

CONCEPT-08

SHEET NO. 2 OF 6

COF PROJECT # PZ-17-00227-01

P.U.E.'s FOR WATER & SEWER

EASEMENTS ARE NOT FULLY LABELED FOR CLARITY:
(2) UTILITY LINES = 26' WIDE P.U.E.
(1) UTILITY LINE = 20' WIDE P.U.E.
FIRE HYDRANT LINES = 8' WIDE P.U.E. EXTENDED 4' BEYOND F.H.
WATER METER = 6' WIDE P.U.E. EXTENDED 4' BEYOND W.M.

PUBLIC WATER & SEWER MAINS

ALL NEW 8" WATER & SEWER MAINS SHALL BE PUBLIC.

WATER & SEWER SERVICES

ALL NEW SEWER SERVICES SHALL BE 4" MINIMUM AND ALL NEW WATER SERVICES SHALL BE A 2". FIRE SPRINKLER LINE SIZE SHALL BE 4" MINIMUM.

FIRE PREVENTION

A NFPA 13R FIRE SPRINKLER SYSTEM IS REQUIRED FOR THIS PROJECT. ADDITIONALLY, A FIRE ALARM SYSTEM DESIGNED IN ACCORDANCE WITH NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE IS REQUIRED.

FIRE SPRINKLER ROOMS

THE FIRE SPRINKLER ROOMS ARE CALLED OUT AS "F.S.R." IN EACH BUILDING

FIRE DEPARTMENT CONNECTION

FIRE DEPARTMENT CONNECTIONS ARE IDENTIFIED AS "F.D.C. #". # INDICATES BUILDING NUMBER.

FIRE HYDRANTS

FIRE HYDRANTS LOCATED IN CURBED LANDSCAPE ISLANDS SHALL HAVE PROTECTIVE BOLLARDS IN ACCORDANCE WITH C.O.F. STD. DET. No. 13-03-012

BACKFLOW PREVENTION

BACKFLOW PREVENTION SHALL BE IN ACCORDANCE WITH CITY CODE SECTION 7-03-001-0015

ABBREVIATIONS

SS	SEWER SERVICE
WS	WATER SERVICE
FS	FIRE SERVICE
FH	FIRE HYDRANT
W	WATER
S	SEWER
F.D.C.	FIRE DEPT. CONNECTION
F.S.R.	FIRE SPRINKLER ROOM

SCALE: 1"=40'
0 20 40 80

PARCEL BOUNDARY
BLDG 13 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6907.5 FFE= 6905.0
BLDG 12 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6907.5 FFE= 6905.0
BLDG 11 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6907.5 FFE= 6905.0
BLDG 10 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6905.5 FFE= 6903.0
BLDG 9 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6905.0 FFE= 6902.5
BLDG 8 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6876.5 FFE= 6871.0
BLDG 7 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6879.0 FFE= 6874.5
BLDG 6 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6886.0 FFE= 6880.5
BLDG 5 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6887.5 FFE= 6882.0
BLDG 4 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6876.0
BLDG 3 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6870.0
BLDG 2 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6871.5
BLDG 1 THREE STORY (13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED) F.S.R. FFE= 6873.0
FIRE SPRINKLER ROOM (TYP FOR ALL BLDG'S)
10' WIDE PEDESTRIAN CONNECTION BETWEEN UPPER & LOWER UNITS
26' P.U.E.
NEW 8" W
NEW 8" S
NEW 12" W
NEW 12" S
NEW FH
NEW WS (TYP)
NEW FS (TYP)
NEW SS (TYP)
EDB #1 BASIN BOTTOM=6860.0 SURFACE AREA=6029 SF TOP OF WALL=6865.0
EDB #2 BASIN BOTTOM=6865.0 SURFACE AREA=1,500 SF TOP OF WALL=6870.0
EDB #3 BASIN BOTTOM=6865.0 SURFACE AREA=1,500 SF TOP OF WALL=6870.0
CONNECT TO EXISTING 8" WATER
EX 8" W
EX 12" S
EX. OHPD ELEC.
20' P.U.E.
16' P.U.E.
CONNECT TO EX. SEWERLINE
CONNECT TO EX. WATERLINE
EX 30' S.E.
EX PUBLIC 20' D.E. PER INSTRUMENT 3546724
A.D.O.T. TYPE 5 DOUBLE SUMP C.B. W/ SYM. 11.5' WINGS & 18" H.D.P.E. STORM DRAIN
RET. WALL (TYP)
RET. WALL (CIP)
STREET TREES SPACED AT 45'±
EX 15' D.E.
PARCEL BOUNDARY / R.O.W.
35' R.O.W.
40' R.O.W.
PONDEROSA PARKWAY
EX. 81"x59" CMPA
8" SEWER STUB PER M.A.G. 427
CAUTION EX 4" HIGH PRESSURE GAS IN THIS VICINITY (VERIFY)
(2) EX. 6" SEWER SERVICES TO BE REMOVED AND RECONNECTED AT END OF NEW SEWER MAIN
CONNECT TO EX. SEWERLINE
CONNECT TO EX. WATERLINE
STUB-OUT WITH PLUG
R=48' TEMP. TURNAROUND
SEE AREA MAP FOR TRANSITION TO EXISTING DRIVEWAY
CAUTION EX 4" HIGH PRESSURE GAS IN THIS VICINITY (VERIFY)
CONNECT (2) EX. 6" SEWER SERVICES TO NEW SEWER MAIN.
FUTURE CONDITION SHOWN. C.O.F.—STD. DET. No. 10-08-035 "MINOR COLLECTOR" 1/2 WIDTH PLUS 10' PER DETAILS ON SHEET 1.
EX. 135W STREET LIGHT
NEW 135W STREET LIGHT
EX. 10' F.U.T.S.
EX. FIRE DEPT. DRIVEWAY
EX. CURB
EX. 12" W
EX. 8" S.S.
EX. 12" S
EX. 8" W
EX. WATER
EX. AC
EX. G-1
TABLE
STREET TREES SPACED AT 45'± ABANDON EX. WATER STUB AT THE MAIN
STARBUCKS
50' ACCESS EASEMENT
26' SEWER EASEMENT
C.O.F. FIRE STATION #2
107-07-002H SAN FRANCISCO DE ASIS ROMANS CATHOLIC PARISH FLAGSTAFF (ZONE RR)
107-09-001D HARMON STEVEN B and MEGHAN (ZONE HC)
107-08-004C CF CARWASH FLAGSTAFF LLC (ZONE HC)
107-08-004E MAYER MOUNTAIN PROPERTIES LLC (ZONE HC)
107-08-002E NEMEC FAMILY TRUST (ZONE HC)
107-07-001G 249 A STREET LLC (ZONE HC)

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Phone: 928-214-0214

PONDEROSA PARKWAY
SITE PLAN FOR MIRAMONTE HOMES
PRELIMINARY UTILITY PLAN

5/16/19
MES# 18275

DATE: 5/16/19	REVISIONS: PER C.O.F. COMMENTS DATED 11/9/18
DESIGNED BY: TMK	PROJECT NO. 18275
DRAWN BY: TMK	FN: SHEET-08.DWG
CHECKED BY: KVH	VERT. SCALE: N/A
	HOR. SCALE: 1"=40'
	PER C.O.F. COMMENTS DATED 1/25/19
	PER C.O.F. COMMENTS DATED 3/11/19
	PER C.O.F. COMMENTS DATED 5/2/19

CONCEPT-08

SHEET NO. 3 OF 6

COF PROJECT # PZ-17-00227-01

PRE DEVELOPMENT TREE POINTS

1 POINT TREES	55	x 1	=	55
2 POINT TREES	48	x 2	=	96
4 POINT TREES	38	x 4	=	152
8 POINT TREES	16	x 8	=	128
20 POINT TREES	0	x 20	=	0
TOTAL TREE POINTS			=	431
50% OF TOTAL			=	216

POST DEVELOPMENT TREE POINTS

1 POINT TREES	19	x 1	=	19
2 POINT TREES	15	x 2	=	30
4 POINT TREES	17	x 4	=	68
8 POINT TREES	11	x 8	=	88
20 POINT TREES	0	x 20	=	0
SUB TOTAL TREE POINTS			=	205
EXCESS SLOPE POINTS			=	21
TOTAL TREE POINTS			=	226
TREE SAVE PERCENTAGE			=	52.4

TREE TO BE SAVED

TREE TO BE REMOVED

SLOPE CALCULATIONS

NO SLOPES OVER 24.99%

17-24.99% SLOPE:	133,440	S.F.
MAX. 30% DISTURBANCE:	40,032	S.F.
SLOPE DISTURBANCE:	38,990	S.F.
SLOPE DISTURBANCE:	29.2	%
EXCESS SLOPE:	1,042	S.F.
EXCESS SLOPE TREE POINTS:	21	

(1,042 / 50 = 20.8)

THE CROWN DITCH WITH BERM IS INCLUDED IN THE SLOPE DISTURBANCE CALCULATIONS.

SCALE: 1"=40'

0 20 40 80

PARCEL BOUNDARY

SLOPE DISTURBANCE

RETAINING WALL OR CUT PER SOILS REPORT (TYP)

FIRE SPRINKLER ROOM (TYP FOR ALL BLDG'S)

CROWN DITCH ALONG BACK OF WALL TO DIVERT OFF-SITE & ON-SITE EXISTING UNDEVELOPED RUNOFF TO NEW ROADSIDE DITCH (TYP)

CROWN DITCH W/ BERM TO DIVERT OFF-SITE & ON-SITE EXISTING UNDEVELOPED RUNOFF TO NEW ROADSIDE DITCH (TYP)

BLDG 13 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6907.5 F.F.E. 6903.0

BLDG 12 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6907.5 F.F.E. 6903.0

BLDG 11 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6907.5 F.F.E. 6903.0

BLDG 10 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6908.5 F.F.E. 6904.0

BLDG 9 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6908.5 F.F.E. 6904.0

BLDG 8 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6876.5 F.F.E. 6871.0

BLDG 7 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6879.0 F.F.E. 6875.5

BLDG 6 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6886.0 F.F.E. 6880.5

BLDG 5 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6887.5 F.F.E. 6882.0

BLDG 4 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6876.0

BLDG 3 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6870.0

BLDG 2 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6871.5

BLDG 1 THREE STORY 13 UNITS PER BLDG (1) STUDIO, (6) 1 BED & (6) 2 BED FFE= 6875.0

F.D.C. #1

F.D.C. #2

F.D.C. #3

TABLE

FIRE WALL (TYP)

EDB #1 BASIN BOTTOM=6860.0 SURFACE AREA=6029 SF TOP OF WALL=6865.0

EDB #2 BASIN BOTTOM=6865.0 SURFACE AREA=1,963 SF TOP OF WALL=6870.0

EDB #3 BASIN BOTTOM=6865.0 SURFACE AREA=1,963 SF TOP OF WALL=6870.0

A.D.O.T. TYPE 5 DOUBLE SUMP C.B. W/ SYM. 11.5' WINGS & 18" H.D.P.E. STORM DRAIN

EX. 81"x59" CMPA

EX. 135W STREET LIGHT

NEW 135W STREET LIGHT

NEW FH

NEW WS (TYP)

NEW FS (TYP)

NEW SS (TYP)

EX FH

EX. 12" S

EX. 8" W

NEW 8" W

NEW 12" S

NEW 12" W

EX. 15" D.E.

EX. 30" S.E.

EX. 16" P.U.E.

EX. OHP ELEC.

EX. 10" F.H.T.S.

EX. FIRE DEPT. DRIVEWAY

EX. A.C.P.

EX. CURB

EX. 12" W

EX. 12" S

EX. 8" S

EX. 8" W

EX. 6" W

EX. 4" W

EX. 2" W

EX. 1" W

EX. 1" G

EX. 1" G-1

EX. 1" G-2

EX. 1" G-3

EX. 1" G-4

EX. 1" G-5

EX. 1" G-6

EX. 1" G-7

EX. 1" G-8

EX. 1" G-9

EX. 1" G-10

EX. 1" G-11

EX. 1" G-12

EX. 1" G-13

EX. 1"


VIEW CORRIDORS
ELDEN
ANDERSON MESA
JUN 21 SUN
DEC 21 SUN
CLIMATIC CONSIDERATIONS
RAIN, SNOW & HAIL
SEE PRECIPITAION PATTERN NOTE AND WEATHER AVERAGES CHART
USE: VACANT
USE: RETAIL
107-09-001E HARMON STEVEN B and MEGHAN (ZONE HC)
USE: VEHICLE SERVICE
107-09-001D HARMON STEVEN B and MEGHAN (ZONE HC)
107-08-004C CF CARWASH FLAGSTAFF LLC (ZONE HC)
107-08-004E MAYER MOUNTAIN PROPERTIES LLC (ZONE HC)
107-08-002E NEMEC FAMILY TRUST (ZONE HC)
STARBUCKS 107-07-009G 243 A STREET LLC (ZONE HC)
PONDEROSA PARKWAY
E. ROUTE 66
BNSF R/R
USE: PUBLIC SERVICES
107-08-001A CITY OF FLAGSTAFF (ZONE RR)
USE: TELECOM
USE: LODGING
107-07-002H SAN FRANCISCO DE ASIS, ROMAN CATHOLIC PARISH FLAGSTAFF (ZONE RR)
PROJECT BOUNDARY
EXISTING & DEVELOPED STORMWATER DISCHARGE LOCATION
MOUNTAIN LINE BUS STOP
RUNOFF FLOW ARROWS
OFF-SITE RUNOFF (TYP.)
DIVERSION CROWN DITCH W/ BERM
RIP-RAP SWALE
PONDEROSA PINE (TYP) (GOOD QUALITY)
PREVAILING WINDS
UNNAMED WASH
SLOPE BOUNDARY
ROADWAY TRANSITION TO EXISTING DRIVEWAY
EXISTING RIP-RAP SWALE CATHOLIC CHURCH AC DRIVEWAY
EX 81"x59" CMPA QDAP=270 CFS @ HW/D=1.5
EX F.U.T.S.
EX DRIVEWAY
EX EDB
24" CMP
18" CMP
EX BUILDING (TYP)
EX AC
EX SDMH
EX 8" W
EX 12" W
EX 24" S.D.
EX 18" S
EX 8" S
EX 12" S
EX 7WH
EX 12" S
EX 30MH
EX 36" S
EX 30" S
EX 50MH
EX 48" S
EX 42" S
EX 24" W
EX 6" W
EX 16" W
EX 6" S
EX 10" W
EX 10" S
EX 4" W
EX 4" S
EX 2" W
EX 2" S
EX 1" W
EX 1" S
EX 1" G
EX 1" E
EX 1" T
EX 1" P
EX 1" C
EX 1" TV
EX 1" OHP
EX 1" UGP
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EX 1" UGC
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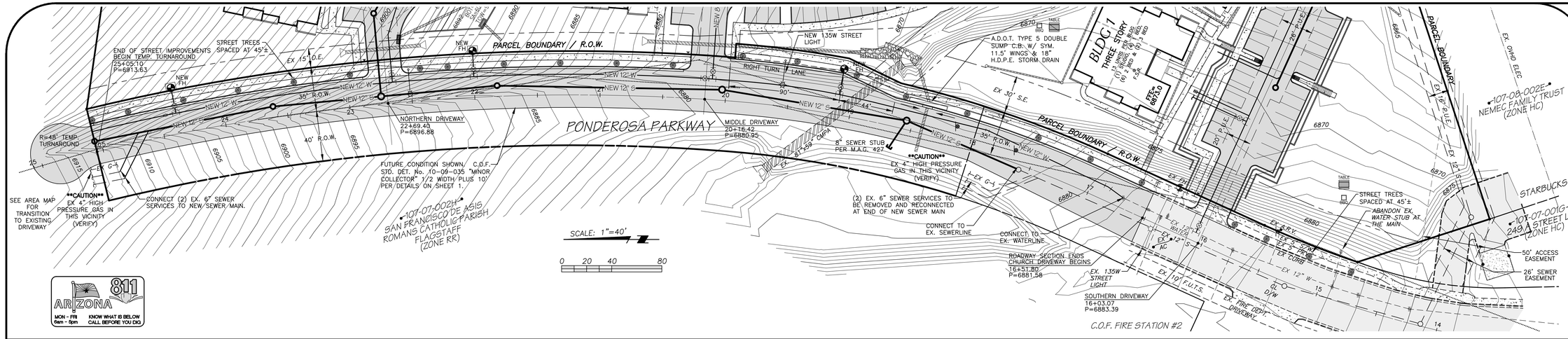
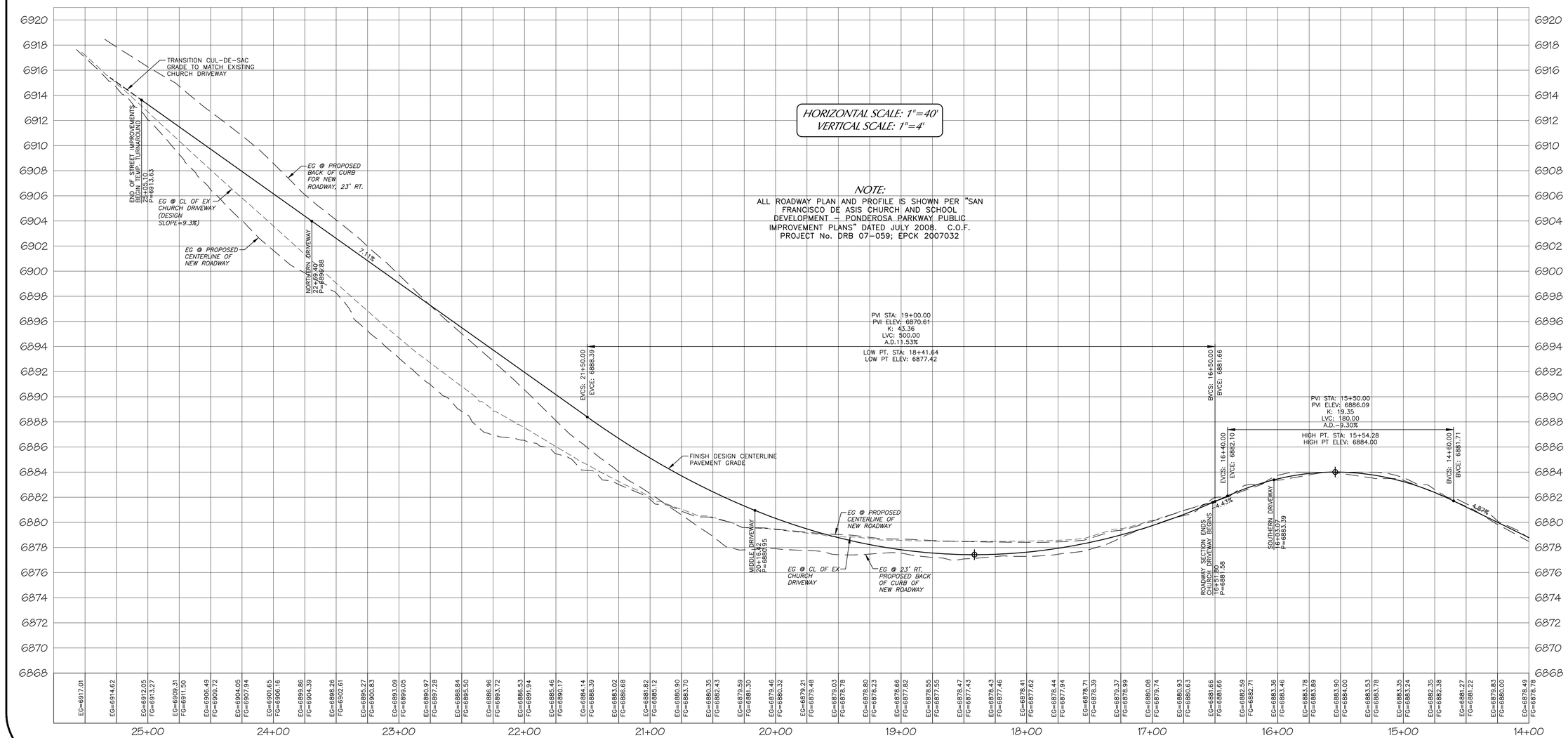


811 ARIZONA
MON - FRI 6am - 5pm
KNOW WHAT IS BELOW CALL BEFORE YOU DIG



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411 N. Santa Fe Avenue
Flagstaff, Arizona 86001
Phone: 928-214-0214

PRELIMINARY
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5/16/19
MES# 18275

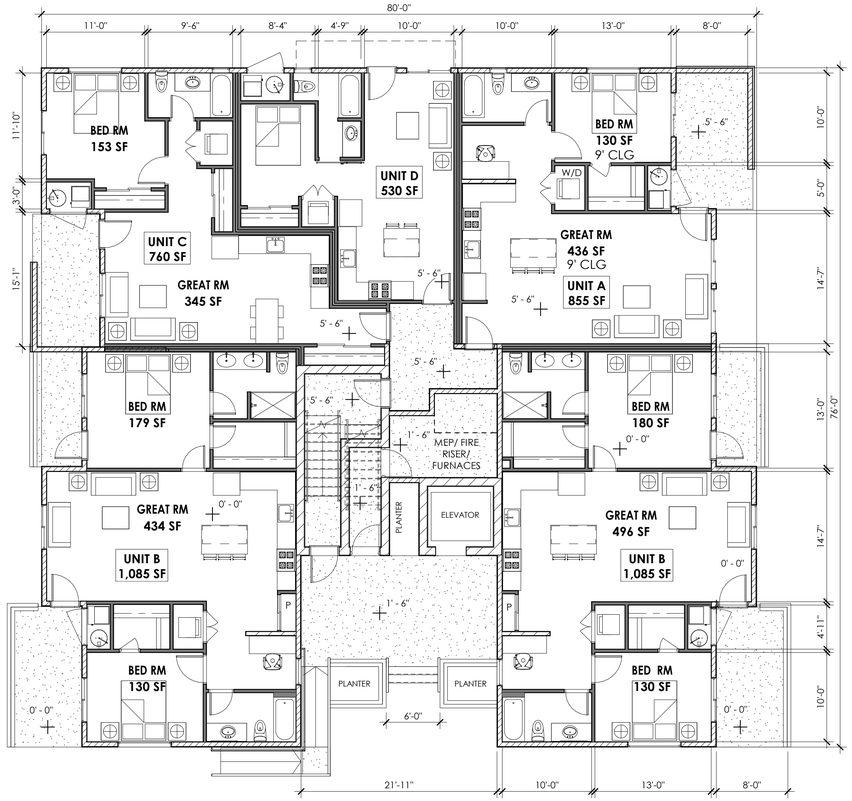
PONDEROSA PARKWAY
SITE PLAN FOR MIRAMONTE HOMES
PONDEROSA PARKWAY PLAN & PROFILE

DATE: 5/16/19	REVISIONS: PER C.O.F. COMMENTS DATED 11/8/18
PROJECT NO. 18275	PER C.O.F. COMMENTS DATED 1/28/19
FN: SHEET-06.DWG	PER C.O.F. COMMENTS DATED 3/11/19
DESIGNED BY: MME	PER C.O.F. COMMENTS DATED 5/2/19
DRAWN BY: MME	
CHECKED BY: KVH	
VERT SCALE: N/A	HOR SCALE: 1"=40'

CONCEPT-08

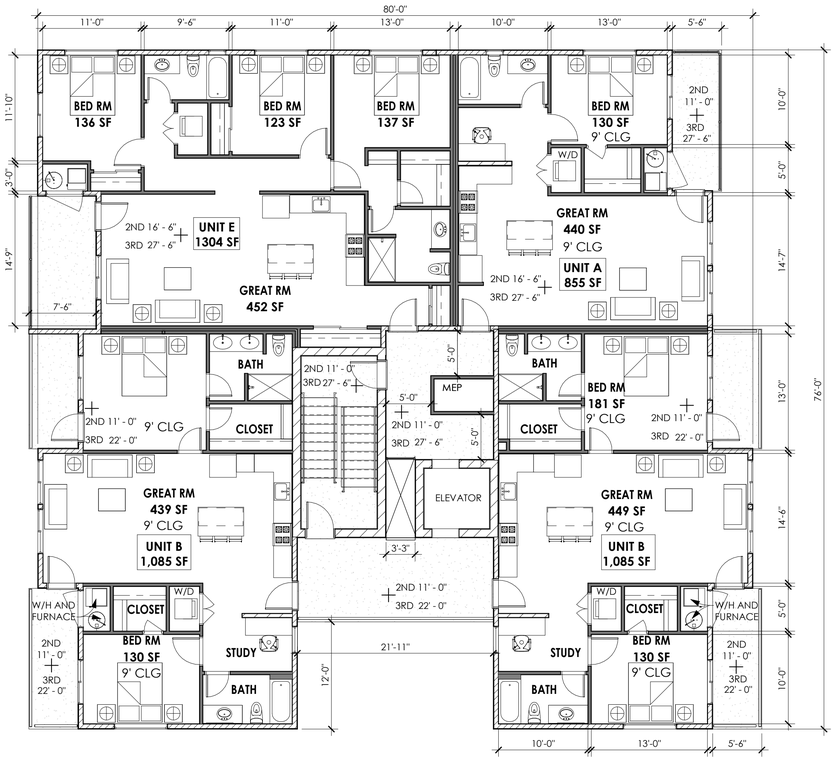
SHEET NO. 6 OF 6

COF PROJECT # PZ-17-00227-01



C3 1ST FLOOR

SCALE: 1/8" = 1'-0"



C7 2ND/ 3RD FLOOR PLAN

SCALE: 1/8" = 1'-0"

No	REVISIONS/SUBMISSIONS	DATE

MIRAMONTE HOMES

MIRAMONTE HOMES
PONDEROSA PARKWAY
FLAGSTAFF, ARIZONA

FLOOR PLANS

GLHN
ARCHITECTS & ENGINEERS, INC
2939 E. Broadway Blvd. Tucson, AZ. 85716
T 520.881.4544 F 520.795.1822 GLHN.com

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PROJECT NO.:	18048
DESIGN BY:	BH/SL
DRAWN BY:	SL/TR
CHECKED BY:	BH/SL
DATE:	2/16/2019

AL110

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E1 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



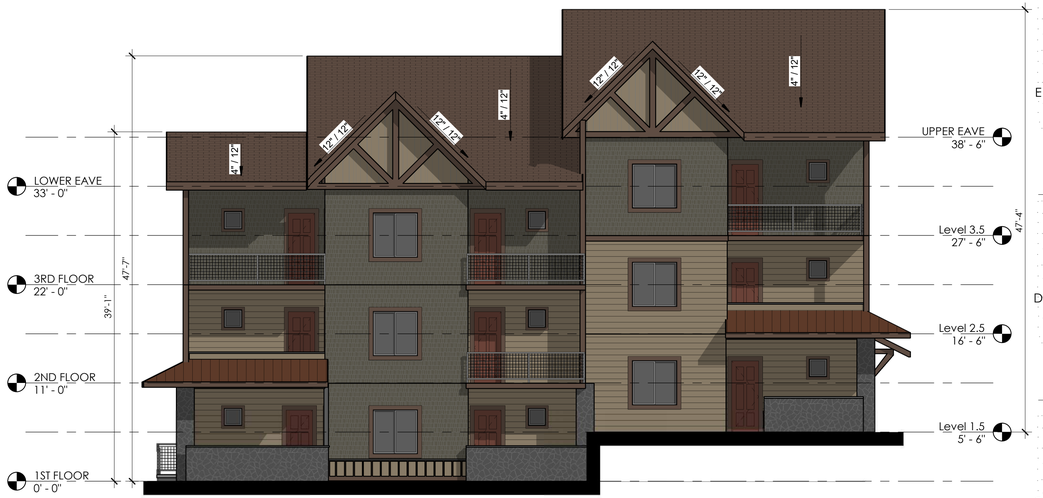
E6 NORTH ELEVATION

SCALE: 1/8" = 1'-0"



A1 WEST ELEVATION

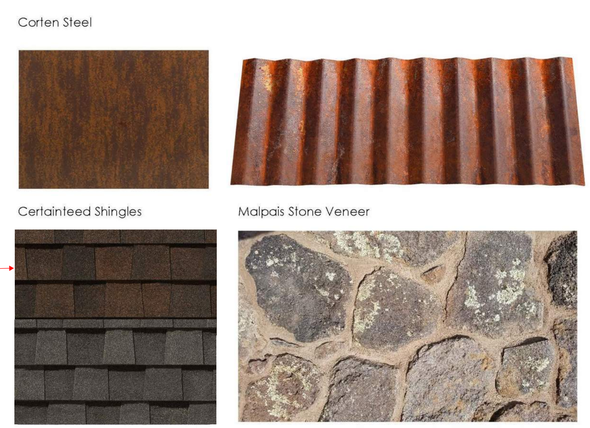
SCALE: 1/8" = 1'-0"



A6 EAST ELEVATION

SCALE: 1/8" = 1'-0"





No	REVISIONS/SUBMISSIONS	DATE

MIRAMONTE HOMES

CONCEPTUAL

MIRAMONTE HOMES
PONDEROSA PARKWAY
FLAGSTAFF, ARIZONA
ARCHITECTURAL STYLE 1

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PROJECT NO.	18048
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DRAWN BY:	TR/SK
CHECKED BY:	BH
DATE:	4/18/2019

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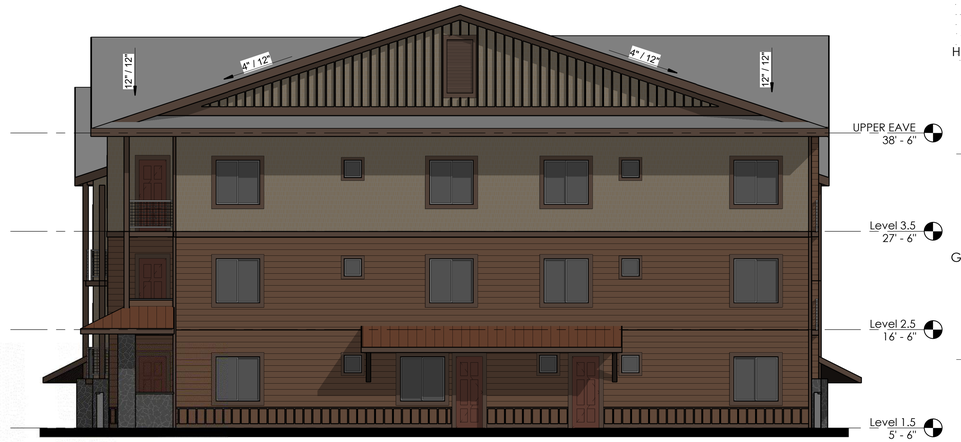
E1 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



E6 NORTH ELEVATION

SCALE: 1/8" = 1'-0"



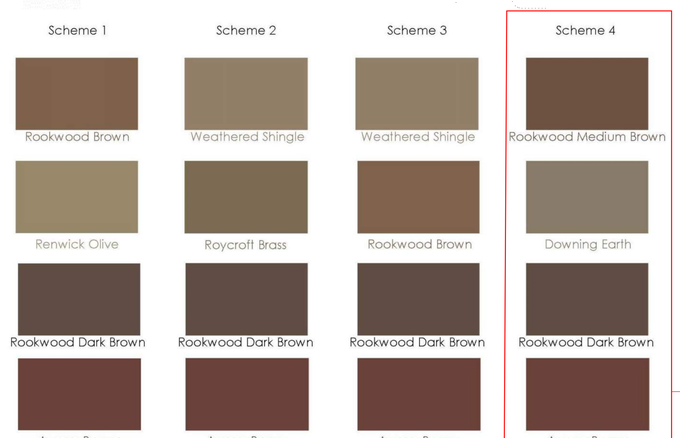
A1 WEST ELEVATION

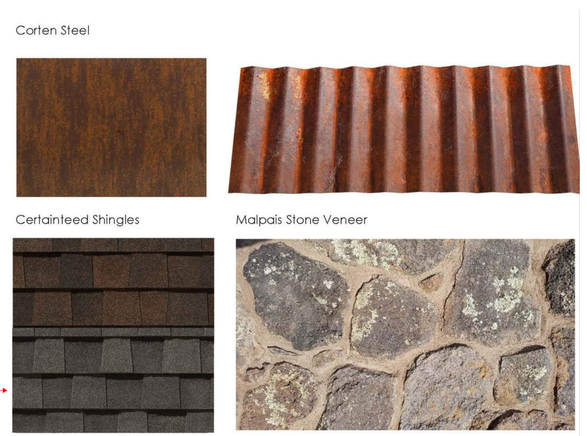
SCALE: 1/8" = 1'-0"



A6 EAST ELEVATION

SCALE: 1/8" = 1'-0"





No	REVISIONS/SUBMISSIONS	DATE

MIRAMONTE HOMES

CONCEPTUAL

PROJECT NO.	18048
DESIGN BY:	SL
DRAWN BY:	TR/SK
CHECKED BY:	BH
DATE:	4/18/2019

MIRAMONTE HOMES
PONDEROSA PARKWAY
FLAGSTAFF, ARIZONA
ARCHITECTURAL STYLE 2

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E1 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



E6 NORTH ELEVATION

SCALE: 1/8" = 1'-0"



A1 WEST ELEVATION

SCALE: 1/8" = 1'-0"



A6 EAST ELEVATION

SCALE: 1/8" = 1'-0"



No	REVISIONS/SUBMISSIONS	DATE

MIRAMONTE HOMES

MIRAMONTE HOMES
PONDEROSA PARKWAY
FLAGSTAFF, ARIZONA
ARCHITECTURAL STYLE 1

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DATE:	5/16/2019

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E1 SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



E6 NORTH ELEVATION

SCALE: 1/8" = 1'-0"



A1 WEST ELEVATION

SCALE: 1/8" = 1'-0"



A6 EAST ELEVATION

SCALE: 1/8" = 1'-0"



No	REVISIONS/SUBMISSIONS	DATE

MIRAMONTE HOMES

MIRAMONTE HOMES
PONDEROSA PARKWAY
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ARCHITECTURAL STYLE 2

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GENERAL NOTES

A. EACH UNIT SHALL HAVE ONE UNIT ADJACENT TO THE ENTRY DOOR AND ONE UNIT ADJACENT TO THE PATIO DOOR. TOTAL OF 416 LUMINAIRES.



1 LIGHITNG SITE PLAN

SCALE: 1" = 50'-0"

OUTDOOR LIGHTING CODE COMPLIANCE - LUMEN CALCULATION

CITY OF FLAGSTAFF

FIXTURE ID	FIXTURE QUANTITY	LIGHT SOURCE TYPE	LUMENS PER LUMINAIRE	LUMEN MULTIPLIER	FULL CUT-OFF	UNDER CANOPY	PARTIALLY SHIELDED LUMENS	NON-NARROW SPECTRUM AMBER LED	FULLY SHIELD AND PARTIALLY SHIELDED
SA	35	AMBER LED	3,391	1.00	YES	NO			118,685
SB	6	AMBER LED	2,207	1.00	YES	NO			13,242
WA	416	AMBER LED	1,703	0.25	YES	YES			177,112
TOTAL OUTDOOR LIGHT OUTPUT LIMITS PER TABLE 10-50.70.050.A, COMMERCIAL, INDUSTRIAL AND MULTI-FAMILY RESIDENTIAL			LIGHTING ZONE	SITE ACRES	ALLOWED PER ACRE FOR LED (divided by 1.43)		5500 3846	5000 3497	50000 34965
			2	11.97	TOTAL SITE LUMENS ALLOWED		46,038	41,853	418,531
					TOTAL LUMENS USED ON SITE:		**0**	**0**	**309,039**

No	REVISIONS/SUBMISSIONS	DATE

MIRAMONTE HOMES

MIRAMONTE HOMES
PONDEROSA PARKWAY
FLAGSTAFF, ARIZONA

LIGHTING SITE PLAN AND CALCULATIONS

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3030 N. 3rd Street, Suite 600, Phoenix, AZ. 85012
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PROJECT NO.:	18048.00
DESIGN BY:	BW
DRAWN BY:	BW
CHECKED BY:	RAA
DATE:	2018/10/30

ES101

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PONDEROSA PARKWAY LANDSCAPE PLAN

LOCATED IN THE SW 1/4 OF SECTION 14,
TOWNSHIP 21 NORTH, RANGE 7 EAST, G&S.R.M.
FLAGSTAFF, COCONINO COUNTY, ARIZONA

RAINWATER HARVESTING REQUIREMENTS

USE ALL NATIVE/DROUGHT TOLERANT PLANTS IN COMPLIANCE WITH
COF LANDSCAPING STANDARDS & UTILIZE PASSIVE RAINWATER HARVESTING.

NOTES:

1. ROOF RUNOFF COLLECTED IN GUTTERS/DOWNSPOUTS
WILL PASSIVELY IRRIGATE AT-GRADE LANDSCAPING
2. ALL LANDSCAPING INSTALLED PER CITY OF FLAGSTAFF
LANDSCAPE STANDARDS SECTION 10-50.60

PROJECT INFORMATION

PROJECT NAME:	MIRAMONTE AT PONDEROSA PARKWAY
PROJECT LOCATION:	1650 E. PONDEROSA PARKWAY
APNs:	107-07-002E
TOTAL SQUARE FOOTAGE:	521,413.2 SQUARE FEET
TOTAL ACREAGE:	11.97 ACRES
CURRENT ZONING DISTRICT:	RURAL RESIDENTIAL (RR)
PROPOSED ZONING DISTRICT:	HIGH DENSITY RESIDENTIAL (HR)
TOTAL NUMBER OF RESIDENTIAL:	169 UNITS
DENSITY:	14.11 UNITS/ACRE
HEIGHT:	3 STORIES
CURRENT USE:	VACANT
DEVELOPER:	MIRAMONTE HOMES
	102 S. MIKES PIKE ST.
	FLAGSTAFF, AZ 86001
	928-774-0028

LANDSCAPE NOTES

1. ALL MAINTENANCE SHALL BE PERFORMED PER FLAGSTAFF CITY CODE SECTION #910.12.
2. MAINTENANCE SHALL BE PERFORMED ON A MONTHLY BASIS AS FOLLOWS:
   A. PRUNING AND CLIPPING FOR PEDESTRIAN VEHICULAR ACCESS.
   B. REPLACEMENT OF DEAD AND UNHEALTHY PLANTS WITH PLANTS OF THE SAME SIZE AND TYPE.
   C. REPLACEMENT OF ERODED OR WASHEDOUT D.G. WITH SAME.
   D. MAINTENANCE OF IRRIGATION SYSTEM.
3. DECOMPOSED GRANITE (D.G.) SHALL BE INSTALLED TO A 2" DEPTH OVER ALL PLANTERS AND DISTURBED AREAS INCLUDING ADJACENT RIGHTS OF WAY .
4. MATERIALS WITHIN SITE VISIBILITY TRIANGLES SHALL BE PLACED AND MAINTAINED SO AS NOT TO INTERFERE WITH A VISIBILTY PLANE DESCRIBED BY 2 HORIZONTAL LINES 30 INCHES AND 72 INCHES ABOVE FINISHED GRADE OF THE ROADWAY SURFACE.

IRRIGATION NOTES

1. MAINLINE & VALVE LOCATIONS SHOWN FOR CLARITY LOCATE IN PLANTER AREAS AND WITHIN PROJECT BOUNDARY.
2. ALL MAINLINE SHOWN IS CL200 PVC., ALL POLY SHOWN IS 1/2". INSTALL TRACER WIRE AT ALL MAINLINES.
3. INSTALL ALL PIPE BENEATH WALKS AND PAVING WITHIN A SCH 40 PVC SLEEVE 2 SIZES LARGER THAN IRRIGATION PIPE (PVC AND POLYETHYLENE (PE)).
4. SEE CIVIL DWG. FOR WATER SOURCE SIZE & LOCATION PROVIDE METER PER WATER CO. REQ'S.
5. IRRIGATION DESIGN PRESSURE 30 PSI FOR SYSTEM. CONTRACTOR SHALL VERIFY EXIST. WATER PRESSURE AT VALVE & NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES, BETWEEN EXISTING & DESIGN PRESSURE PRIOR TO CONTINUING WORK.
6. ELECTRIC POWER TO THE CONTROLLER IS SUPPLIED BY ELECTRICAL CONTRACTOR IN LOCATIONS SHOWN.
7. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER SOURCE.
8. EACH CONTROLLER TO BE EQUIPPED WITH RAIN SHUT OFF SENSOR AND MOISTURE SENSOR.

TABULATIONS

STREET BUFFER:	1050.23 LF/25 = 42 TREES 84 SHRUBS 84 GROUND COVERS REQUIRED
PERIPHERAL BUFFER:	2443.02 LF/25 = 98 TREES 196 SHRUBS 196 GROUND COVERS REQUIRED
PARKING AREAS:	273 / 8 * 2 = 68 TREES 136 GROUND COVERS
BUILDING FOUNDATIONS (PER BLDING):	367 LF/25 = 14.68 TREES 29.36 SHRUBS
TOTAL FOR 13 BUILDINGS:	191 TREES 382 SHRUBS 382 GROUND COVERS REQUIRED
TOTAL PLANTS REQUIRED:	399 TREES 798 SHRUBS 798 GROUND COVERS REQUIRED
EXISTING TREES CREDITS:	157 TREES 314 SHRUBS 314 GROUND COVERS
NEW TREES PROVIDED:	260
NEW SHRUBS PROVIDED:	520 (2 PLANTED @ EACH TREE)
NEW GROUNDCOVER PROVIDED:	520 (2 PLANTED @ EACH TREE)

PLANT LIST

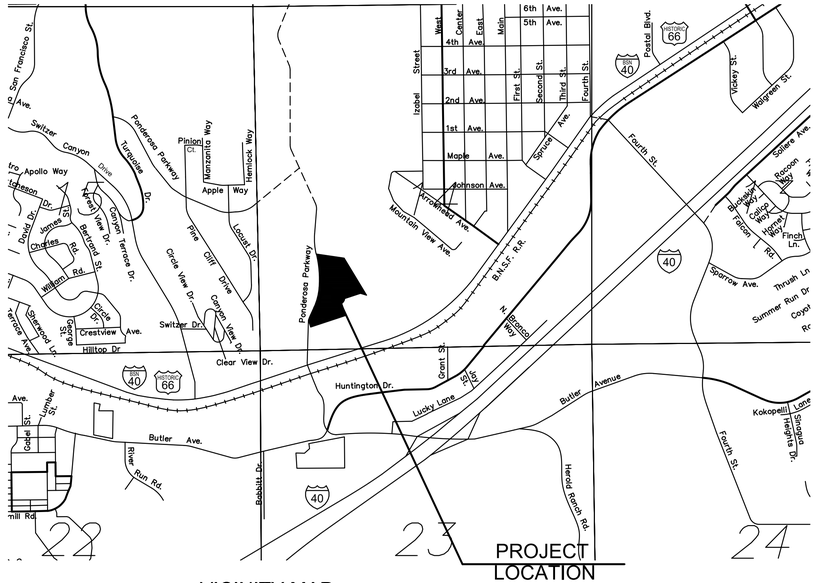
KEY	BOTANICAL NAME	COMMON NAME	REMARKS	SIZE	QTY.
TREES					
	ACER FREEMANII	AUTUMN BLAZE MAPLE		6' HT.	11
	CERCIS OCCIDENTALIS	WESTERN REDBUD		6' HT.	27
	FRAXINUS VELUTINA	ARIZONA ASH	NATIVE	15 G.C.	47
	GLEDITSIA TRIACANTHUS 'INERMIS'	HONEY LOCUST		6' HT	63
	MALUS SPECIES	FLOWERING CRAB APPLE		6' HT	15
	PICEA PUNGENS	COLORADO BLUE SPRUCE		6' HT	59
	PINUS EDULIS	PINYON PINE	NATIVE	15 G.C.	38
SHRUBS					
	ARCTOSTAPHYLOS PUNGENS	MANZANITA	NATIVE	1 G.C.	151
	BERBERIS FREMONTII	FREMONT BARBERRY	NATIVE	1 G.C.	66
	FALLUGIA PARADOXA	APACHE PLUME	NATIVE	1 G.C.	89
	JUNIPERUS CHINENSIS	SEA GREEN JUNIPER		5 G.C.	107
	MAHONIA AQUIFOLIUM	OREGON GRAPE		5 G.C.	107
GROUND COVERS AND ACCENTS					
	ARABIS CAUCASICA	WALL ROCKCRESS		1 G.C.	191
	CALYLOPHUS HARTWEGII	SIERRA SUNDROP		1 G.C.	246
	JUNIPERUS HORIZONTALIS	PROSTRATE JUNIPER		1 G.C.	83

EXISTING TREE LEGEND

SYMBOL	DESCRIPTION	QUANTITY
6	EXISTING TREE TO BE REMOVED NUMBER WITHIN DENOTES CALIPER	94
6	EXISTING TREE TO BE PRESERVED IN PLACE NUMBER WITHIN DENOTES CALIPER	64
CALIPER	EXISTING TREE CREDITS CALCULATIONS	CREDITS
6"-10"	25 @ 1:1	25
10"-18"	63 @ 2:1	126
>18"	2 @ 3:1	6
	TOTAL	157

IRRIGATION EQUIPMENT SCHEDULE

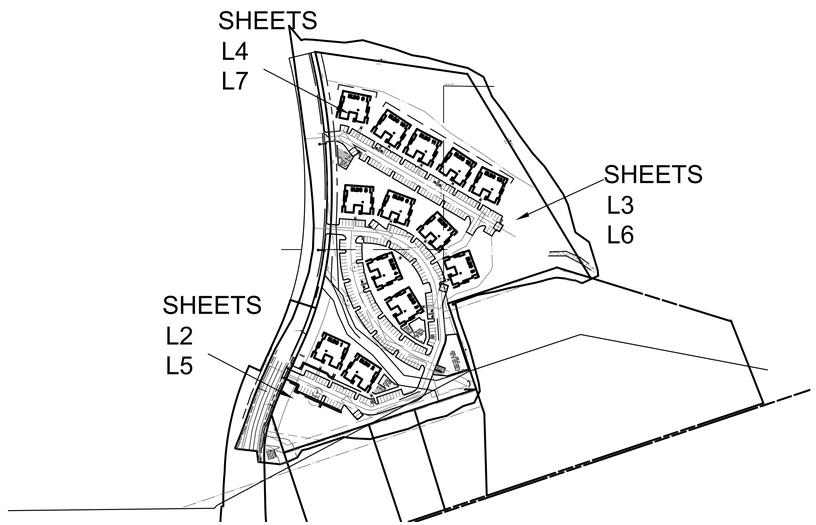
SYMBOL	DESCRIPTION	SPECIFICATION	QUANTITY
C	CONTROLLER	RAINBIRD ESP–SMT – WALL MOUNT 4 STA.	6
C6	CONTROLLER	RAINBIRD ESP–SMT – WALL MOUNT 6 STA.	1
	BACKFLOW PREVEVTER	FEBCO 825Y 3/4"	2
	DRIP VALVE ASSEMBLY	RAINBIRD XCZ-075-PRF	7
	DRIP VALVE ASSEMBLY ANTI-SYPHON	RAINBIRD XACZ-075-PRF	12
	TREE EMITTER	RAINBIRD XB-10-6	272
	SHRUB EMITTER	RAINBIRD XB-10-6	815



VICINITY MAP

N.T.S.

NOT TO SCALE



KEY PLAN

SCALE 1" = 200'

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
12666
STEVE
ACUNA
Date Signed 5-14-19
Arizona U.S.A.
Expires 3/31/20

PONDEROSA PARKWAY

LANDSCAPE PLAN COVER SHEET

Acuña Coffeen
Landscape Architects
3532 N. Avenida Albor Tucson, Arizona 85745
(520) 441-2754

L1 OF 4

HORIZ.	
VERT.	
F.B.	
DESIGN	SA
DRAWN	SA
CHKD.	SA
JOB NO.	

5-19


MATCH LINE
BLDG 1
THREE STORY
13 UNITS PER BLDG.
(1) STUDIO, (6) 2 BED & (2) 3 BED
F.F.R.
FFE= 6873.0
BLDG 2
THREE STORY
13 UNITS PER BLDG.
(1) STUDIO, (6) 2 BED & (2) 3 BED
F.F.R.
FFE= 6871.5
BLDG 3
THREE STORY
13 UNITS PER BLDG.
(1) STUDIO, (5) 2 BED & (2) 3 BED
F.F.R.
FFE= 6870.0
BLDG 4
THREE STORY
13 UNITS PER BLDG.
(1) STUDIO, (4) 1 BED & (2) 3 BED
F.F.R.
FFE= 6876.0
BLDG 8
THREE STORY
13 UNITS PER BLDG.
(1) STUDIO, (6) 2 BED & (2) 3 BED
F.F.R.
FFE= 6876.5
FFE= 6871.0
10' STREET BUFFER
L=308.84'
L=79.79'
N 18°03' 15" W
110.89'
566.06'
S 71°43' 08" W
15' PERIMETER BUFFER
15' PERIMETER BUFFER
15' PERIMETER BUFFER
S 18°16' 31" W
251.51'
INV=5864.30
TABLE
BBQ
EOB #1
BOTTOM=6860.0
TOW=6865.0
EOB #2
BOTTOM=6860.0
TOW=6865.0
EOB #3
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EOB #10
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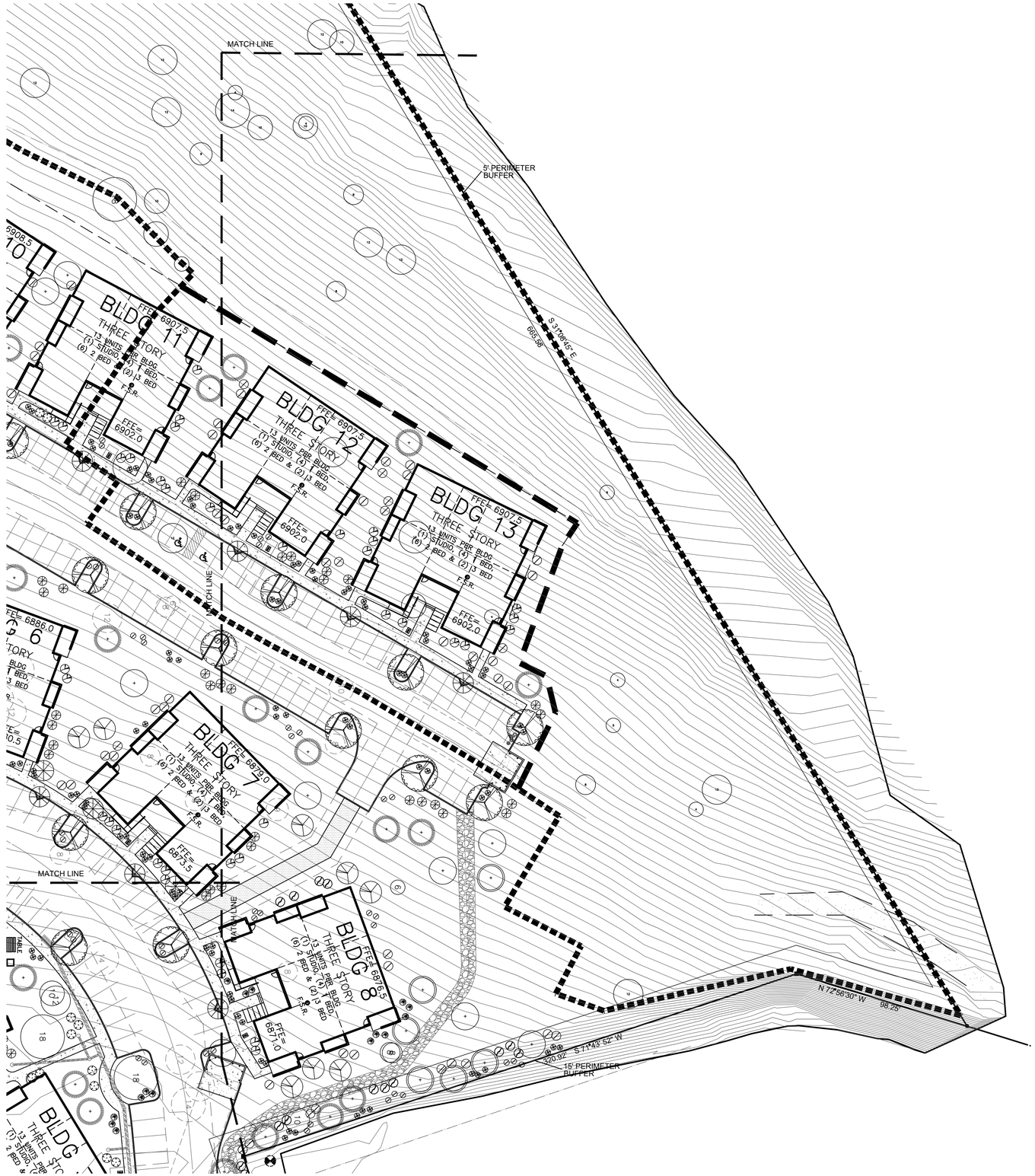
TOW=6865.0
EOB



LANDSCAPE PLAN

North
1"=30'

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME
TREES		
	ACER FREEMANII	AUTUMN BLAZE MAPLE
	CERCIS OCCIDENTALIS	WESTERN REDBUD
	FRAXINUS VELUTINA	ARIZONA ASH
	GLEDITSIA TRIACANTHUS 'INERMIS'	HONEY LOCUST
	MALUS SPECIES	FLOWERING CRAB APPLE
	PICEA PUNGENS	COLORADO BLUE SPRUCE
	PINUS EDULIS	PINYON PINE
SHRUBS		
	ARCTOSTAPHYLOS PUNGENS	MANZANITA
	BERBERIS FREMONTII	FREMONT BARBERRY
	FALLUGIA PARADOXA	APACHE PLUME
	JUNIPERUS CHINENSIS	SEA GREEN JUNIPER
	MAHONIA AQUIFOLIUM	OREGON GRAPE
GROUND COVERS AND ACCENTS		
	ARABIS CAUCASICA	WALL ROCKCRESS
	CALYLOPHUS HARTWEGII	SIERRA SUNDROP
	JUNIPERUS HORIZONTALIS	PROSTRATE JUNIPER

EXISTING TREE LEGEND

SYMBOL	DESCRIPTION
6	EXISTING TREE TO BE REMOVED NUMBER WITHIN DENOTES CALIPER
6	EXISTING TREE TO BE PRESERVED IN PLACE NUMBER WITHIN DENOTES CALIPER

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
12666
STEVE
ACUNA
Date Signed 5-14-19
Arizona U.S.A.
Expires 3/31/20

PONDEROSA PARKWAY

LANDSCAPE PLAN

Acuña Coffeen
Landscape Architects
3532 N. Avenida Alber Tucson, Arizona 85745
(520) 441-2754

L3 OF 4

HORIZ.	
VERT.	
F.B.	
DESIGN	SA
DRAWN	SA
CHKD.	SA
JOB NO.	

5-19



LANDSCAPE PLAN

North
1"=30'

PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME
TREES		
	ACER FREEMANII	AUTUMN BLAZE MAPLE
	CERCIS OCCIDENTALIS	WESTERN REDBUD
	FRAXINUS VELUTINA	ARIZONA ASH
	GLEDITSIA TRIACANTHUS 'INERMIS'	HONEY LOCUST
	MALUS SPECIES	FLOWERING CRAB APPLE
	PICEA PUNGENS	COLORADO BLUE SPRUCE
	PINUS EDULIS	PINYON PINE
SHRUBS		
	ARCTOSTAPHYLOS PUNGENS	MANZANITA
	BERBERIS FREMONTII	FREMONT BARBERRY
	FALLUGIA PARADOXA	APACHE PLUME
	JUNIPERUS CHINENSIS	SEA GREEN JUNIPER
	MAHONIA AQUIFOLIUM	OREGON GRAPE
GROUND COVERS AND ACCENTS		
	ARABIS CAUCASICA	WALL ROCKCRESS
	CALYLOPHUS HARTWEGII	SIERRA SUNDROP
	JUNIPERUS HORIZONTALIS	PROSTRATE JUNIPER

EXISTING TREE LEGEND

SYMBOL	DESCRIPTION
6	EXISTING TREE TO BE REMOVED NUMBER WITHIN DENOTES CALIPER
6	EXISTING TREE TO BE PRESERVED IN PLACE NUMBER WITHIN DENOTES CALIPER

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO.
12666
STEVE ACUNA
Date Signed 5-14-19
STATE OF ARIZONA
Expires 3/31/20

PONDEROSA PARKWAY

LANDSCAPE PLAN

Acuña Coffeen
Landscape Architects
3532 N. Avenida Albor Tucson, Arizona 85745
(520) 441-2754

L4 OF 4

HORIZ.	
VERT.	
F.B.	
DESIGN	SA
DRAWN	SA
CHKD.	SA
JOB NO.	

5-19

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Charity Lee, Real Estate Manager
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Adoption of Ordinance No. 2019-26: An ordinance of the City Council of the City of Flagstaff, authorizing the acquisition of real property and/or easements for the Switzer Canyon Water Transmission Main Project - Phases IV & V; providing for delegation of authority, subsequent council approvals, severability, and establishing an effective date.

STAFF RECOMMENDED ACTION:

At the August 27, 2019 Council Meeting:

1) Read Ordinance No. 2019-26 by title only for the first time
2) City Clerk reads Ordinance No. 2019-26 by title only (if approved above)

At the September 17, 2019 Council Meeting:

3) Read Ordinance No. 2019-26 by title only for the final time
4) City Clerk reads Ordinance No. 2019-26 by title only (if approved above)
5) Adopt Ordinance No. 2019-26

Executive Summary:

The City is seeking to acquire real property and/or easements needed for the Switzer Canyon Water Transmission Main Project- Phases IV & V. These are the final phases of the Water Services Aging Infrastructure Replacement Project. The 16-inch cast iron water main was built in the 1950's and has exceeded its expected life. These lines have experience multiple breaks within the last few years that have caused damage to our roadways and have interrupted service to our residents and hospital. The project will install a new dual line- a 16-inch (high pressure) and a 24-inch (medium pressure) ductile iron pipe to serve the City of Flagstaff.

Financial Impact:

Phase IV is estimated at $1.7 million, and Phase V estimated at $1.9 million dollars which includes design, property acquisition and construction. Account number 202-08-370-3428-0-4466. The City is obtaining appraisals of the easements and/or real property interests to be acquired.

Policy Impact:

None

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Transportation and Other Public Infrastructure
Deliver quality community assets and continue to advocate and implement a highly performing multi-modal transportation system.

Has There Been Previous Council Decision on This:
Yes. Council has approved the budget for the capital improvement project.

Options and Alternatives:
1. Approve the ordinance
2. Do not approve the ordinance and redirect staff

Background/History:
The City of Flagstaff began the Switzer Canyon Water Transmission Main Project in 2012 and has completed the first three phases. The project started at the intersection of Switzer Canyon Road and Route 66 and headed north and up Turquoise and across Forest Avenue to Fir Avenue and west on Fir to the Elks Lodge at San Francisco Street. Phase IV and V are the final stages to complete the project. The line will be installed going north up San Francisco Street and generally follow the existing 16" water line across private property located in Coconino County to City reservoirs for approximately two miles.

A sample form of water easement is attached.

Key Considerations:
The existing 16-inch cast iron water main was built in the 1950's and has exceeded its useful life. Breaks in the line will cause major interruptions in service. Switzer Canyon Water Transmission Main is the main water supply to the Flagstaff Medical Center and Summit Medical Center. Installation of a new dual line will ensure an adequate water supply for all citizens of Flagstaff.

The new transmission lines will also include fire hydrants for public safety and firefighting purposes. The locations of fire hydrants will be based on operation and maintenance needs as well as input received from City fire department and water services staff.

The City needs to obtain property rights prior to commencing construction.

Community Benefits and Considerations:
Ensuring an adequate water supply for the citizens of Flagstaff.
Installation of fire hydrants in rural wooded areas of the County (fire protection).

Community Involvement:
Stakeholder meeting held on July 17, 2019. Invited property owners impacted by the proposed alignment to present an overview of the project and request access to their properties via a Site Access Agreement which will allow the City to perform necessary due diligence, survey work, environmental assessments and appraisals to move forward with the project.

Expanded Options and Alternatives:
None

Attachments: Presentation
Ord. 2019-26
Sample Easement

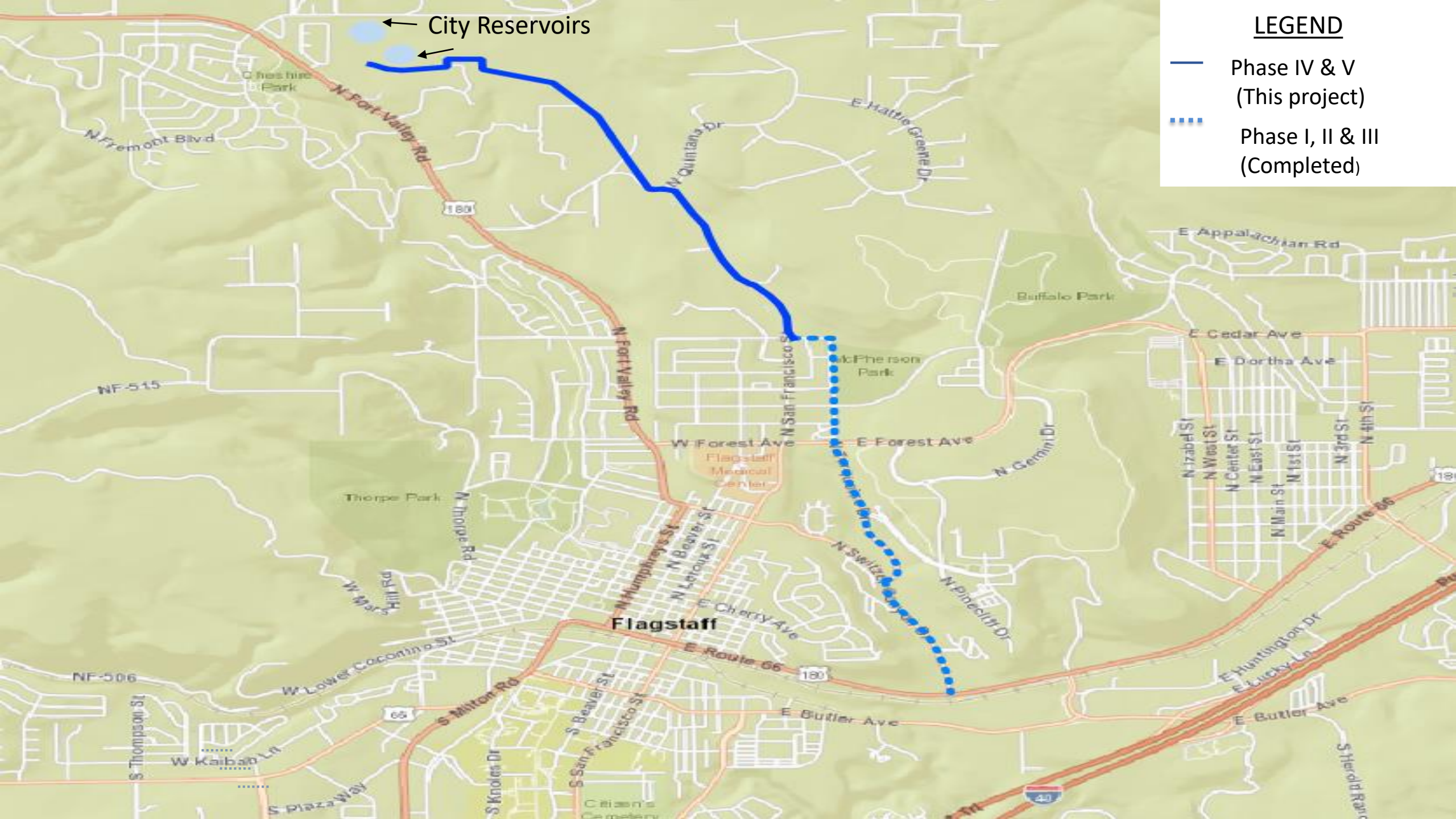
Switzer Canyon Water Transmission Main Phases IV & V

Charity Lee- Real Estate Manager

August 27, 2019

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER


City Reservoirs
LEGEND
Phase IV & V
(This project)
Phase I, II & III
(Completed)
Flagstaff
N Fort Valley Rd
N Fremont Blvd
E Hattie Greene Dr
N Quintana Dr
E Appalachian Rd
Buffalo Park
E Cedar Ave
E Dortha Ave
N San Francisco St
W Forest Ave
E Forest Ave
N Gemini Dr
N Switzer Canyon Dr
N Pinecliff Dr
Thorpe Park
N Thorpe Rd
N Humphreys St
N Beaver St
N Leroux St
E Cherry Ave
E Route 66
S Milton Rd
S Beaver St
S San Francisco St
E Butler Ave
W Lower Coconino St
W Kaibab Ln
S Plaza Way
S Knoles Dr
S Thompson St
NF-515
NF-506
N Izabel St
N West St
N Center St
N East St
N Main St
N 1st St
N 3rd St
N 4th St
E Huntington Dr
E Lucky Ln

Why?

- Pipes were built in the 1950's (cast iron).
- Multiple breaks have recently occurred.



Why?

- Breaks cause major interruptions in service.

- Switzer Canyon Water Transmission Main serves the residents of Flagstaff (approx. 80,000 residents).

- Main water supply to the Flagstaff Medical Center.



Ordinance

- Approval of the Ordinance will authorize staff to acquire the necessary property rights to complete the alignment and move forward with the project.

Questions

?

ORDINANCE NO. 2019-26

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AUTHORIZING THE ACQUISITION OF REAL PROPERTY AND/OR EASEMENTS FOR THE SWITZER CANYON WATER TRANSMISSION MAIN PROJECT- PHASES IV & V; PROVIDING FOR DELEGATION OF AUTHORITY, SUBSEQUENT COUNCIL APPROVALS, SEVERABILITY, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, pursuant to Article VII, Section 5 of the Flagstaff City Charter the City shall acquire real property by ordinance; and

WHEREAS, pursuant to Article I, Section of the Flagstaff City Charter the City may acquire real property, easements, and other real property interests within or without its corporate limits by purchase, gift, devise, exchange, or condemnation;

WHEREAS, the City desires to acquire easements, temporary construction easements, and/or real property for the Switzer Canyon Water Transmission Main Project; and

WHEREAS, these acquisitions will complete the final phases of the project and will provide an upgraded water transmission line for the City of Flagstaff.

ENACTMENTS:

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

The City of Flagstaff shall acquire the real property or easements for the Switzer Canyon Water Transmission Main Project- Phases IV & V within Sections 3, 4, and 10, Township 21 North, Range 7 East, Gila and Salt River Meridian, Coconino County, Arizona, per the civil engineering plans approved by the Water Services Division (“Acquisitions”).

SECTION 2. Delegation of Authority.

The Mayor, City Manager, City Attorney, City Clerk, Finance Director, Real Estate Manager, or their delegates or agents, are hereby authorized and directed to take all steps and execute all documents necessary to acquire the real property and or easements and to carry out the purpose and intent of this ordinance, and to acquire such real property and or easements through purchase, exchange, gift, donation, dedication, or condemnation for a public use.

The Real Estate Manager is directed to obtain appraisals of the proposed Acquisitions for purposes of determining just compensation to be paid. The Real Estate Manager is delegated authority to negotiate with property owners for final purchase price or conditions, with approval of the City Manager or Council.

SECTION 3. Subsequent Council Approvals.

The City Council shall approve any condemnation necessary for public use, including site access, by resolution referencing this ordinance, and including a legal description and map of the properties sought to be condemned, which resolution shall be immediately effective.

Any real property or easements acquired pursuant to this ordinance will be presented to the City Council at a future council meeting for formal acceptance.

SECTION 4. Severability.

That if any section, subsection, sentence, clause, phrase or portion of this ordinance or any part of the City Code adopted herein by reference is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions thereof.

SECTION 5. Effective Date.

This ordinance shall become effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 17th day of September, 2019.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

When recorded, mail to
City Clerk
211 West Aspen Avenue
Flagstaff, Arizona 86001

Public Water and Appurtenances
(Water Easement)

For valuable consideration, the sufficiency and receipt of which is hereby acknowledged, _____, hereinafter referred to as ("Grantor"), hereby grants and conveys unto the CITY OF FLAGSTAFF, a municipal corporation organized and existing under and by virtue of the laws of the State of Arizona ("Grantee"), an exclusive easement for water purposes, under, over and across the real property of Grantor; located at _____ in Flagstaff, Arizona, situated in Coconino, Assessor Parcel Number _____, and as legally described and depicted in the attached **Exhibit A** ("Public Water Easement"), Subject to the following terms and conditions:

1. Grantee shall have the right to locate, operate, repair, replace, alter and maintain ("Work") under ground waterlines and related facilities within the Public Water Easement.

2. Grantee shall have the rights of ingress and egress across adjacent property owned or controlled by Grantor where reasonably required to gain access to the real property subject to this easement.

3. This Public Water Easement is granted on an exclusive basis to Grantee. Grantee shall have the right to use the easement for water services provided and approved by Grantee.

4. Grantee may remove, alter or maintain vegetation, improvements, or obstructions within the limits of the real property subject to this easement that conflict with the public utility uses.

5. Grantee shall restore the real property to its prior condition upon completion of any work by Grantee, its employees, contractors, or licensees; following such restoration Grantor shall remain responsible for any ongoing maintenance of the surface of the real property subject to this easement.

6. To the extent permitted by Arizona law, Grantee hereby covenants to indemnify and save Grantor harmless from any liabilities for injuries or damages to persons or property arising out of use of this Water Easement by Grantee, its employees, contractors, or licensees.

7. Grantor shall have the right to use and enjoy the real property subject to this Water Easement provided such use and enjoyment does not interfere with Grantee's ability to utilize the Water Easement granted herein. Grantor may not construct or permit erection or other structure or improvement that in Grantee's sole opinion would interfere with the operation of utilities within the Water Easement granted herein, unless Grantee gives written consent.

IN WITNESS WHEREOF, Grantor has caused this Water Easement to be executed this ___ day of _____, 2019.

Grantor:

By: _____
Title:_____

STATE OF ARIZONA)

County of Coconino)

On this _____ day of _____, 2019, before me, a Notary Public, personally appeared _____, whose identity was proven to me on the basis of satisfactory evidence to be the person who he or she claims to be, and who acknowledged that he or she signed this Water Easement.

_____
Notary Public

(Seal)

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Brad Hill, Water Services Director
Co-Submitter:	Doug Slover, Stormwater Project Manager
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Adoption of Resolution No. 2019-30: A Resolution of the Flagstaff City Council, approving a Pond Agreement with Wanderland Flagstaff, LLC, to provide for acquisition of a storm water detention easement on certain real property located along west Route 66, construction of a pond for recreational and storm water detention use, and maintenance of the pond; providing for recording, and establishing an effective date.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2019-30 by title only
2) City Clerk reads Resolution No. 2019-30 by title only (if approved above)
3) Adopt Resolution No. 2019-30

Executive Summary:

The Wildwood Hills mobile home park has been subject to periodic seasonal flooding since the 1980s, as it is built in a natural drainage way. In August 2016, the area upstream of Wildwood Hills experienced a 100-Year rain event and extensive flooding occurred within the mobile home park which caused damage to numerous properties. For the past three years, the City has been working on a solution to mitigate flooding in this area. Wildwood Hills mobile home park is valued by the City as it provides affordable housing. The City obtained two engineering studies to evaluate what is the best solution to help mitigate flooding (February 2017 and January 2019). Staff determined that the most cost-effective and best alternative was to locate a detention basin on the adjacent property upstream of the mobile home park.

The owners of the adjacent property, Wanderland Flagstaff, LLC, ("Wanderland") is re-developing the Woody Mountain RV Campground, known as the Wanderland RV park. As early as 2016 Wanderland and the City discussed the construction of a recreational amenity (pond) for the campground, plus a retention basin to mitigate downstream flooding within the mobile home park. This was in part due to the fact that the owners of Wildwood Hills had indicated they were unable to help resolve flooding issues. On June 20, 2017, the City and Wanderland presented a pond design concept at a Council Meeting and received direction to continue working on a collaborative solution. The pond design as proposed will reduce the 100-year flood flows by approximately 60%, from approximately 200 cubic feet per second ("CFS") to 78 CFS.

Following the June 2017 meeting, Wanderland determined that it wanted a more natural-looking pond design (not a rectangle), and obtained its own redesign of the pond. Wanderland reports it has spent over

$100,000 to redesign the pond and/or site plan. As redesigned, 75% of the volume is needed for city stormwater detention and about 25% of the volume is for recreational use. The estimated construction cost for the pond will exceed $400,000, and Wanderland has offered to pay that cost.

In April 2019 Wanderland obtained Site Plan approval for its redeveloped Wanderland RV park, along with the redesigned pond. The redesigned pond includes recreational and stormwater detention capacity (per the original design), plus additional stormwater detention capacity for the Wanderland RV park and a neighboring property, Aspen Heights. Also in April 2019, Wanderland obtained approval from the State Land Department (a portion of the Wanderland RV park is leased from the State).

Wanderland and the City have been diligently working on a development agreement regarding the pond's ownership, construction, maintenance, and access. The parties are also considering what is a fair as far as financial contributions for the project, including the amount the City will pay to purchase a stormwater detention easement for the detention capacity. It is anticipated a proposed agreement will be provided prior to the June 18, 2019, Council Meeting. Once an agreement is approved, construction may proceed. However, it is unlikely construction of the pond will be completed in time for this summer's monsoon, which typically starts in July. Accordingly, the City is reaching out to the property owner of Wildwood Hills mobile home park to offer other assistance, which may include sandbags and help to apply for grant funds for residential flood proofing.

Financial Impact:

Water Services Stormwater Utility has budgeted $400,000 in FY19 Capital Improvement Program. To date, approximately $60,000 has been expended on engineering studies leaving $340,000 for the easement, construction, etc.

If the City were to proceed on its own in acquiring and developing a stormwater detention pond or other solution, the anticipated costs may exceed $1 million (property acquisition and construction costs).

Policy Impact:

None

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Council Goal - Affordable Housing: "Support ...the inventory of...affordable housing...throughout the community."

Strategic Plan for Team Flagstaff - Strategic Priority #4: "Work in partnership to enhance a safe and liveable community"

Has There Been Previous Council Decision on This:

On June 20, 2017, Council directed staff to work on a collaborative approach to resolving the regional flooding issue/Wildwood Homes mobile home park flooding.

On May 28, 2019, Council held an Executive Session to receive legal advice related to the negotiation of a development agreement.

Options and Alternatives:

1. Approve the resolution and Pond Agreement;
2. Approve the resolution and Pond Agreement with amendments;
3. Do not approve, and direct staff to continue negotiations;
4. Do not approve, and direct staff to use the budgeted funds for other stormwater projects;
5. Do not approve, and direct staff to start the process to acquire a stormwater detention easement per the February 2017 feasibility study (not recommended due to cost);
6. Do not approve, and direct staff to pursue drainage options in Wildwood Hills mobile home park per the January 2019 feasibility study (not recommended).

Community Benefits and Considerations:

The storm water detention pond is anticipated to provide a regional benefit.

Community Involvement:

Community members have been in contact with individual members of Council and City Management on numerous occasions to express their continued interest in this project.

Attachments:

Drainage Report 2017
Drainage Report 2019
Pond Agreement
Pond and Access Easement
Wanderland Drainage Report
Easement Overlay
Wanderland Drainage Report
06.20.2017 Staff Summary
Res. 2019-30
Pond Elevation
Pond Plan
Site Plan
Presentation

DRAINAGE FEASIBILITY STUDY

FOR

WILDWOOD HILLS MOBILE HOME PARK

February 07, 2017

Project Location:

2727 W Hwy 66
Flagstaff, AZ 86001

Prepared For:

VP66 and Woody Mountain LLC
2505 East Camelback Rd, Suite 214
Phoenix, AZ 85016

Prepared By:



EXPIRES: 6/30/2017

Sirisha Kalluri, P.E, CFM



EXPIRES 3/31/2018

Rick Schuller, P.E

WOODSON

ENGINEERING AND SURVEYING, INC.

124 N. Elden St. • Flagstaff, AZ • 86001-5262
Phone: (928) 774-4636 • Fax: (928) 774-4646
www.woodsoneng.com

WES Project No. 116050

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   5.3 TIME OF CONCENTRATION (Tc) 7
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   5.5 HEC-1 ANALYSIS 8
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EXPIRES: 6/30/2017



EXPIRES 3/31/2018

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1. INTRODUCTION

The purpose of this report is to analyze the offsite drainage which impacts Wildwood Hills Mobile Home Park (MHP) to determine potential flow attenuation strategies on the parcel located upstream/west of Wildwood Hills to assist with their historical and on-going drainage flooding issues. For the purpose of this study, Wildwood Hills MHP will be referred as the subject site hereafter.

The study area is located in Section 19, Township 21N, and Range 07E, located south of Route 66, north of I-40 and east of Woody Mountain Road. Please refer to Appendix for the Vicinity map.

The contributing watershed area is comprised of the Vintage 37 acre parcel located west of Woody Mountain Road, Presidio in the Pines and the Woody Mountain Campground located east of Woody Mountain Road, Hidden Hollow Manufactured Homes and Rail Road Springs located north of Rte 66 and others located in west Flagstaff at Woody Mountain Road and West Old Route 66.

2. FLOOD ZONE

The site is located in Zone X per FEMA's FIRM 04005C6816G. There is no designated floodplain or floodway through the site or the upstream watershed area. However the parcels downstream of Wildwood Hills MHP (Kit Carson RV Park) is in Zone A. Please refer to Appendix for floodzone exhibit.

Zone X is defined as the areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood.

Zone A is defined as areas subjected to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are established for this zone.

3. PREVIOUS DRAINAGE STUDIES

The subject site and its offsite watershed area were included in a previous drainage study for Presidio in the Pines (Presidio) and a flood study for Kit Carson RV Park (KCRVP). The hydrologic analysis from these studies has been used as the starting point to develop a HEC-1 model for the current study. Excerpts from these studies are included in Appendix for reference.

4. EXISTING DRAINAGE CONDITION

As a part of this feasibility study, a site visit was performed by Woodson Engineering and Surveying, Inc. to examine the existing drainage conditions including offsite drainage patterns, drainage conveyances, potential detention areas, conveyance conditions at Wildwood Hills MHP and the downstream discharge conditions thru KCRVP to Route 66.

Wildwood Hills MHP receives offsite flows from 2 directions, a northern and a southern branch. Flow generated by the Woody Mountain campground, the northern portion of Presidio, the Vintage 37 acre parcel and others located in west Flagstaff at Woody Mountain Road and West Old Route 66 discharge into the northern branch. Flow generated by the middle portion of Presidio and some area from southwest of the Woody Mountain campground discharges into the southern branch.

The flow from the northern branch reaches a small existing pond located on the west boundary of MHP at a natural flow concentration point. Based on the pond size, it appears that the pond may detain flows generated by smaller storms only. Once the pond fills up, the flow enters the MHP at the west perimeter via two (2) rock/grouted channels located on north and south sides of unit 9. These channels will be referred to as north and south grouted channels hereafter. The channels have grouted rock walls with earthen and/or grouted bottom and the depth varies throughout its length. During the site visit, measurements were taken at the most constrained sections to calculate the channel capacity.

The flow from the aforementioned channels enters the street in front of unit 9 and then reaches a confluence channel located north of unit 23. This channel is smaller in size than the north and the south channels. The confluence channel passes under decks of some of the units and thus decreases further in size. The flow conveyed by this channel then enters onsite streets and eventually reaches east boundary of the MHP where it enters KCRVP.

The flow from the south branch enters the MHP, traverses through onsite streets and then enters KCRVP on the east boundary of the MHP. This is also the confluence point of northern and southern branches. The onsite streets have inverted crowns and some have concrete valley gutters at the center to convey flow.

The offsite watershed area is comprised of both developed and undeveloped areas. Per the drainage report for Presidio, the development has proposed required storm water management facilities to limit the post developed flow rate to be equal to or less than the pre developed flows (please see the drainage map referenced from Presidio included in the Appendix). The Vintage 37 acre parcel located west of Woody Mountain Road was a part of the 2006 Woody burn area. To reflect the existing condition, current analysis uses curve numbers for the post burn condition.

The flow from the Vintage 37 acre parcel crosses Woody Mountain Road via two existing culvert crossings: a 24”x36” cmp located at the intersection of old Rte 66 and Woody Mountain Road and a 4’x3’ RCBC located north of the roundabout in Woody Mountain Road.

Drainage area Sub-1 discharges flow into the 24”x36” cmp which connects into an existing inlet on east side of Woody Mountain Road. The inlet discharges into an existing culvert which appears to be 18” cmp. The flow is then conveyed by roadside ditch and then discharges into Woody Mountain Campground parcels. The flow generated by old Rte 66 which does not have any curb and gutter also discharges into roadside ditches and reaches the Woody Mountain campground parcels.

Drainage area Sub-2 discharges into an existing 24” cmp that crosses Rte 66 (located about 1060’ east of Woody Mountain road and old Rte 66 intersection) and discharges flow on south side of Rte 66 into the easterly Woody Mountain Campground parcel.

Drainage area Sub-1A discharges into the existing 4’x3’ RCBC under Woody Mountain road which then discharges into an onsite stormdrain system in Presidio. Flow from one of the Presidio’s onsite detention basin drains into the same stormdrain system which then discharges into the Woody Mountain campground parcels. The size of the stormdrain system at its outlet is a 30” cmp. In addition to the aforementioned drainage systems, the flow generated by the Woody Mountain campground parcels discharge into the northern branch of Wildwood Hills MHP.

Please see Appendix for drainage area map for location and flow at concentration points for north and south branches.

5. HYDROLOGIC ANALYSIS

The hydrologic analysis was performed in accordance with the City of Flagstaff (COF) Stormwater Management Design Manual (SWDM). COF’s GIS contours (2’ interval) were utilized to delineate drainage areas. This study includes the100-yr storm event analysis only.

5.1 RAINFALL DATA

Rainfall depths are referenced from COF SWDM Table 3-2 (please see following table). With the watershed area being less than 1 square mile, 6-hour storm duration and 6-hour rainfall depths are used for hydrologic analysis.

TABLE 1: RAINFALL DEPTHS

Storm Duration Table 3-2	Duration (hr)	100-year Intensity (in/hr)	100-year Depth (in)
5-min	0.083	8.52	0.71
10-min	0.167	6.66	1.11
15-min	0.25	5.48	1.37
30-min	0.5	3.58	1.79
1-hour	1	2.21	2.21
2-hour	2	1.28	2.56
3-hour	3	0.92	2.76
6-hour	6	0.53	3.18

5.2 SOILS DATA

Soils information has been referenced from the USDA's Web Soil Survey for "Oak Creek-San Francisco Peaks Area". The soils in the study area are found to be Hydrologic Soil Group Type C or Type D. The curve numbers for various land use/cover are referenced from the National Engineering Handbook (NEH), Chapter 9. For undeveloped drainage areas, SCS curve numbers for Ponderosa pine forest in "fair condition" is used and the curve numbers are referenced from the Flood Study for KCRVP. For developed drainage areas, the curve numbers are selected based on the average lot size. For the drainage areas west of Woody Mountain road which were in burnt area, curve numbers for open area (with less than 50% of grass cover) are used. Please see the Appendix for excerpts from the NEH for the referenced curve numbers.

5.3 TIME OF CONCENTRATION (Tc)

Tc calculations were performed per the COF's SWDM Section 3.1.6. Please see Appendix for Tc calculations. The overland length flow is limited to be no more than 100'. Minimum Tc of 10 mins and 6 mins are used for undeveloped and developed drainage areas respectively if the calculated Tc is lower than the minimum Tc.

5.4 RUNOFF METHODOLOGY

The US Army Corps of Engineers' HEC-1, Version 4.1. and SCS curve number methodology is used to develop the hydrologic model per SWDM's Section 3.3. As mentioned already, flow from the northern portion of Presidio discharges into the existing pond along the west perimeter of Wildwood Hills MHP. Thus, the hydrologic model from Presidio is incorporated into the current analysis to compute flows impacting Wildwood Hills MHP. Also drainage areas downstream of Wildwood Hills MHP are referenced from the Flood study for KCRVP to show the comprehensive

drainage network in the area and to compare the difference in flows in the existing condition to the flows after the attenuation facilities are proposed. The runoff methodology used for this current study is in concurrence with both of the reference studies and the runoff methodology used by those studies.

5.5 HEC-1 ANALYSIS

After inclusion of drainage areas from Presidio and the drainage areas downstream of Wildwood Hills MHP i.e KCRV into the current analysis, additional Combination Points (CPs) are also added to the model for other tributary areas to determine the flow at the existing pond on the west perimeter of Wildwood Hills MHP and on the east perimeter where flows exit Wildwood Hills. Curve numbers are adjusted to reflect any changes from reference studies including revising the curve numbers for the drainage areas in the burnt area. Please refer to drainage map included in Appendix for drainage area delineation and summary of flows.

6. HYDRAULIC ANALYSIS

6.1 EXISTING DRAINAGE FACILITIES

As the first step to develop flow attenuation strategies, the flow capacity of the existing drainage facilities in Wildwood Hills MHP have been analyzed based on the field measurements taken during site visit. Please see the Appendix for flow capacity calculations and drainage map for the table listing the existing channel capacities.

6.2 FLOW ATTENUATION OPTIONS

Among the existing channels in Wildwood Hills MHP, the channel with the least flow capacity (i.e. the confluence channel) may dictate the size of any flow attenuation facilities and the allowable flow from them. The 100 yr flow rate at the upstream point of the MHP where a detention basin is being planned is 191 cfs. Following are some of the alternative detention design options that were studied to determine the flow released from the detention basin.

TABLE 2: DETENTION BASIN ALTERNATIVES

Alternative ID with Basin Volume	Flow released from the Detention Basin (cfs)
Alternative-1 :Volume =1.75 ac-ft	160 cfs
Alternative-2 :Volume =2.25 ac-ft	141 cfs
Alternative-3 :Volume =4.97 ac-ft	78 cfs
Alternative-4 :Volume =9.00 ac-ft	20 cfs

Alternative 1 & 2 are not desired as they do not provide much relief to the flow released into the Wildwood Hills MHP. Alternative 4 was done to determine the volume of detention basin needed to bring the outflow from the detention basin to the capacity of the confluence channel (18 cfs). However, given the steep terrain west of Wildwood Hills, a detention basin of this volume is not feasible to grade and also leads to embankment of about 10'-12' which is not recommended on back of the Wildwood Hills MHP. With Alternative 3, a more natural looking basin has been designed to blend with the terrain. There is more than one inflow point to the existing pond along the west perimeter of Wildwood Hills MHP. The pond that follows natural terrain can help maintain the existing flow pattern and can efficiently capture flow from multiple inflow points. This report includes cost estimate and grading for Alternative 3 only.

7. DETENTION BASIN

The detention basin has been designed per the SWDM guidelines with a benched configuration. The basin is 6' deep for the "live storage" or detention portion with an addition permanent pool depth of 4' occurring below the detention level. To increase the functionality of the basin, the permanent pool allows the basin to function as a unique site amenity with aquatic features designed and then maintained with appropriate measures such as aeration. The detention basin analysis does not include the dead storage volume. The basin outlet will have 2-27" pipes above the permanent pool elevation and will directly discharge into the onsite channel. The outlet is sized to maintain at least 0.5' of freeboard. Please see Exhibit-3 included in Appendix for detention basin grading. With the proposed amenities in the basin, it will be maintained per the Operations and Maintenance (O&M) Manual provided with final design.

Since the outflow from the detention basin (78 cfs) is more than the existing confluence channel capacity (18 cfs), the onsite channels could be upsized with an onsite improvement project. The north and the south rock/grouted channels may be removed and one of them can be replaced with a rectangular concrete channel. Given the narrow space available between units, a concrete rectangular channel (6' wide and 2.5' in ht.) may be proposed for onsite channel. This is the concept shown for this report. As an alternate, to maintain flow in two channels to match the existing condition, the south grouted channel can be upgraded to convey the flow released from the detention basin, one pipe going each to one channel. Then the confluence channel may be upgraded to a rectangular concrete channel as well (6' wide and 2.5' in ht.). Any existing landscaping, decks or other peripherals of units that are in conflict with the new rectangular channels would be removed and replaced as feasible.

In the existing condition, the confluence channel releases flow into onsite streets which eventually drains into KCRVP. The proposed rectangular concrete confluence channel will maintain the same

alignment as the existing grouted channel and releases flow into onsite streets to match the existing flow pattern.

As an alternative to the open channels, a storm drain system may be opted in the onsite streets. However given the onsite street grades and the size of the pipe to convey the flow from the detention basin, to daylight the storm drain, either it has to be extended into KCRVP or some open channel grading work may be required in KCRVP. This alternative has not being studied in detail in this report nor is the cost of this alternative included in the cost estimate.

The proposed flow attenuation options address flooding issues caused due to the flow released into northern branch only. Per coordination with the City, it appears that the southern branch seems to have some flooding issues due to some retaining walls built on site. If a stormdrain system is opted in lieu of improving onsite channels, a stormdrain lateral could be connected to it to intercept surface flows to alleviate any flooding caused due to the flows in the southern branch. Neither the scope nor the cost estimate of this study include any improvements to address flooding caused due to flow from southern branch. Though the proposed flow attenuation facilities do not completely reduce the flows to the capacity of the existing drainage/conveyance facilities, the flows are significantly lower than the allowable or pre developed flows. Please see the following table for flows with and without the proposed detention basin.

TABLE 3: FLOW SUMMARY

CP ID	COMBINING BASINS/CPs	FLOW RATE Q100 (CFS) WITHOUT DETENTION BASIN@ WILDWOOD HILLS MHP	FLOW RATE Q100 (CFS) WITH NEW DETENTION BASIN @WILDWOOD HILLS MHP
CP-1A	SUB-1,2,2A	42	42
CP-30	SUB-1A,1B,3A, B-4,B-4A,B1A,B4B,B3	112[2]/93[3]/124[4]	124
CP-2A	CP-1A+CP-30 +SUB-3B	191	191
DET OUT	FLOW FROM DETENTION	-	78
CP-3A	CP-2A+CP-3C	247	112
CP-11[5]	SEE NOTE[1]	456[2]/420[3]	419
CP-4A[5]	CP-3A+SUB-1	251	116
CP-4B[5]	CP11+SUB-4	433	432
CP-4C[5]	CP-4A+CP-4B	641	532
CP-5[5]	CP-4+SUB-5	695	555

Note 1: TOO MANY BASINS TO LIST. PLEASE REFER TO PRESIDIO DRAINAGE STUDY

Note 2: PRE-DEVELOPED FLOWS-REFERENCED FROM PRESIDIO DRAINAGE STUDY

Note 3: POST-DEVELOPED FLOWS-REFERENCED FROM PRESIDIO DRAINAGE STUDY

Note 4: THIS INCLUDES FLOW FROM BURN AREA WITH REVISED CURVE NUMBERS

Note 5: THESE COMBINATION POINTS ARE ADDED FOR INFORMATION ONLY AS THESE ARE DOWNSTREAM OF WILDWOOD HILLS. THERE ARE OTHER AREAS THAT ARE NOT A PART OF SUBJECT DRAINAGE STUDY THAT CONTRIBUTE FLOW TO THESE COMBINATION POINTS

8. OPINION OF PROBABLE COST

As a part of this study, opinion of probable cost has been prepared to estimate the cost associated with the construction of the basin and the onsite conveyance facilities. The cost estimate is broken down into basin and conveyance. The cost of the proposed improvements within campground

parcels (detention basins and outlet structure) is included under basin improvements and the cost of the onsite channels and any associated removal/reconstruction is included under conveyance cost. Please see Appendix for the estimate.

9. CONCLUSIONS

I. To reduce flows from the west of Woody Mountain Road to Wildwood Hills MHP, some areas of Timber Sky that naturally drain east will be routed west as recommended by the City with Timber Sky improvements.

II. The drainage areas from the 2006 burn area use an existing burn condition for the curve numbers for the hydrologic analysis. This a conservative approach as the vegetation will eventually be re-established and the curve number will drop significantly.

III. With the proposed flow attenuation facilities, the flow in the north branch will be routed through the proposed detention basin and then through the upgraded onsite conveyance facilities, which will an onsite project. The location of the onsite channels is maintained to match the existing flow pattern.

IV. The proposed detention based is at the same location as the existing small pond which is a natural concentration point with more than one inflow points. The proposed detention basins blends with the natural terrain and maintains the same flow pattern as in existing condition. The permanent pool provides an additional site amenity.

V. Though the proposed flow attenuation facilities do not completely reduce the flows to the capacity of existing drainage/conveyance facilities, the flows are significantly lower than the existing condition flows.

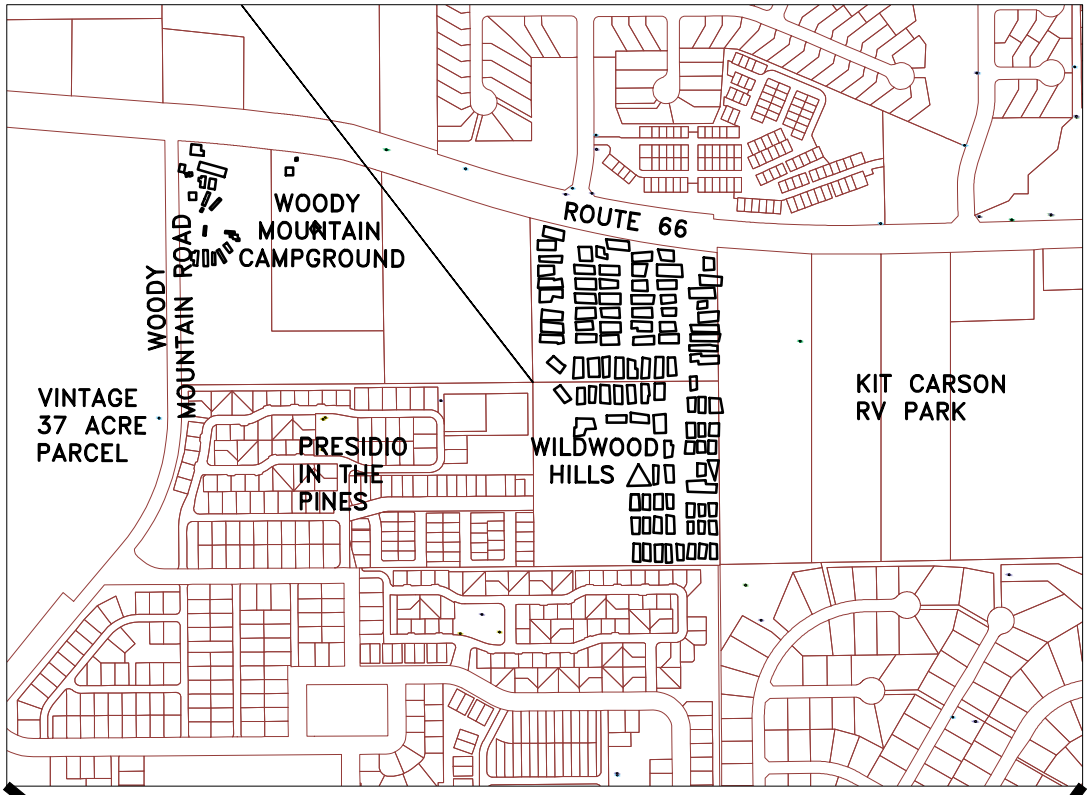
VI. Any remove/replace of existing unit peripherals should be coordinated with the residents/owners of the units.

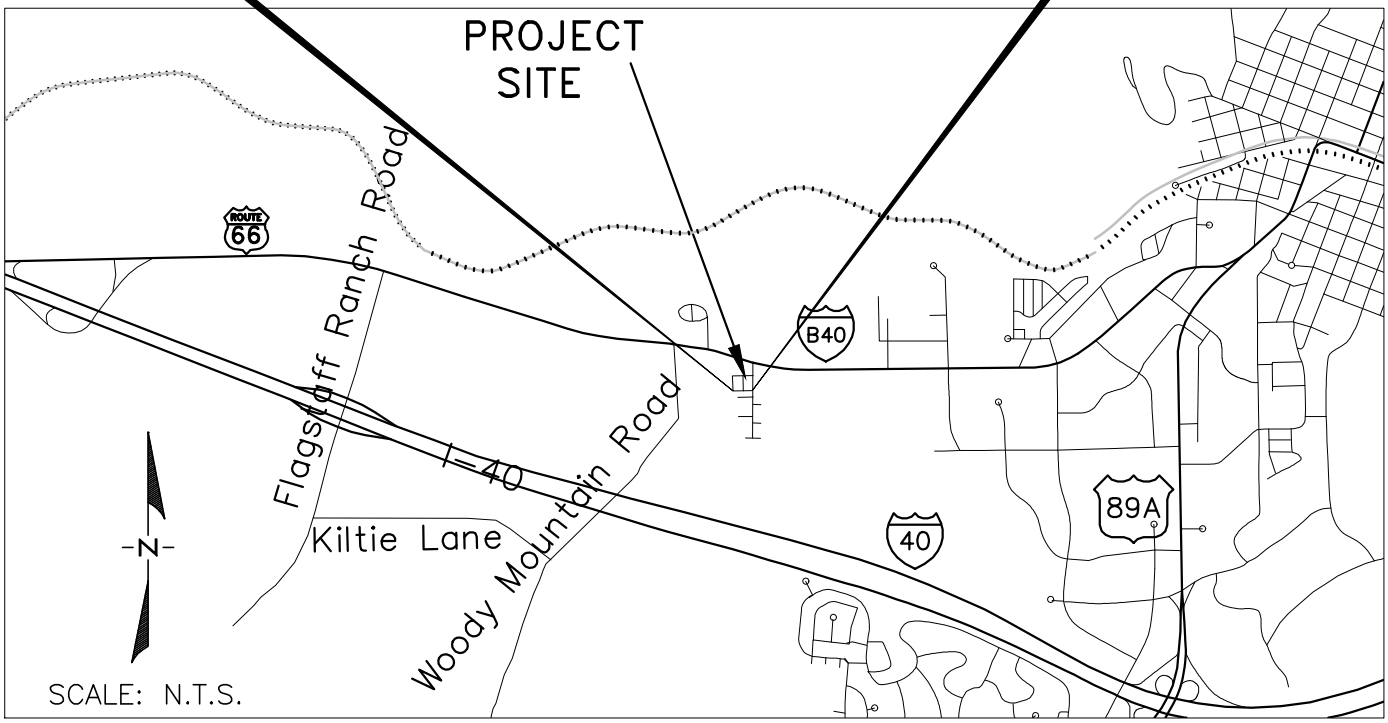
VII. The size of the proposed facilities uses City's 2-foot contours and is considered a preliminary design. Also the existing capacity calculations are based on field measurements taken during site visit and per surveyed cross sections. Final design should be done using detailed survey.

VIII. The proposed flow attenuation options address flooding issues related to the north branch only. South branch flooding has been discussed briefly and the cost of improvements included in the report does not include any improvements to alleviate flooding caused due to flows in south branch.

APPENDIX A: FIGURES

VICINITY MAP
FEMA FIRM
WEB SOIL SUVEY MAP
EXHIBIT-1: DRAINAGE MAP- EXISTING CONDITION
EXHIBIT-2: FLOW ATTENUATION FACILITIES MAP
EXHIBIT-3: DETENTION BASIN GRADING AND CROSS SECTION

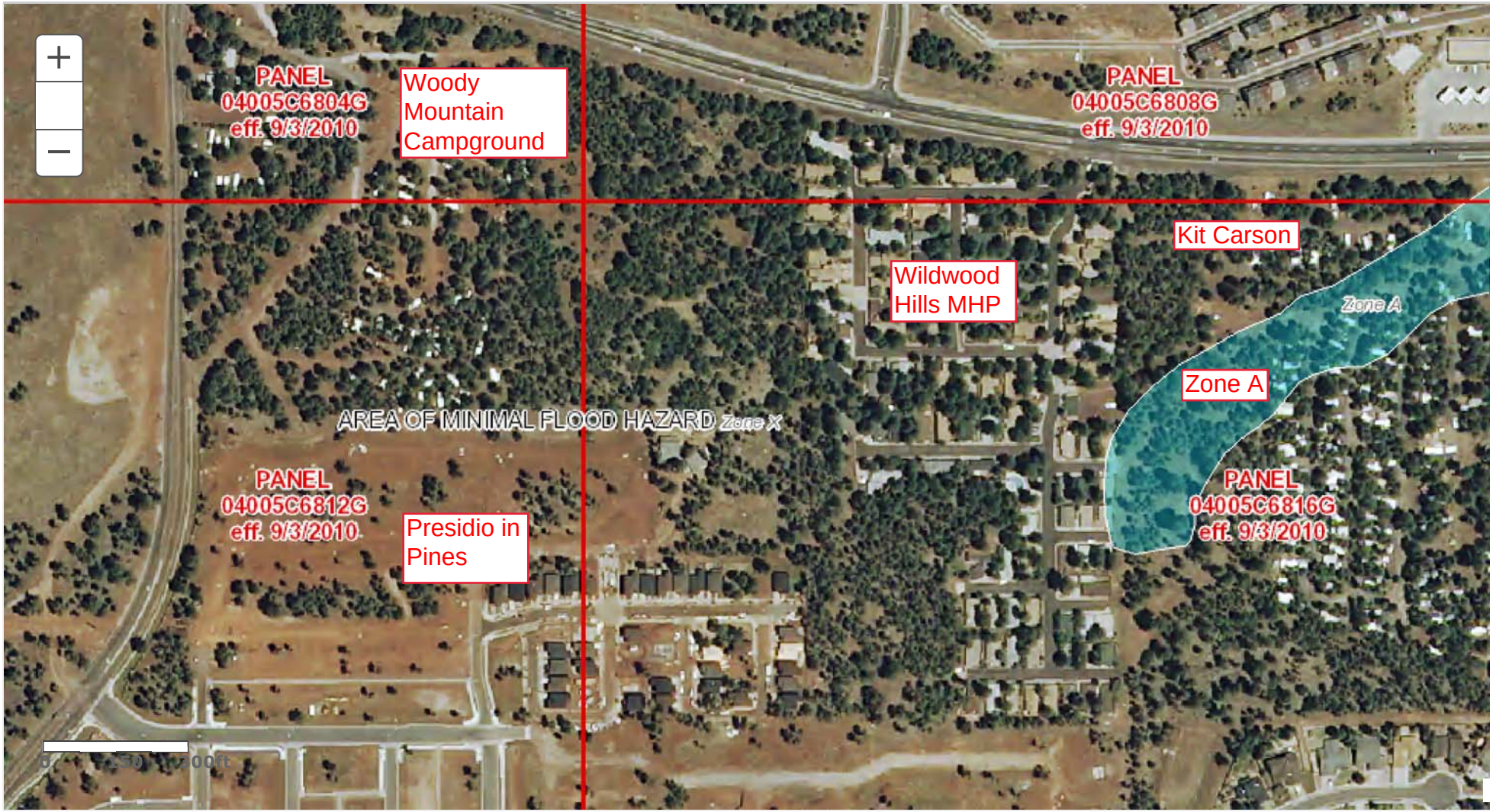




DRAFTED BY: SK DATE: 01/25/17 PROJ. NO.: 116050 FN: Vicinity Map.dwg	**WOODSON** ENGINEERING AND SURVEYING, INC. 124 N. ELDEN ST. FLAGSTAFF, AZ 86001 PHONE: (928) 774-4636 FAX: (928) 774-4646	WILDWOOD HILLS VICINITY MAP FLAGSTAFF, AZ

Home FEMA's National Flood Hazard Layer (Official)

Details | Basemap | Share Print Measure Find address or p



Wildwood Hills MHP: FEMA Flood Zones Exhibt

Not to Scale

USDA United States Department of Agriculture Natural Resources Conservation Service

Web Soil Survey

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A A A

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data | Shopping Cart (Free)

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Map Unit Legend

HSG C

HSG D

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County (AZ693)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Jacques clay loam, 0 to 2 percent slopes	31.7	4.5%
2	Brolliar stony clay loam, 0 to 2 percent slopes	159.2	22.9%
2A	Brolliar stony clay loam, 2 to 8 percent slopes	193.2	27.7%
2B	Brolliar stony clay loam, 8 to 30 percent slopes	16.2	2.3%
12	Brolliar cobbly clay loam, deep variant, 0 to 5 percent slopes	270.0	38.8%
15A	Tortugas-Daze complex, 0 to 15 percent slopes	25.9	3.7%
Totals for Area of Interest		**696.2**	**100.0%**

HSG D

HSG D

HSG C

HSG D

Soil Map

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps areas of contrasting soils that could have been shown at a more detailed scale.

WILDWOOD HILLS-SOILS MAP

Soil Data Available

Name	Area Symbol	Data Availability	Version
Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County	AZ693	Tabular and Spatial, incomplete	Survey Area: Version 5, Sep 14, 2014 Tabular: Version 4, Sep 14, 2014 Spatial: Version 2, Dec 17, 2013

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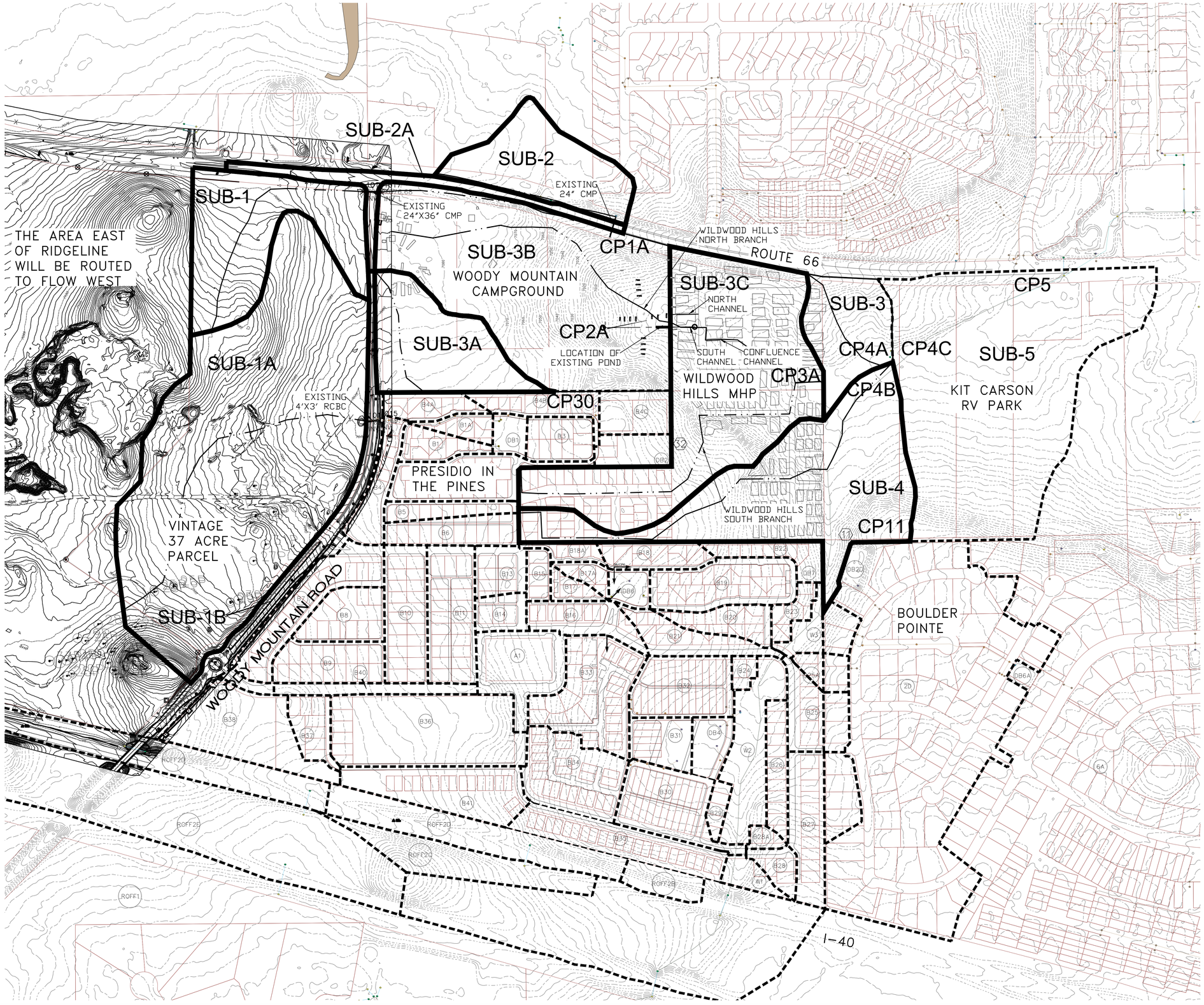

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0 100 200 400

SCALE: 1" = 200'
CONTOUR INTERVAL: 2'

LEGEND

- DRAINAGE AREA
- REFERENCED DRAINAGE AREA
- TRAVEL PATH
- SUB-1 DRAINAGE AREA ID
- CP1 COMBINATION POINT ID
- B3 REFERENCED DRAINAGE AREA ID
- 32 REFERENCED COMBINATION POINT ID

NOTE: TOPOGRAPHY USED FOR BASIN DELINEATION AND DETENTION BASIN GRADING IS BASED ON CITY OF FLAGSTAFF'S 2-FOOT GIS CONTOURS.

CHANNEL ID	CAPACITY (CFS)
NORTH CHANNEL	33
SOUTH CHANNEL	33
CONFLUENCE CHANNEL	18.5

CP ID	COMBINING BASINS/CPs	FLOW RATE Q100 (CFS) WITHOUT DETENTION BASIN@ WILDWOOD HILLS MHP
CP-1A	SUB-1,2,2A	42
CP-30	SUB-1A,1B,3A, B-4,B-4A,B1A,B4B,B3	112[2]/93[3]/124[4]
CP-2A	CP-1A+CP-30 +SUB-3B	191
DET OUT	FLOW FROM DETENTION	-
CP-3A	CP-2A+CP-3C	247
CP-11[5]	SEE NOTE[1]	456[2]/420[3]
CP-4A[5]	CP-3A+SUB-1	251
CP-4B[5]	CP11+SUB-4	433
CP-4C[5]	CP-4A+CP-4B	641
CP-5[5]	CP-4+SUB-5	695

Note 1: TOO MANY BASINS TO LIST. PLEASE REFER TO PRESIDIO DRAINAGE STUDY
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Note 3: POST-DEVELOPED FLOWS-REFERENCED FROM PRESIDIO DRAINAGE STUDY
Note 4: THIS INCLUDES FLOW FROM BURN AREA WITH REVISED CURVE NUMBERS
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116050

01-27-17

WILDWOOD HILLS
EXHIBIT 1
DRAINAGE MAP:EXISTING CONDITION

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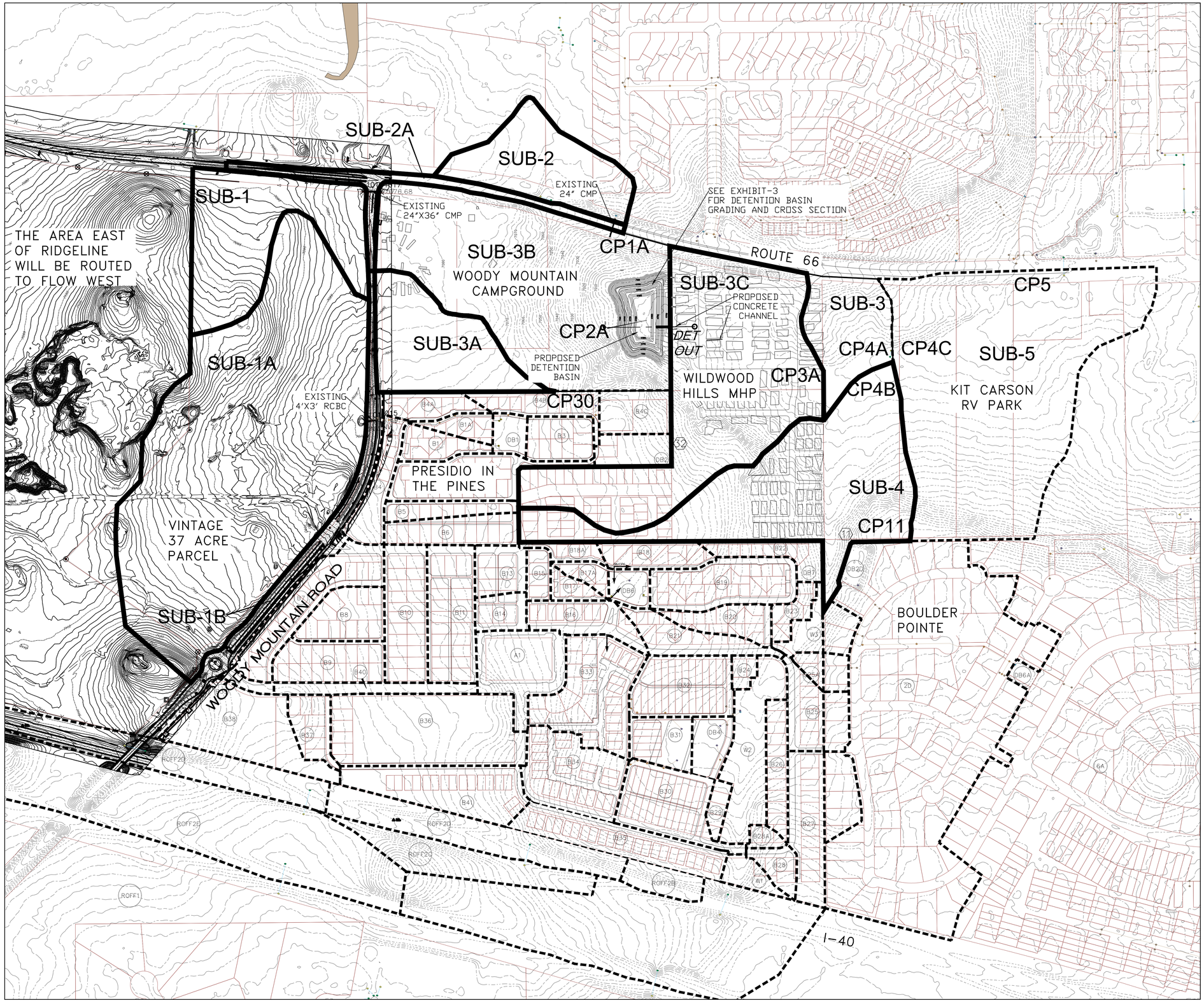
DATE: 01-27-17
PROJ. NO.: 116050
FN: 116050 DRAINAGE.dwg



N

0 100 200 400

SCALE: 1" = 200'
CONTOUR INTERVAL: 2'

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CP-30	SUB-1A,1B,3A, B-4,B-4A,B1A,B4B,B3	112[2]/93[3]/124[4]	124
CP-2A	CP-1A+CP-30 +SUB-3B	191	191
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CP-4A[5]	CP-3A+SUB-1	251	116
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WILDWOOD HILLS
EXHIBIT-2
FLOW ATTENUATION FACILITIES MAP

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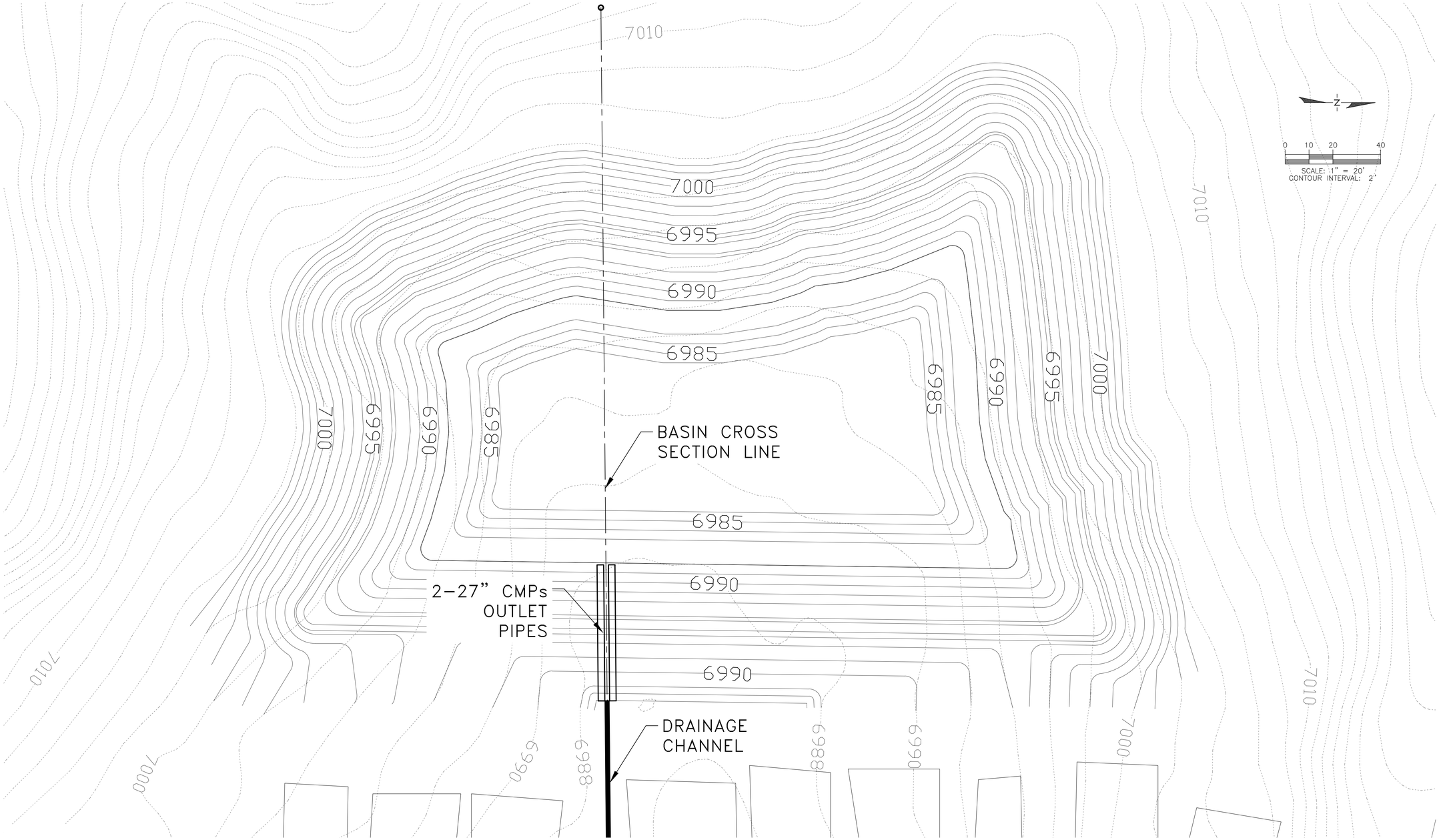
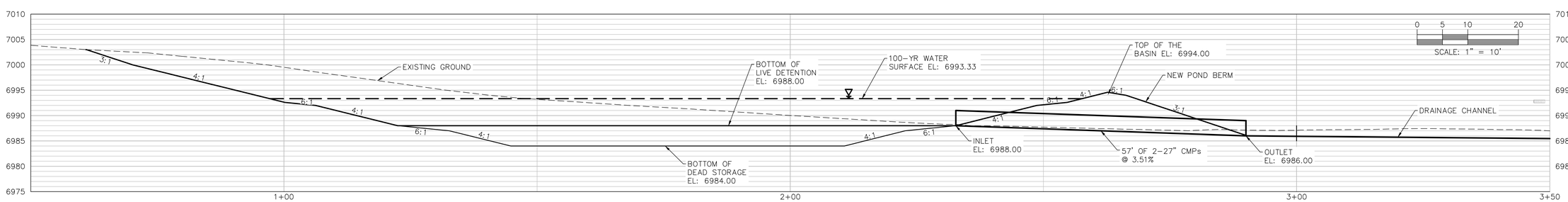
FN: 116050 DRAINAGE.dwg

124





DETENTION BASIN CROSS SECTION VIEW

WOODSON ENGINEERING AND SURVEYING, INC.
124 N. ELDEN ST. • FLAGSTAFF, AZ 86001 • PHONE: (928) 774-4636 FAX: (928) 774-4646

116050

01-27-17

WILDWOOD HILLS
EXHIBIT-3
DETENTION BASIN-GRADING AND CROSS SECTION

DRAFTED BY: RRW/SK
DATE: 01-27-17
PROJ. NO.: 116050
FN: 116050 DRAINAGE.dwg

APPENDIX B: HYDROLOGY

COMPOSITE CURVE NUMBER CALCULATIONS
TIME OF CONCENTRATION CALCULATIONS
DRAINAGE AREA SUMMARY
HEC-1 OUTPUT-EXISTING CONDITIONS
HEC-1 OUTPUT WITH FLOW ATTENUATION FACILITIES

Composite Curve Number (CN) Calculations

Drainage Area ID	Total Area (ac)	Total Area (sq mi)	Soil Map Symbol	Hydrologic Group	Cover Type	SCS Curve Number	Area for Individual CN	Composite SCS CN
1	7.87	0.012	2A	D	Open Space (<50% grass cover)	89	1.62	86.62
					-	NA	NA	
			12	C	Open Space (<50% grass cover)	86	6.25	
					-	NA	NA	
1A	30.50	0.048	2	D	Open Space (<50% grass cover)	89	14.24	87.40
					-	NA	NA	
			12	C	Open Space (<50% grass cover)	86	16.26	
					-	NA	NA	
Sub-1B	3.11	0.005	2	D	Ponderosa Pine (Fair)	NA	NA	92.75
					Paved Street w/ Open Ditches	93	2.34	
			12	C	Ponderosa Pine (Fair)	NA	NA	
					Paved Street w/ Open Ditches	92	0.77	
Sub-2	5.13	0.008	2	D	Residential - 1/8 Acre	92	0.85	81.67
			2A	D	Residential - 1/8 Acre	92	1.07	
			12	C	Ponderosa Pine (Fair)	65	1.61	
					Open Space (<50% grass cover)	86	1.61	
Sub-2A	2.11	0.003	2A	D	Ponderosa Pine (Fair)	NA	NA	92.35
					Paved Street w/ Open Ditches	93	0.74	
			12	C	Ponderosa Pine (Fair)	NA	NA	
					Paved Street w/ Open Ditches	92	1.37	
Sub-3	3.80	0.006	2A	D	Ponderosa Pine (Fair)	75	0.07	77.80
			15A	D	Ponderosa Pine (Fair)	75	3.10	
					Residential - 1/8 Acre	92	0.63	
Sub-3A	5.53	0.009	12	D	Ponderosa Pine (Fair)	75	2.77	78.50
					Residential - 2 Acre	82	2.77	
Sub-3B	18.48	0.029	2A	D	Ponderosa Pine (Fair)	75	8.72	73.10
			12	C	Ponderosa Pine (Fair)	65	4.38	
					Residential - 2 Acre	77	4.38	
			15A	D	Ponderosa Pine (Fair)	75	0.99	
Sub-3C	16.34	0.026	2A	D	Ponderosa Pine (Fair)	75	3.15	88.29
					Residential - 1/8 Acre	92	3.72	
			12	C	Residential - 1/8 Acre	90	3.56	
			15A	D	Residential - 1/8 Acre	92	5.91	
Sub-4	13.46	0.021	2A	D	Ponderosa Pine (Fair)	75	7.37	81.06
					Residential - 1/8 Acre	92	3.44	
			12	C	Residential - 1/8 Acre	90	1.54	
			15A	D	Ponderosa Pine (Fair)	75	1.11	

Sub-1

Sheet Flow

Input Data		
	Elev Start [ft]	7106
	Elev End [ft]	7105
	Length [ft]	70
	n (Short Grass)	0.15
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.178

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7105
	Elev End [ft]	7095
	Length [ft]	335
OUTPUT		
	S [ft/ft]	0.0299
	V [ft/s]	2.79
	Tt [min]	2.00
	Tt [hr]	0.033

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	7095		
	Elev End [ft]	7077		
	Length [ft]	695		
	Bottom Width [ft]	6.00		
	Left Side Slope [ft]	15.00		
	Right Side Slope [ft]	20.00		
	Manning's n	0.040		
	Channel Slope [ft/ft]	0.0259		
	Depth [ft]	1.00		
OUTPUT				
	Top Width [ft]	41.00		
	Area [sf]	23.50		
	Wetted Perimeter [ft]	41.06		
	Hydraulic Radius	0.57		
	Velocity [fps]	4.12		
	Flow [cfs]	96.9	Tc [hr]	0.258
	Tt [min]	2.81	Tc [min]	15.47
	Tt [hr]	0.047	SCS Lag [hr]	0.155

Sub-1A

Sheet Flow

Input Data		
	Elev Start [ft]	7113
	Elev End [ft]	7111
	Length [ft]	98
	n (Woods-Light Underbrush)	0.15
OUTPUT		
	S [ft/ft]	0.02
	Tt [hr]	0.202

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7111
	Elev End [ft]	7098
	Length [ft]	561
	Output	
	S [ft/ft]	0.0232
	V [ft/s]	2.46
	Tt [min]	3.81
	Tt [hr]	0.063

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	7098		
	Elev End [ft]	7070		
	Length [ft]	904		
	Bottom Width [ft]	15.00		
	Left Side Slope [ft]	15.00		
	Right Side Slope [ft]	10.00		
	Manning's n	0.040		
	Channel Slope [ft/ft]	0.0310		
	Depth [ft]	1.00		
OUTPUT DATA:				
	Top Width [ft]	40.00		
	Area [sf]	27.50		
	Wetted Perimeter [ft]	40.08		
	Hydraulic Radius	0.69		
	Velocity [fps]	5.09		
	Flow [cfs]	139.9	Tc [hr]	0.314
	Tt [min]	2.96	Tc [min]	18.87
	Tt [hr]	0.049	SCS Lag [hr]	0.189

Sub-1B

Sheet Flow

Input Data		
	Elev Start [ft]	7131
	Elev End [ft]	7130
	Length [ft]	24
	n (Asphalt)	0.011
OUTPUT		
	S [ft/ft]	0.04
	Tt [hr]	0.006

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7130
	Elev End [ft]	7113
	Length [ft]	490
	Output	
	S [ft/ft]	0.0347
	V [ft/s]	3.01
	Tt [min]	2.72
	Tt [hr]	0.045

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	7113		
	Elev End [ft]	7076		
	Length [ft]	1223		
	Bottom Width [ft]	1.50		
	Left Side Slope [ft]	1.00		
	Right Side Slope [ft]	0.50		
	Manning's n	0.020		
	Channel Slope [ft/ft]	0.0303		
	Depth [ft]	1.00		
OUTPUT DATA:				
	Top Width [ft]	3.00		
	Area [sf]	2.25		
	Wetted Perimeter [ft]	4.03		
	Hydraulic Radius	0.56		
	Velocity [fps]	8.76	Tc [hr]	0.090
	Flow [cfs]	19.7	Tc [min]	6.00 (Min. 6 min)
	Tt [min]	2.33	SCS Lag [hr]	0.054
	Tt [hr]	0.039		

Sub-2A

Sheet Flow

Input Data		
	Elev Start [ft]	7087.5
	Elev End [ft]	7087
	Length [ft]	24
	n (Asphalt)	0.011
OUTPUT		
	S [ft/ft]	0.02
	Tt [hr]	0.008

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7087
	Elev End [ft]	7080
	Length [ft]	452
	Output	
	S [ft/ft]	0.0155
	V [ft/s]	2.01
	Tt [min]	3.75
	Tt [hr]	0.063

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	7080		
	Elev End [ft]	7040		
	Length [ft]	988		
	Bottom Width [ft]	5.00		
	Left Side Slope [ft]	10.00		
	Right Side Slope [ft]	12.00		
	Manning's n	0.020		
	Channel Slope [ft/ft]	0.0405		
	Depth [ft]	1.00		
OUTPUT DATA:				
	Top Width [ft]	27.00		
	Area [sf]	16.00		
	Wetted Perimeter [ft]	27.09		
	Hydraulic Radius	0.59		
	Velocity [fps]	10.52		
	Flow [cfs]	168.4	Tc [hr]	0.097
	Tt [min]	1.56	Tc [min]	10.00 (Min. 10 min)
	Tt [hr]	0.026	SCS Lag [hr]	0.058

Sub-2

Sheet Flow

Input Data		
	Elev Start [ft]	7076
	Elev End [ft]	7075
	Length [ft]	33
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.072

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7075
	Elev End [ft]	7060
	Length [ft]	389
	Output	
	S [ft/ft]	0.0386
	V [ft/s]	3.17
	Tt [min]	2.05
	Tt [hr]	0.034

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	7060		
	Elev End [ft]	7040		
	Length [ft]	375		
	Bottom Width [ft]	2.00		
	Left Side Slope [ft]	5.00		
	Right Side Slope [ft]	5.00		
	Manning's n	0.040		
	Channel Slope [ft/ft]	0.0533		
	Depth [ft]	1.00		
OUTPUT DATA:				
	Top Width [ft]	12.00		
	Area [sf]	7.00		
	Wetted Perimeter [ft]	12.20		
	Hydraulic Radius	0.57		
	Velocity [fps]	5.92		
	Flow [cfs]	41.5	Tc [hr]	0.124
	Tt [min]	1.05	Tc [min]	7.42
	Tt [hr]	0.018	SCS Lag [hr]	0.074

Sub-3

Sheet Flow

Input Data		
	Elev Start [ft]	7001
	Elev End [ft]	6998
	Length [ft]	80
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.04
	Tt [hr]	0.134

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	6998
	Elev End [ft]	6964
	Length [ft]	404
	Output	
	S [ft/ft]	0.0842
	V [ft/s]	4.68
	Tt [min]	1.44
	Tt [hr]	0.024

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	6964		
	Elev End [ft]	6962		
	Length [ft]	104		
	Bottom Width [ft]	2.00		
	Left Side Slope [ft]	20.00		
	Right Side Slope [ft]	20.00		
	Manning's n	0.040		
	Channel Slope [ft/ft]	0.0192		
	Depth [ft]	1.00		
OUTPUT DATA:				
	Top Width [ft]	42.00		
	Area [sf]	22.00		
	Wetted Perimeter [ft]	42.05		
	Hydraulic Radius	0.52		
	Velocity [fps]	3.34		
	Flow [cfs]	73.6	Tc [hr]	0.167
	Tt [min]	0.52	Tc [min]	10.02
	Tt [hr]	0.009	SCS Lag [hr]	0.100

Sub-3A

Sheet Flow

Input Data		
	Elev Start [ft]	7083
	Elev End [ft]	7081
	Length [ft]	92
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.02
	Tt [hr]	0.187

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081
	Elev End [ft]	7070
	Length [ft]	506
	Output	
	S [ft/ft]	0.0217
	V [ft/s]	2.38
	Tt [min]	3.55
	Tt [hr]	0.059

Tc [hr]	0.246
Tc [min]	14.76
SCS Lag [hr]	0.148

Sub-3B

Sheet Flow

Input Data		
	Elev Start [ft]	7081
	Elev End [ft]	7080
	Length [ft]	99
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.269

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7080
	Elev End [ft]	7076
	Length [ft]	384
	Output	
	S [ft/ft]	0.0104
	V [ft/s]	1.65
	Tt [min]	3.89
	Tt [hr]	0.065

Open Channel Flow

INPUT DATA:				
	Elev Start [ft]	7076		
	Elev End [ft]	6962		
	Length [ft]	912		
	Bottom Width [ft]	5.00		
	Left Side Slope [ft]	20.00		
	Right Side Slope [ft]	20.00		
	Manning's n	0.040		
	Channel Slope [ft/ft]	0.1250		
	Depth [ft]	2.00		
OUTPUT DATA:				
	Top Width [ft]	85.00		
	Area [sf]	90.00		
	Wetted Perimeter [ft]	85.10		
	Hydraulic Radius	1.06		
	Velocity [fps]	13.63		
	Flow [cfs]	1227.1	Tc [hr]	0.353
	Tt [min]	1.11	Tc [min]	21.16
	Tt [hr]	0.019	SCS Lag [hr]	0.212

Sub-3C

Sheet Flow

Input Data	
Elev Start [ft]	7062
Elev End [ft]	7061
Length [ft]	80
n (short grass)	0.15
OUTPUT	
S [ft/ft]	0.01
Tt [hr]	0.209

Shallow Concentrated Flow

Paved	
Elev Start [ft]	7061
Elev End [ft]	7042
Length [ft]	653
Output	
S [ft/ft]	0.0291
V [ft/s]	3.47
Tt [min]	3.14
Tt [hr]	0.052

Open Channel Flow

INPUT DATA:	
Elev Start [ft]	7042
Elev End [ft]	7004
Length [ft]	386
Bottom Width [ft]	5.00
Left Side Slope [ft]	25.00
Right Side Slope [ft]	25.00
Manning's n	0.035
Channel Slope [ft/ft]	0.0984
Depth [ft]	1.00
OUTPUT DATA:	
Top Width [ft]	55.00
Area [sf]	30.00
Wetted Perimeter [ft]	55.04
Hydraulic Radius	0.55
Velocity [fps]	8.89
Flow [cfs]	266.7
Tt [min]	0.72
Tt [hr]	0.012

Open Channel Flow

INPUT DATA:	
Elev Start [ft]	7004
Elev End [ft]	6968
Length [ft]	644
Bottom Width [ft]	2.00
Left Side Slope [ft]	5.00
Right Side Slope [ft]	5.00
Manning's n	0.016
Channel Slope [ft/ft]	0.0559
Depth [ft]	0.25
OUTPUT DATA:	
Top Width [ft]	4.50
Area [sf]	0.81
Wetted Perimeter [ft]	4.55
Hydraulic Radius	0.18
Velocity [fps]	6.96
Flow [cfs]	5.7
Tt [min]	1.54
Tt [hr]	0.026
Tc [hr]	0.299
Tc [min]	17.92
SCS Lag [hr]	0.179

Sub-4

Sheet Flow

Input Data		
	Elev Start [ft]	7061
	Elev End [ft]	7060
	Length [ft]	90
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.240

Shallow Concentrated Flow

Paved		
	Elev Start [ft]	7060
	Elev End [ft]	6974
	Length [ft]	1471
	Output	
	S [ft/ft]	0.0585
	V [ft/s]	4.91
	Tt [min]	4.99
	Tt [hr]	0.083

Open Channel Flow

INPUT DATA:			
	Elev Start [ft]	6974	
	Elev End [ft]	6962	
	Length [ft]	564	
	Bottom Width [ft]	5.00	
	Left Side Slope [ft]	25.00	
	Right Side Slope [ft]	25.00	
	Manning's n	0.040	
	Channel Slope [ft/ft]	0.0213	
	Depth [ft]	1.00	
OUTPUT DATA:			
	Top Width [ft]	55.00	
	Area [sf]	30.00	
	Wetted Perimeter [ft]	55.04	
	Hydraulic Radius	0.55	
	Velocity [fps]	3.62	
	Flow [cfs]	108.5	Tc [hr] 0.367
	Tt [min]	2.60	Tc [min] 22.00
	Tt [hr]	0.043	SCS Lag [hr] 0.220

Wildwood Hills
Mobile Home Park
Drainage Area Summary

Calc By: SK
Date: 01/19/17

Drainage Area ID	Area		CN	Tc	Tlag=0.6*Tc
	acres	sq.miles		min	(hr)
Sub-1	7.87	0.012	86.62	15.47	0.155
Sub-1A	30.50	0.048	87.40	18.87	0.189
Sub-1B	3.11	0.005	92.75	6	0.060
Sub-2	5.13	0.008	81.67	7.42	0.074
Sub-2A	2.11	0.003	92.35	10	0.100
Sub-3	3.80	0.006	77.80	10.02	0.100
Sub-3A	5.53	0.009	78.50	14.76	0.148
Sub-3B	18.48	0.029	73.10	21.16	0.212
Sub-3C	16.34	0.026	88.29	17.92	0.179
Sub-4	13.46	0.021	81.06	22	0.220

```
1*************************************
*                                   *                                    ***************************************
*                                   *                                    *                                     *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                *    U.S. ARMY CORPS OF ENGINEERS     *
*               JAN   1997              *                                *    HYDROLOGIC ENGINEERING CENTER    *
*            VERSION 4.1                *                                *         609 SECOND STREET           *
*                                       *                                *       DAVIS, CALIFORNIA 95616       *
*  RUN DATE   26JAN17  TIME  17:43:22   *                                *           (916) 756-1104            *
*                                       *                                *                                     *
*************************************                                    ***************************************

                                        X     X  XXXXXXX   XXXXX          X
                                        X     X  X        X     X        XX
                                        X     X  X        X              X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX         XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
              1         ID        WILDWOOD HILLS
              2         ID        Existing-Conditions HEC-1 Model
              3         ID        100-year, 6-hour Model
              4         ID        Woodson Engineering and Surveying Inc
              5         ID        January 2017
              6         ID        Original Model for Presidio in the Pines
              7         ID        by TRC-BV Engineering
              8         ID        November 2, 2004
              9         ID        EXISTING CONDITION (WITHOUT DETENTION@WILWOOD HILLS MHP)
             10         IT       5       0       0     300
             11         IO       5       0       0
             12         IN       5       0       0
                        *

             13         KK   SUB-1
             14         BA   0.012
             15         PH       1    0.96    0.71    1.37    2.21    2.56    2.76    3.18
             16         LS       0   86.62
             17         UD   0.155
                        *

             18         KK  RTRCH1
             19         KM   ROUTE HYDROGRAPH FROM SUB-1 TO CP1
```

```
   20          RS       8    FLOW      -1
   21          RC   0.050   0.035   0.050    1145   0.054
   22          RX       0      31      47      63      73     126     155     180
   23          RY      48      46      44      43      43      46      48      54
               *

   24          KK   SUB-2
   25          BA   0.008
   26          LS       0   81.67
   27          UD   0.074
               *

   28          KK  SUB-2A
   29          BA   0.003
   30          LS       0   92.35
   31          UD     0.1
               *

   32          KK    CP1A
   33          KM     COMBINE ROUTED HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   34          HC       3
               *

   35          KK  RTRCH2
   36          KM         ROUTE HYDROGRAPH FROM CP1 TO CP2
   37          RS       8    FLOW      -1
   38          RC   0.050   0.035   0.050     465   0.073
   39          RX       0      35      52      87     117     157     203     248
   40          RY     106     102     100      97      97     100     104     106
               *
```



```
LINE           ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   41          KK  SUB-3B
   42          KM    RUNOFF FROM SUB-3B
   43          BA    .029
   44          LS       0   73.10
   45          UD    .212
               *

   46          KK  BASIN4
   47          KM    RUNOFF FROM BASIN 4
   48          BA    .002
   49          LS       0   83.56
   50          UD    .086
               *

   51          KK   RCP26
   52          KM    ROUTE CP26 TO CP27
   53          RK     400    0.01   0.016       0      21      10      10
               *

   54          KK BASIN4A
   55          KM    RUNOFF FROM BASIN 4A
   56          BA    .002
   57          LS       0    86.0
   58          UD    .136
               *

   59          KK    CP27
   60          KM    COMBINE BASINS RCP26 & BASIN4A
   61          HC       2
               *
```

```
  62          KK BASIN1A
  63          KM    RUNOFF FROM BASIN 1A
  64          BA    .001
  65          LS       0    90.4
  66          UD    .054
              *

  67          KK    CP28
  68          KM    COMBINE BASINS BASIN1A & CP27
  69          HC       2
              *

  70          KK     DB1
  71          KM    DETENTION BASIN 1
  72          RS       1    STOR       0
  73          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
  74          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
  75          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
              *
1                                          HEC-1 INPUT                                          PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  76          KK    RDB1
  77          KM    ROUTE DB1 TO CP30
  78          RK     320    0.01   0.013       0    CIRC     0.5
              *

  79          KK BASIN4B
  80          KM    RUNOFF FROM BASIN 4B
  81          BA    .002
  82          LS       0   87.81
  83          UD    .071
              *

  84          KK  BASIN3
  85          KM    RUNOFF FROM BASIN 3
  86          BA    .002
  87          LS       0   90.80
  88          UD    .071
              *

  89          KK  SUB-1A
  90          KM    SUB-1A IN PREVIOUS STUDIES WAS ROFF3
  91          KM    RUNOFF FROM SUB-1A
  92          BA    .048
  93          LS       0   87.40
  94          UD    .189
              *

  95          KK RSUB-1A
  96          KM    ROUTE SUB-1A TO CP30
  97          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  98          KK  SUB-1B
  99          KM    RUNOFF FROM SUB-1B
 100          BA    .005
 101          LS       0   92.75
 102          UD     .06
              *

 103          KK  SUB-3A
 104          KM    RUNOFF FROM SUB-3A
 105          BA    .009
```

```
 106          LS       0   78.50
 107          UD    .148
              *

 108          KK    CP30
 109          KM    COMBINE BASINS 3, 4B, DB1, & SUB-1A, SUB-1B
 110          HC       6
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 111          KK  RTRCH3
 112          KM   ROUTE HYDROGRAPH FROM CP30 TO CP2
 113          RS       8    FLOW      -1
 114          RC   0.050   0.035   0.050     510   0.090
 115          RX       0      17      33      62      87      93     105     150
 116          RY     102     100      98      97      97      98     100     102
              *

 117          KK    CP2A
 118          KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
 119          HC       3
              *

 120          KK  RTRCH4
 121          KM    ROUTE HYDROGRAPH FROM CP2 TO CP3
 122          RS       8    FLOW      -1
 123          RC   0.050   0.035   0.050     755   0.021
 124          RX       0      33      50     114     169     210     260     288
 125          RY      88      86      84      82      82      84      86      88
              *

 126          KK  SUB-3C
 127          KM    RUNOFF FROM SUB-3C
 128          BA    .026
 129          LS       0   88.29
 130          UD    .179
              *

 131          KK  BASIN5
 132          KM    RUNOFF FROM BASIN 5
 133          BA    .001
 134          LS       0   92.15
 135          UD    .085
              *

 136          KK RBASIN5
 137          KM    ROUTE BASIN5 TO CP29
 138          RK     182    0.01   0.016       0      21      10      10
              *

 139          KK  BASIN1
 140          KM    RUNOFF FROM BASIN 1
 141          BA    .002
 142          LS       0    75.5
 143          UD    .050
              *

 144          KK RBASIN1
 145          KM    ROUTE BASIN1 TO CP29
 146          RK     100    0.02   0.016       0      21      10      10
              *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 147          KK  BASIN2
 148          KM    RUNOFF FROM BASIN 2
 149          BA    .004
 150          LS       0   90.82
 151          UD    .072
              *

 152          KK    CP29
 153          KM    COMBINE BASINS 1, 2, & 5 AT CP29
 154          HC       3
              *

 155          KK   RCP29
 156          KM    ROUTE CP29 TO DB2
 157          RK     400    0.02   0.016       0      27      10      10
              *

 158          KK     DB2
 159          KM    DETENTION BASIN 2
 160          RS       1    STOR       0
 161          SV     0.0    0.03    0.10    0.20    0.31    0.45    0.62    0.71
 162          SE  7030.5  7031.0  7032.0  7033.0  7034.0  7035.0  7036.0  7036.5
 163          SQ     0.0     0.3     0.7     0.9     1.1    1.25    1.39    1.46
              *

 164          KK    RDB2
 165          KM    ROUTE DB2 TO CP32
 166          RK     100    0.08   0.032       0      10       6       6
              *

 167          KK BASIN4C
 168          KM    RUNOFF FROM BASIN 4C
 169          BA    .002
 170          LS       0    76.8
 171          UD    .054
              *

 172          KK    CP32
 173          KM    COMBINE BASIN BASIN4C AND DB2
 174          HC       2
              *

 175          KK  RTRCH5
 176          KM         ROUTE HYDROGRAPH FROM CP32 TO CP3
 177          RS       8    FLOW      -1
 178          RC   0.050   0.035   0.050     670   0.090
 179          RX       0       5      10      12      16      22      29      35
 180          RY      98    97.6    97.4    97.3    97.3    97.4    97.6      98
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 181          KK    CP3A
 182          KM     COMBINE SUB-3C WITH ROUTED HYDROGRAPHS FROM CP32 WITH CP2A
 183          HC       3
              *

 184          KK  RTRCH6
 185          KM         ROUTE HYDROGRAPH FROM CP3 TO CP4
 186          RS       8    FLOW      -1
 187          RC   0.050   0.035   0.050     470   0.017
```

```
188          RX       0       8      16      30      52      77     100     123
189          RY      68      67    66.5      66      66    66.5      67      68
             *

190          KK    SUB3
191          BA   0.006
192          LS       0   77.80
193          UD   0.100
             *

194          KK    CP4A
195          KM    COMBINE ROUTED HYDROGRAPH FROM CP3 WITH SUB-3 HYDROGRAPH
196          HC       2
             *

197          KK  ROFF2F
198          KM    RUNOFF FROM BASIN ROFF2F
199          BA    .010
200          LS       0   83.91
201          UD    .105
             *

202          KK RROFF2F
203          KM    ROUTE ROFF2F THRU CHANNEL TO PT7R
204          RK    3200    0.03   0.032       0      10       6       6
             *

205          KK  ROFF2E
206          KM    RUNOFF FROM BASIN ROFF2E
207          BA    .021
208          LS       0   81.12
209          UD    .220
             *

210          KK RROFF2E
211          KM    ROUTE ROFF2E THRU CHANNEL TO PT7R
212          RK    1500    0.03   0.032       0      10       6       6
             *

213          KK   ROFF1
214          KM    RUNOFF FROM BASIN ROFF1
215          BA    .423
216          LS       0   78.91
217          UD    .538
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

218          KK    CP33
219          KM    COMBINE RROFF2F, RROFF2E & ROFF1
220          HC       3
             *

221          KK   RCP33
222          KM    ROUTE CP33 THRU CHANNEL TO PT8R
223          RK     447    0.03   0.032       0      10       6       6
             *

224          KK  ROFF2C
225          KM    RUNOFF FROM BASIN ROFF2C
226          BA    .005
227          LS       0   80.99
228          UD    .131
             *
```

```
 229          KK RROFF2C
 230          KM    ROUTE ROFF2C THRU CHANNEL TO CP2D
 231          RK     117    0.03   0.032       0      10       6       6
              *

 232          KK  ROFF2G
 233          KM    RUNOFF FROM BASIN ROFF2G
 234          BA    .007
 235          LS       0   88.55
 236          UD    .292
              *

 237          KK RROFF2G
 238          KM    ROUTE ROFF2G THRU CHANNEL TO CP2D(WORST CASE)
 239          RK    1750    0.03   0.032       0      10       6       6
              *

 240          KK  ROFF2D
 241          KM    RUNOFF FROM BASIN ROFF2D
 242          BA    .006
 243          LS       0   89.39
 244          UD    .164
              *

 245          KK BASIN38
 246          KM    RUNOFF FROM BASIN 38
 247          BA    .005
 248          LS       0   76.80
 249          UD    .070
              *

 250          KKRBASIN38
 251          KM    ROUTE BASIN 38 THRU OFF2D TO CP2D
 252          RK    1280    0.03   0.032       0      10       6       6
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 253          KK    CP2D
 254          KM    COMBINE RROFF2C, ROFF2D, RROFF2G, RBASIN38
 255          HC       4
              *

 256          KK   RCP2D
 257          KM    ROUTE RCP2D THRU 24" PIPE TO CP2B
 258          RK     400    0.01   0.013       0    CIRC     2.0
              *

 259          KK  ROFF2B
 260          KM    RUNOFF FROM BASIN ROFF2B
 261          BA   .0010
 262          LS       0   88.55
 263          UD    .052
              *

 264          KK    CP2B
 265          KM    COMBINE RCP2D & ROFF2B
 266          HC       2
              *

 267          KK   RCP2B
 268          KM    ROUTE CP2B THRU 24" PIPE TO PT8B
 269          RK     130    0.01   0.013       0    CIRC     2.0
```

```
                *

 270            KK  ROFF2A
 271            KM    RUNOFF FROM BASIN ROFF2A
 272            BA    .022
 273            LS       0   81.62
 274            UD    .201
                *

 275            KK RROFF2A
 276            KM    ROUTE ROFF2A THRU CHANNEL TO CP20
 277            RK     100    0.03   0.032       0      10       6       6
                *

 278            KK   WASH1
 279            KM    RUNOFF FROM BASIN WASH1
 280            BA    .001
 281            LS       0      77
 282            UD    .050
                *

 283            KK    CP20
 284            KM    COMBINE RCP33, WASH1, RROFF2A, RCP2B
 285            HC       4
                *
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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 286            KK   RCP20
 287            KM    ROUTE CP20 THRU CHANNEL TO CP23
 288            RK     930    0.03   0.032       0      10       6       6
                *

 289            KK BASIN37
 290            KM    RUNOFF FROM BASIN37
 291            BA    .003
 292            LS       0   80.57
 293            UD    .098
                *

 294            KKRBASIN37
 295            KM    ROUTE BASIN37 TO CP16
 296            RK     800    0.04   0.016       0      27      10      10
                *

 297            KK BASIN36
 298            KM    RUNOFF FROM BASIN 36
 299            BA    .012
 300            LS       0   94.97
 301            UD    .153
                *

 302            KK    CP16
 303            KM    COMBINE RBASIN37 AND BASIN36
 304            HC       2
                *

 305            KK   RCP16
 306            KM    ROUTE CP16 TO CP17
 307            RK     200    0.04   0.016       0      30      10      10
                *

 308            KK BASIN41
 309            KM    RUNOFF FROM BASIN41
```

```
 310          BA    .005
 311          LS       0   79.02
 312          UD    .070
              *

 313          KK    CP17
 314          KM    COMBINE RCP16 AND BASIN41
 315          HC       2
              *

 316          KK   RCP17
 317          KM    ROUTE CP17 THRU BASIN35 TO CP19
 318          RK     760    0.01   0.016       0      30      10      10
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 319          KK BASIN35
 320          KM    RUNOFF FROM BASIN 35
 321          BA    .004
 322          LS       0   88.99
 323          UD    .155
              *

 324          KK BASIN28
 325          KM    RUNOFF FROM BASIN 28
 326          BA    .001
 327          LS       0   86.80
 328          UD    .082
              *

 329          KK    CP19
 330          KM    COMBINE BASIN41, BASINS 35 & 28
 331          HC       3
              *

 332          KK   RCP19
 333          KM    ROUTE CP19 THRU BASIN 30 TO CP21
 334          RK     300    0.03   0.016       0      27      10      10
              *

 335          KK BASIN39
 336          KM    RUNOFF FROM BASIN 39
 337          BA    .001
 338          LS       0      98
 339          UD    .050
              *

 340          KKRBASIN39
 341          KM    ROUTE BASIN39 TO CP12
 342          RK     900    0.03   0.016       0      44      10      10
              *

 343          KK BASIN40
 344          KM    RUNOFF FROM BASIN 40
 345          BA    .002
 346          LS       0      98
 347          UD    .089
              *

 348          KK    CP12
 349          KM    COMBINE RBASIN30 & BASIN 40 AT CP12
 350          HC       2
              *
```

```
 351          KK   RCP12
 352          KM    ROUTE CP12 TO CP13
 353          RK     585    0.01   0.016       0      39      10      10
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 354          KKAMPHITHEATER
 355          KM    RUNOFF FROM AMP
 356          BA    .004
 357          LS       0   76.14
 358          UD    .050
              *

 359          KK BASIN14
 360          KM    RUNOFF FROM BASIN 14
 361          BA    .001
 362          LS       0   91.88
 363          UD    .065
              *

 364          KK    CP13
 365          KM    COMBINE RCP12, BASIN14 & AMPHITHEATER
 366          HC       3
              *

 367          KK   RCP13
 368          KM    ROUTE CP13 TO CP14
 369          RK     350    0.04   0.016       0      39      10      10
              *

 370          KK BASIN16
 371          KM    RUNOFF FROM BASIN 16
 372          BA    .003
 373          LS       0   91.40
 374          UD    .087
              *

 375          KK    CP14
 376          KM    COMBINE RCP13 & BASIN16 AT CP14
 377          HC       2
              *

 378          KK   RCP14
 379          KM    ROUTE CP14 THRU CP18
 380          RK     520    0.01   0.016       0      27      10      10
              *

 381          KK BASIN33
 382          KM    RUNOFF FROM BASIN 33
 383          BA    .006
 384          LS       0   93.41
 385          UD    .066
              *

 386          KK BASIN34
 387          KM    RUNOFF FROM BASIN 34
 388          BA    .005
 389          LS       0   88.11
 390          UD    .057
              *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 391          KK    CP18
 392          KM    COMBINE RCP14, BASIN33 & BASIN34 AT CP18
 393          HC       3
              *

 394          KK   RCP18
 395          KM    ROUTE CP18 THRU BASIN 30 TO CP21
 396          RK     340    0.01   0.016       0      27      10      10
              *

 397          KK BASIN30
 398          KM    RUNOFF FROM BASIN30
 399          BA    .004
 400          LS       0   92.91
 401          UD    .066
              *

 402          KK    CP21
 403          KM    COMBINE RCP19, RCP18 & BASIN30 AT CP21
 404          HC       3
              *

 405          KK   RCP21
 406          KM    ROUTE CP21 TO CP31
 407          RK      50    0.02   0.025       0      27      10      10
              *

 408          KK BASIN31
 409          KM    RUNOFF FROM BASIN 31
 410          BA    .001
 411          LS       0   92.60
 412          UD    .064
              *

 413          KK    CP31
 414          KM    COMBINE RCP21 & BASIN31 AT CP31
 415          HC       2
              *

 416          KK     DB4
 417          KM    DETENTION BASIN 4 (KEY OUTLET)
 418          RS       1    STOR       0
 419          SV     0.0     0.7     1.5     2.4     3.3     4.2     4.7
 420          SE  7005.0  7006.0  7007.0  7008.0  7009.0  7010.0  7010.5
 421          SQ     0.0     0.7     2.1     6.9    12.5    16.0    17.5
              *

 422          KK    RDB4
 423          KM    ROUTE DB4 TO CP22
 424          RK     250    0.02   0.013       0    CIRC     2.0
              *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 425          KK BASIN32
 426          KM    RUNOFF FROM BASIN 32
 427          BA    .004
 428          LS       0   92.60
 429          UD    .071
              *
```

```
 430          KK    CP22
 431          KM    COMBINE BASINS 32 & RDB4 AT CP22
 432          HC       2
              *

 433          KK   RCP22
 434          KM    ROUTE CP22 THRU CHANNEL TO CP23
 435          RK     275    0.03   0.032       0      10       6       6
              *

 436          KK BASIN29
 437          KM    RUNOFF FROM BASIN 29
 438          BA    .001
 439          LS       0      92
 440          UD    .050
              *

 441          KKRBASIN29
 442          KM    ROUTE BASIN29 THRU CHANNEL TO CP23
 443          RK     600    0.03   0.032       0      10       6       6
              *

 444          KKBASIN28A
 445          KM    RUNOFF FROM BASIN 28A
 446          BA    .001
 447          LS       0   90.97
 448          UD    .050
              *

 449          KKRBASIN28A
 450          KM    ROUTE BASIN28A THRU CHANNEL TO CP23
 451          RK     800    0.03   0.032       0      10       6       6
              *

 452          KK BASIN26
 453          KM    RUNOFF FROM BASIN 26
 454          BA    .002
 455          LS       0   91.84
 456          UD    .085
              *

 457          KKRBASIN26
 458          KM    ROUTE BASIN26 THRU CHANNEL TO CP23
 459          RK     200    0.03   0.032       0      10       6       6
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 460          KK BASIN24
 461          KM    RUNOFF FROM BASIN 24
 462          BA    .001
 463          LS       0   92.30
 464          UD    .050
              *

 465          KKRBASIN24
 466          KM    ROUTE BASIN24 THRU CHANNEL TO CP23
 467          RK     100    0.03   0.032       0      10       6       6
              *

 468          KK   WASH2
 469          KM    RUNOFF FROM BASIN WASH2
 470          BA    .005
 471          LS       0   76.75
```

```
472          UD    .106
             *

473          KK    CP23
474          KM    COMBINE RCP20, RCP22, RBASIN29, RBASIN28A, RBASIN26, RBASIN24 & WASH2
475          HC       7
             *

476          KK   RCP23
477          KM    ROUTE CP23 THRU CULVERT TO CP24
478          RK     100    0.03   0.032       0      20       3       3
             *

479          KK BASIN27
480          KM    RUNOFF FROM BASIN27 – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
481          BA    .006
482          LS       0   86.23
483          UD    .073
             *

484          KKRBASIN27
485          KM    ROUTE BASIN27 TO CP25
486          RK     425    0.01   0.016       0      26      10      10
             *

487          KK BASIN25
488          KM    RUNOFF FROM BASIN 25 – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
489          BA    .003
490          LS       0   88.10
491          UD    .107
             *

492          KK    CP25
493          KM    COMBINE RBASIN27 & BASIN25 AT CP25
494          HC       2
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

495          KK BASIN21
496          KM    RUNOFF FROM BASIN 21
497          BA    .003
498          LS       0   92.60
499          UD    .125
             *

500          KK    CP24
501          KM    COMBINE CP15, CP25 & RCP23
502          HC       3
             *

503          KK   RCP24
504          KM    ROUTE CP24 THRU CHANNEL TO CP11
505          RK     400    0.03   0.032       0      10       6       6
             *

506          KK  BASIN9
507          KM    RUNOFF FROM BASIN 9
508          BA    .003
509          LS       0   91.85
510          UD    .116
             *

511          KK RBASIN9
```

```
512          KM    ROUTE BASIN 9 THRU BASIN8 TO CP1
513          RK     260    0.01   0.016       0      27      10      10
             *

514          KK  BASIN8
515          KM    RUNOFF FROM BASIN 8
516          BA    .003
517          LS       0    86.6
518          UD    .078
             *

519          KK     CP1
520          KM    COMBINE RBASIN9 & BASIN 8
521          HC       2
             *

522          KK    RCP1
523          KM    ROUTE CP1 THRU BASIN7 TO CP2
524          RK     160    0.02   0.016       0      27      10      10
             *

525          KK  BASIN7
526          KM    RUNOFF FROM BASIN 7
527          BA    .005
528          LS       0   89.15
529          UD    .138
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

530          KK     CP2
531          KM    COMBINE RCP1 & BASIN7
532          HC       2
             *

533          KK    RCP2
534          KM    ROUTE CP2 THRU BASIN10 TO CP3
535          RK     185    0.05   0.016       0      36      10      10
             *

536          KK BASIN10
537          KM    RUNOFF FROM BASIN10
538          BA    .004
539          LS       0   91.85
540          UD    .127
             *

541          KK     CP3
542          KM    COMBINE RCP2 & BASIN10
543          HC       2
             *

544          KK    RCP3
545          KM    ROUTE CP3 THRU BASIN11 TO CP4
546          RK     215    0.03   0.016       0      36      10      10
             *

547          KK BASIN11
548          KM    RUNOFF FROM BASIN11
549          BA    .005
550          LS       0   92.60
551          UD    .125
             *
```

```
552          KK     CP4
553          KM    COMBINE RCP4 & BASIN11
554          HC       2
             *

555          KK    RCP4
556          KM    ROUTE CP4 THRU BASIN13 TO CP5
557          RK     200    0.03   0.016       0      36      10      10
             *

558          KK BASIN13
559          KM    RUNOFF FROM BASIN13
560          BA    .002
561          LS       0   91.75
562          UD    .096
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

563          KK  BASIN6
564          KM    RUNOFF FROM BASIN 6
565          BA    .003
566          LS       0   92.32
567          UD    .089
             *

568          KK     CP5
569          KM    COMBINE RCP4, BASIN13 & BASIN6
570          HC       3
             *

571          KK    RCP5
572          KM    ROUTE CP5 TO CP6
573          RK     475    0.02   0.016       0      24      10      10
             *

574          KKBASIN18A
575          KM    RUNOFF FROM BASIN 18A
576          BA    .001
577          LS       0   88.10
578          UD    .052
             *

579          KK     CP6
580          KM    COMBINE RCP5 & BASIN18A
581          HC       2
             *

582          KK     CP6
583          KM    DIVERT FLOW TO CP10
584          DT  DIVCP6
585          DI       0      38
586          DQ       0       4
             *

587          KKBASIN17A
588          KM    RUNOFF FROM BASIN 17A
589          BA    .001
590          LS       0   92.60
591          UD    .050
             *

592          KK BASIN15
593          KM    RUNOFF FROM BASIN15
```

```
 594          BA    .001
 595          LS       0   92.60
 596          UD    .075
              *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 597          KKRBASIN15
 598          KM    ROUTE BASIN 15 THRU BASIN17 TO CP8
 599          RK     255    0.02   0.016       0      24      10      10
              *

 600          KK BASIN17
 601          KM    RUNOFF FROM BASIN17
 602          BA    .001
 603          LS       0   92.60
 604          UD    .050
              *

 605          KK     CP8
 606          KM    COMBINE RBASIN15 & BASIN17
 607          HC       2
              *

 608          KK    RCP8
 609          KM    ROUTE CP8 TO CP7
 610          RK      40    0.02   0.016       0      24      10      10
              *

 611          KK     CP7
 612          KM    COMBINE BASINS BASIN17A & CP6
 613          HC       3
              *

 614          KK     DB6
 615          KM    DETENTION BASIN 6 (KEY OUTLET)
 616          RS       1    STOR       0
 617          SV     0.0     0.1     0.2     0.4     0.5     0.7     1.0
 618          SE  7034.0  7035.0  7036.0  7037.0  7038.0  7039.0  7040.0
 619          SQ     0.0     0.8    1.25    3.44    4.89   21.87   89.53
              *

 620          KK    RDB6
 621          KM    ROUTE DB6 TO CP10
 622          RK     800    0.02   0.016       0      24      10      10
              *

 623          KK BASIN18
 624          KM    RETRIEVE DIVERSION FROM CP6
 625          DR  DIVCP6
              *

 626          KK BASIN18
 627          KM    RUNOFF FROM BASIN 18
 628          BA    .002
 629          LS       0   88.25
 630          UD    .099
              *
1                                        HEC-1 INPUT                                                  PAGE 19

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 631          KK BASIN18
```

```
632          KM    COMBINE DIVCP6 & BASIN18
633          HC       2
             *

634          KKRBASIN18
635          KM    ROUTE BASIN18 THRU BASIN 19 TO CP10
636          RK     700    0.04   0.016       0      24      10      10
             *

637          KK BASIN19
638          KM    RUNOFF FROM BASIN 19
639          BA    .004
640          LS       0   92.60
641          UD    .123
             *

642          KK BASIN20
643          KM    RUNOFF FROM BASIN 20
644          BA    .002
645          LS       0   92.60
646          UD    .081
             *

647          KK    CP10
648          KM    COMBINE RCP6, RBASIN18, BASIN19 & BASIN20
649          HC       4
             *

650          KK     DB7
651          KM    DETENTION BASIN 1
652          RS       1    STOR       0
653          SV     0.0    0.01    0.04    0.10    0.14    0.17
654          SE  6998.0  6999.0  7000.0  7001.0  7001.5  7002.0
655          SQ     0.0    0.75    2.12     3.9    31.6    81.4
             *

656          KK    RDB7
657          KM    ROUTE DB7 TO CP11
658          RK      50    0.03   0.032       0      10       6       6
             *

659          KKBASIN25A
660          KM    RUNOFF FROM BASIN 25A – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
661          BA    .002
662          LS       0   86.75
663          UD    .050
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

664          KK BASIN22
665          KM    RUNOFF FROM BASIN 22
666          BA    .002
667          LS       0   88.25
668          UD    .064
             *

669          KK BASIN23
670          KM    RUNOFF FROM BASIN 23
671          BA    .001
672          LS       0   88.25
673          UD    .050
             *
```

```
 674          KK   WASH3
 675          KM    RUNOFF FROM WASH3 – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
 676          BA    .002
 677          LS       0      77
 678          UD    .050
              *

 679          KK   SUB6A
 680          KM    RUNOFF FROM SUBAREA 6A IN BOULDER POINTE
 681          BA    .016
 682          LS       0   86.33
 683          UD     .45
              *

 684          KK    DB6A
 685          KM    DETENTION BASIN FOR SUBAREA 6A IN BOULDER POINTE
 686          RS       1    STOR       0
 687          SV     0.0  0.0002   0.006   0.175   0.379   0.618
 688          SE  7022.0  7023.9  7024.0  7025.0  7026.0  7027.0
 689          SQ     0.0     0.0     0.0     1.7     5.8    13.3
              *

 690          KK   SUB2D
 691          KM    RUNOFF FROM SUBBASIN 2D IN BOULDER POINTE
 692          BA     .04
 693          LS       0    85.0
 694          UD    .522
              *

 695          KK    CPBP
 696          KM    COMBINE DB6A AND SUBBASIN 2D
 697          HC       2
              *

 698          KK    DB2D
 699          KM    DETENTION BASIN FOR SUBBASIN 2D IN BOULDER POINTE
 700          RS       1    STOR       0
 701          SV     0.0   0.285   0.570   0.866   1.184   1.525   1.888
 702          SE  6991.0  6992.0  6993.0  6994.0  6995.0  6996.0  6997.0
 703          SQ     0.0     3.0     8.5   17.72   29.84   44.15   182.3
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 704          KK    CP11
 705          KM    COMBINE RCP24, RDB7, WASH3, BASINS 25, 23 & 22, AND DB2D
 706          HC       7
              *

 707          KK  RTRCH7
 708          KM         ROUTE HYDROGRAPH FROM CP11 TO CP4
 709          RS       8    FLOW      -1
 710          RC   0.050   0.035   0.050     961   0.023
 711          RX       0      26      35      55      97     136     235     255
 712          RY      80      78      76      74      74      76      78      80
              *

 713          KK    SUB4
 714          BA   0.021
 715          LS       0   81.06
 716          UD    0.22
              *

 717          KK    CP4B
```

```
          718           KM         ADD ROUTED HYDROGRAPH FROM CP11 TO SUB4 HYDROGRAPH
          719           HC       2
                        *

          720           KK    CP4C
          721           KM         ADD CP4A HYDROGRAPH TO CP4B HYDROGRAPH
          722           HC       2
                        *

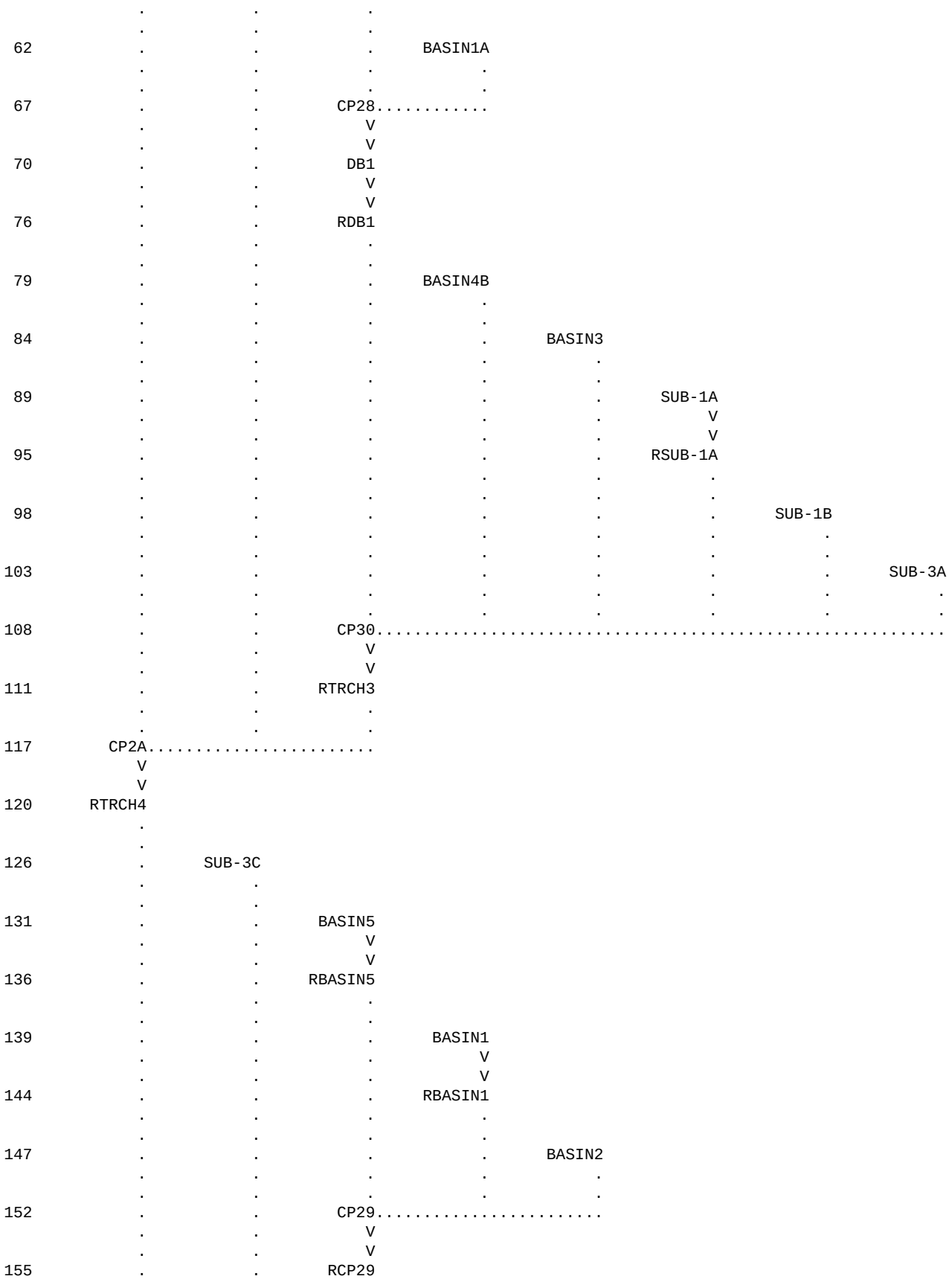
          723           KK  RTRCH8
          724           KM         ROUTE HYDROGRAPH FROM CP4 TO CP5
          725           RS       8    FLOW      -1
          726           RC   0.050   0.035   0.050     880   0.009
          727           RX       0      27      61      87     146     227     315     431
          728           RY      68      66      60      59      59      60      62      66
                        *

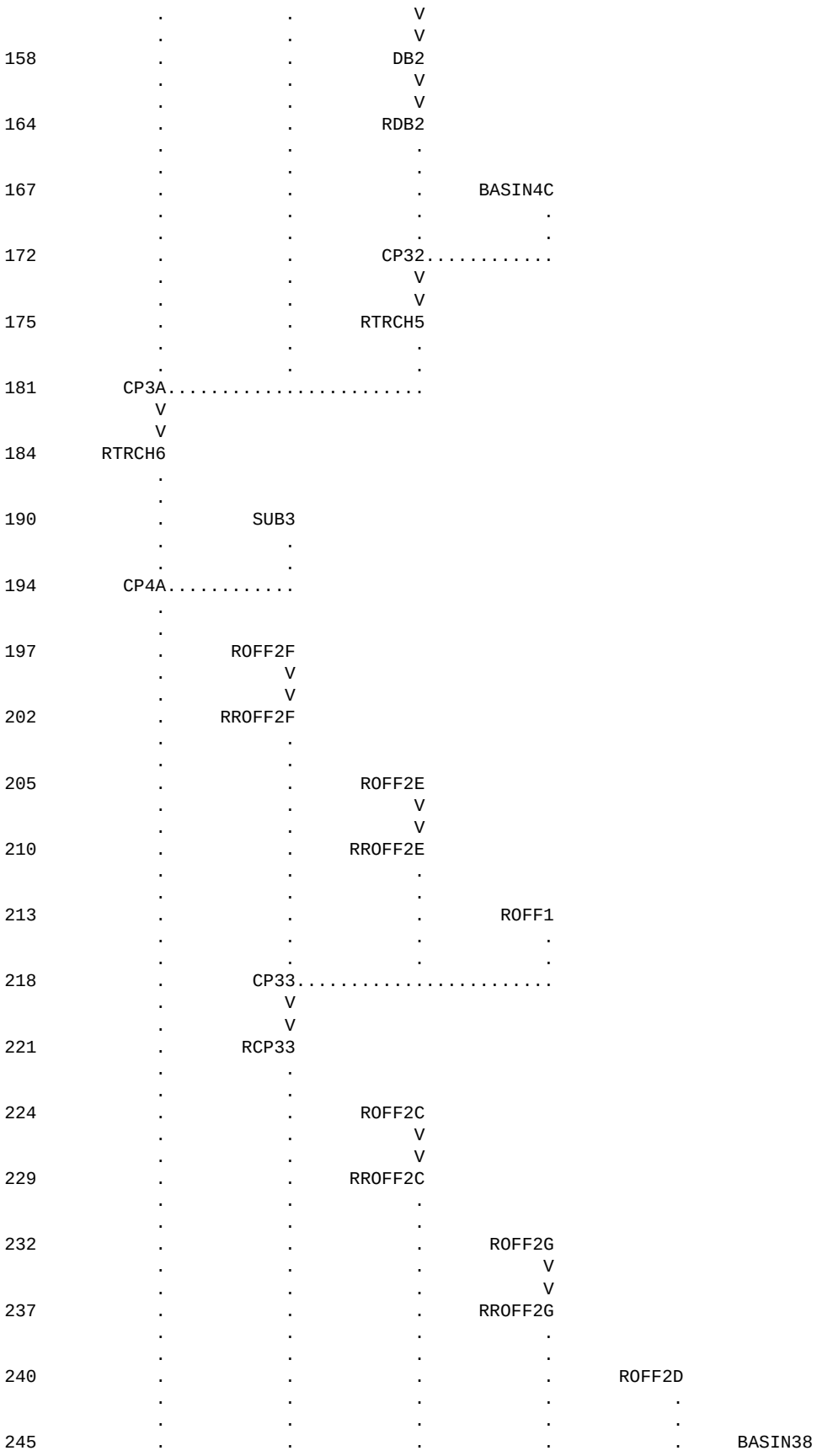
          729           KK    SUB5
          730           BA   0.034
          731           LS       0   90.13
          732           UD   0.099
                        *

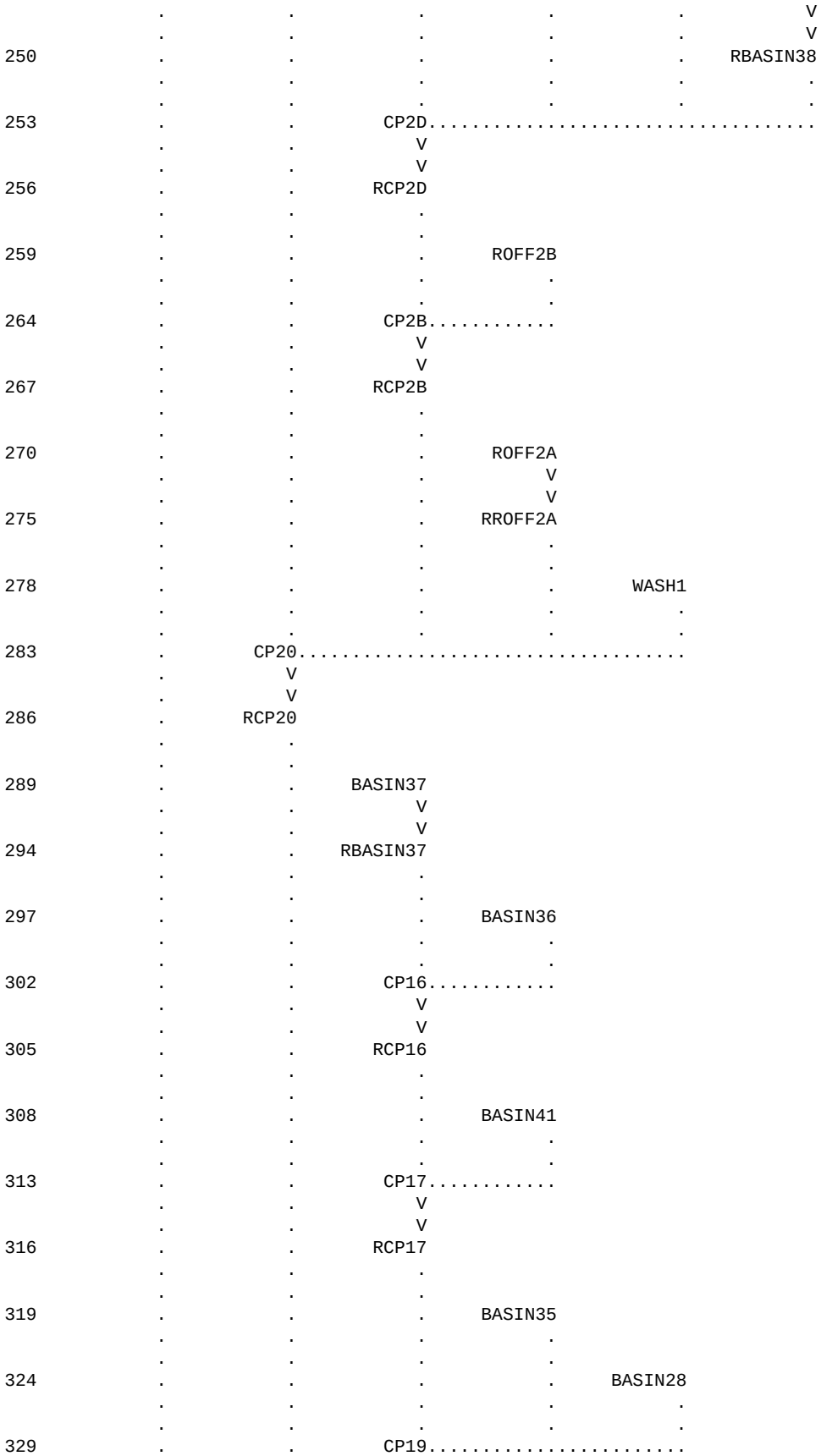
          733           KK     CP5
          734           KM         COMBINE ROUTED HYDROGRAPH FROM CP4 WITH SUB5 HYDROGRAPH
          735           HC       2
                        *
          736           ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

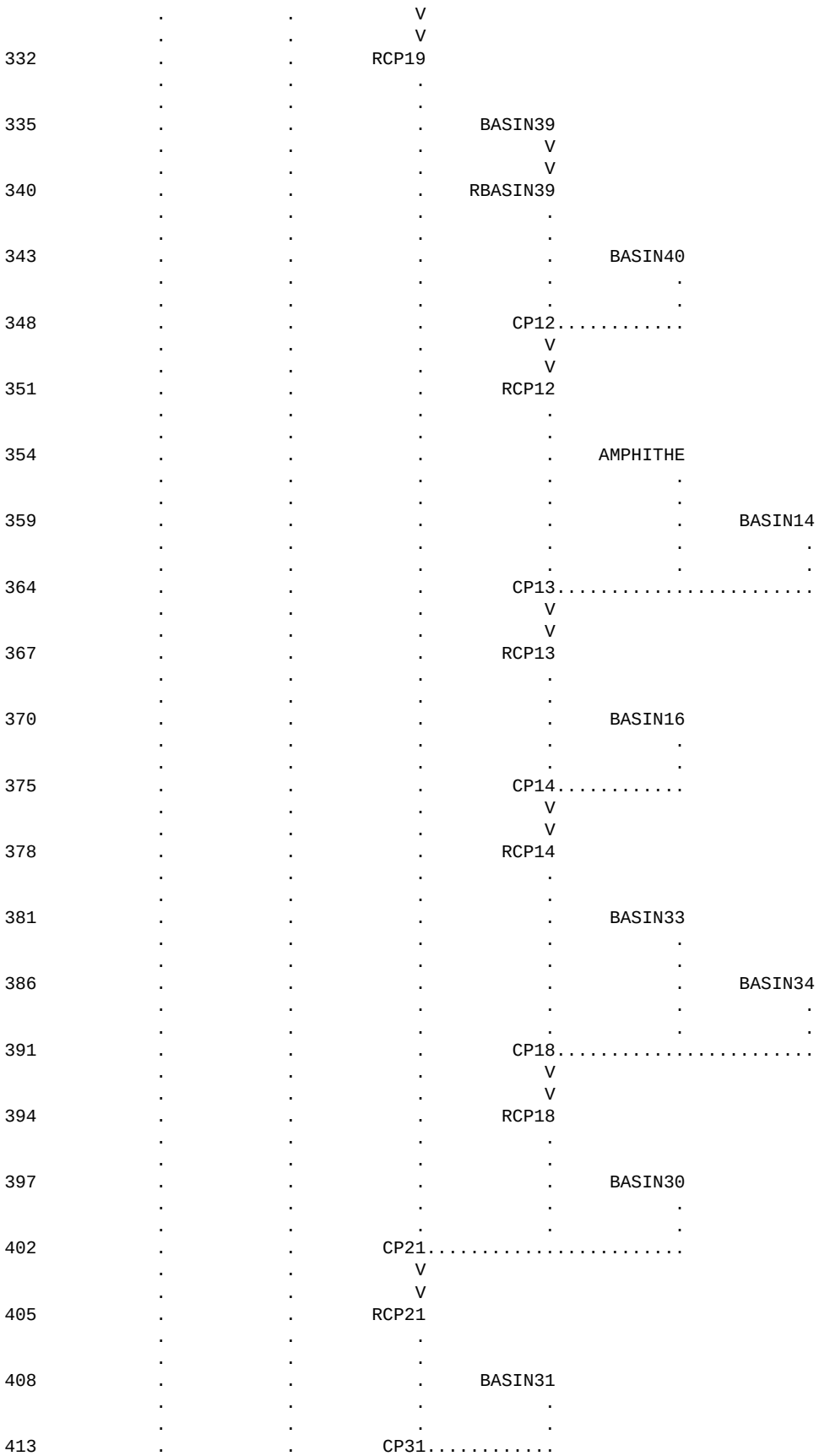
   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

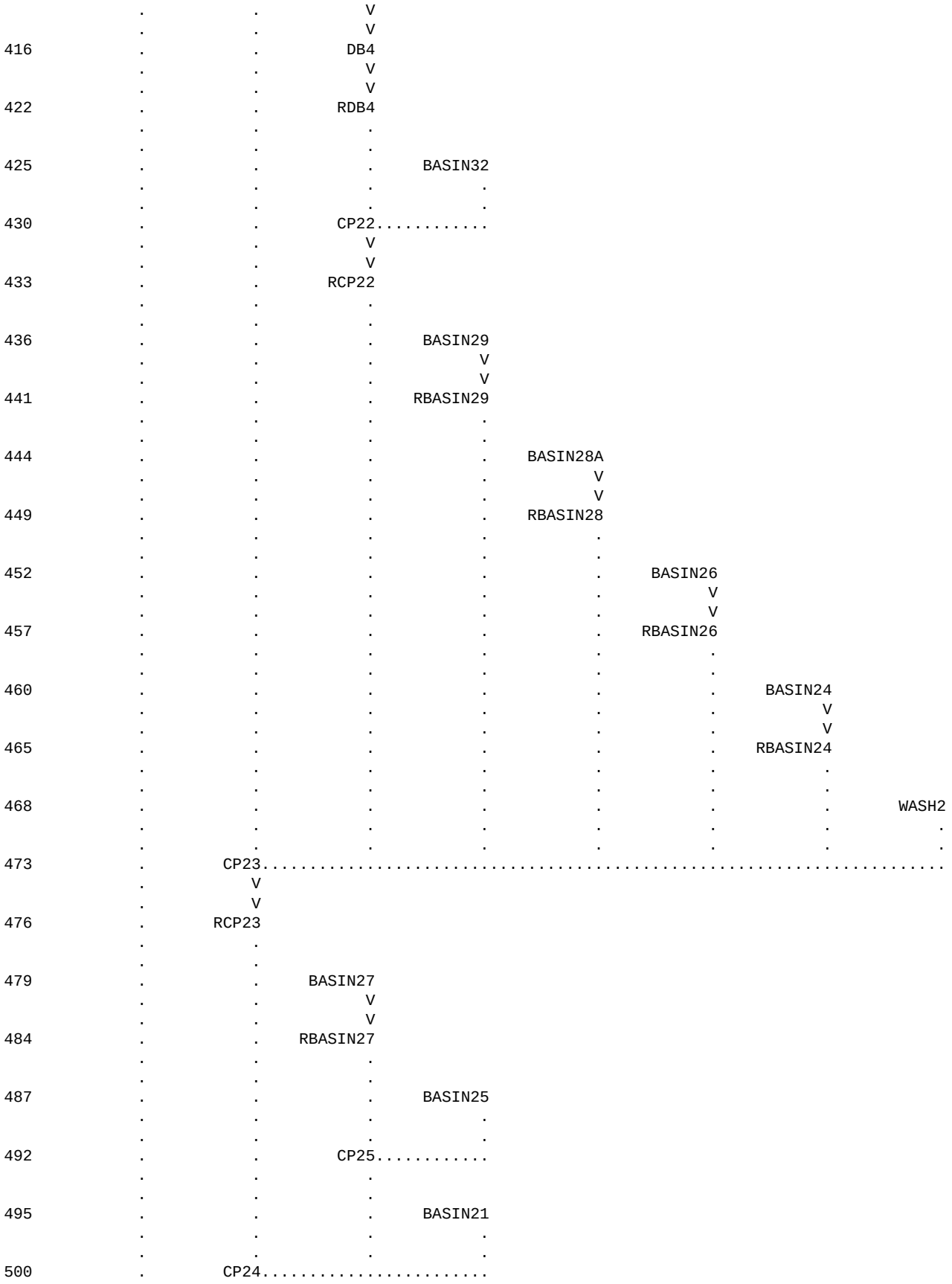
    13       SUB-1
                V
                V
    18      RTRCH1
                .
                .
    24          .       SUB-2
                .           .
                .           .
    28          .           .      SUB-2A
                .           .           .
                .           .           .
    32        CP1A.......................
                V
                V
    35      RTRCH2
                .
                .
    41          .      SUB-3B
                .           .
                .           .
    46          .           .      BASIN4
                .           .           V
                .           .           V
    51          .           .       RCP26
                .           .           .
                .           .           .
    54          .           .           .     BASIN4A
                .           .           .           .
                .           .           .           .
    59          .           .        CP27............
```

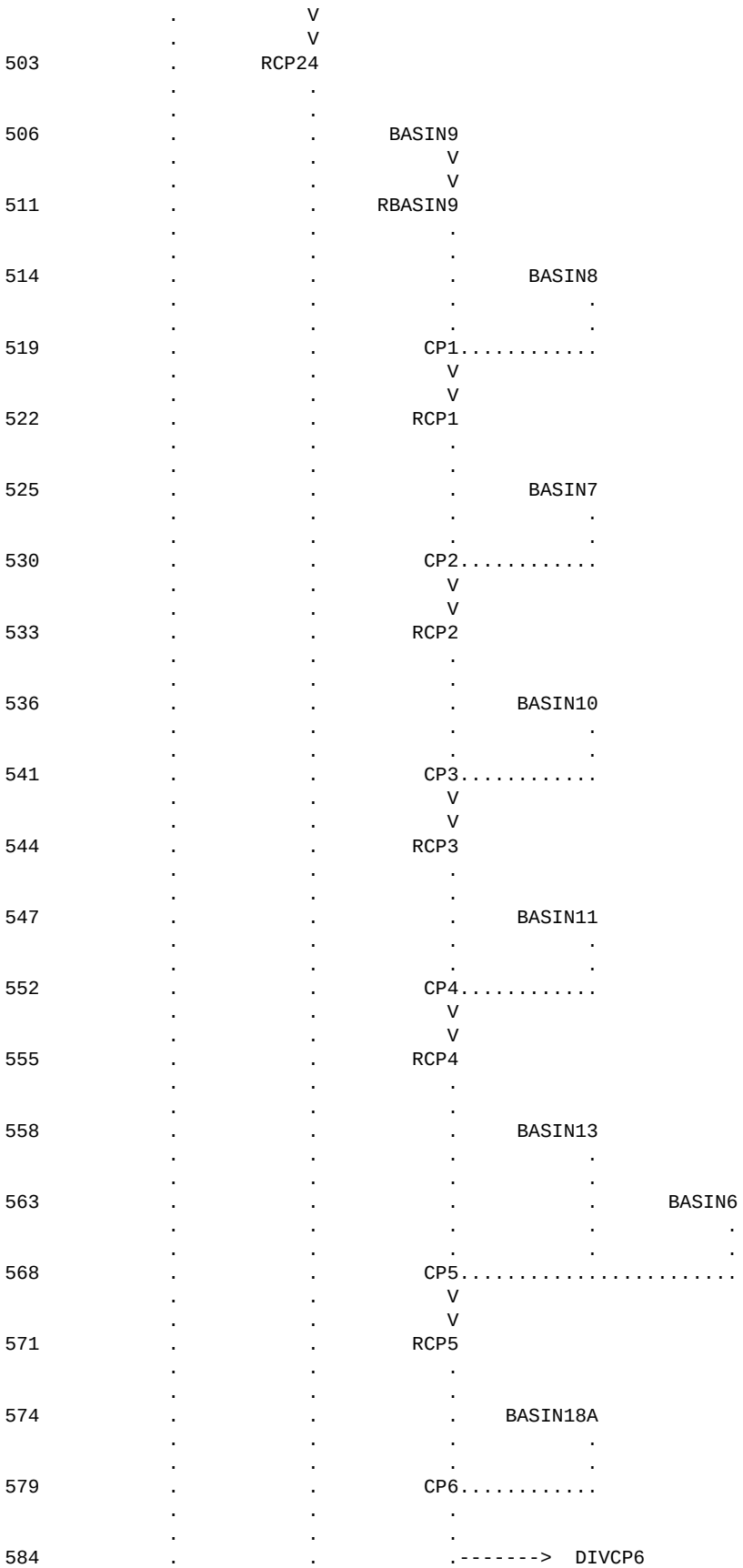

62 BASIN1A
67 CP28
70 DB1
76 RDB1
79 BASIN4B
84 BASIN3
89 SUB-1A
95 RSUB-1A
98 SUB-1B
103 SUB-3A
108 CP30
111 RTRCH3
117 CP2A
120 RTRCH4
126 SUB-3C
131 BASIN5
136 RBASIN5
139 BASIN1
144 RBASIN1
147 BASIN2
152 CP29
155 RCP29

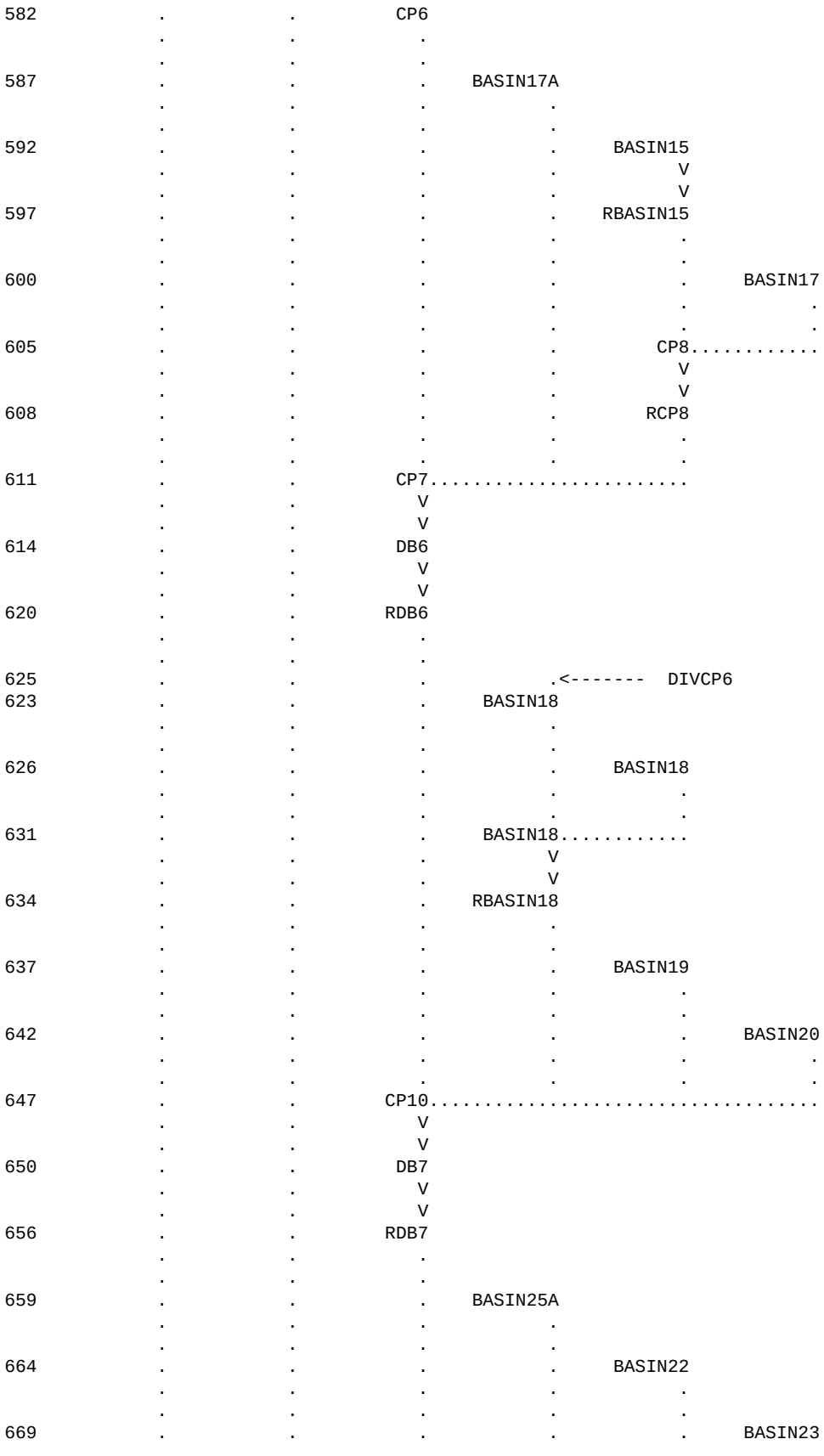

158 DB2
164 RDB2
167 BASIN4C
172 CP32
175 RTRCH5
181 CP3A
184 RTRCH6
190 SUB3
194 CP4A
197 ROFF2F
202 RROFF2F
205 ROFF2E
210 RROFF2E
213 ROFF1
218 CP33
221 RCP33
224 ROFF2C
229 RROFF2C
232 ROFF2G
237 RROFF2G
240 ROFF2D
245 BASIN38

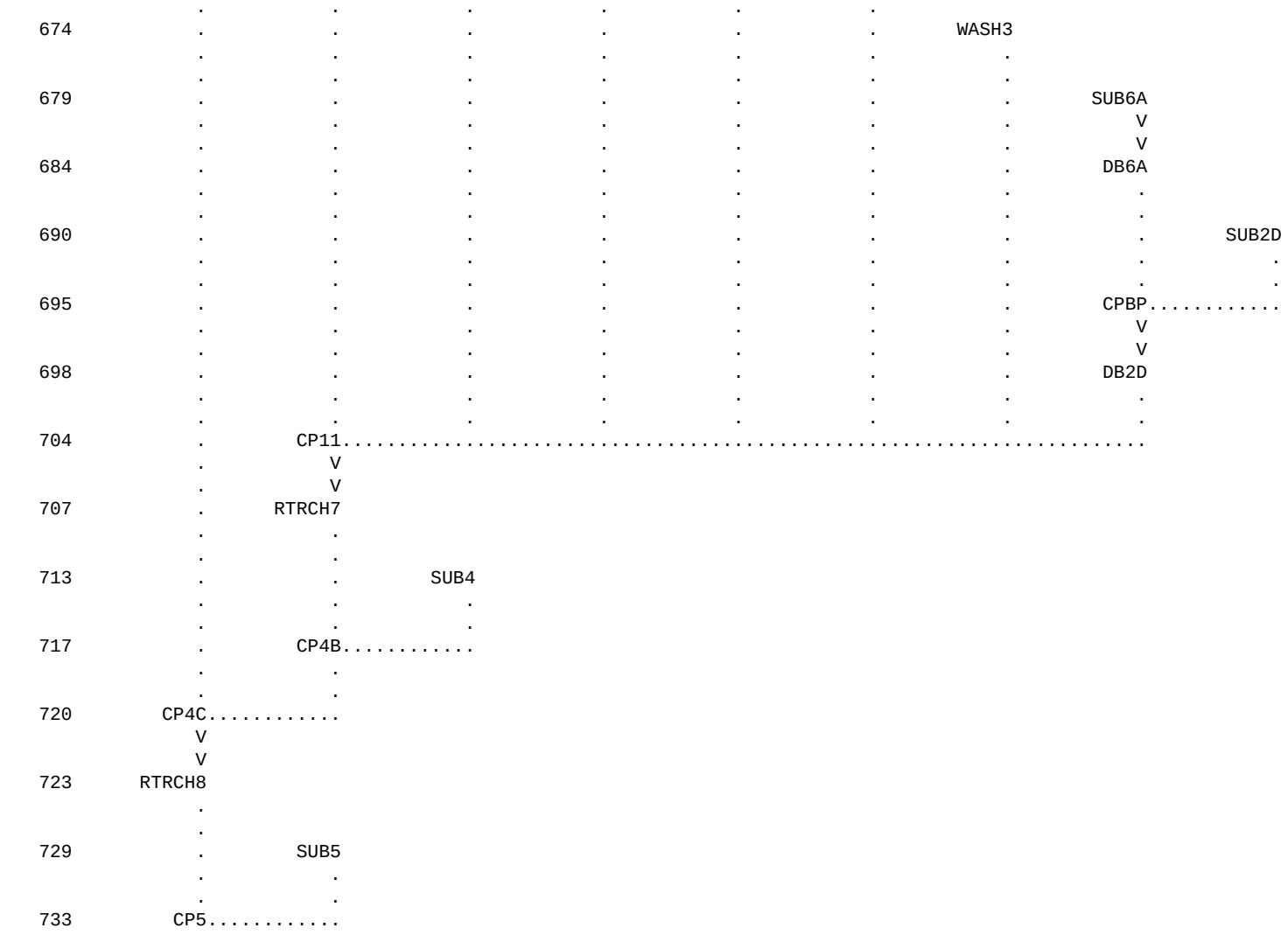

250
RBASIN38
253
CP2D
256
RCP2D
259
ROFF2B
264
CP2B
267
RCP2B
270
ROFF2A
275
RROFF2A
278
WASH1
283
CP20
286
RCP20
289
BASIN37
294
RBASIN37
297
BASIN36
302
CP16
305
RCP16
308
BASIN41
313
CP17
316
RCP17
319
BASIN35
324
BASIN28
329
CP19


RCP19
BASIN39
RBASIN39
BASIN40
CP12
RCP12
AMPHITHE
BASIN14
CP13
RCP13
BASIN16
CP14
RCP14
BASIN33
BASIN34
CP18
RCP18
BASIN30
CP21
RCP21
BASIN31
CP31


416 DB4
422 RDB4
425 BASIN32
430 CP22
433 RCP22
436 BASIN29
441 RBASIN29
444 BASIN28A
449 RBASIN28
452 BASIN26
457 RBASIN26
460 BASIN24
465 RBASIN24
468 WASH2
473 CP23
476 RCP23
479 BASIN27
484 RBASIN27
487 BASIN25
492 CP25
495 BASIN21
500 CP24


RCP24
BASIN9
RBASIN9
BASIN8
CP1
RCP1
BASIN7
CP2
RCP2
BASIN10
CP3
RCP3
BASIN11
CP4
RCP4
BASIN13
BASIN6
CP5
RCP5
BASIN18A
CP6
DIVCP6


582
CP6
587
BASIN17A
592
BASIN15
597
RBASIN15
600
BASIN17
605
CP8
608
RCP8
611
CP7
614
DB6
620
RDB6
625
DIVCP6
623
BASIN18
626
BASIN18
631
BASIN18
634
RBASIN18
637
BASIN19
642
BASIN20
647
CP10
650
DB7
656
RDB7
659
BASIN25A
664
BASIN22
669
BASIN23



```
                .          .          .          .          .          .
   674          .          .          .          .          .          .       WASH3
                .          .          .          .          .          .          .
                .          .          .          .          .          .          .
   679          .          .          .          .          .          .          .       SUB6A
                .          .          .          .          .          .          .          V
                .          .          .          .          .          .          .          V
   684          .          .          .          .          .          .          .        DB6A
                .          .          .          .          .          .          .          .
                .          .          .          .          .          .          .          .
   690          .          .          .          .          .          .          .          .       SUB2D
                .          .          .          .          .          .          .          .          .
                .          .          .          .          .          .          .          .          .
   695          .          .          .          .          .          .          .        CPBP............
                .          .          .          .          .          .          .          V
                .          .          .          .          .          .          .          V
   698          .          .          .          .          .          .          .        DB2D
                .          .          .          .          .          .          .          .
                .          .          .          .          .          .          .          .
   704          .        CP11.........................................................................
                .           V
                .           V
   707          .      RTRCH7
                .           .
                .           .
   713          .           .        SUB4
                .           .           .
                .           .           .
   717          .        CP4B............
                .           .
                .           .
   720        CP4C............
                V
                V
   723      RTRCH8
                .
                .
   729          .        SUB5
                .           .
                .           .
   733         CP5............

 (***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************
*****************************************
 *                                       *                                                  *
*
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                                  *    U.S. ARMY CORPS OF
ENGINEERS     *
 *               JAN   1997              *                                                  *    HYDROLOGIC
ENGINEERING CENTER    *
 *            VERSION 4.1                *                                                  *          609 SECOND
STREET          *
 *                                       *                                                  *       DAVIS, CALIFORNIA
95616       *
 *  RUN DATE   02FEB17  TIME  14:02:46   *                                                  *           (916) 756-1104
*
 *                                       *                                                  *
*
 *****************************************
*****************************************
```

WILDWOOD HILLS
Existing-Conditions HEC-1 Model
100-year, 6-hour Model
Woodson Engineering and Surveying Inc
January 2017
Original Model for Presidio in the Pines
by TRC-BV Engineering
November 2, 2004
EXISTING CONDITION (WITHOUT DETENTION@WILWOOD HILLS MHP)

```
  11 IO          OUTPUT CONTROL VARIABLES
                      IPRNT          5  PRINT CONTROL
                      IPLOT          0  PLOT CONTROL
                      QSCAL         0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                       NMIN          5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1    0  STARTING DATE
                      ITIME        0000  STARTING TIME
                         NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2    0  ENDING DATE
                     NDTIME        0055  ENDING TIME
                     ICENT          19  CENTURY MARK

                   COMPUTATION INTERVAL     .08 HOURS
                        TOTAL TIME BASE   24.92 HOURS

          ENGLISH UNITS
               DRAINAGE AREA         SQUARE MILES
               PRECIPITATION DEPTH   INCHES
               LENGTH, ELEVATION     FEET
               FLOW                  CUBIC FEET PER SECOND
               STORAGE VOLUME        ACRE-FEET
               SURFACE AREA          ACRES
               TEMPERATURE           DEGREES FAHRENHEIT

        *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


        *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT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        *** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


 WARNING --- ROUTED OUTFLOW (     83.) IS GREATER THAN MAXIMUM OUTFLOW (     81.) IN STORAGE-OUTFLOW TABLE
1
                                                  RUNOFF SUMMARY
                                              FLOW IN CUBIC FEET PER SECOND
                                            TIME IN HOURS,  AREA IN SQUARE MILES
```

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	24.	3.25	2.	1.	1.	.01		
	ROUTED TO									
+		RTRCH1	24.	3.25	2.	1.	1.	.01		
+									43.23	3.25
	HYDROGRAPH AT									
+		SUB-2	16.	3.17	1.	0.	0.	.01		
	HYDROGRAPH AT									
+		SUB-2A	9.	3.17	1.	0.	0.	.00		
	3 COMBINED AT									
+		CP1A	42.	3.17	4.	1.	1.	.02		
	ROUTED TO									
+		RTRCH2	42.	3.25	4.	1.	1.	.02		
+									97.19	3.25
	HYDROGRAPH AT									
+		SUB-3B	25.	3.33	3.	1.	1.	.03		
	HYDROGRAPH AT									
+		BASIN4	4.	3.17	0.	0.	0.	.00		
	ROUTED TO									
+		RCP26	4.	3.17	0.	0.	0.	.00		
	HYDROGRAPH AT									
+		BASIN4A	4.	3.17	0.	0.	0.	.00		
	2 COMBINED AT									
+		CP27	9.	3.17	1.	0.	0.	.00		
	HYDROGRAPH AT									
+		BASIN1A	3.	3.08	0.	0.	0.	.00		
	2 COMBINED AT									
+		CP28	11.	3.17	1.	0.	0.	.01		
	ROUTED TO									
+		DB1	4.	3.42	1.	0.	0.	.01		
+									7054.40	3.42
	ROUTED TO									
+		RDB1	4.	3.42	1.	0.	0.	.01		
	HYDROGRAPH AT									
+		BASIN4B	5.	3.08	0.	0.	0.	.00		
	HYDROGRAPH AT									
+		BASIN3	6.	3.08	0.	0.	0.	.00		
	HYDROGRAPH AT									
+		SUB-1A	95.	3.25	10.	2.	2.	.05		

```
          ROUTED TO
+                       RSUB-1A        93.    3.25          10.          2.          2.        .05
          HYDROGRAPH AT
+                        SUB-1B        18.    3.08           1.          0.          0.        .00
          HYDROGRAPH AT
+                        SUB-3A        13.    3.25           1.          0.          0.        .01
          6 COMBINED AT
+                          CP30       124.    3.25          14.          4.          3.        .07
          ROUTED TO
+                        RTRCH3       124.    3.25          14.          4.          3.        .07
+                                                                                                    97.52
3.25
          3 COMBINED AT
+                          CP2A       191.    3.25          22.          5.          5.        .12
          ROUTED TO
+                        RTRCH4       188.    3.25          22.          5.          5.        .12
+                                                                                                    82.65
3.25
          HYDROGRAPH AT
+                        SUB-3C        55.    3.25           6.          1.          1.        .03
          HYDROGRAPH AT
+                        BASIN5         3.    3.17           0.          0.          0.        .00
          ROUTED TO
+                       RBASIN5         3.    3.17           0.          0.          0.        .00
          HYDROGRAPH AT
+                        BASIN1         4.    3.08           0.          0.          0.        .00
          ROUTED TO
+                       RBASIN1         3.    3.08           0.          0.          0.        .00
          HYDROGRAPH AT
+                        BASIN2        12.    3.08           1.          0.          0.        .00
          3 COMBINED AT
+                          CP29        18.    3.08           1.          0.          0.        .01
          ROUTED TO
+                         RCP29        17.    3.17           1.          0.          0.        .01
          ROUTED TO
+                           DB2         1.    3.83           1.          0.          0.        .01
+                                                                                                  7035.26
3.92
          ROUTED TO
+                           RDB2        1.    3.83           1.          0.          0.        .01
          HYDROGRAPH AT
+                       BASIN4C         4.    3.08           0.          0.          0.        .00
          2 COMBINED AT
+                          CP32         4.    3.08           1.          0.          0.        .01
          ROUTED TO
+                        RTRCH5         5.    3.17           1.          0.          0.        .01
```

```
+                                                
```

+	ROFF2B	3.	3.08	0.	0.	0.	.00
	2 COMBINED AT						
+	CP2B	37.	3.25	5.	1.	1.	.02
	ROUTED TO						
+	RCP2B	37.	3.25	5.	1.	1.	.02
	HYDROGRAPH AT						
+	ROFF2A	32.	3.25	4.	1.	1.	.02
	ROUTED TO						
+	RROFF2A	32.	3.25	4.	1.	1.	.02
	HYDROGRAPH AT						
+	WASH1	2.	3.08	0.	0.	0.	.00
	4 COMBINED AT						
+	CP20	347.	3.58	73.	18.	18.	.50
	ROUTED TO						
+	RCP20	345.	3.58	73.	18.	18.	.50
	HYDROGRAPH AT						
+	BASIN37	6.	3.17	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN37	5.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN36	34.	3.17	3.	1.	1.	.01
	2 COMBINED AT						
+	CP16	39.	3.17	4.	1.	1.	.02
	ROUTED TO						
+	RCP16	38.	3.17	4.	1.	1.	.02
	HYDROGRAPH AT						
+	BASIN41	9.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP17	47.	3.17	5.	1.	1.	.02
	ROUTED TO						
+	RCP17	44.	3.17	5.	1.	1.	.02
	HYDROGRAPH AT						
+	BASIN35	9.	3.17	1.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN28	3.	3.17	0.	0.	0.	.00
	3 COMBINED AT						
+	CP19	55.	3.17	6.	1.	1.	.03
	ROUTED TO						
+	RCP19	54.	3.25	6.	1.	1.	.03
	HYDROGRAPH AT						
+	BASIN39	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN39	4.	3.08	0.	0.	0.	.00
	HYDROGRAPH AT						

```
+                        BASIN40         7.    3.17           1.          0.          0.        .00

         2 COMBINED AT
+                           CP12        11.    3.17           1.          0.          0.        .00

         ROUTED TO
+                          RCP12        10.    3.17           1.          0.          0.        .00

         HYDROGRAPH AT
+                       AMPHITHE         7.    3.08           0.          0.          0.        .00

         HYDROGRAPH AT
+                        BASIN14         3.    3.08           0.          0.          0.        .00

         3 COMBINED AT
+                           CP13        19.    3.08           2.          0.          0.        .01

         ROUTED TO
+                          RCP13        19.    3.17           2.          0.          0.        .01

         HYDROGRAPH AT
+                        BASIN16         9.    3.17           1.          0.          0.        .00

         2 COMBINED AT
+                           CP14        28.    3.17           2.          1.          1.        .01

         ROUTED TO
+                          RCP14        28.    3.17           2.          1.          1.        .01

         HYDROGRAPH AT
+                        BASIN33        21.    3.08           2.          0.          0.        .01

         HYDROGRAPH AT
+                        BASIN34        16.    3.08           1.          0.          0.        .00

         3 COMBINED AT
+                           CP18        60.    3.08           5.          1.          1.        .02

         ROUTED TO
+                          RCP18        58.    3.17           5.          1.          1.        .02

         HYDROGRAPH AT
+                        BASIN30        14.    3.08           1.          0.          0.        .00

         3 COMBINED AT
+                           CP21       124.    3.17          12.          3.          3.        .05

         ROUTED TO
+                          RCP21       124.    3.17          12.          3.          3.        .05

         HYDROGRAPH AT
+                        BASIN31         3.    3.08           0.          0.          0.        .00

         2 COMBINED AT
+                           CP31       127.    3.17          12.          3.          3.        .05

         ROUTED TO
+                            DB4        16.    3.75           9.          3.          3.        .05
+                                                                                                  7009.87
3.75

         ROUTED TO
+                           RDB4        16.    3.75           9.          3.          3.        .05

         HYDROGRAPH AT
+                        BASIN32        13.    3.08           1.          0.          0.        .00
```

	2 COMBINED AT						
+	CP22	17.	3.17	10.	3.	3.	.06
	ROUTED TO						
+	RCP22	17.	3.50	10.	3.	3.	.06
	HYDROGRAPH AT						
+	BASIN29	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN29	3.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN28A	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN28	3.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN26	6.	3.17	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN26	6.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN24	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN24	4.	3.08	0.	0.	0.	.00
	HYDROGRAPH AT						
+	WASH2	8.	3.17	1.	0.	0.	.00
	7 COMBINED AT						
+	CP23	365.	3.58	84.	22.	21.	.57
	ROUTED TO						
+	RCP23	365.	3.58	84.	22.	21.	.57
	HYDROGRAPH AT						
+	BASIN27	15.	3.08	1.	0.	0.	.01
	ROUTED TO						
+	RBASIN27	15.	3.17	1.	0.	0.	.01
	HYDROGRAPH AT						
+	BASIN25	8.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP25	23.	3.17	2.	0.	0.	.01
	HYDROGRAPH AT						
+	BASIN21	9.	3.17	1.	0.	0.	.00
	3 COMBINED AT						
+	CP24	371.	3.58	87.	22.	22.	.58
	ROUTED TO						
+	RCP24	370.	3.58	87.	22.	22.	.58
	HYDROGRAPH AT						
+	BASIN9	9.	3.17	1.	0.	0.	.00
	ROUTED TO						
+	RBASIN9	8.	3.17	1.	0.	0.	.00

	HYDROGRAPH AT						
+	BASIN8	8.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP1	16.	3.17	1.	0.	0.	.01
	ROUTED TO						
+	RCP1	16.	3.17	1.	0.	0.	.01
	HYDROGRAPH AT						
+	BASIN7	12.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP2	28.	3.17	2.	1.	1.	.01
	ROUTED TO						
+	RCP2	28.	3.17	2.	1.	1.	.01
	HYDROGRAPH AT						
+	BASIN10	11.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP3	39.	3.17	3.	1.	1.	.02
	ROUTED TO						
+	RCP3	38.	3.17	3.	1.	1.	.02
	HYDROGRAPH AT						
+	BASIN11	14.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP4	53.	3.17	5.	1.	1.	.02
	ROUTED TO						
+	RCP4	52.	3.17	5.	1.	1.	.02
	HYDROGRAPH AT						
+	BASIN13	6.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN6	9.	3.17	1.	0.	0.	.00
	3 COMBINED AT						
+	CP5	67.	3.17	6.	1.	1.	.02
	ROUTED TO						
+	RCP5	66.	3.17	6.	2.	1.	.02
	HYDROGRAPH AT						
+	BASIN18A	3.	3.08	0.	0.	0.	.00
	2 COMBINED AT						
+	CP6	68.	3.17	6.	2.	1.	.03
	DIVERSION TO						
+	DIVCP6	7.	3.17	1.	0.	0.	.03
	HYDROGRAPH AT						
+	CP6	61.	3.17	6.	1.	1.	.03
	HYDROGRAPH AT						
+	BASIN17A	4.	3.08	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN15	3.	3.08	0.	0.	0.	.00

```
          ROUTED TO
+                      RBASIN15         3.    3.17          0.          0.          0.        .00
          HYDROGRAPH AT
+                       BASIN17         4.    3.08          0.          0.          0.        .00
          2 COMBINED AT
+                           CP8         7.    3.08          1.          0.          0.        .00
          ROUTED TO
+                          RCP8         7.    3.08          1.          0.          0.        .00
          3 COMBINED AT
+                           CP7        69.    3.17          6.          2.          2.        .03
          ROUTED TO
+                           DB6        61.    3.25          6.          2.          2.        .03
+                                                                                                  7039.58
3.25
          ROUTED TO
+                          RDB6        58.    3.25          6.          2.          2.        .03
          HYDROGRAPH AT
+                       BASIN18         7.    3.17          1.          0.          0.        .00
          HYDROGRAPH AT
+                       BASIN18         5.    3.17          0.          0.          0.        .00
          2 COMBINED AT
+                       BASIN18        12.    3.17          1.          0.          0.        .00
          ROUTED TO
+                      RBASIN18        12.    3.17          1.          0.          0.        .00
          HYDROGRAPH AT
+                       BASIN19        12.    3.17          1.          0.          0.        .00
          HYDROGRAPH AT
+                       BASIN20         6.    3.17          1.          0.          0.        .00
          4 COMBINED AT
+                          CP10        82.    3.25          9.          2.          2.        .04
          ROUTED TO
+                           DB7        83.    3.25          9.          2.          2.        .04
+                                                                                                  7002.02
3.25
          ROUTED TO
+                          RDB7        83.    3.25          9.          2.          2.        .04
          HYDROGRAPH AT
+                      BASIN25A         6.    3.08          0.          0.          0.        .00
          HYDROGRAPH AT
+                       BASIN22         6.    3.08          0.          0.          0.        .00
          HYDROGRAPH AT
+                       BASIN23         3.    3.08          0.          0.          0.        .00
          HYDROGRAPH AT
+                         WASH3         4.    3.08          0.          0.          0.        .00
          HYDROGRAPH AT
```

```
+                         SUB6A        18.    3.50           3.          1.          1.        .02

          ROUTED TO
+                          DB6A        12.    3.92           3.          1.          1.        .02
+                                                                                                    7026.76
3.92

          HYDROGRAPH AT
+                         SUB2D        39.    3.58           7.          2.          2.        .04

          2 COMBINED AT
+                          CPBP        49.    3.67          11.          3.          3.        .06

          ROUTED TO
+                          DB2D        37.    4.00          10.          3.          3.        .06
+                                                                                                    6995.51
4.00

          7 COMBINED AT
+                          CP11       419.    3.58         107.         28.         27.        .68

          ROUTED TO
+                        RTRCH7       419.    3.67         107.         28.         27.        .68
+                                                                                                      75.16
3.67

          HYDROGRAPH AT
+                         SUB4        28.    3.33           3.          1.          1.        .02

          2 COMBINED AT
+                          CP4B       432.    3.58         111.         28.         27.        .70

          2 COMBINED AT
+                          CP4C       639.    3.33         140.         36.         35.        .86

          ROUTED TO
+                        RTRCH8       650.    3.33         140.         36.         35.        .86
+                                                                                                      60.28
3.33

          HYDROGRAPH AT
+                         SUB5        97.    3.17           8.          2.          2.        .03

          2 COMBINED AT
+                           CP5       693.    3.33         148.         38.         37.        .90
1
```

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

						INTERPOLATED TO COMPUTATION INTERVAL			
ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RCP26	MANE	.70	4.38	190.83	1.63	5.00	4.30	190.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1735E+00 EXCESS= .0000E+00 OUTFLOW= .1737E+00 BASIN STORAGE= .2919E-09 PERCENT ERROR= -.1

RDB1	MANE	.33	3.95	205.78	1.81	5.00	3.94	205.00	1.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4835E+00 EXCESS= .0000E+00 OUTFLOW= .4835E+00 BASIN STORAGE= .1222E-08 PERCENT ERROR= .0

RSUB-1A	MANE	.57	94.55	195.84	1.92	5.00	92.96	195.00	1.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4922E+01 EXCESS= .0000E+00 OUTFLOW= .4923E+01 BASIN STORAGE= .4157E-11 PERCENT ERROR= .0

RBASIN5	MANE	.36	3.04	190.19	2.34	5.00	3.03	190.00	2.34

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1247E+00 EXCESS= .0000E+00 OUTFLOW= .1247E+00 BASIN STORAGE= .1421E-10 PERCENT ERROR= .0

RBASIN1	MANE	.25	3.47	185.32	1.10	5.00	3.38	185.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1177E+00 EXCESS= .0000E+00 OUTFLOW= .1177E+00 BASIN STORAGE= .1001E-11 PERCENT ERROR= .0

RCP29	MANE	.39	18.15	186.01	1.92	5.00	17.43	190.00	1.92

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7157E+00 EXCESS= .0000E+00 OUTFLOW= .7159E+00 BASIN STORAGE= .1944E-09 PERCENT ERROR= .0

RDB2	MANE	.18	1.29	235.35	1.92	5.00	1.29	235.00	1.92

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7179E+00 EXCESS= .0000E+00 OUTFLOW= .7178E+00 BASIN STORAGE= .6276E-07 PERCENT ERROR= .0

RROFF2F	MANE	3.06	21.38	195.63	1.66	5.00	20.45	195.00	1.66

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8813E+00 EXCESS= .0000E+00 OUTFLOW= .8840E+00 BASIN STORAGE= .4257E-06 PERCENT ERROR= -.3

RROFF2E	MANE	1.40	28.04	200.84	1.46	5.00	28.04	200.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1630E+01 EXCESS= .0000E+00 OUTFLOW= .1631E+01 BASIN STORAGE= .2528E-07 PERCENT ERROR= -.1

RCP33	MANE	.23	317.53	220.31	1.32	5.00	317.46	220.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3207E+02 EXCESS= .0000E+00 OUTFLOW= .3207E+02 BASIN STORAGE= .1518E-06 PERCENT ERROR= .0

RROFF2C	MANE	.27	8.51	190.43	1.45	5.00	8.35	190.00	1.45

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3858E+00 EXCESS= .0000E+00 OUTFLOW= .3857E+00 BASIN STORAGE= .3433E-11 PERCENT ERROR= .0

RROFF2G MANE 1.99 11.36 205.52 2.02 5.00 11.36 205.00 2.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7534E+00 EXCESS= .0000E+00 OUTFLOW= .7542E+00 BASIN STORAGE= .7116E-07 PERCENT ERROR= -.1

RBASIN38 MANE 1.62 7.93 192.80 1.18 5.00 7.76 190.00 1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3147E+00 EXCESS= .0000E+00 OUTFLOW= .3159E+00 BASIN STORAGE= .2028E-07 PERCENT ERROR= -.4

RCP2D MANE .19 35.80 195.36 1.73 5.00 35.61 195.00 1.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2124E+01 EXCESS= .0000E+00 OUTFLOW= .2124E+01 BASIN STORAGE= .4710E-08 PERCENT ERROR= .0

RCP2B MANE .18 36.88 195.12 1.74 5.00 36.87 195.00 1.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2233E+01 EXCESS= .0000E+00 OUTFLOW= .2233E+01 BASIN STORAGE= .1586E-08 PERCENT ERROR= .0

RROFF2A MANE .09 32.33 195.19 1.49 5.00 32.12 195.00 1.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1748E+01 EXCESS= .0000E+00 OUTFLOW= .1748E+01 BASIN STORAGE= .2360E-11 PERCENT ERROR= .0

RCP20 MANE .53 346.30 216.14 1.35 5.00 344.66 215.00 1.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3613E+02 EXCESS= .0000E+00 OUTFLOW= .3614E+02 BASIN STORAGE= .5032E-06 PERCENT ERROR= .0

RBASIN37 MANE .70 5.66 191.49 1.42 5.00 5.34 190.00 1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2269E+00 EXCESS= .0000E+00 OUTFLOW= .2272E+00 BASIN STORAGE= .5088E-09 PERCENT ERROR= -.1

RCP16 MANE .17 38.86 190.31 2.38 5.00 38.40 190.00 2.38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1901E+01 EXCESS= .0000E+00 OUTFLOW= .1901E+01 BASIN STORAGE= .2570E-09 PERCENT ERROR= .0

RCP17 MANE .71 46.75 191.81 2.11 5.00 44.06 190.00 2.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2254E+01 EXCESS= .0000E+00 OUTFLOW= .2255E+01 BASIN STORAGE= .5177E-08 PERCENT ERROR= -.1

RCP19 MANE .24 55.42 190.60 2.10 5.00 54.33 195.00 2.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2798E+01 EXCESS= .0000E+00 OUTFLOW= .2798E+01 BASIN STORAGE= .3153E-08 PERCENT ERROR= .0

RBASIN39	MANE	1.02	4.29	186.78	2.95	5.00	3.65	185.00	2.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1568E+00 EXCESS= .0000E+00 OUTFLOW= .1571E+00 BASIN STORAGE= .1087E-08 PERCENT ERROR= -.2

RCP12	MANE	.70	10.49	191.34	2.95	5.00	10.45	190.00	2.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4709E+00 EXCESS= .0000E+00 OUTFLOW= .4716E+00 BASIN STORAGE= .4566E-08 PERCENT ERROR= -.1

RCP13	MANE	.31	19.40	185.86	1.97	5.00	19.09	190.00	1.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8390E+00 EXCESS= .0000E+00 OUTFLOW= .8390E+00 BASIN STORAGE= .2597E-08 PERCENT ERROR= .0

RCP14	MANE	.63	27.85	190.38	2.05	5.00	27.78	190.00	2.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1204E+01 EXCESS= .0000E+00 OUTFLOW= .1204E+01 BASIN STORAGE= .1123E-07 PERCENT ERROR= .0

RCP18	MANE	.41	60.10	186.04	2.15	5.00	58.17	190.00	2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2522E+01 EXCESS= .0000E+00 OUTFLOW= .2522E+01 BASIN STORAGE= .1064E-07 PERCENT ERROR= .0

RCP21	MANE	.06	124.20	190.08	2.15	5.00	124.10	190.00	2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5842E+01 EXCESS= .0000E+00 OUTFLOW= .5841E+01 BASIN STORAGE= .2505E-08 PERCENT ERROR= .0

RDB4	MANE	.19	15.55	225.37	2.02	5.00	15.55	225.00	2.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5606E+01 EXCESS= .0000E+00 OUTFLOW= .5606E+01 BASIN STORAGE= .2330E-03 PERCENT ERROR= .0

RCP22	MANE	.28	16.96	190.54	2.05	5.00	16.92	210.00	2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6113E+01 EXCESS= .0000E+00 OUTFLOW= .6113E+01 BASIN STORAGE= .3413E-03 PERCENT ERROR= .0

RBASIN29	MANE	.98	3.71	187.23	2.33	5.00	3.08	190.00	2.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1240E+00 EXCESS= .0000E+00 OUTFLOW= .1243E+00 BASIN STORAGE= .1016E-08 PERCENT ERROR= -.2

RBASIN28	MANE	1.27	3.49	188.30	2.24	5.00	3.12	190.00	2.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1189E+00 EXCESS= .0000E+00 OUTFLOW= .1192E+00 BASIN STORAGE= .3199E-08 PERCENT ERROR= -.3

RBASIN26	MANE	.37	6.02	190.32	2.31	5.00	6.01	190.00	2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2463E+00 EXCESS= .0000E+00 OUTFLOW= .2464E+00 BASIN STORAGE= .1408E-10 PERCENT ERROR= .0

RBASIN24	MANE	.31	3.79	185.28	2.35	5.00	3.72	185.00	2.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1255E+00 EXCESS= .0000E+00 OUTFLOW= .1255E+00 BASIN STORAGE= .2131E-11 PERCENT ERROR= .0

RCP23	MANE	.18	365.23	215.24	1.43	5.00	365.07	215.00	1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4320E+02 EXCESS= .0000E+00 OUTFLOW= .4320E+02 BASIN STORAGE= .1479E-03 PERCENT ERROR= .0

RBASIN27	MANE	.51	14.85	186.13	1.83	5.00	14.72	190.00	1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5853E+00 EXCESS= .0000E+00 OUTFLOW= .5858E+00 BASIN STORAGE= .2367E-09 PERCENT ERROR= -.1

RCP24	MANE	.29	370.35	215.60	1.44	5.00	369.76	215.00	1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4449E+02 EXCESS= .0000E+00 OUTFLOW= .4449E+02 BASIN STORAGE= .9536E-03 PERCENT ERROR= .0

RBASIN9	MANE	.42	8.64	190.76	2.31	5.00	8.43	190.00	2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3696E+00 EXCESS= .0000E+00 OUTFLOW= .3697E+00 BASIN STORAGE= .4332E-10 PERCENT ERROR= .0

RCP1	MANE	.27	15.83	190.17	2.09	5.00	15.78	190.00	2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6678E+00 EXCESS= .0000E+00 OUTFLOW= .6678E+00 BASIN STORAGE= .5839E-10 PERCENT ERROR= .0

RCP2	MANE	.16	27.78	190.17	2.08	5.00	27.62	190.00	2.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1220E+01 EXCESS= .0000E+00 OUTFLOW= .1220E+01 BASIN STORAGE= .8024E-10 PERCENT ERROR= .0

RCP3	MANE	.27	38.59	190.25	2.14	5.00	38.29	190.00	2.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1714E+01 EXCESS= .0000E+00 OUTFLOW= .1714E+01 BASIN STORAGE= .1868E-09 PERCENT ERROR= .0

RCP4	MANE	.13	52.63	190.31	2.20	5.00	52.16	190.00	2.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2350E+01 EXCESS= .0000E+00 OUTFLOW= .2350E+01 BASIN STORAGE= .2461E-09 PERCENT ERROR= .0

RCP5	MANE	.43	66.69	190.55	2.23	5.00	65.52	190.00	2.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2975E+01 EXCESS= .0000E+00 OUTFLOW= .2975E+01 BASIN STORAGE= .1404E-08 PERCENT ERROR= .0

RBASIN15	MANE	.42	3.16	186.15	2.38	5.00	3.06	190.00	2.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1270E+00 EXCESS= .0000E+00 OUTFLOW= .1270E+00 BASIN STORAGE= .1544E-10 PERCENT ERROR= .0

RCP8	MANE	.12	6.81	185.15	2.38	5.00	6.77	185.00	2.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2543E+00 EXCESS= .0000E+00 OUTFLOW= .2543E+00 BASIN STORAGE= .5657E-11 PERCENT ERROR= .0

RDB6	MANE	.61	60.10	195.93	2.03	5.00	58.02	195.00	2.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3142E+01 EXCESS= .0000E+00 OUTFLOW= .3143E+01 BASIN STORAGE= .1388E-05 PERCENT ERROR= .0

RBASIN18	MANE	.48	12.35	190.78	5.04	5.00	11.91	190.00	5.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5374E+00 EXCESS= .0000E+00 OUTFLOW= .5377E+00 BASIN STORAGE= .9610E-09 PERCENT ERROR= -.1

RDB7	MANE	.13	82.77	195.11	2.26	5.00	82.68	195.00	2.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4452E+01 EXCESS= .0000E+00 OUTFLOW= .4452E+01 BASIN STORAGE= .1403E-06 PERCENT ERROR= .0

*** NORMAL END OF HEC-1 ***

```
1****************************************                    ****************************************
 *                                      *                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *    U.S. ARMY CORPS OF ENGINEERS      *
 *               JAN   1997             *                    *    HYDROLOGIC ENGINEERING CENTER     *
 *            VERSION 4.1               *                    *          609 SECOND STREET           *
 *                                      *                    *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   07FEB17  TIME  09:47:57  *                    *           (916) 756-1104             *
 *                                      *                    *                                      *
 ****************************************                    ****************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX          XXX
```

THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        WILDWOOD HILLS
             2          ID        Existing-Conditions HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying Inc
             5          ID        January 2017
             6          ID        Original Model for Presidio in the Pines
             7          ID        by TRC-BV Engineering (November 2, 2004)
             8          ID        PROPOSED CONDITION (WITH DETENTION@WILWOOD HILLS MHP)
             9          IT       5       0       0     300
            10          IO       5       0       0
            11          IN       5       0       0
                        *

            12          KK   SUB-1
            13          BA   0.012
            14          PH       1    0.96    0.71    1.37    2.21    2.56    2.76    3.18
            15          LS       0   86.62
            16          UD   0.155
                        *

            17          KK  RTRCH1
            18          KM   ROUTE HYDROGRAPH FROM SUB-1 TO CP1
            19          RS       8    FLOW      -1
            20          RC   0.050   0.035   0.050    1145   0.054
            21          RX       0      31      47      63      73     126     155     180
            22          RY      48      46      44      43      43      46      48      54
                        *

            23          KK   SUB-2
            24          BA   0.008
            25          LS       0   81.67
            26          UD   0.074
                        *

            27          KK  SUB-2A
```

```
  28          BA   0.003
  29          LS       0   92.35
  30          UD     0.1
              *

  31          KK    CP1A
  32          KM     COMBINE ROUTED HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
  33          HC       3
              *

  34          KK  RTRCH2
  35          KM         ROUTE HYDROGRAPH FROM CP1 TO CP2
  36          RS       8    FLOW      -1
  37          RC   0.050   0.035   0.050     465   0.073
  38          RX       0      35      52      87     117     157     203     248
  39          RY     106     102     100      97      97     100     104     106
              *
1                                          HEC-1 INPUT                                                  PAGE  2

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  40          KK  SUB-3B
  41          KM    RUNOFF FROM SUB-3B
  42          BA    .029
  43          LS       0   73.10
  44          UD    .212
              *

  45          KK  BASIN4
  46          KM    RUNOFF FROM BASIN 4
  47          BA    .002
  48          LS       0   83.56
  49          UD    .086
              *

  50          KK   RCP26
  51          KM    ROUTE CP26 TO CP27
  52          RK     400    0.01   0.016       0      21      10      10
              *

  53          KK BASIN4A
  54          KM    RUNOFF FROM BASIN 4A
  55          BA    .002
  56          LS       0    86.0
  57          UD    .136
              *

  58          KK    CP27
  59          KM    COMBINE BASINS RCP26 & BASIN4A
  60          HC       2
              *

  61          KK BASIN1A
  62          KM    RUNOFF FROM BASIN 1A
  63          BA    .001
  64          LS       0    90.4
  65          UD    .054
              *

  66          KK    CP28
  67          KM    COMBINE BASINS BASIN1A & CP27
  68          HC       2
              *

  69          KK     DB1
  70          KM    DETENTION BASIN 1
  71          RS       1    STOR       0
  72          SV     0.0    0.02    0.09    0.15    0.23   0.31     0.39     0.40
  73          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5  7055.52
  74          SQ     0.0    0.21    1.30    3.16    4.14   4.93     5.61     5.63
              *
1                                          HEC-1 INPUT                                                  PAGE  3

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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```
 75          KK    RDB1
 76          KM    ROUTE DB1 TO CP30
 77          RK     320    0.01   0.013       0    CIRC     0.5
             *

 78          KK BASIN4B
 79          KM    RUNOFF FROM BASIN 4B
 80          BA    .002
 81          LS       0   87.81
 82          UD    .071
             *

 83          KK  BASIN3
 84          KM    RUNOFF FROM BASIN 3
 85          BA    .002
 86          LS       0   90.80
 87          UD    .071
             *

 88          KK  SUB-1A
 89          KM    SUB-1A IN PREVIOUS STUDIES WAS ROFF3
 90          KM    RUNOFF FROM SUB-1A
 91          BA    .048
 92          LS       0   87.40
 93          UD    .189
             *

 94          KK RSUB-1A
 95          KM    ROUTE SUB-1A TO CP30
 96          RK    1200    0.01   0.013       0    CIRC     2.5
             *

 97          KK  SUB-1B
 98          KM    RUNOFF FROM SUB-1B
 99          BA    .005
100          LS       0   92.75
101          UD     .06
             *

102          KK  SUB-3A
103          KM    RUNOFF FROM SUB-3A
104          BA    .009
105          LS       0   78.50
106          UD    .148
             *

107          KK    CP30
108          KM    COMBINE BASINS 3, 4B, DB1, & SUB-1A, SUB-1B
109          HC       6
             *
```



```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

110          KK  RTRCH3
111          KM   ROUTE HYDROGRAPH FROM CP30 TO CP2
112          RS       8    FLOW      -1
113          RC   0.050   0.035   0.050     510   0.090
114          RX       0      17      33      62      87      93     105     150
115          RY     102     100      98      97      97      98     100     102
             *

116          KK    CP2A
117          KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
118          HC       3
             *

119          KK   DBWWH
120          KM    DETENTION BASIN AT WILDWOOD HILLS-Sce-5
121          RS       1    STOR       0
122          SV     0.0    0.63    1.32    2.09    2.93    3.89    4.97
123          SE  6988.0  6989.0  6990.0  6991.0  6992.0  6993.0  6994.0
```

```
 124          SQ     0.0    9.32   32.31   52.41   64.90   75.34   84.51
              *

 125          KK  RTRCH4
 126          KM    ROUTE HYDROGRAPH FROM CP2 TO CP3
 127          RS       8    FLOW      -1
 128          RC   0.050   0.035   0.050     755   0.021
 129          RX       0      33      50     114     169     210     260     288
 130          RY      88      86      84      82      82      84      86      88
              *

 131          KK  SUB-3C
 132          KM    RUNOFF FROM SUB-3C
 133          BA    .026
 134          LS       0   88.29
 135          UD    .179
              *

 136          KK  BASIN5
 137          KM    RUNOFF FROM BASIN 5
 138          BA    .001
 139          LS       0   92.15
 140          UD    .085
              *

 141          KK RBASIN5
 142          KM    ROUTE BASIN5 TO CP29
 143          RK     182    0.01   0.016       0      21      10      10
              *

 144          KK  BASIN1
 145          KM    RUNOFF FROM BASIN 1
 146          BA    .002
 147          LS       0    75.5
 148          UD    .050
              *
1                                          HEC-1 INPUT                                                  PAGE  5

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 149          KK RBASIN1
 150          KM    ROUTE BASIN1 TO CP29
 151          RK     100    0.02   0.016       0      21      10      10
              *

 152          KK  BASIN2
 153          KM    RUNOFF FROM BASIN 2
 154          BA    .004
 155          LS       0   90.82
 156          UD    .072
              *

 157          KK    CP29
 158          KM    COMBINE BASINS 1, 2, & 5 AT CP29
 159          HC       3
              *

 160          KK   RCP29
 161          KM    ROUTE CP29 TO DB2
 162          RK     400    0.02   0.016       0      27      10      10
              *

 163          KK     DB2
 164          KM    DETENTION BASIN 2
 165          RS       1    STOR       0
 166          SV     0.0    0.03    0.10    0.20    0.31    0.45    0.62    0.71
 167          SE  7030.5  7031.0  7032.0  7033.0  7034.0  7035.0  7036.0  7036.5
 168          SQ     0.0     0.3     0.7     0.9     1.1    1.25    1.39    1.46
              *

 169          KK    RDB2
 170          KM    ROUTE DB2 TO CP32
 171          RK     100    0.08   0.032       0      10       6       6
              *
```

```
 172          KK BASIN4C
 173          KM    RUNOFF FROM BASIN 4C
 174          BA    .002
 175          LS       0    76.8
 176          UD    .054
              *

 177          KK    CP32
 178          KM    COMBINE BASIN BASIN4C AND DB2
 179          HC       2
              *

 180          KK  RTRCH5
 181          KM         ROUTE HYDROGRAPH FROM CP32 TO CP3
 182          RS       8    FLOW      -1
 183          RC   0.050   0.035   0.050     670   0.090
 184          RX       0       5      10      12      16      22      29      35
 185          RY      98    97.6    97.4    97.3    97.3    97.4    97.6      98
              *
1                                          HEC-1 INPUT                                                  PAGE  6

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 186          KK    CP3A
 187          KM     COMBINE SUB-3C WITH ROUTED HYDROGRAPHS FROM CP32 WITH CP2A
 188          HC       3
              *

 189          KK  RTRCH6
 190          KM         ROUTE HYDROGRAPH FROM CP3 TO CP4
 191          RS       8    FLOW      -1
 192          RC   0.050   0.035   0.050     470   0.017
 193          RX       0       8      16      30      52      77     100     123
 194          RY      68      67    66.5      66      66    66.5      67      68
              *

 195          KK    SUB3
 196          BA   0.006
 197          LS       0   77.80
 198          UD   0.100
              *

 199          KK    CP4A
 200          KM    COMBINE ROUTED HYDROGRAPH FROM CP3 WITH SUB-3 HYDROGRAPH
 201          HC       2
              *

 202          KK  ROFF2F
 203          KM    RUNOFF FROM BASIN ROFF2F
 204          BA    .010
 205          LS       0   83.91
 206          UD    .105
              *

 207          KK RROFF2F
 208          KM    ROUTE ROFF2F THRU CHANNEL TO PT7R
 209          RK    3200    0.03   0.032       0      10       6       6
              *

 210          KK  ROFF2E
 211          KM    RUNOFF FROM BASIN ROFF2E
 212          BA    .021
 213          LS       0   81.12
 214          UD    .220
              *

 215          KK RROFF2E
 216          KM    ROUTE ROFF2E THRU CHANNEL TO PT7R
 217          RK    1500    0.03   0.032       0      10       6       6
              *

 218          KK   ROFF1
 219          KM    RUNOFF FROM BASIN ROFF1
```

```
 220          BA    .423
 221          LS       0   78.91
 222          UD    .538
              *
1                                   HEC-1 INPUT                                          PAGE  7

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 223          KK    CP33
 224          KM    COMBINE RROFF2F, RROFF2E & ROFF1
 225          HC       3
              *

 226          KK   RCP33
 227          KM    ROUTE CP33 THRU CHANNEL TO PT8R
 228          RK     447    0.03   0.032       0      10       6       6
              *

 229          KK  ROFF2C
 230          KM    RUNOFF FROM BASIN ROFF2C
 231          BA    .005
 232          LS       0   80.99
 233          UD    .131
              *

 234          KK RROFF2C
 235          KM    ROUTE ROFF2C THRU CHANNEL TO CP2D
 236          RK     117    0.03   0.032       0      10       6       6
              *

 237          KK  ROFF2G
 238          KM    RUNOFF FROM BASIN ROFF2G
 239          BA    .007
 240          LS       0   88.55
 241          UD    .292
              *

 242          KK RROFF2G
 243          KM    ROUTE ROFF2G THRU CHANNEL TO CP2D(WORST CASE)
 244          RK    1750    0.03   0.032       0      10       6       6
              *

 245          KK  ROFF2D
 246          KM    RUNOFF FROM BASIN ROFF2D
 247          BA    .006
 248          LS       0   89.39
 249          UD    .164
              *

 250          KK BASIN38
 251          KM    RUNOFF FROM BASIN 38
 252          BA    .005
 253          LS       0   76.80
 254          UD    .070
              *

 255          KKRBASIN38
 256          KM    ROUTE BASIN 38 THRU OFF2D TO CP2D
 257          RK    1280    0.03   0.032       0      10       6       6
              *
1                                   HEC-1 INPUT                                          PAGE  8

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 258          KK    CP2D
 259          KM    COMBINE RROFF2C, ROFF2D, RROFF2G, RBASIN38
 260          HC       4
              *

 261          KK   RCP2D
 262          KM    ROUTE RCP2D THRU 24" PIPE TO CP2B
 263          RK     400    0.01   0.013       0    CIRC     2.0
              *
```

```
 264          KK  ROFF2B
 265          KM    RUNOFF FROM BASIN ROFF2B
 266          BA   .0010
 267          LS       0   88.55
 268          UD    .052
              *

 269          KK    CP2B
 270          KM    COMBINE RCP2D & ROFF2B
 271          HC       2
              *

 272          KK   RCP2B
 273          KM    ROUTE CP2B THRU 24" PIPE TO PT8B
 274          RK     130    0.01   0.013       0    CIRC     2.0
              *

 275          KK  ROFF2A
 276          KM    RUNOFF FROM BASIN ROFF2A
 277          BA    .022
 278          LS       0   81.62
 279          UD    .201
              *

 280          KK RROFF2A
 281          KM    ROUTE ROFF2A THRU CHANNEL TO CP20
 282          RK     100    0.03   0.032       0      10       6       6
              *

 283          KK   WASH1
 284          KM    RUNOFF FROM BASIN WASH1
 285          BA    .001
 286          LS       0      77
 287          UD    .050
              *

 288          KK    CP20
 289          KM    COMBINE RCP33, WASH1, RROFF2A, RCP2B
 290          HC       4
              *
```



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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 291          KK   RCP20
 292          KM    ROUTE CP20 THRU CHANNEL TO CP23
 293          RK     930    0.03   0.032       0      10       6       6
              *

 294          KK BASIN37
 295          KM    RUNOFF FROM BASIN37
 296          BA    .003
 297          LS       0   80.57
 298          UD    .098
              *

 299          KKRBASIN37
 300          KM    ROUTE BASIN37 TO CP16
 301          RK     800    0.04   0.016       0      27      10      10
              *

 302          KK BASIN36
 303          KM    RUNOFF FROM BASIN 36
 304          BA    .012
 305          LS       0   94.97
 306          UD    .153
              *

 307          KK    CP16
 308          KM    COMBINE RBASIN37 AND BASIN36
 309          HC       2
              *
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```
 310          KK   RCP16
 311          KM    ROUTE CP16 TO CP17
 312          RK     200    0.04   0.016       0      30      10      10
              *

 313          KK BASIN41
 314          KM    RUNOFF FROM BASIN41
 315          BA    .005
 316          LS       0   79.02
 317          UD    .070
              *

 318          KK    CP17
 319          KM    COMBINE RCP16 AND BASIN41
 320          HC       2
              *

 321          KK   RCP17
 322          KM    ROUTE CP17 THRU BASIN35 TO CP19
 323          RK     760    0.01   0.016       0      30      10      10
              *
1                                          HEC-1 INPUT                                                PAGE 10

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 324          KK BASIN35
 325          KM    RUNOFF FROM BASIN 35
 326          BA    .004
 327          LS       0   88.99
 328          UD    .155
              *

 329          KK BASIN28
 330          KM    RUNOFF FROM BASIN 28
 331          BA    .001
 332          LS       0   86.80
 333          UD    .082
              *

 334          KK    CP19
 335          KM    COMBINE BASIN41, BASINS 35 & 28
 336          HC       3
              *

 337          KK   RCP19
 338          KM    ROUTE CP19 THRU BASIN 30 TO CP21
 339          RK     300    0.03   0.016       0      27      10      10
              *

 340          KK BASIN39
 341          KM    RUNOFF FROM BASIN 39
 342          BA    .001
 343          LS       0      98
 344          UD    .050
              *

 345          KKRBASIN39
 346          KM    ROUTE BASIN39 TO CP12
 347          RK     900    0.03   0.016       0      44      10      10
              *

 348          KK BASIN40
 349          KM    RUNOFF FROM BASIN 40
 350          BA    .002
 351          LS       0      98
 352          UD    .089
              *

 353          KK    CP12
 354          KM    COMBINE RBASIN30 & BASIN 40 AT CP12
 355          HC       2
              *

 356          KK   RCP12
```

```
 357          KM    ROUTE CP12 TO CP13
 358          RK     585    0.01   0.016       0      39      10      10
              *
1                                        HEC-1 INPUT                                          PAGE 11

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 359          KKAMPHITHEATER
 360          KM    RUNOFF FROM AMP
 361          BA    .004
 362          LS       0   76.14
 363          UD    .050
              *

 364          KK BASIN14
 365          KM    RUNOFF FROM BASIN 14
 366          BA    .001
 367          LS       0   91.88
 368          UD    .065
              *

 369          KK    CP13
 370          KM    COMBINE RCP12, BASIN14 & AMPHITHEATER
 371          HC       3
              *

 372          KK   RCP13
 373          KM    ROUTE CP13 TO CP14
 374          RK     350    0.04   0.016       0      39      10      10
              *

 375          KK BASIN16
 376          KM    RUNOFF FROM BASIN 16
 377          BA    .003
 378          LS       0   91.40
 379          UD    .087
              *

 380          KK    CP14
 381          KM    COMBINE RCP13 & BASIN16 AT CP14
 382          HC       2
              *

 383          KK   RCP14
 384          KM    ROUTE CP14 THRU CP18
 385          RK     520    0.01   0.016       0      27      10      10
              *

 386          KK BASIN33
 387          KM    RUNOFF FROM BASIN 33
 388          BA    .006
 389          LS       0   93.41
 390          UD    .066
              *

 391          KK BASIN34
 392          KM    RUNOFF FROM BASIN 34
 393          BA    .005
 394          LS       0   88.11
 395          UD    .057
              *
1                                        HEC-1 INPUT                                          PAGE 12

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 396          KK    CP18
 397          KM    COMBINE RCP14, BASIN33 & BASIN34 AT CP18
 398          HC       3
              *

 399          KK   RCP18
 400          KM    ROUTE CP18 THRU BASIN 30 TO CP21
 401          RK     340    0.01   0.016       0      27      10      10
```

```
                *

 402            KK BASIN30
 403            KM    RUNOFF FROM BASIN30
 404            BA    .004
 405            LS       0   92.91
 406            UD    .066
                *

 407            KK    CP21
 408            KM    COMBINE RCP19, RCP18 & BASIN30 AT CP21
 409            HC       3
                *

 410            KK   RCP21
 411            KM    ROUTE CP21 TO CP31
 412            RK      50    0.02   0.025       0      27      10      10
                *

 413            KK BASIN31
 414            KM    RUNOFF FROM BASIN 31
 415            BA    .001
 416            LS       0   92.60
 417            UD    .064
                *

 418            KK    CP31
 419            KM    COMBINE RCP21 & BASIN31 AT CP31
 420            HC       2
                *

 421            KK     DB4
 422            KM    DETENTION BASIN 4 (KEY OUTLET)
 423            RS       1    STOR       0
 424            SV     0.0     0.7     1.5     2.4     3.3     4.2     4.7
 425            SE  7005.0  7006.0  7007.0  7008.0  7009.0  7010.0  7010.5
 426            SQ     0.0     0.7     2.1     6.9    12.5    16.0    17.5
                *

 427            KK    RDB4
 428            KM    ROUTE DB4 TO CP22
 429            RK     250    0.02   0.013       0    CIRC     2.0
                *
1                                          HEC-1 INPUT                                                  PAGE 13

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 430            KK BASIN32
 431            KM    RUNOFF FROM BASIN 32
 432            BA    .004
 433            LS       0   92.60
 434            UD    .071
                *

 435            KK    CP22
 436            KM    COMBINE BASINS 32 & RDB4 AT CP22
 437            HC       2
                *

 438            KK   RCP22
 439            KM    ROUTE CP22 THRU CHANNEL TO CP23
 440            RK     275    0.03   0.032       0      10       6       6
                *

 441            KK BASIN29
 442            KM    RUNOFF FROM BASIN 29
 443            BA    .001
 444            LS       0      92
 445            UD    .050
                *

 446            KKRBASIN29
 447            KM    ROUTE BASIN29 THRU CHANNEL TO CP23
 448            RK     600    0.03   0.032       0      10       6       6
```

```
                *

 449            KKBASIN28A
 450            KM    RUNOFF FROM BASIN 28A
 451            BA    .001
 452            LS       0   90.97
 453            UD    .050
                *

 454            KKRBASIN28A
 455            KM    ROUTE BASIN28A THRU CHANNEL TO CP23
 456            RK     800    0.03   0.032       0      10       6       6
                *

 457            KK BASIN26
 458            KM    RUNOFF FROM BASIN 26
 459            BA    .002
 460            LS       0   91.84
 461            UD    .085
                *

 462            KKRBASIN26
 463            KM    ROUTE BASIN26 THRU CHANNEL TO CP23
 464            RK     200    0.03   0.032       0      10       6       6
                *
1                                          HEC-1 INPUT                                                PAGE 14

LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 465            KK BASIN24
 466            KM    RUNOFF FROM BASIN 24
 467            BA    .001
 468            LS       0   92.30
 469            UD    .050
                *

 470            KKRBASIN24
 471            KM    ROUTE BASIN24 THRU CHANNEL TO CP23
 472            RK     100    0.03   0.032       0      10       6       6
                *

 473            KK   WASH2
 474            KM    RUNOFF FROM BASIN WASH2
 475            BA    .005
 476            LS       0   76.75
 477            UD    .106
                *

 478            KK    CP23
 479            KM    COMBINE RCP20, RCP22, RBASIN29, RBASIN28A, RBASIN26, RBASIN24 & WASH2
 480            HC       7
                *

 481            KK   RCP23
 482            KM    ROUTE CP23 THRU CULVERT TO CP24
 483            RK     100    0.03   0.032       0      20       3       3
                *

 484            KK BASIN27
 485            KM    RUNOFF FROM BASIN27 – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
 486            BA    .006
 487            LS       0   86.23
 488            UD    .073
                *

 489            KKRBASIN27
 490            KM    ROUTE BASIN27 TO CP25
 491            RK     425    0.01   0.016       0      26      10      10
                *

 492            KK BASIN25
 493            KM    RUNOFF FROM BASIN 25 – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
 494            BA    .003
 495            LS       0   88.10
```

```
 496          UD    .107
              *

 497          KK    CP25
 498          KM    COMBINE RBASIN27 & BASIN25 AT CP25
 499          HC       2
              *
1                                        HEC-1 INPUT                                          PAGE 15

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 500          KK BASIN21
 501          KM    RUNOFF FROM BASIN 21
 502          BA    .003
 503          LS       0   92.60
 504          UD    .125
              *

 505          KK    CP24
 506          KM    COMBINE CP15, CP25 & RCP23
 507          HC       3
              *

 508          KK   RCP24
 509          KM    ROUTE CP24 THRU CHANNEL TO CP11
 510          RK     400    0.03   0.032       0      10       6       6
              *

 511          KK  BASIN9
 512          KM    RUNOFF FROM BASIN 9
 513          BA    .003
 514          LS       0   91.85
 515          UD    .116
              *

 516          KK RBASIN9
 517          KM    ROUTE BASIN 9 THRU BASIN8 TO CP1
 518          RK     260    0.01   0.016       0      27      10      10
              *

 519          KK  BASIN8
 520          KM    RUNOFF FROM BASIN 8
 521          BA    .003
 522          LS       0    86.6
 523          UD    .078
              *

 524          KK     CP1
 525          KM    COMBINE RBASIN9 & BASIN 8
 526          HC       2
              *

 527          KK    RCP1
 528          KM    ROUTE CP1 THRU BASIN7 TO CP2
 529          RK     160    0.02   0.016       0      27      10      10
              *

 530          KK  BASIN7
 531          KM    RUNOFF FROM BASIN 7
 532          BA    .005
 533          LS       0   89.15
 534          UD    .138
              *
1                                        HEC-1 INPUT                                          PAGE 16

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 535          KK     CP2
 536          KM    COMBINE RCP1 & BASIN7
 537          HC       2
              *

 538          KK    RCP2
```

```
 539          KM    ROUTE CP2 THRU BASIN10 TO CP3
 540          RK     185    0.05   0.016       0      36      10      10
              *

 541          KK BASIN10
 542          KM    RUNOFF FROM BASIN10
 543          BA    .004
 544          LS       0   91.85
 545          UD    .127
              *

 546          KK     CP3
 547          KM    COMBINE RCP2 & BASIN10
 548          HC       2
              *

 549          KK    RCP3
 550          KM    ROUTE CP3 THRU BASIN11 TO CP4
 551          RK     215    0.03   0.016       0      36      10      10
              *

 552          KK BASIN11
 553          KM    RUNOFF FROM BASIN11
 554          BA    .005
 555          LS       0   92.60
 556          UD    .125
              *

 557          KK     CP4
 558          KM    COMBINE RCP4 & BASIN11
 559          HC       2
              *

 560          KK    RCP4
 561          KM    ROUTE CP4 THRU BASIN13 TO CP5
 562          RK     200    0.03   0.016       0      36      10      10
              *

 563          KK BASIN13
 564          KM    RUNOFF FROM BASIN13
 565          BA    .002
 566          LS       0   91.75
 567          UD    .096
              *
```



```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 568          KK  BASIN6
 569          KM    RUNOFF FROM BASIN 6
 570          BA    .003
 571          LS       0   92.32
 572          UD    .089
              *

 573          KK     CP5
 574          KM    COMBINE RCP4, BASIN13 & BASIN6
 575          HC       3
              *

 576          KK    RCP5
 577          KM    ROUTE CP5 TO CP6
 578          RK     475    0.02   0.016       0      24      10      10
              *

 579          KKBASIN18A
 580          KM    RUNOFF FROM BASIN 18A
 581          BA    .001
 582          LS       0   88.10
 583          UD    .052
              *

 584          KK     CP6
 585          KM    COMBINE RCP5 & BASIN18A
```

```
 586          HC       2
              *

 587          KK     CP6
 588          KM    DIVERT FLOW TO CP10
 589          DT  DIVCP6
 590          DI       0      38
 591          DQ       0       4
              *

 592          KKBASIN17A
 593          KM    RUNOFF FROM BASIN 17A
 594          BA    .001
 595          LS       0   92.60
 596          UD    .050
              *

 597          KK BASIN15
 598          KM    RUNOFF FROM BASIN15
 599          BA    .001
 600          LS       0   92.60
 601          UD    .075
              *
1                                        HEC-1 INPUT                                          PAGE 18

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 602          KKRBASIN15
 603          KM    ROUTE BASIN 15 THRU BASIN17 TO CP8
 604          RK     255    0.02   0.016       0      24      10      10
              *

 605          KK BASIN17
 606          KM    RUNOFF FROM BASIN17
 607          BA    .001
 608          LS       0   92.60
 609          UD    .050
              *

 610          KK     CP8
 611          KM    COMBINE RBASIN15 & BASIN17
 612          HC       2
              *

 613          KK    RCP8
 614          KM    ROUTE CP8 TO CP7
 615          RK      40    0.02   0.016       0      24      10      10
              *

 616          KK     CP7
 617          KM    COMBINE BASINS BASIN17A & CP6
 618          HC       3
              *

 619          KK     DB6
 620          KM    DETENTION BASIN 6 (KEY OUTLET)
 621          RS       1    STOR       0
 622          SV     0.0     0.1     0.2     0.4     0.5     0.7     1.0
 623          SE  7034.0  7035.0  7036.0  7037.0  7038.0  7039.0  7040.0
 624          SQ     0.0     0.8    1.25    3.44    4.89   21.87   89.53
              *

 625          KK    RDB6
 626          KM    ROUTE DB6 TO CP10
 627          RK     800    0.02   0.016       0      24      10      10
              *

 628          KK BASIN18
 629          KM    RETRIEVE DIVERSION FROM CP6
 630          DR  DIVCP6
              *

 631          KK BASIN18
 632          KM    RUNOFF FROM BASIN 18
```

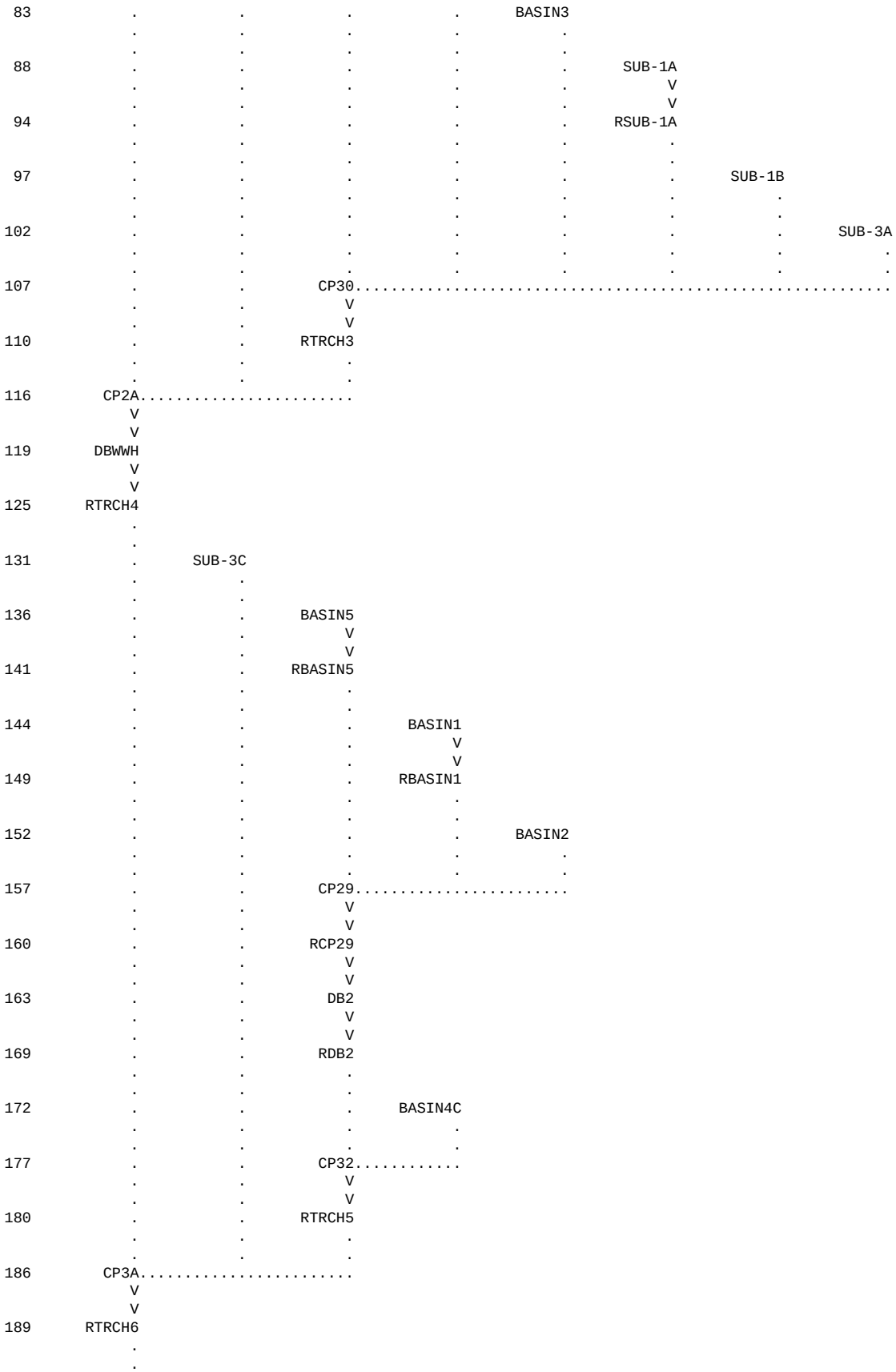
```
 633          BA    .002
 634          LS       0   88.25
 635          UD    .099
              *
1                                    HEC-1 INPUT                                    PAGE 19

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 636          KK BASIN18
 637          KM    COMBINE DIVCP6 & BASIN18
 638          HC       2
              *

 639          KKRBASIN18
 640          KM    ROUTE BASIN18 THRU BASIN 19 TO CP10
 641          RK     700    0.04   0.016       0      24      10      10
              *

 642          KK BASIN19
 643          KM    RUNOFF FROM BASIN 19
 644          BA    .004
 645          LS       0   92.60
 646          UD    .123
              *

 647          KK BASIN20
 648          KM    RUNOFF FROM BASIN 20
 649          BA    .002
 650          LS       0   92.60
 651          UD    .081
              *

 652          KK    CP10
 653          KM    COMBINE RCP6, RBASIN18, BASIN19 & BASIN20
 654          HC       4
              *

 655          KK     DB7
 656          KM    DETENTION BASIN 1
 657          RS       1    STOR       0
 658          SV     0.0    0.01    0.04    0.10    0.14    0.17
 659          SE  6998.0  6999.0  7000.0  7001.0  7001.5  7002.0
 660          SQ     0.0    0.75    2.12     3.9    31.6    81.4
              *

 661          KK    RDB7
 662          KM    ROUTE DB7 TO CP11
 663          RK      50    0.03   0.032       0      10       6       6
              *

 664          KKBASIN25A
 665          KM    RUNOFF FROM BASIN 25A – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
 666          BA    .002
 667          LS       0   86.75
 668          UD    .050
              *
1                                    HEC-1 INPUT                                    PAGE 20

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 669          KK BASIN22
 670          KM    RUNOFF FROM BASIN 22
 671          BA    .002
 672          LS       0   88.25
 673          UD    .064
              *

 674          KK BASIN23
 675          KM    RUNOFF FROM BASIN 23
 676          BA    .001
 677          LS       0   88.25
 678          UD    .050
              *
```

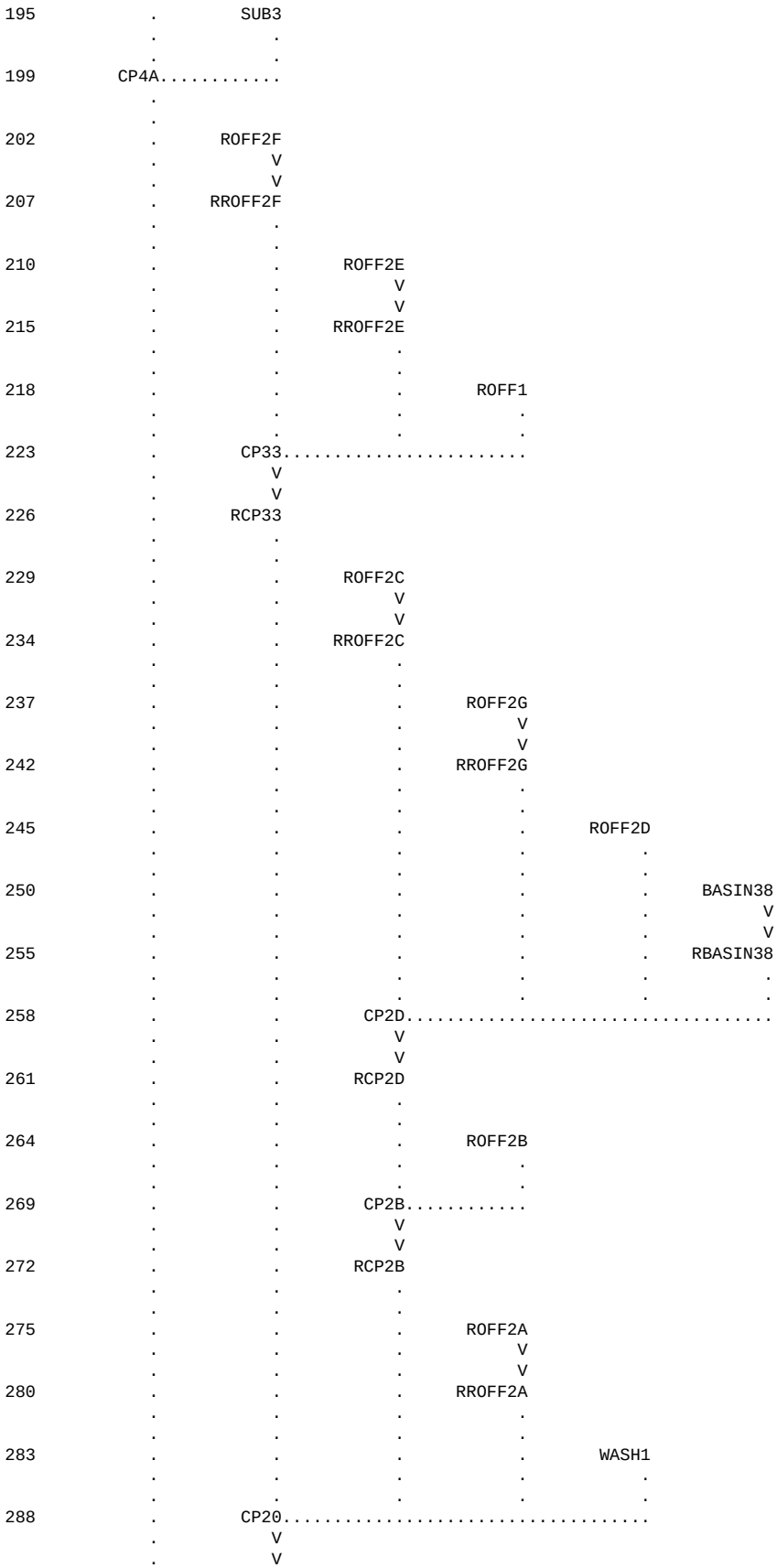
```
 679          KK   WASH3
 680          KM    RUNOFF FROM WASH3 – MODIFIED TO INCLUDE RUNOFF FROM BOULDER POINTE
 681          BA    .002
 682          LS       0      77
 683          UD    .050
              *

 684          KK   SUB6A
 685          KM    RUNOFF FROM SUBAREA 6A IN BOULDER POINTE
 686          BA    .016
 687          LS       0   86.33
 688          UD     .45
              *

 689          KK    DB6A
 690          KM    DETENTION BASIN FOR SUBAREA 6A IN BOULDER POINTE
 691          RS       1    STOR       0
 692          SV     0.0  0.0002   0.006   0.175   0.379   0.618
 693          SE  7022.0  7023.9  7024.0  7025.0  7026.0  7027.0
 694          SQ     0.0     0.0     0.0     1.7     5.8    13.3
              *

 695          KK   SUB2D
 696          KM    RUNOFF FROM SUBBASIN 2D IN BOULDER POINTE
 697          BA     .04
 698          LS       0    85.0
 699          UD    .522
              *

 700          KK    CPBP
 701          KM    COMBINE DB6A AND SUBBASIN 2D
 702          HC       2
              *

 703          KK    DB2D
 704          KM    DETENTION BASIN FOR SUBBASIN 2D IN BOULDER POINTE
 705          RS       1    STOR       0
 706          SV     0.0   0.285   0.570   0.866   1.184   1.525   1.888
 707          SE  6991.0  6992.0  6993.0  6994.0  6995.0  6996.0  6997.0
 708          SQ     0.0     3.0     8.5   17.72   29.84   44.15   182.3
              *
```

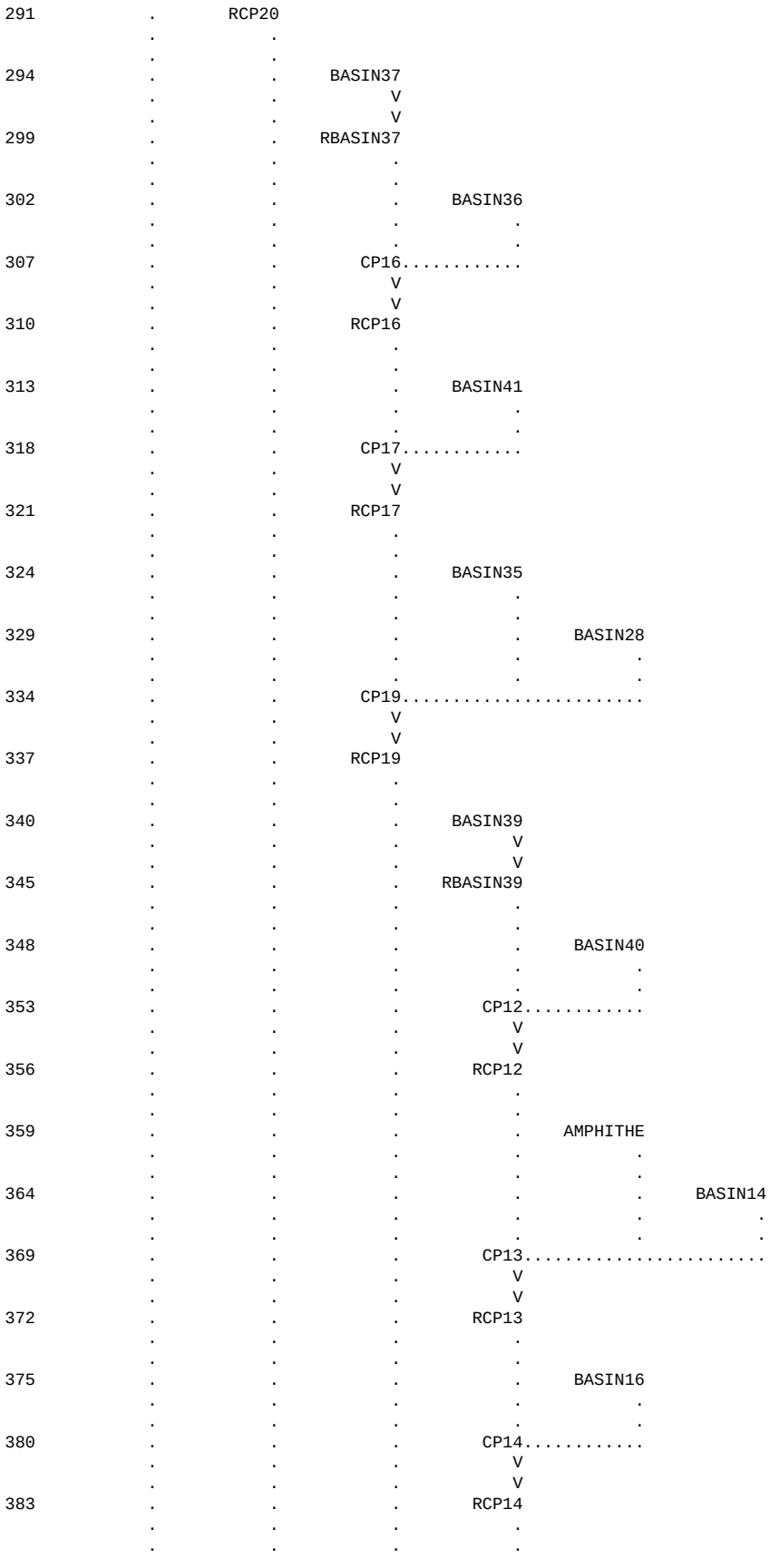


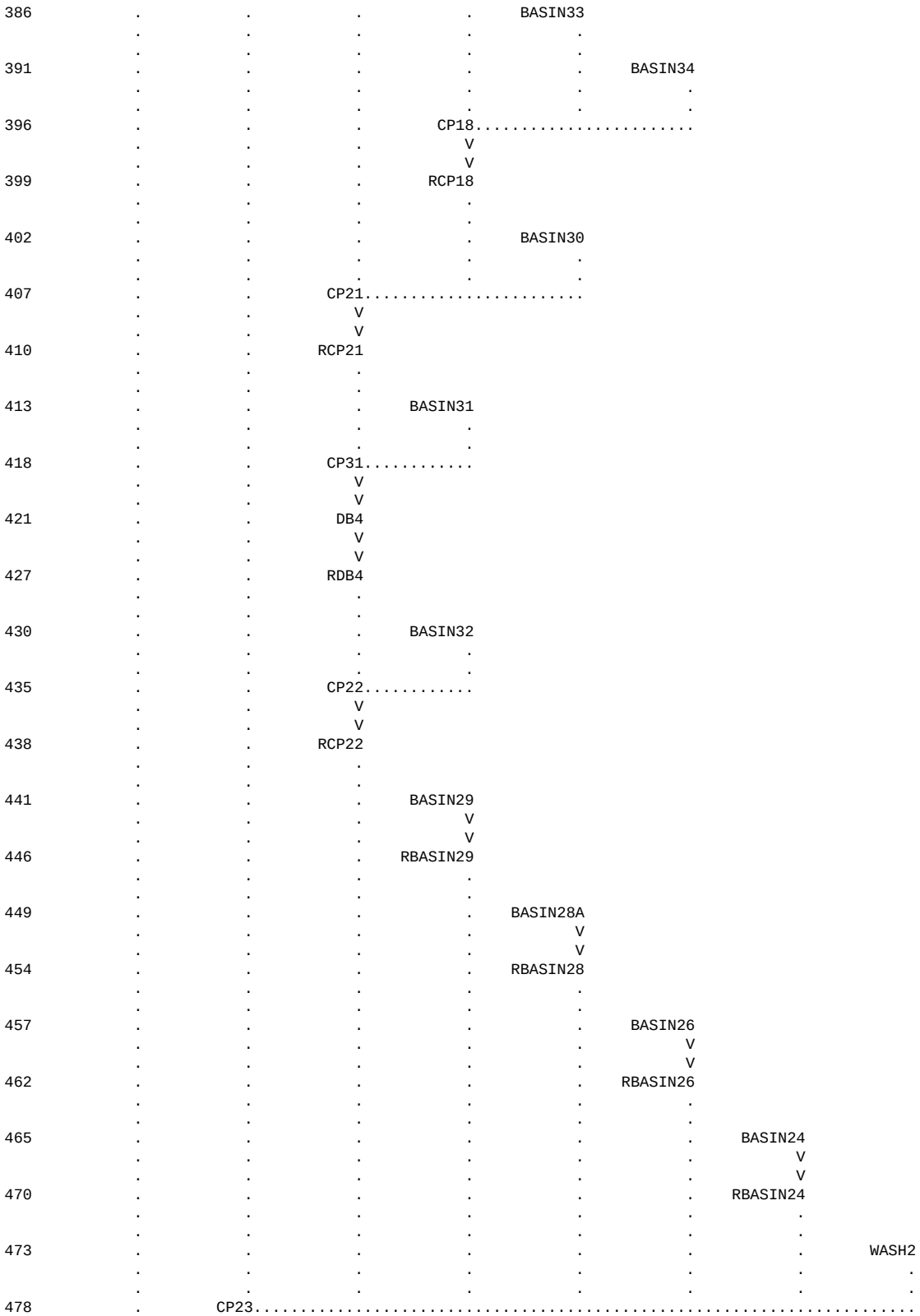
```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 709          KK    CP11
 710          KM    COMBINE RCP24, RDB7, WASH3, BASINS 25, 23 & 22, AND DB2D
 711          HC       7
              *

 712          KK  RTRCH7
 713          KM         ROUTE HYDROGRAPH FROM CP11 TO CP4
 714          RS       8    FLOW      -1
 715          RC   0.050   0.035   0.050     961   0.023
 716          RX       0      26      35      55      97     136     235     255
 717          RY      80      78      76      74      74      76      78      80
              *

 718          KK    SUB4
 719          BA   0.021
 720          LS       0   81.06
 721          UD    0.22
              *

 722          KK    CP4B
 723          KM         ADD ROUTED HYDROGRAPH FROM CP11 TO SUB4 HYDROGRAPH
 724          HC       2
              *

 725          KK    CP4C
 726          KM         ADD CP4A HYDROGRAPH TO CP4B HYDROGRAPH
 727          HC       2
              *
```

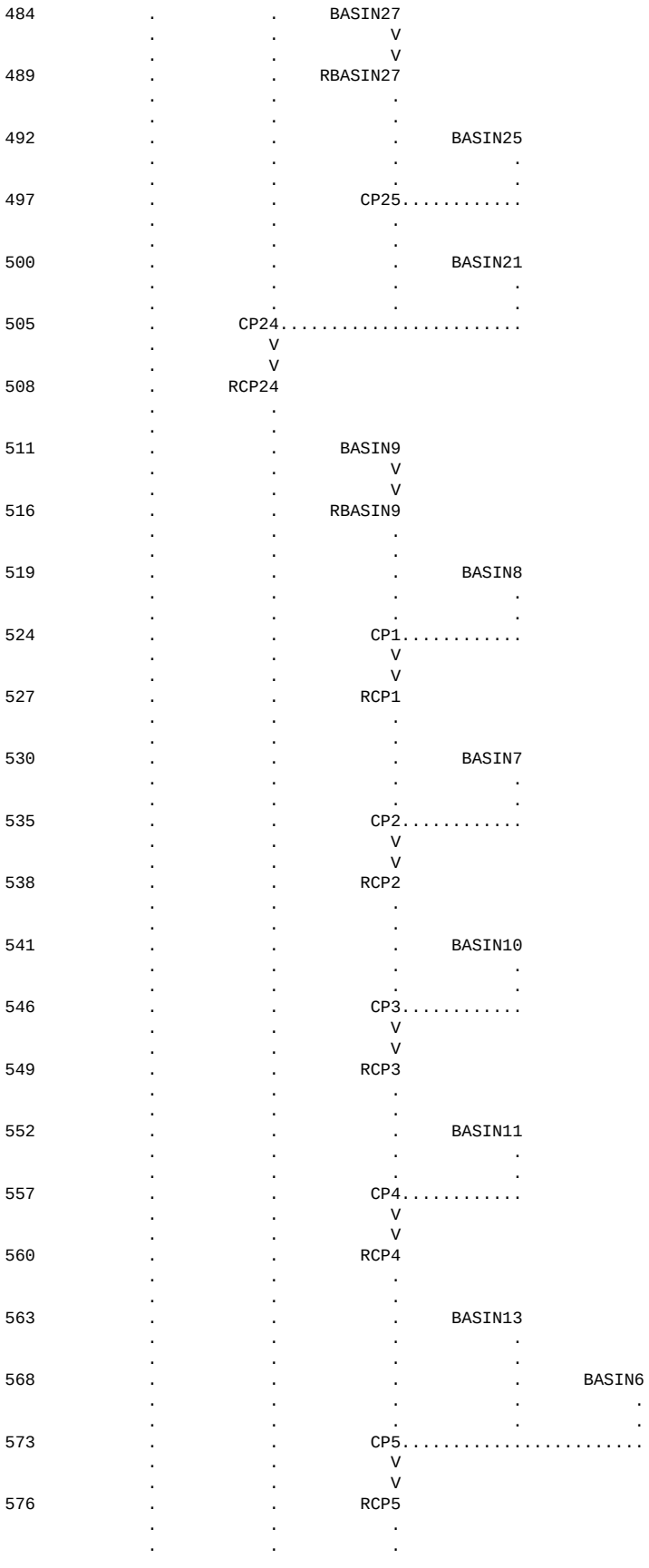
```
            728           KK  RTRCH8
            729           KM         ROUTE HYDROGRAPH FROM CP4 TO CP5
            730           RS       8    FLOW      -1
            731           RC   0.050   0.035   0.050     880   0.009
            732           RX       0      27      61      87     146     227     315     431
            733           RY      68      66      60      59      59      60      62      66
                          *

            734           KK    SUB5
            735           BA   0.034
            736           LS       0   90.13
            737           UD   0.099
                          *

            738           KK     CP5
            739           KM         COMBINE ROUTED HYDROGRAPH FROM CP4 WITH SUB5 HYDROGRAPH
            740           HC       2
                          *
            741           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    12       SUB-1
                 V
                 V
    17      RTRCH1
                 .
                 .
    23           .       SUB-2
                 .           .
                 .           .
    27           .           .      SUB-2A
                 .           .           .
                 .           .           .
    31        CP1A.......................
                 V
                 V
    34      RTRCH2
                 .
                 .
    40           .      SUB-3B
                 .           .
                 .           .
    45           .           .      BASIN4
                 .           .           V
                 .           .           V
    50           .           .       RCP26
                 .           .           .
                 .           .           .
    53           .           .           .     BASIN4A
                 .           .           .           .
                 .           .           .           .
    58           .           .        CP27............
                 .           .           .
                 .           .           .
    61           .           .           .     BASIN1A
                 .           .           .           .
                 .           .           .           .
    66           .           .        CP28............
                 .           .           V
                 .           .           V
    69           .           .         DB1
                 .           .           V
                 .           .           V
    75           .           .        RDB1
                 .           .           .
                 .           .           .
    78           .           .           .     BASIN4B
                 .           .           .           .
                 .           .           .           .
```

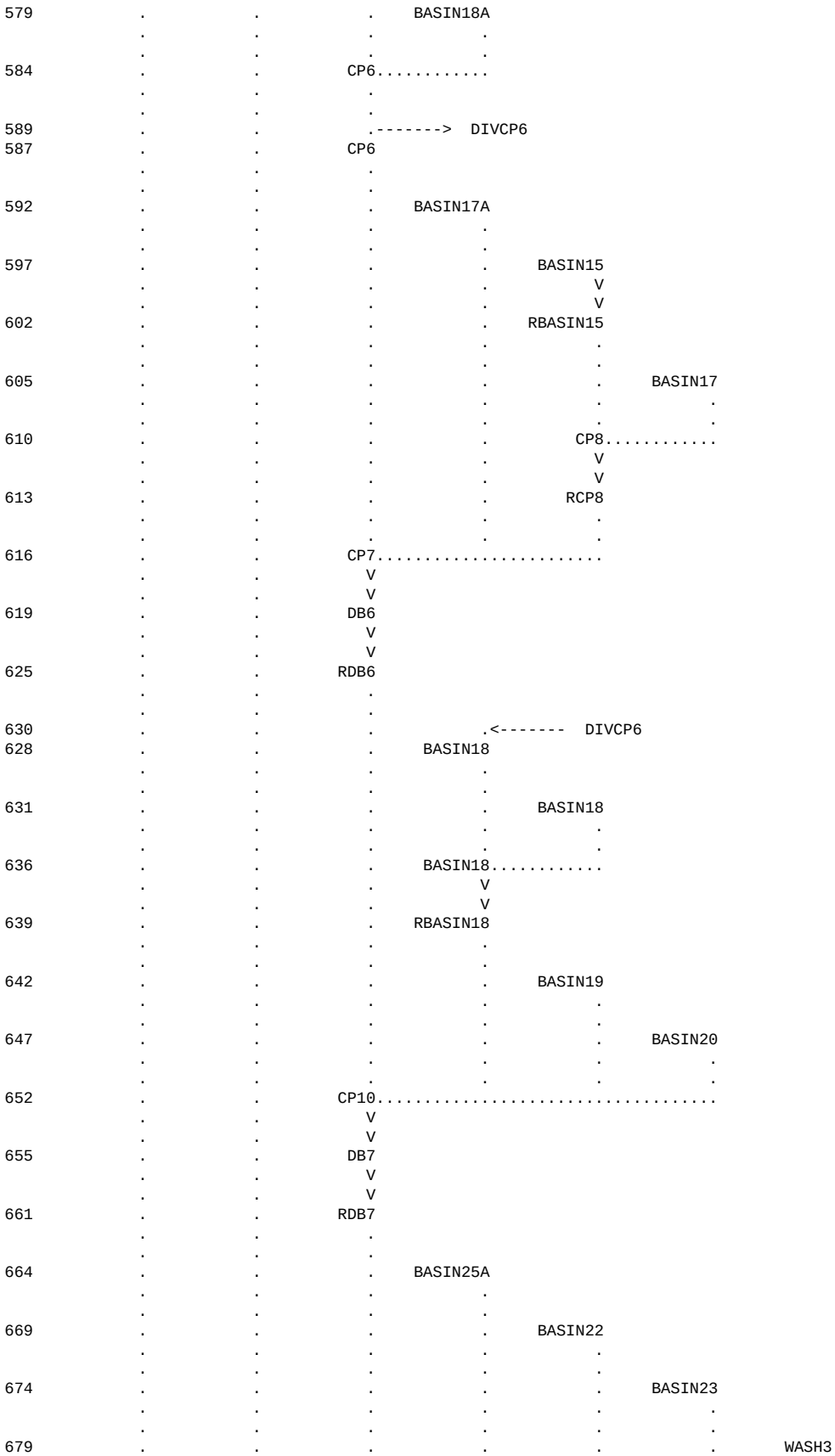

83 BASIN3
88 SUB-1A
94 RSUB-1A
97 SUB-1B
102 SUB-3A
107 CP30
110 RTRCH3
116 CP2A
119 DBWWH
125 RTRCH4
131 SUB-3C
136 BASIN5
141 RBASIN5
144 BASIN1
149 RBASIN1
152 BASIN2
157 CP29
160 RCP29
163 DB2
169 RDB2
172 BASIN4C
177 CP32
180 RTRCH5
186 CP3A
189 RTRCH6

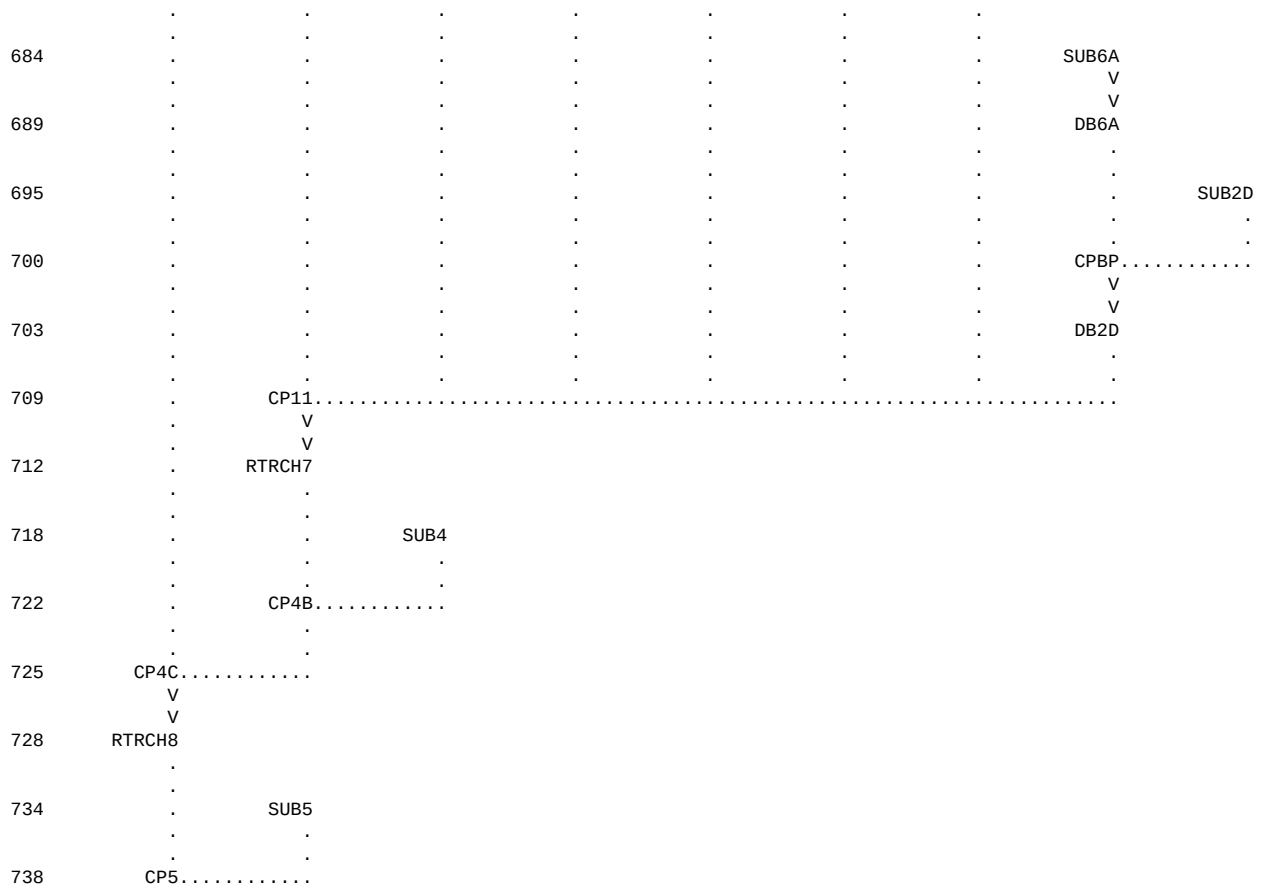

SUB3
CP4A
ROFF2F
RROFF2F
ROFF2E
RROFF2E
ROFF1
CP33
RCP33
ROFF2C
RROFF2C
ROFF2G
RROFF2G
ROFF2D
BASIN38
RBASIN38
CP2D
RCP2D
ROFF2B
CP2B
RCP2B
ROFF2A
RROFF2A
WASH1
CP20


RCP20
BASIN37
RBASIN37
BASIN36
CP16
RCP16
BASIN41
CP17
RCP17
BASIN35
BASIN28
CP19
RCP19
BASIN39
RBASIN39
BASIN40
CP12
RCP12
AMPHITHE
BASIN14
CP13
RCP13
BASIN16
CP14
RCP14


BASIN33
BASIN34
CP18
RCP18
BASIN30
CP21
RCP21
BASIN31
CP31
DB4
RDB4
BASIN32
CP22
RCP22
BASIN29
RBASIN29
BASIN28A
RBASIN28
BASIN26
RBASIN26
BASIN24
RBASIN24
WASH2
CP23
RCP23


484
BASIN27
489
RBASIN27
492
BASIN25
497
CP25
500
BASIN21
505
CP24
508
RCP24
511
BASIN9
516
RBASIN9
519
BASIN8
524
CP1
527
RCP1
530
BASIN7
535
CP2
538
RCP2
541
BASIN10
546
CP3
549
RCP3
552
BASIN11
557
CP4
560
RCP4
563
BASIN13
568
BASIN6
573
CP5
576
RCP5


579
BASIN18A
584
CP6
589
DIVCP6
587
CP6
592
BASIN17A
597
BASIN15
602
RBASIN15
605
BASIN17
610
CP8
613
RCP8
616
CP7
619
DB6
625
RDB6
630
DIVCP6
628
BASIN18
631
BASIN18
636
BASIN18
639
RBASIN18
642
BASIN19
647
BASIN20
652
CP10
655
DB7
661
RDB7
664
BASIN25A
669
BASIN22
674
BASIN23
679
WASH3



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************                    *****************************************
 *                                       *                    *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *    U.S. ARMY CORPS OF ENGINEERS       *
 *               JAN   1997              *                    *    HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1                *                    *          609 SECOND STREET            *
 *                                       *                    *       DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   07FEB17  TIME  09:47:57   *                    *           (916) 756-1104              *
 *                                       *                    *                                       *
 *****************************************                    *****************************************
```

WILDWOOD HILLS
Existing-Conditions HEC-1 Model
100-year, 6-hour Model
Woodson Engineering and Surveying Inc
January 2017
Original Model for Presidio in the Pines
by TRC-BV Engineering (November 2, 2004)
PROPOSED CONDITION (WITH DETENTION@WILWOOD HILLS MHP)

```
  10 IO          OUTPUT CONTROL VARIABLES
                      IPRNT           5  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE

     IT          HYDROGRAPH TIME DATA
                       NMIN           5  MINUTES IN COMPUTATION INTERVAL
                      IDATE      1    0  STARTING DATE
                      ITIME        0000  STARTING TIME
                         NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                     NDDATE      2    0  ENDING DATE
```

```
                NDTIME        0055  ENDING TIME
                ICENT           19  CENTURY MARK

             COMPUTATION INTERVAL     .08 HOURS
                  TOTAL TIME BASE   24.92 HOURS

 ENGLISH UNITS
      DRAINAGE AREA         SQUARE MILES
      PRECIPITATION DEPTH   INCHES
      LENGTH, ELEVATION     FEET
      FLOW                  CUBIC FEET PER SECOND
      STORAGE VOLUME        ACRE-FEET
      SURFACE AREA          ACRES
      TEMPERATURE           DEGREES FAHRENHEIT

*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


*** FDKRUT WARNING TIME STEP CALCULATION FAILED TO CONVERGE. STABILITY PROBLEMS MAY RESULT


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 WARNING --- ROUTED OUTFLOW (     83.) IS GREATER THAN MAXIMUM OUTFLOW (     81.) IN STORAGE-OUTFLOW TABLE
1
                                                RUNOFF SUMMARY
                                           FLOW IN CUBIC FEET PER SECOND
                                          TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
          OPERATION       STATION   FLOW     PEAK                                          AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

          HYDROGRAPH AT
+                          SUB-1      24.    3.25           2.          1.          1.        .01
          ROUTED TO
+                         RTRCH1      24.    3.25           2.          1.          1.        .01
+                                                                                                    43.23        3.25
          HYDROGRAPH AT
+                          SUB-2      16.    3.17           1.          0.          0.        .01
          HYDROGRAPH AT
+                         SUB-2A       9.    3.17           1.          0.          0.        .00
          3 COMBINED AT
+                           CP1A      42.    3.17           4.          1.          1.        .02
          ROUTED TO
+                         RTRCH2      42.    3.25           4.          1.          1.        .02
+                                                                                                    97.19        3.25
          HYDROGRAPH AT
+                         SUB-3B      25.    3.33           3.          1.          1.        .03
          HYDROGRAPH AT
+                         BASIN4       4.    3.17           0.          0.          0.        .00
```

	ROUTED TO								
+		RCP26	4.	3.17	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	4.	3.17	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	9.	3.17	1.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN1A	3.	3.08	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	11.	3.17	1.	0.	0.	.01	
	ROUTED TO								
+		DB1	4.	3.42	1.	0.	0.	.01	
+									7054.40 3.42
	ROUTED TO								
+		RDB1	4.	3.42	1.	0.	0.	.01	
	HYDROGRAPH AT								
+		BASIN4B	5.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	6.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	95.	3.25	10.	2.	2.	.05	
	ROUTED TO								
+		RSUB-1A	93.	3.25	10.	2.	2.	.05	
	HYDROGRAPH AT								
+		SUB-1B	18.	3.08	1.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-3A	13.	3.25	1.	0.	0.	.01	
	6 COMBINED AT								
+		CP30	124.	3.25	14.	4.	3.	.07	
	ROUTED TO								
+		RTRCH3	124.	3.25	14.	4.	3.	.07	
+									97.52 3.25
	3 COMBINED AT								
+		CP2A	191.	3.25	22.	5.	5.	.12	
	ROUTED TO								
+		DBWWH	78.	3.58	22.	5.	5.	.12	
+									6993.33 3.58
	ROUTED TO								
+		RTRCH4	80.	3.58	22.	5.	5.	.12	
+									82.38 3.58
	HYDROGRAPH AT								
+		SUB-3C	55.	3.25	6.	1.	1.	.03	
	HYDROGRAPH AT								
+		BASIN5	3.	3.17	0.	0.	0.	.00	
	ROUTED TO								
+		RBASIN5	3.	3.17	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN1	4.	3.08	0.	0.	0.	.00	
	ROUTED TO								
+		RBASIN1	3.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN2	12.	3.08	1.	0.	0.	.00	

	3 COMBINED AT								
+	CP29	18.	3.08	1.	0.	0.	.01		
	ROUTED TO								
+	RCP29	17.	3.17	1.	0.	0.	.01		
	ROUTED TO								
+	DB2	1.	3.83	1.	0.	0.	.01		
+								7035.26	3.92
	ROUTED TO								
+	RDB2	1.	3.83	1.	0.	0.	.01		
	HYDROGRAPH AT								
+	BASIN4C	4.	3.08	0.	0.	0.	.00		
	2 COMBINED AT								
+	CP32	4.	3.08	1.	0.	0.	.01		
	ROUTED TO								
+	RTRCH5	5.	3.17	1.	0.	0.	.01		
+								97.45	3.17
	3 COMBINED AT								
+	CP3A	112.	3.33	29.	7.	7.	.16		
	ROUTED TO								
+	RTRCH6	113.	3.42	29.	7.	7.	.16		
+								66.67	3.42
	HYDROGRAPH AT								
+	SUB3	10.	3.17	1.	0.	0.	.01		
	2 COMBINED AT								
+	CP4A	116.	3.42	29.	7.	7.	.16		
	HYDROGRAPH AT								
+	ROFF2F	22.	3.17	2.	0.	0.	.01		
	ROUTED TO								
+	RROFF2F	20.	3.25	2.	0.	0.	.01		
	HYDROGRAPH AT								
+	ROFF2E	28.	3.33	3.	1.	1.	.02		
	ROUTED TO								
+	RROFF2E	28.	3.33	3.	1.	1.	.02		
	HYDROGRAPH AT								
+	ROFF1	299.	3.67	60.	15.	14.	.42		
	3 COMBINED AT								
+	CP33	318.	3.67	65.	16.	16.	.45		
	ROUTED TO								
+	RCP33	317.	3.67	65.	16.	16.	.45		
	HYDROGRAPH AT								
+	ROFF2C	9.	3.17	1.	0.	0.	.00		
	ROUTED TO								
+	RROFF2C	8.	3.17	1.	0.	0.	.00		
	HYDROGRAPH AT								
+	ROFF2G	11.	3.33	2.	0.	0.	.01		
	ROUTED TO								
+	RROFF2G	11.	3.42	2.	0.	0.	.01		
	HYDROGRAPH AT								
+	ROFF2D	13.	3.25	1.	0.	0.	.01		
	HYDROGRAPH AT								
+	BASIN38	8.	3.17	1.	0.	0.	.00		

```
          ROUTED TO
+                    RBASIN38         8.    3.17          1.          0.          0.        .00

          4 COMBINED AT
+                        CP2D        36.    3.25          4.          1.          1.        .02

          ROUTED TO
+                        RCP2D       36.    3.25          4.          1.          1.        .02

          HYDROGRAPH AT
+                       ROFF2B        3.    3.08          0.          0.          0.        .00

          2 COMBINED AT
+                        CP2B        37.    3.25          5.          1.          1.        .02

          ROUTED TO
+                        RCP2B       37.    3.25          5.          1.          1.        .02

          HYDROGRAPH AT
+                       ROFF2A       32.    3.25          4.          1.          1.        .02

          ROUTED TO
+                      RROFF2A       32.    3.25          4.          1.          1.        .02

          HYDROGRAPH AT
+                         WASH1        2.    3.08          0.          0.          0.        .00

          4 COMBINED AT
+                         CP20       347.    3.58         73.         18.         18.        .50

          ROUTED TO
+                         RCP20      345.    3.58         73.         18.         18.        .50

          HYDROGRAPH AT
+                       BASIN37        6.    3.17          0.          0.          0.        .00

          ROUTED TO
+                      RBASIN37        5.    3.17          0.          0.          0.        .00

          HYDROGRAPH AT
+                       BASIN36       34.    3.17          3.          1.          1.        .01

          2 COMBINED AT
+                         CP16        39.    3.17          4.          1.          1.        .02

          ROUTED TO
+                         RCP16       38.    3.17          4.          1.          1.        .02

          HYDROGRAPH AT
+                       BASIN41        9.    3.17          1.          0.          0.        .00

          2 COMBINED AT
+                         CP17        47.    3.17          5.          1.          1.        .02

          ROUTED TO
+                         RCP17       44.    3.17          5.          1.          1.        .02

          HYDROGRAPH AT
+                       BASIN35        9.    3.17          1.          0.          0.        .00

          HYDROGRAPH AT
+                       BASIN28        3.    3.17          0.          0.          0.        .00

          3 COMBINED AT
+                         CP19        55.    3.17          6.          1.          1.        .03

          ROUTED TO
+                         RCP19       54.    3.25          6.          1.          1.        .03

          HYDROGRAPH AT
+                       BASIN39        4.    3.08          0.          0.          0.        .00

          ROUTED TO
+                      RBASIN39        4.    3.08          0.          0.          0.        .00
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```
         HYDROGRAPH AT
+                     BASIN40         7.    3.17          1.          0.          0.        .00
         2 COMBINED AT
+                        CP12        11.    3.17          1.          0.          0.        .00
         ROUTED TO
+                        RCP12       10.    3.17          1.          0.          0.        .00
         HYDROGRAPH AT
+                     AMPHITHE         7.    3.08          0.          0.          0.        .00
         HYDROGRAPH AT
+                     BASIN14         3.    3.08          0.          0.          0.        .00
         3 COMBINED AT
+                        CP13        19.    3.08          2.          0.          0.        .01
         ROUTED TO
+                        RCP13       19.    3.17          2.          0.          0.        .01
         HYDROGRAPH AT
+                     BASIN16         9.    3.17          1.          0.          0.        .00
         2 COMBINED AT
+                        CP14        28.    3.17          2.          1.          1.        .01
         ROUTED TO
+                        RCP14       28.    3.17          2.          1.          1.        .01
         HYDROGRAPH AT
+                     BASIN33        21.    3.08          2.          0.          0.        .01
         HYDROGRAPH AT
+                     BASIN34        16.    3.08          1.          0.          0.        .00
         3 COMBINED AT
+                        CP18        60.    3.08          5.          1.          1.        .02
         ROUTED TO
+                        RCP18       58.    3.17          5.          1.          1.        .02
         HYDROGRAPH AT
+                     BASIN30        14.    3.08          1.          0.          0.        .00
         3 COMBINED AT
+                        CP21       124.    3.17         12.          3.          3.        .05
         ROUTED TO
+                        RCP21      124.    3.17         12.          3.          3.        .05
         HYDROGRAPH AT
+                     BASIN31         3.    3.08          0.          0.          0.        .00
         2 COMBINED AT
+                        CP31       127.    3.17         12.          3.          3.        .05
         ROUTED TO
+                         DB4        16.    3.75          9.          3.          3.        .05
+                                                                                  7009.87      3.75
         ROUTED TO
+                        RDB4        16.    3.75          9.          3.          3.        .05
         HYDROGRAPH AT
+                     BASIN32        13.    3.08          1.          0.          0.        .00
         2 COMBINED AT
+                        CP22        17.    3.17         10.          3.          3.        .06
         ROUTED TO
+                        RCP22       17.    3.50         10.          3.          3.        .06
         HYDROGRAPH AT
```

+	BASIN29	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN29	3.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN28A	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN28	3.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN26	6.	3.17	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN26	6.	3.17	0.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN24	4.	3.08	0.	0.	0.	.00
	ROUTED TO						
+	RBASIN24	4.	3.08	0.	0.	0.	.00
	HYDROGRAPH AT						
+	WASH2	8.	3.17	1.	0.	0.	.00
	7 COMBINED AT						
+	CP23	365.	3.58	84.	22.	21.	.57
	ROUTED TO						
+	RCP23	365.	3.58	84.	22.	21.	.57
	HYDROGRAPH AT						
+	BASIN27	15.	3.08	1.	0.	0.	.01
	ROUTED TO						
+	RBASIN27	15.	3.17	1.	0.	0.	.01
	HYDROGRAPH AT						
+	BASIN25	8.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP25	23.	3.17	2.	0.	0.	.01
	HYDROGRAPH AT						
+	BASIN21	9.	3.17	1.	0.	0.	.00
	3 COMBINED AT						
+	CP24	371.	3.58	87.	22.	22.	.58
	ROUTED TO						
+	RCP24	370.	3.58	87.	22.	22.	.58
	HYDROGRAPH AT						
+	BASIN9	9.	3.17	1.	0.	0.	.00
	ROUTED TO						
+	RBASIN9	8.	3.17	1.	0.	0.	.00
	HYDROGRAPH AT						
+	BASIN8	8.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP1	16.	3.17	1.	0.	0.	.01
	ROUTED TO						
+	RCP1	16.	3.17	1.	0.	0.	.01
	HYDROGRAPH AT						
+	BASIN7	12.	3.17	1.	0.	0.	.00
	2 COMBINED AT						
+	CP2	28.	3.17	2.	1.	1.	.01
	ROUTED TO						

```
+                          RCP2        28.    3.17           2.          1.          1.        .01
         HYDROGRAPH AT
+                        BASIN10        11.    3.17           1.          0.          0.        .00
         2 COMBINED AT
+                           CP3        39.    3.17           3.          1.          1.        .02
         ROUTED TO
+                          RCP3        38.    3.17           3.          1.          1.        .02
         HYDROGRAPH AT
+                        BASIN11        14.    3.17           1.          0.          0.        .00
         2 COMBINED AT
+                           CP4        53.    3.17           5.          1.          1.        .02
         ROUTED TO
+                          RCP4        52.    3.17           5.          1.          1.        .02
         HYDROGRAPH AT
+                        BASIN13         6.    3.17           0.          0.          0.        .00
         HYDROGRAPH AT
+                         BASIN6         9.    3.17           1.          0.          0.        .00
         3 COMBINED AT
+                           CP5        67.    3.17           6.          1.          1.        .02
         ROUTED TO
+                          RCP5        66.    3.17           6.          2.          1.        .02
         HYDROGRAPH AT
+                       BASIN18A         3.    3.08           0.          0.          0.        .00
         2 COMBINED AT
+                           CP6        68.    3.17           6.          2.          1.        .03
         DIVERSION TO
+                         DIVCP6         7.    3.17           1.          0.          0.        .03
         HYDROGRAPH AT
+                           CP6        61.    3.17           6.          1.          1.        .03
         HYDROGRAPH AT
+                       BASIN17A         4.    3.08           0.          0.          0.        .00
         HYDROGRAPH AT
+                        BASIN15         3.    3.08           0.          0.          0.        .00
         ROUTED TO
+                       RBASIN15         3.    3.17           0.          0.          0.        .00
         HYDROGRAPH AT
+                        BASIN17         4.    3.08           0.          0.          0.        .00
         2 COMBINED AT
+                           CP8         7.    3.08           1.          0.          0.        .00
         ROUTED TO
+                          RCP8         7.    3.08           1.          0.          0.        .00
         3 COMBINED AT
+                           CP7        69.    3.17           6.          2.          2.        .03
         ROUTED TO
+                           DB6        61.    3.25           6.          2.          2.        .03
+                                                                                                  7039.58        3.25
         ROUTED TO
+                          RDB6        58.    3.25           6.          2.          2.        .03
         HYDROGRAPH AT
+                        BASIN18         7.    3.17           1.          0.          0.        .00
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	HYDROGRAPH AT								
+		BASIN18	5.	3.17	0.	0.	0.	.00	
	2 COMBINED AT								
+		BASIN18	12.	3.17	1.	0.	0.	.00	
	ROUTED TO								
+		RBASIN18	12.	3.17	1.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN19	12.	3.17	1.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN20	6.	3.17	1.	0.	0.	.00	
	4 COMBINED AT								
+		CP10	82.	3.25	9.	2.	2.	.04	
	ROUTED TO								
+		DB7	83.	3.25	9.	2.	2.	.04	
+									7002.02 3.25
	ROUTED TO								
+		RDB7	83.	3.25	9.	2.	2.	.04	
	HYDROGRAPH AT								
+		BASIN25A	6.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN22	6.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN23	3.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		WASH3	4.	3.08	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB6A	18.	3.50	3.	1.	1.	.02	
	ROUTED TO								
+		DB6A	12.	3.92	3.	1.	1.	.02	
+									7026.76 3.92
	HYDROGRAPH AT								
+		SUB2D	39.	3.58	7.	2.	2.	.04	
	2 COMBINED AT								
+		CPBP	49.	3.67	11.	3.	3.	.06	
	ROUTED TO								
+		DB2D	37.	4.00	10.	3.	3.	.06	
+									6995.51 4.00
	7 COMBINED AT								
+		CP11	419.	3.58	107.	28.	27.	.68	
	ROUTED TO								
+		RTRCH7	419.	3.67	107.	28.	27.	.68	
+									75.16 3.67
	HYDROGRAPH AT								
+		SUB4	28.	3.33	3.	1.	1.	.02	
	2 COMBINED AT								
+		CP4B	432.	3.58	111.	28.	27.	.70	
	2 COMBINED AT								
+		CP4C	532.	3.58	140.	36.	35.	.86	
	ROUTED TO								
+		RTRCH8	534.	3.50	140.	36.	35.	.86	
+									60.17 3.50
	HYDROGRAPH AT								

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+                          SUB5        97.    3.17          8.          2.          2.        .03

         2 COMBINED AT
+                           CP5       555.    3.50        148.         38.         37.        .90
1
                                        SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                            (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                  INTERPOLATED TO
                                                                               COMPUTATION INTERVAL
           ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                     PEAK                                     PEAK

                                (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

             RCP26  MANE          .70      4.38    190.83      1.63      5.00      4.30    190.00        1.63

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1735E+00 EXCESS= .0000E+00 OUTFLOW= .1737E+00 BASIN STORAGE= .2919E-09 PERCENT ERROR=   -.1

              RDB1  MANE          .33      3.95    205.78      1.81      5.00      3.94    205.00        1.81

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4835E+00 EXCESS= .0000E+00 OUTFLOW= .4835E+00 BASIN STORAGE= .1222E-08 PERCENT ERROR=    .0

           RSUB-1A  MANE          .57     94.55    195.84      1.92      5.00     92.96    195.00        1.93

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4922E+01 EXCESS= .0000E+00 OUTFLOW= .4923E+01 BASIN STORAGE= .4157E-11 PERCENT ERROR=    .0

           RBASIN5  MANE          .36      3.04    190.19      2.34      5.00      3.03    190.00        2.34

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1247E+00 EXCESS= .0000E+00 OUTFLOW= .1247E+00 BASIN STORAGE= .1421E-10 PERCENT ERROR=    .0

           RBASIN1  MANE          .25      3.47    185.32      1.10      5.00      3.38    185.00        1.11

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1177E+00 EXCESS= .0000E+00 OUTFLOW= .1177E+00 BASIN STORAGE= .1001E-11 PERCENT ERROR=    .0

             RCP29  MANE          .39     18.15    186.01      1.92      5.00     17.43    190.00        1.92

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .7157E+00 EXCESS= .0000E+00 OUTFLOW= .7159E+00 BASIN STORAGE= .1944E-09 PERCENT ERROR=    .0

              RDB2  MANE          .18      1.29    235.35      1.92      5.00      1.29    235.00        1.92

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .7179E+00 EXCESS= .0000E+00 OUTFLOW= .7178E+00 BASIN STORAGE= .6276E-07 PERCENT ERROR=    .0

           RROFF2F  MANE         3.06     21.38    195.63      1.66      5.00     20.45    195.00        1.66

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .8813E+00 EXCESS= .0000E+00 OUTFLOW= .8840E+00 BASIN STORAGE= .4257E-06 PERCENT ERROR=   -.3

           RROFF2E  MANE         1.40     28.04    200.84      1.46      5.00     28.04    200.00        1.45

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1630E+01 EXCESS= .0000E+00 OUTFLOW= .1631E+01 BASIN STORAGE= .2528E-07 PERCENT ERROR=   -.1

             RCP33  MANE          .23    317.53    220.31      1.32      5.00    317.46    220.00        1.33

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3207E+02 EXCESS= .0000E+00 OUTFLOW= .3207E+02 BASIN STORAGE= .1518E-06 PERCENT ERROR=    .0

           RROFF2C  MANE          .27      8.51    190.43      1.45      5.00      8.35    190.00        1.45
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CONTINUITY SUMMARY (AC-FT) - INFLOW= .3858E+00 EXCESS= .0000E+00 OUTFLOW= .3857E+00 BASIN STORAGE= .3433E-11 PERCENT ERROR= .0

RROFF2G MANE 1.99 11.36 205.52 2.02 5.00 11.36 205.00 2.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7534E+00 EXCESS= .0000E+00 OUTFLOW= .7542E+00 BASIN STORAGE= .7116E-07 PERCENT ERROR= -.1

RBASIN38 MANE 1.62 7.93 192.80 1.18 5.00 7.76 190.00 1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3147E+00 EXCESS= .0000E+00 OUTFLOW= .3159E+00 BASIN STORAGE= .2028E-07 PERCENT ERROR= -.4

RCP2D MANE .19 35.80 195.36 1.73 5.00 35.61 195.00 1.73

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2124E+01 EXCESS= .0000E+00 OUTFLOW= .2124E+01 BASIN STORAGE= .4710E-08 PERCENT ERROR= .0

RCP2B MANE .18 36.88 195.12 1.74 5.00 36.87 195.00 1.74

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2233E+01 EXCESS= .0000E+00 OUTFLOW= .2233E+01 BASIN STORAGE= .1586E-08 PERCENT ERROR= .0

RROFF2A MANE .09 32.33 195.19 1.49 5.00 32.12 195.00 1.49

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1748E+01 EXCESS= .0000E+00 OUTFLOW= .1748E+01 BASIN STORAGE= .2360E-11 PERCENT ERROR= .0

RCP20 MANE .53 346.30 216.14 1.35 5.00 344.66 215.00 1.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3613E+02 EXCESS= .0000E+00 OUTFLOW= .3614E+02 BASIN STORAGE= .5032E-06 PERCENT ERROR= .0

RBASIN37 MANE .70 5.66 191.49 1.42 5.00 5.34 190.00 1.42

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2269E+00 EXCESS= .0000E+00 OUTFLOW= .2272E+00 BASIN STORAGE= .5088E-09 PERCENT ERROR= -.1

RCP16 MANE .17 38.86 190.31 2.38 5.00 38.40 190.00 2.38

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1901E+01 EXCESS= .0000E+00 OUTFLOW= .1901E+01 BASIN STORAGE= .2570E-09 PERCENT ERROR= .0

RCP17 MANE .71 46.75 191.81 2.11 5.00 44.06 190.00 2.12

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2254E+01 EXCESS= .0000E+00 OUTFLOW= .2255E+01 BASIN STORAGE= .5177E-08 PERCENT ERROR= -.1

RCP19 MANE .24 55.42 190.60 2.10 5.00 54.33 195.00 2.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2798E+01 EXCESS= .0000E+00 OUTFLOW= .2798E+01 BASIN STORAGE= .3153E-08 PERCENT ERROR= .0

RBASIN39 MANE 1.02 4.29 186.78 2.95 5.00 3.65 185.00 2.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1568E+00 EXCESS= .0000E+00 OUTFLOW= .1571E+00 BASIN STORAGE= .1087E-08 PERCENT ERROR= -.2

RCP12 MANE .70 10.49 191.34 2.95 5.00 10.45 190.00 2.95

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4709E+00 EXCESS= .0000E+00 OUTFLOW= .4716E+00 BASIN STORAGE= .4566E-08 PERCENT ERROR= -.1

RCP13 MANE .31 19.40 185.86 1.97 5.00 19.09 190.00 1.97

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8390E+00 EXCESS= .0000E+00 OUTFLOW= .8390E+00 BASIN STORAGE= .2597E-08 PERCENT ERROR= .0

RCP14 MANE .63 27.85 190.38 2.05 5.00 27.78 190.00 2.06

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1204E+01 EXCESS= .0000E+00 OUTFLOW= .1204E+01 BASIN STORAGE= .1123E-07 PERCENT ERROR= .0

RCP18 MANE .41 60.10 186.04 2.15 5.00 58.17 190.00 2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2522E+01 EXCESS= .0000E+00 OUTFLOW= .2522E+01 BASIN STORAGE= .1064E-07 PERCENT ERROR= .0

RCP21 MANE .06 124.20 190.08 2.15 5.00 124.10 190.00 2.15

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5842E+01 EXCESS= .0000E+00 OUTFLOW= .5841E+01 BASIN STORAGE= .2505E-08 PERCENT ERROR= .0

RDB4 MANE .19 15.55 225.37 2.02 5.00 15.55 225.00 2.02

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5606E+01 EXCESS= .0000E+00 OUTFLOW= .5606E+01 BASIN STORAGE= .2330E-03 PERCENT ERROR= .0

RCP22 MANE .28 16.96 190.54 2.05 5.00 16.92 210.00 2.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6113E+01 EXCESS= .0000E+00 OUTFLOW= .6113E+01 BASIN STORAGE= .3413E-03 PERCENT ERROR= .0

RBASIN29 MANE .98 3.71 187.23 2.33 5.00 3.08 190.00 2.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1240E+00 EXCESS= .0000E+00 OUTFLOW= .1243E+00 BASIN STORAGE= .1016E-08 PERCENT ERROR= -.2

RBASIN28 MANE 1.27 3.49 188.30 2.24 5.00 3.12 190.00 2.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1189E+00 EXCESS= .0000E+00 OUTFLOW= .1192E+00 BASIN STORAGE= .3199E-08 PERCENT ERROR= -.3

RBASIN26 MANE .37 6.02 190.32 2.31 5.00 6.01 190.00 2.31

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2463E+00 EXCESS= .0000E+00 OUTFLOW= .2464E+00 BASIN STORAGE= .1408E-10 PERCENT ERROR= .0

RBASIN24 MANE .31 3.79 185.28 2.35 5.00 3.72 185.00 2.36

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1255E+00 EXCESS= .0000E+00 OUTFLOW= .1255E+00 BASIN STORAGE= .2131E-11 PERCENT ERROR= .0

RCP23 MANE .18 365.23 215.24 1.43 5.00 365.07 215.00 1.43

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4320E+02 EXCESS= .0000E+00 OUTFLOW= .4320E+02 BASIN STORAGE= .1479E-03 PERCENT ERROR= .0

RBASIN27 MANE .51 14.85 186.13 1.83 5.00 14.72 190.00 1.84

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5853E+00 EXCESS= .0000E+00 OUTFLOW= .5858E+00 BASIN STORAGE= .2367E-09 PERCENT ERROR= -.1

RCP24 MANE .29 370.35 215.60 1.44 5.00 369.76 215.00 1.44

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4449E+02 EXCESS= .0000E+00 OUTFLOW= .4449E+02 BASIN STORAGE= .9536E-03 PERCENT ERROR= .0

RBASIN9 MANE .42 8.64 190.76 2.31 5.00 8.43 190.00 2.32

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3696E+00 EXCESS= .0000E+00 OUTFLOW= .3697E+00 BASIN STORAGE= .4332E-10 PERCENT ERROR= .0

RCP1 MANE .27 15.83 190.17 2.09 5.00 15.78 190.00 2.09

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6678E+00 EXCESS= .0000E+00 OUTFLOW= .6678E+00 BASIN STORAGE= .5839E-10 PERCENT ERROR= .0

RCP2 MANE .16 27.78 190.17 2.08 5.00 27.62 190.00 2.08

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1220E+01 EXCESS= .0000E+00 OUTFLOW= .1220E+01 BASIN STORAGE= .8024E-10 PERCENT ERROR= .0

RCP3 MANE .27 38.59 190.25 2.14 5.00 38.29 190.00 2.14

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1714E+01 EXCESS= .0000E+00 OUTFLOW= .1714E+01 BASIN STORAGE= .1868E-09 PERCENT ERROR= .0

RCP4 MANE .13 52.63 190.31 2.20 5.00 52.16 190.00 2.21

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2350E+01 EXCESS= .0000E+00 OUTFLOW= .2350E+01 BASIN STORAGE= .2461E-09 PERCENT ERROR= .0

RCP5 MANE .43 66.69 190.55 2.23 5.00 65.52 190.00 2.23

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2975E+01 EXCESS= .0000E+00 OUTFLOW= .2975E+01 BASIN STORAGE= .1404E-08 PERCENT ERROR= .0

RBASIN15 MANE .42 3.16 186.15 2.38 5.00 3.06 190.00 2.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1270E+00 EXCESS= .0000E+00 OUTFLOW= .1270E+00 BASIN STORAGE= .1544E-10 PERCENT ERROR= .0

RCP8 MANE .12 6.81 185.15 2.38 5.00 6.77 185.00 2.39

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2543E+00 EXCESS= .0000E+00 OUTFLOW= .2543E+00 BASIN STORAGE= .5657E-11 PERCENT ERROR= .0

RDB6 MANE .61 60.10 195.93 2.03 5.00 58.02 195.00 2.04

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3142E+01 EXCESS= .0000E+00 OUTFLOW= .3143E+01 BASIN STORAGE= .1388E-05 PERCENT ERROR= .0

RBASIN18 MANE .48 12.35 190.78 5.04 5.00 11.91 190.00 5.05

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5374E+00 EXCESS= .0000E+00 OUTFLOW= .5377E+00 BASIN STORAGE= .9610E-09 PERCENT ERROR= -.1

RDB7 MANE .13 82.77 195.11 2.26 5.00 82.68 195.00 2.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4452E+01 EXCESS= .0000E+00 OUTFLOW= .4452E+01 BASIN STORAGE= .1403E-06 PERCENT ERROR= .0

*** NORMAL END OF HEC-1 ***

APPENDIX C: HYDRAULICS

EXISTING NORTH CHANNEL CAPACITY
EXISTING SOUTH CHANNEL CAPACITY
EXISTING CONFLUENCE CHANNEL CAPACITY
PROPOSED RECTANGULAR CONCRETE CHANNEL CAPACITY

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Friday, Jan 20 2017

North Channel Capacity

User-defined

Invert Elev (ft)	= 6986.00
Slope (%)	= 1.00
N-Value	= 0.030

Calculations

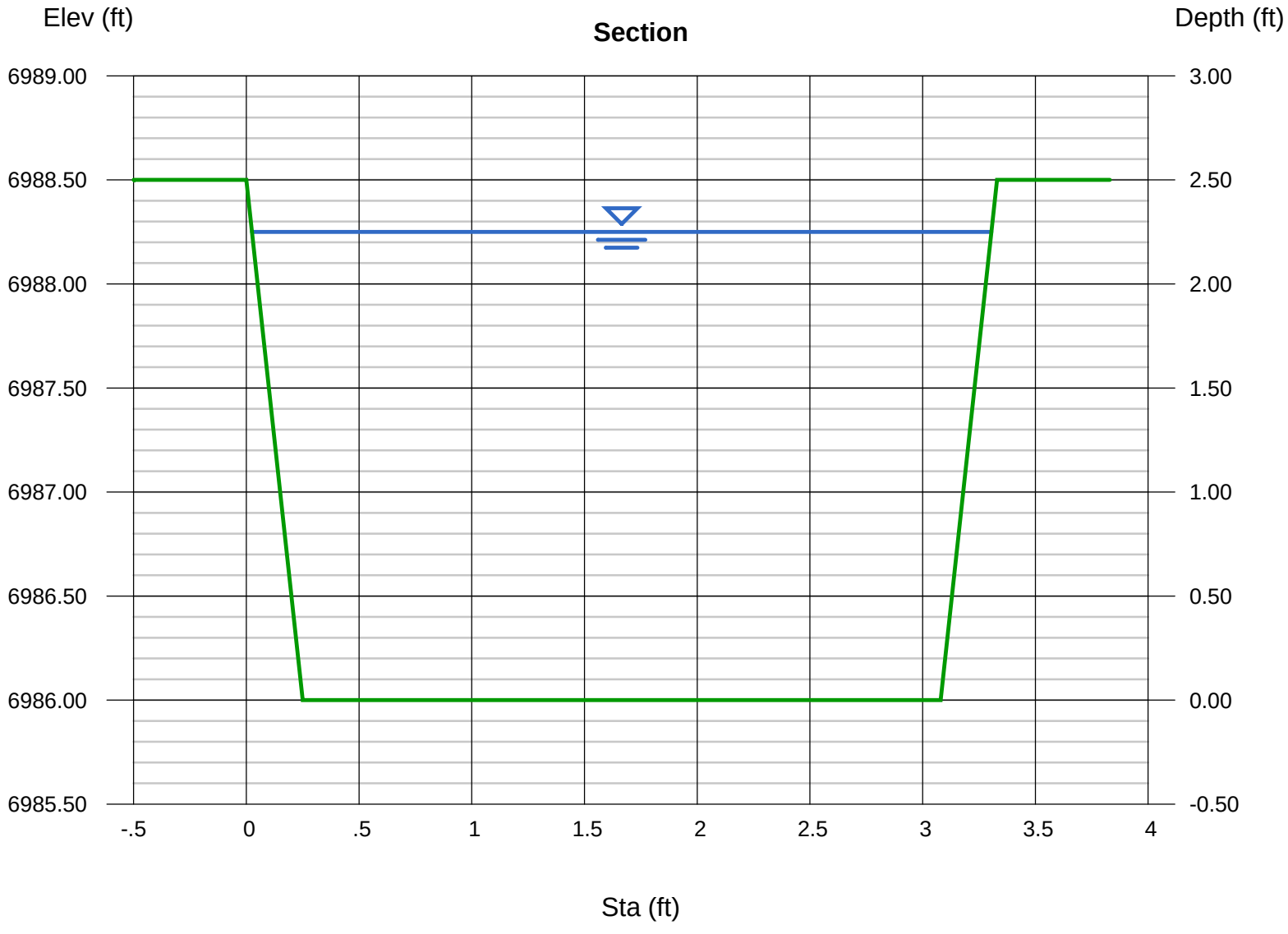
Compute by:	Known Depth
Known Depth (ft)	= 2.25

Highlighted

Depth (ft)	= 2.25
Q (cfs)	= 32.61
Area (sqft)	= 6.87
Velocity (ft/s)	= 4.74
Wetted Perim (ft)	= 7.35
Crit Depth, Yc (ft)	= 1.58
Top Width (ft)	= 3.28
EGL (ft)	= 2.60

(Sta, El, n)-(Sta, El, n)...

(0.00, 6988.50)-(0.25, 6986.00, 0.030)-(3.08, 6986.00, 0.030)-(3.33, 6988.50, 0.030)



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Friday, Jan 20 2017

South Channel Capacity (at Downstream End)

User-defined

Invert Elev (ft)	= 6986.00
Slope (%)	= 1.00
N-Value	= 0.030

Calculations

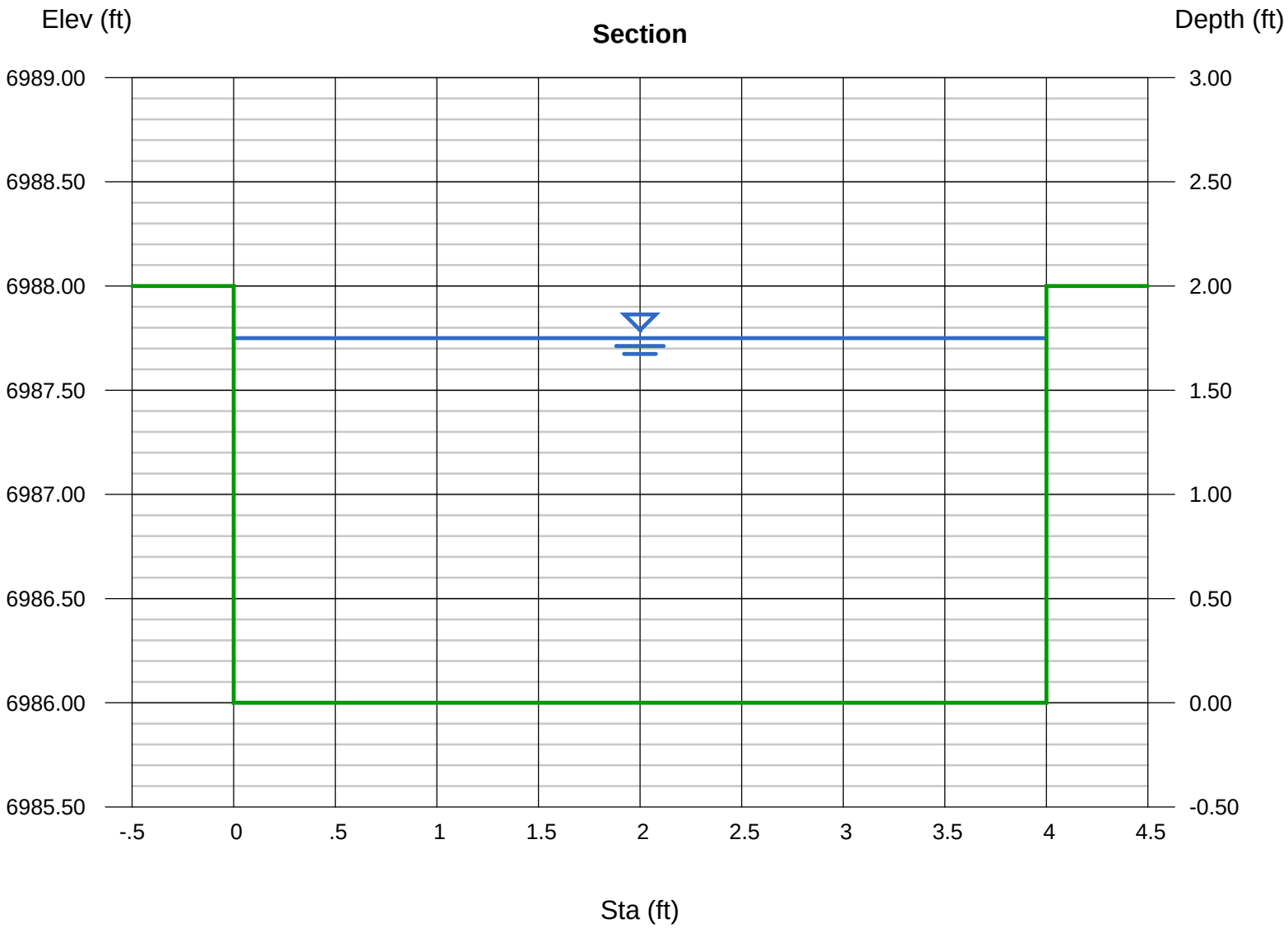
Compute by:	Known Depth
Known Depth (ft)	= 1.75

Highlighted

Depth (ft)	= 1.75
Q (cfs)	= 33.17
Area (sqft)	= 7.00
Velocity (ft/s)	= 4.74
Wetted Perim (ft)	= 7.50
Crit Depth, Yc (ft)	= 1.29
Top Width (ft)	= 4.00
EGL (ft)	= 2.10

(Sta, El, n)-(Sta, El, n)...

(0.00, 6988.00)-(4.00, 6986.00, 0.030)-(4.00, 6988.00, 0.030)



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Friday, Jan 20 2017

Confluence Channel Capacity

User-defined

Invert Elev (ft)	= 6974.00
Slope (%)	= 1.00
N-Value	= 0.030

Calculations

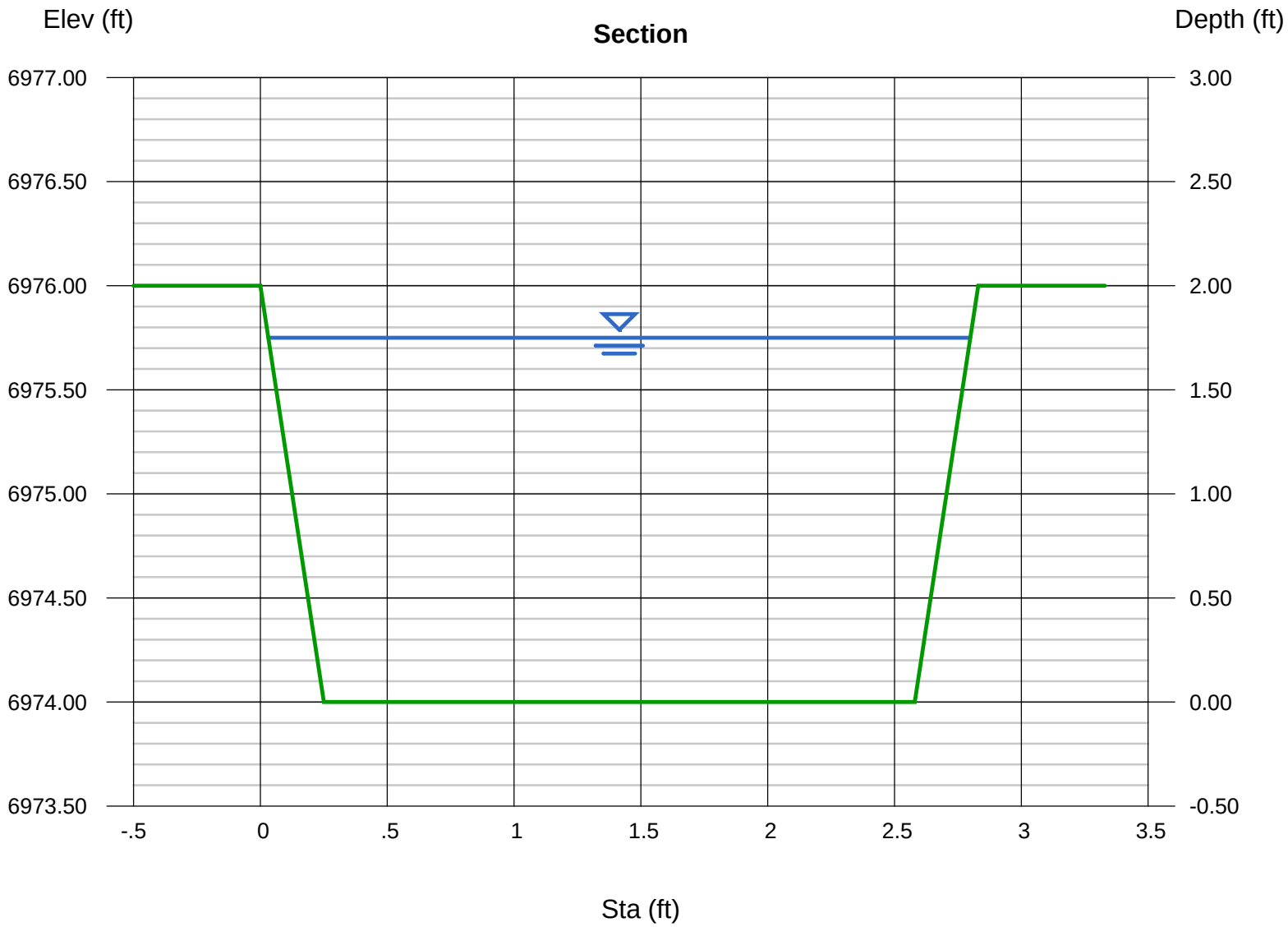
Compute by:	Known Depth
Known Depth (ft)	= 1.75

Highlighted

Depth (ft)	= 1.75
Q (cfs)	= 18.45
Area (sqft)	= 4.46
Velocity (ft/s)	= 4.14
Wetted Perim (ft)	= 5.86
Crit Depth, Yc (ft)	= 1.23
Top Width (ft)	= 2.77
EGL (ft)	= 2.02

(Sta, El, n)-(Sta, El, n)...

(0.00, 6976.00)-(0.25, 6974.00, 0.030)-(2.58, 6974.00, 0.030)-(2.83, 6976.00, 0.030)



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Tuesday, Feb 7 2017

Rectangular Concrete Channel at outlet of Detention Basin (Q=78 cfs)

Rectangular

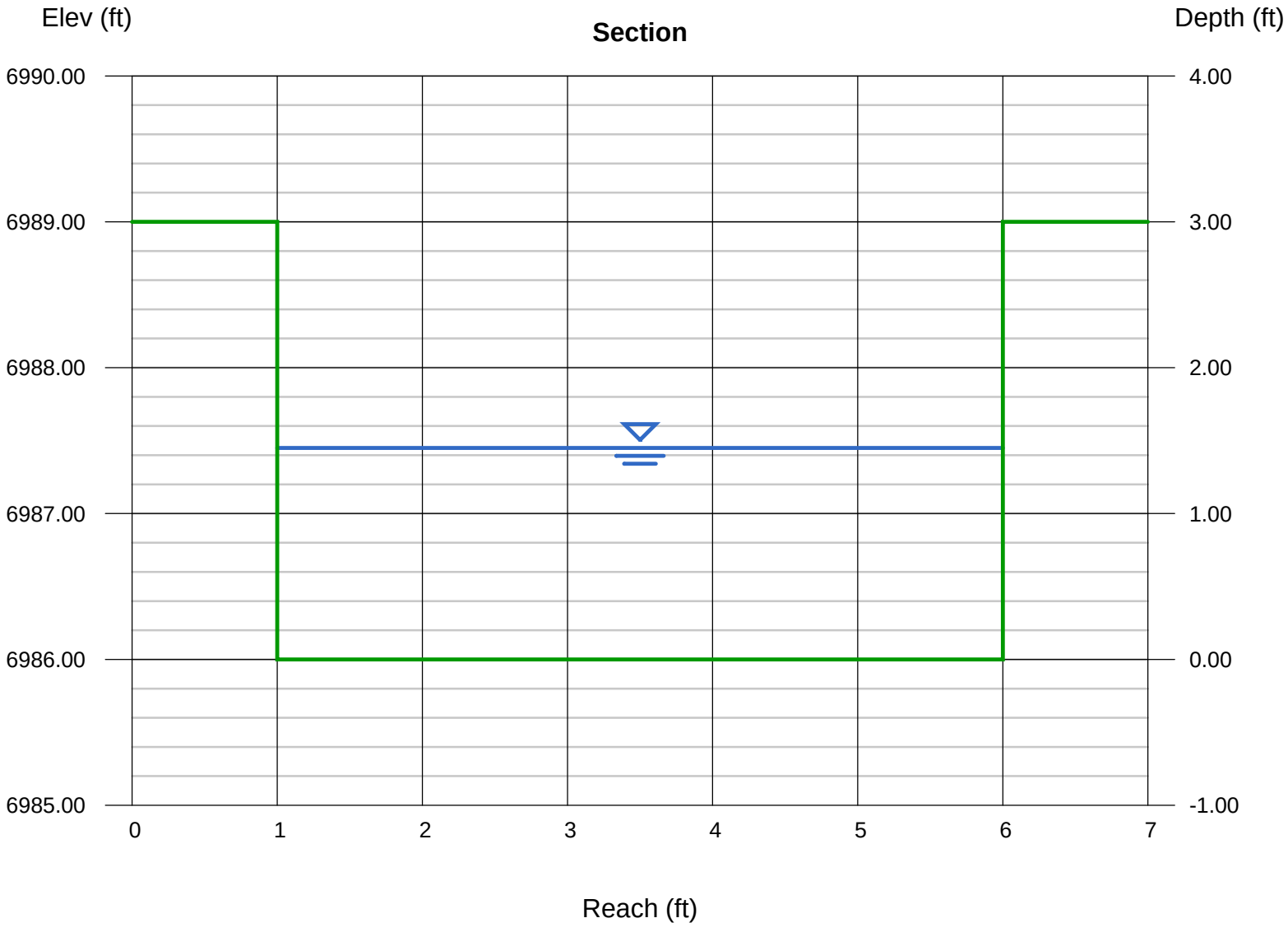
Bottom Width (ft)	= 5.00
Total Depth (ft)	= 3.00
Invert Elev (ft)	= 6986.00
Slope (%)	= 1.00
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 78.00

Highlighted

Depth (ft)	= 1.45
Q (cfs)	= 78.00
Area (sqft)	= 7.25
Velocity (ft/s)	= 10.76
Wetted Perim (ft)	= 7.90
Crit Depth, Yc (ft)	= 1.97
Top Width (ft)	= 5.00
EGL (ft)	= 3.25



APPENDIX D: OPINION OF PROBABLE COST

Woodson Engineering Survey Inc.
124 N. Elden St.
Flagstaff, AZ 86001

WILDWOOD HILLS DRAINAGE IMPROVEMENTS
OPINION OF PROBABLE COST
DETENTION BASIN

Item No.	Item Description - BASIN	Unit	Quantity	Price	Amount
1	CLEARING AND GRUBBING	L.SUM	1	$10,000.00	$10,000.00
2	EARTHWORK/BASIN GRADING	CU.YD.	13,988	$15.00	$209,820.00
3	HAUL ROAD GRADING	SQ.YD.	625	$10.00	$6,250.00
4	HAUL ROAD (3" AGRREGATE BASE)	SQ.YD.	625	$15.00	$9,375.00
5	SEEDING (COF GRASS MIX)	ACRE	1	$1,000.00	$1,000.00
6	EROSION CONTROL (SWPPP)	L.SUM	1	$5,000.00	$5,000.00
7	BASIN OUTLET STRUCTURE	EACH	1	$ 7,500.00	$7,500.00
	Total Construction				**$248,945.00**
	ENGINEERING DESIGN	L.SUM	1	$20,000.00	$20,000.00
	CONSTRUCTION CONTINGENCIES (10%)	L.SUM	1	$24,894.50	$24,894.50
	CONSTRUCTION ADMINISTRATION (5%)	L.SUM	1	$12,447.25	$12,447.25
				Subtotal	**$57,341.75**

This estimate is based on the concept exhibits for the project dated 01/24/2017.

This Opinion of Probable Cost is made on the basis of our experience and qualifications and represents our best judgement. However, since so many aspects of costs are beyond our control, we cannot and do not guarantee that costs will not vary from this OPC.

Basin Improvements Cost **$306,286.75**

Item No.	Item Description - CONVEYANCE	Unit	Quantity	Price	Amount
1	REMOVAL OF EXISTING CHANNELS	L.FT.	330	$5.00	$1,650.00
2	MISCELLANEOUS DEMOLITION & RECONSTRUCTION	L.SUM	1	$40,000.00	$40,000.00
3	REMOVAL OF HOUSING UNITS	EACH	-	$175,000.00	$0.00
4	CONCRETE CHANNEL	L.FT.	200	$150.00	$30,000.00
	Total Construction				**$71,650.00**
	ENGINEERING DESIGN	L.SUM	1	$20,000.00	$20,000.00
	CONSTRUCTION CONTINGENCIES (20%)	L.SUM	1	$14,330.00	$14,330.00
	CONSTRUCTION ADMINISTRATION (5%)	L.SUM	1	$3,582.50	$3,582.50
				Subtotal	**$37,912.50**

This estimate is based on the concept exhibits for the project dated 01/24/2017.

This Opinion of Probable Cost is made on the basis of our experience and qualifications and represents our best judgement. However, since so many aspects of costs are beyond our control, we cannot and do not guarantee that costs will not vary from this OPC.

Conveyance Improvements Cost **$109,562.50**

APPENDIX E: REFERENCE STUDIES

EXCERPTS FROM DRAINAGE STUDY FROM PRESIDIO IN PINES
EXCERPTS FROM FLOOD STUDY FOR KIT CARSON RV PARK (KCRVP)

NORTH

1"=300'
GRAPHIC SCALE

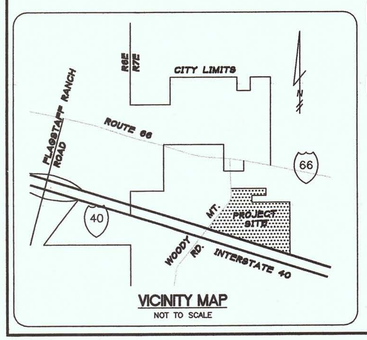
-300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

DEVELOPED CONDITION BASINS					
HEC-1 STORM FLOW SUMMARY			HEC-1 STORM FLOW SUMMARY		
BASIN	ACRES	Q100 (CFS)	BASIN	ACRES	Q100 (CFS)
B1	0.97	4	CP1	----	16
B1A	0.65	4	CP2	----	28
B2	2.63	12	CP2B	----	37
B3	1.31	6	CP2D	----	36
B4	1.48	4	CP3	----	39
B4A	1.08	4	CP4	----	53
B4B	1.41	5	CP5	----	68
B4C	1.38	4	CP6	----	68
B5	0.95	3	CP7	----	69
B6	1.67	9	CP8	----	7
B7	2.91	12	CP9	----	NOT USED
B8	1.75	8	CP10	----	82
B9	1.71	9	CP11	----	399
B10	2.63	11	CP12	----	11
B11	2.94	15	CP13	----	19
B12		NOT USED	CP14	----	28
B13	1.14	6	CP15	----	NOT USED
B14	0.83	3	CP16	----	39
B15	0.56	3	CP17	----	47
B16	1.62	9	CP18	----	60
B17	0.50	4	CP19	----	56
B17A	0.49	4	CP20	----	347
B18	1.29	7	CP21	----	125
B18A	0.52	3	CP22	----	17
B19	2.53	12	CP23	----	366
B20	1.27	6	CP24	----	370
B21	1.61	9	CP25	----	15
B22	1.12	6	CP26	----	NOT USED
B23	0.65	3	CP27	----	9
B24	0.34	4	CP28	----	11
B25	1.26	5	CP29	----	18
B25A	0.32	3	CP30	----	93
B26	1.26	6	CP31	----	127
B27	2.29	10	CP32	----	4
B28	0.69	3	CP33	----	318
B28A	0.31	4			
B29	0.43	4			
B30	2.82	14			
B31	0.59	4			
B32	2.66	13			
B33	3.87	21			
B34	3.28	16			
B35	2.87	9			
B36	7.59	34			
B37	2.10	6			
B38	3.15	8			
B39	0.27	4			
B40	1.02	7			
B41	3.34	9			
W1	0.65	2			
W2	3.02	8			
W3	0.71	2			
A1	2.75	7			
ROFF1	270.88	300			
ROFF2A	13.90	32			
ROFF2B	0.94	31			
ROFF2C	3.04	9			
ROFF2D	3.78	13			
ROFF2E	13.30	28			
ROFF2F	6.12	22			
ROFF2G	4.36	12			
ROFF3	37.43	85			

NOTE
FLOWS SHOWN DO NOT REFLECT STORM DRAIN DEDUCTIONS





VICINITY MAP
NOT TO SCALE

NOTE: SEE FIGURE 11 FOR DETAILED ON-SITE FLOW PATTERNS

NOTE: THIS INDEX IS PROVIDED ONLY TO SHOW FLOW PATTERNS AND FLOW VALUES

LEGEND	
(XX)	BASIN
XX	DETENTION BASIN 1
XX	WASH 1
XX	AMPHITHEATER 1
	WATERS OF THE US

REV	DESCRIPTION	BY	DATE	AGEN. APP.	DATE

PROJ NO:
DESIGN: RCW
DATE: 12/21/04
SCALE: AS SHOWN
CADFILE: BASINS.dwg

STAMP DATE:
EXP. DATE:

8365 W. SUNSET ROAD
Suite 190
Las Vegas, NV 89113
Tel: 702-650-0572
Fax: 702-307-4222
Web: trcsolutions.com

TRC
Customer- Focused Solutions
BV Engineering Nevada

PREMIERE ACQUISITIONS LLC
PRESIDIO IN THE PINES
DEVELOPED CONDITION BASIN MAP (OVERALL)

SHEET
FIG 12
1 OF 1 SHTS

PROJECT ID
601.006N

G:\601-001N Presidio In the Pines\Tech\Drainage\Dwg\Addf\Hydrology Final Submittal\OFF-SITE BASINS DEVELOPED_11-30-04.dwg dwhitehead Tue, 21 Dec 2004 - 11:17am

Prepared For:
KC Pioneer LLC
2130 Santiago Drive
Newport Beach, CA 92660
(949) 278-2012

Prepared By:
Brad Dixon, PE, CFM
Engineering and Environmental Consultants, Inc.
611 N. Leroux Street, Suite 100
Flagstaff, AZ 86001
(928) 779-4505

FLOOD STUDY OF A PORTION OF THE SOUTH FORK OF THE CLAY AVENUE WASH FOR KIT CARSON RV PARK FLAGSTAFF, ARIZONA

September 13, 2006
EEC # 406014

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I. INTRODUCTION 1
II. HYDROLOGIC ANALYSIS 1
III. HYDRAULIC ANALYSIS 2
IV. CONCLUSIONS.....4
V. REFERENCES 4

FIGURES (APPENDIX A)
Figure 1: Location Map (8.5” x 11”)
Figure 2: FEMA Firmette (11” x 17”)
Figure 3: Hydrology Exhibit (24” x 36”)
Figure 4: Hydraulics Exhibit (24” x 36”)

APPENDICES
Appendix A: Figures
Appendix B: Hydrologic Calculations
Appendix C: Hydraulic Calculations

I. INTRODUCTION

This report presents the results of floodplain, floodway, and erosion setback delineations for a portion of the South Fork of the Clay Avenue Wash (SFCAW) in Flagstaff, AZ (Figure 1). In particular, the study is intended to delineate the floodplain, floodway, and Level I erosion setbacks and establish base flood elevations for the SFCAW within the limits of the Kit Carson RV Park (KC RV Park).

As seen in Figure 2, the reach of the SFCAW in question is currently designated as a Zone A Special Flood Hazard Area on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 040020 0006C. Zone A is defined as follows:

> Areas of 100-year flood; base flood elevations and flood hazard factors not determined.

As such, approximate limits have been defined for the 100-year floodplain, but no base flood elevations or floodway limits have been established. The City of Flagstaff will require that these detailed hydraulic parameters be determined for the SFCAW within the KC RV Park before subdivision of the RV park property is approved. This study is intended to satisfy this requirement in advance of application for subdivision approval.

The KC RV Park lies downstream from the Presidio in the Pines (Presidio) and Boulder Pointe at Woodlands Village (Boulder Pointe) subdivisions and the Wildwood Hills Campground. The two subdivisions discharge rainfall runoff into the SFCAW through detention basins at their downstream boundaries, and the campground discharges directly into a short tributary to the SFCAW, at the KC RV Park boundary, with no detention. The drainage reports for the Presidio and Boulder Pointe Units 6, 7, and 8 include hydrologic analyses of the subdivisions and the upstream watersheds that drain into and through them. The Presidio hydrologic analysis was used as the starting point for the hydrologic model presented herein. As described below in Section II, the drainage basins within Boulder Pointe, the Wildwood Hills Campground, the KC RV Park, and other as-yet undeveloped property were added to the developed-conditions 100-year, 6-hour HEC-1 model for the Presidio to determine the existing-conditions 100-year, 6-hour flow rates for the SFCAW within the KC RV Park property.

Like the hydrologic modeling, the hydraulic modeling presented herein was developed using the analysis presented in the Presidio drainage report as its starting point. The hydraulic model for the Presidio extended downstream from the Presidio boundary into the KC RV Park. The locations and river stations of the cross sections from the Presidio hydraulic model that lie within the KC RV Park were reproduced for the model shown herein. However, the cross sections were re-generated using updated topographic data from the City of Flagstaff GIS system.

II. HYDROLOGIC ANALYSIS

The hydrologic analysis was performed in accordance with the City of Flagstaff Stormwater Management Design Manual (City Drainage Manual) and the Coconino County Drainage Design Criteria Manual (County Drainage Manual). As mentioned above, the hydrologic model was built onto that for the Presidio, which was run using the US Army Corps of Engineers' HEC-1, Version 4.1. Figure 3 shows the drainage basins that contribute runoff to the SFCAW within the KC RV Park and indicates by linetype the basins that were included in previous models and those that were added during the development of the model presented herein. Because the total area encompassed in the model is less than 1.0 square mile, the 100-year, 6-hour storm event was modeled using the SCS Type II rainfall pattern. The associated rainfall depth of 3.18 inches was

taken from Table 3-2 of the County Drainage Manual and matches the depth used in the Presidio model. The drainage basins within Boulder Pointe were added to the model as appropriate, and the areas, SCS curve numbers, and times of concentration (T_c's) for the basins were taken from the drainage reports for Boulder Pointe Units 6, 7, and 8. The stage/storage/discharge rating tables for the two detention basins within Boulder Pointe that discharge into the SFCAW upstream from the KC RV Park were taken from the same reports. It should be noted that the drainage reports for Boulder Pointe Units 6, 7, and 8 reported peak discharge rates for the 100-year, 24-hour storm event as opposed to the 100-year, 6-hour event. Therefore, the peak discharge rates reported herein differ from those shown in the Boulder Pointe reports.

Figure 3 shows the soil type boundaries and land uses within the study watershed. For the portions of the watershed not encompassed by the Presidio and Boulder Pointe models, the SCS curve numbers for ponderosa pine forest were taken from the Arizona Department of Water Resources (ADWR) "Oak Creek Flood Warning System Hydrology Report, TR 90-4," September 1990 (Oak Creek Hydrology Report) assuming a "Fair" cover condition (30-70%). SCS curve numbers for other conditions were taken from "TR-55 Urban Hydrology for Small Watersheds," June 1986 (TR-55 Manual). In the Presidio hydrologic model, the SCS curve number for Drainage Basin ROFF3, which lies to the west of Woody Mountain Road, reflects a ponderosa pine cover. Although this area was burned in the Woody Fire in the summer of this year and subsequently clear cut, it is assumed herein that vegetation in the area will ultimately be re-established. Therefore, the SCS curve number for Drainage Basin ROFF3 was not modified to reflect the current condition of bare earth. Similarly, the SCS curve number for Drainage Basin 1, which was added in the development of the model presented herein, reflects a ponderosa pine cover based upon the assumption that this cover will ultimately be re-established.

T_c's for the drainage basins were calculated using the method described in Section 3.1.6 of the City Drainage Manual, assuming that sheet flow, shallow/concentrated flow, open channel flow, and gutter flow regimes would occur as described in the TR-55 Manual. However, per an October 10, 2005, meeting with the City regarding another project, the length of sheet flow was limited to 100 feet for each drainage area, and the roughness coefficient used in the travel time calculations for sheet flow across wooded areas with light underbrush was reduced from 0.40 to 0.13.

The hydrologic parameters for the basins that were added to the Presidio and Boulder Pointe models are shown in Appendix B along with the HEC-1 output for the 100-year, 6-hour storm event. As seen in the HEC-1 output, the 100-year, 6-hour peak discharge rates for the SFCAW within the KC RV Park vary from 420 to 637 cubic feet per second (cfs).

III. HYDRAULIC ANALYSIS

The US Army Corps of Engineers' HEC-RAS, Version 3.1.3 was used to delineate the floodplain and floodway boundaries and to determine base flood elevations for the SFCAW within the KC RV Park. Input information and the results of the hydraulic analysis are shown in Figure 4. As Figure 4 shows, the SFCAW enters the KC RV Park at its southwest corner, just downstream from detention basins in the Presidio and Boulder Pointe, and exits the RV park near its northeast corner via a single-barrel 4'x8' concrete box culvert (CBC) under Route 66 . Near the southwest corner of the KC RV Park, the SFCAW is relatively steep (3.5-6%) and has steep banks (near 25%), resulting in a narrow floodplain. Near the northeast corner of the RV park, on the other hand, the SFCAW has a longitudinal slope less than 1% and very shallow

sideslopes which, combined with a backwater effect from Route 66, result in a much wider floodplain.

The Federal Highway Administration's HY-8, Version 6.1 was used to analyze the flow through the Route 66 CBC and across the roadway deck for the 637-cfs peak discharge rate reported in Section II above to establish the water surface elevation for the SFCAW where it leaves the KC RV Park. The HY-8 output is provided as the first section in Appendix C. As the HY-8 output shows, the overtopping water surface elevation was estimated to be 6958.21', which represents a maximum flow depth of approximately 1.21' over the top of Route 66.

The model used to delineate the floodplain boundaries for the SFCAW was run under a subcritical flow regime. This is consistent with the requirements established by FEMA and outlined in its guidance document entitled "Guidelines and Specifications for Flood Hazard Mapping Partners." Although many portions of the SFCAW exhibit tendencies toward supercritical flow (Froude Number at or near 1.0), it has been shown that natural watercourses typically cannot sustain the high velocities associated with supercritical flow. Instead, the flows in steep washes will tend to approach or pass through critical flow but then jump back into a subcritical regime, which is more sustainable. The locations of these hydraulic jumps are unpredictable; therefore, the conservative approach is to model the entire wash using a subcritical regime. This results in the highest possible values for base flood elevation as opposed to those that would be generated using mixed or supercritical flow regimes.

On the other hand, the model used to delineate the floodway boundaries for the SFCAW was run under a mixed flow regime. This allows the modeler to consider increases in both water surface elevation and energy grade line when defining the floodway. For this study, the encroachments into the floodplain were first estimated using Encroachment Method 5 in HEC-RAS. In this method, the modeler defines maximum allowable rises in water surface elevation and energy grade line, based upon an equal reduction in conveyance capacity on either side of the wash. The results of the Method 5 run were then fine-tuned using Encroachment Method 1, wherein the modeler specifies exact encroachment stations on either side of the wash. This gives the modeler more control over the outcome of the analysis.

The output from the HEC-RAS analyses is also shown in Appendix C. The first section of HEC-RAS output shows the results of the floodplain analysis. The second shows the results of the floodway analysis. For each analysis, the output includes a summary table of the results; profiles of the SFCAW; and cross sections showing existing ground, water surfaces, energy grade lines, Manning's roughness coefficient (n) values, and bank stations. As the cross sections show, no distinct tops of bank exist for many of the sections. Where this occurs, the bank stations were established based upon perceived changes in roughness characteristics (e.g., the transition from the grassy wash to the ponderosa forest). The bank stations were moved in for the floodway analysis to allow encroachment beyond the roughness-based bank stations used in the floodplain model; however, the 'horizontal variation in n values' option was used in HEC-RAS so that the roughness distributions for the cross sections are the same for the two analyses.

In addition to the floodplain and floodway boundaries, Figure 4 shows the Level I erosion setback boundaries for the SFCAW per Arizona State Standard 5-96. Per Standard 5-96, the Level I erosion setback is taken as the distance, in feet, equal to the square root of the 100-year peak discharge rate, in cfs, measured from the floodway boundary. This boundary provides an indication of the area within which erosion protection would be necessary if development were to occur. Ultimately, however, the need for erosion protection will be determined based upon

the proposed grading for the subdivision within the KC RV Park property and the resultant hydraulic characteristics of the SFCAW.

IV. CONCLUSIONS

Within the Kit Carson RV Park, the South Fork of the Clay Avenue Wash currently lies within Special Flood Hazard Area, Zone A. Per Title 12, Floodplain Regulations, of the City of Flagstaff Code, the City considers the entire width of the Zone A floodplain to be a regulatory floodway and, therefore, prohibits any fill and/or vertical construction within its boundaries. This study presents detailed floodplain and floodway boundaries and base flood elevations for the SFCAW within the KC RV Park. Once these detailed parameters for the SFCAW are approved by the City, development may occur in the areas between the floodplain and floodway boundaries (the flood fringe) according to the regulations cited in City of Flagstaff Code, Title 12, Section 12-01-001-0006.1, Development Standards in Flood Fringe Areas. This section includes requirements for anchoring, construction material selection, lowest floor elevations, flood proofing of structures, structural fill compaction and slopes, and utility installation.

This study also presents Level I erosion setback boundaries for the SFCAW within the KC RV Park, which indicate areas of high erosion potential. As in all cases where development is proposed adjacent to a significant watercourse, a detailed hydraulic analysis should be performed, based upon the proposed grading, and erosion protection should be provided as necessary.

V. REFERENCES

City of Flagstaff Stormwater Management Design Manual, City of Flagstaff Engineering Division, Stormwater Management Section, July 2000.

Coconino County Drainage Design Criteria, Coconino County Public Works Department, January 2001.

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Guidelines and Specifications for Flood Hazard Mapping Partners, Federal Emergency Management Agency, April 2003.

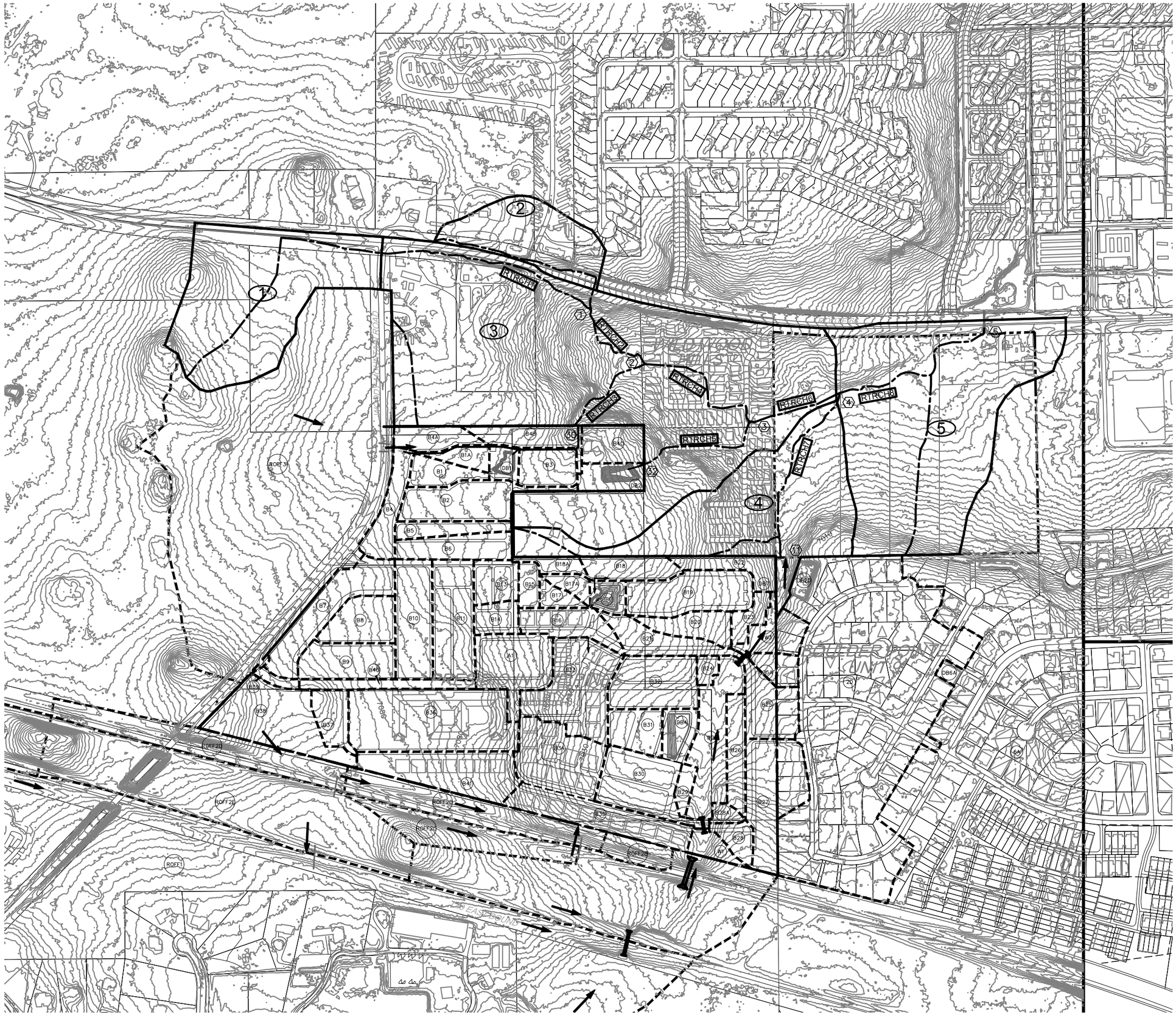
Master Drainage Plan Report Addendum #1 for Presidio in the Pines, TRC-BV Engineering Nevada, December 2004.

River Analysis System (HEC-RAS) Version 3.1.3, U.S. Army Corps of Engineers Hydrologic Engineering Center, May 2005.

TR-55 Urban Hydrology for Small Watersheds, Natural Resources Conservation Service, Conservation Engineering Division, June 1986.

APPENDIX A

FIGURES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FEASIBILITY REPORT:






Prepared for:

CITY OF FLAGSTAFF
STORMWATER SECTION – WATER SERVICES

FEASIBILITY REPORT:
WILDWOOD HILLS DRAINAGE MITIGATION

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EXPIRES 6/30/2020

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EXPIRES 3/31/2021



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APPENDIX A: CONCEPTUAL STORMWATER CONVEYANCE SIZING

OPTION 1A

48-INCH ULTRA FLO CMP PIPE FLOW CAPACITY @ 1.0% SLOPE

6' X 3' (WIDTH X HEIGHT) REINFORCED CONCRETE BOX CULVERT CAPACITY @ 0.5% SLOPE

OPTION 1B

54-INCH ULTRA FLO CMP PIPE FLOW CAPACITY @ 1.0% SLOPE

8' X 3' (WIDTH X HEIGHT) REINFORCED CONCRETE BOX CULVERT FLOW CAPACITY @ 0.5% SLOPE

OPTION 2

5' x 3' (WIDTH X HEIGHT) RECTANGULAR CONCRETE CHANNEL CAPACITY @ 1.0% SLOPE

APPENDIX B: CONCEPTUAL DESIGN PLANS

OPTION 1A PLAN AND PROFILE

OPTION 1B PLAN AND PROFILE

OPTION 2 PLAN

APPENDIX C: OPTIONS COST ESTIMATES

OPTION 1A COST ESTIMATE

OPTION 1B COST ESTIMATE

OPTION 2 COST ESTIMATE

APPENDIX D: REFERENCE INFORMATION

AS BUILTS FOR WILDWOOD HILLS WATER AND SEWER EXTENSION

1. INTRODUCTION

This feasibility study is performed to explore the drainage mitigation options for the Wildwood Hills (WWH) property, a senior citizen (over age 55) Mobile Home Park (MHP) located at 2401 W Route 66 in Flagstaff. The property is located in Section 19, Township 21N, and Range 07E, and fronts the southern side of Route 66 approximately 1600 ft east of the Woody Mountain Road intersection. Please see the following two figures for location mapping.

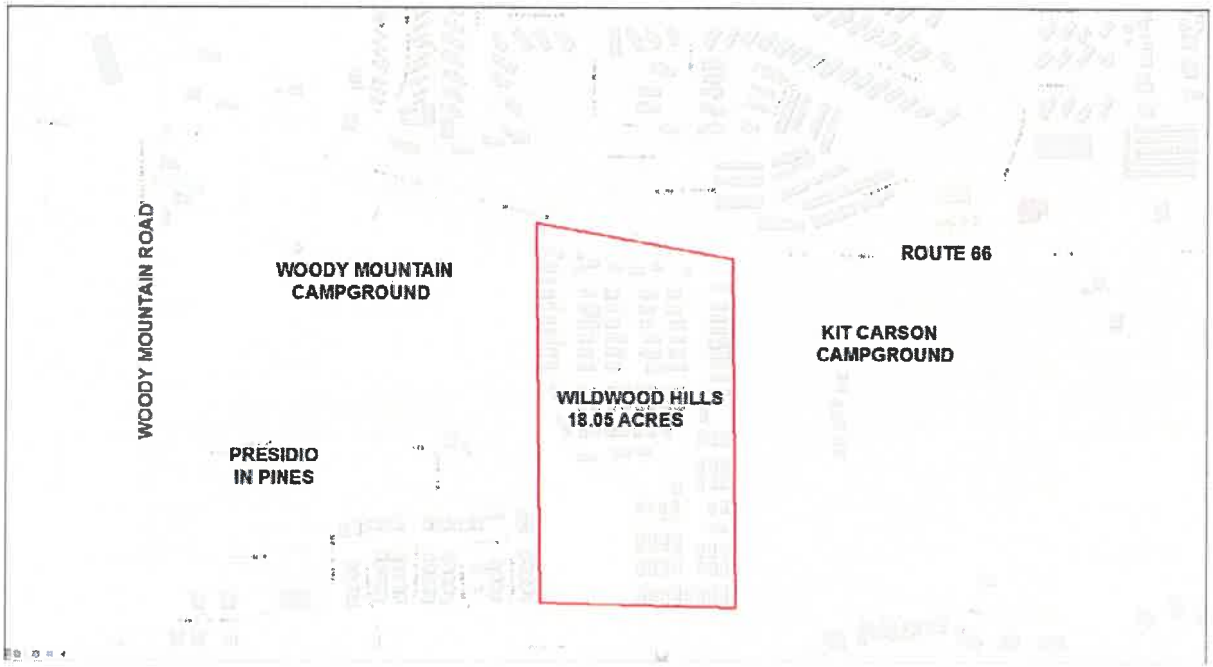


Figure 1: Location Map 1



Figure 2: Location Map 2

The original design and construction of the MHP made little or no allowance for the conveyance of off-site stormwater entering the property from the west. The historic flow pattern of the stormwater enters the MHP around the location of Unit 9 and travels in a east-southeast direction toward Unit 47 and discharging into the Kit Carson RV Park. The flow continues through the Kit Carson property to a culvert that conveys the flow northerly under Route 66. Again, the subject stormwater flow through the WWH development was given no positive drainage consideration except for some make-shift rock channels built later as an effort to mitigate flooding. The projected peak flow from a 100-year storm event (an event with a one percent probability occurring in any given year) is nearly 200 cubic feet per second (cfs), and this is accommodated by surface flow through the properties and streets. This is the offsite flow rate that enters the north half of the site from Woody Mountain Campground on west via the existing channels between Units 8, 9 and 10. Flood walls and flood proofing measures have been attempted by the residents with little success. There are no underground piping facilities to take even a portion of the flow.

Once the flow traverses through the existing rock channels between Units 8, 9 and 10, it enters street and heads south to low point in front of Units 17 and 18. The flow then enters the existing rock channel between Units 17, 18, 23 and 24, this rock channel terminates between Units 23 and 24 after passing under the deck of Unit 23. As the channel terminates, the flow enters streets and traverses through the MHP between the Units, streets and reaches low point in front of Units 46 and 47 and then heads east towards Kit Carson RV park.

To give an idea of the magnitude of this surface flow, 200 cfs equates to over six (6) tons of water flowing past any particular cross-section of the flow path every second. The following section of this report gives further description of the unsafe and untenable nature of this flooding problem.

The following images show the units that are frequently impacted by the flooding. The images also show the offsite flow points of entry into the north half of WWH and the existing rock channels.

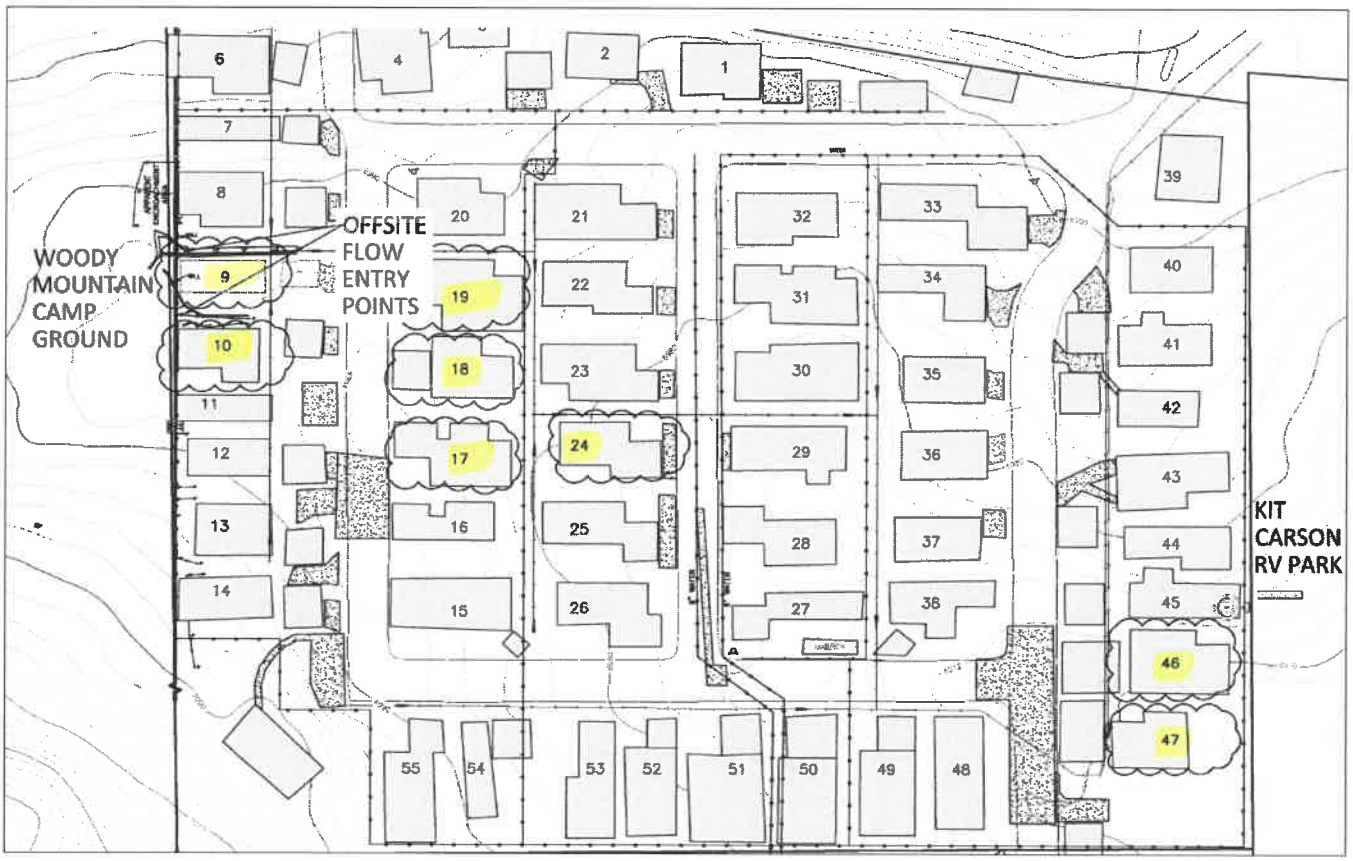


Figure 3: Units Impacted By Flooding And Offsite Flow Entry Points

**Units that are most frequently and most drastically impacted by the flooding are clouded in the image.*



Figure 4: Offsite Flow Entry Point (Looking West)



Figure 5: Rock Wall Channel Between Units 8 And 9 (Looking West)

2. FLOODING HISTORY

The following photo taken during one of the monsoon rains shows the drastic magnitude of one area of the MHP as the flow crosses the street to continue easterly through the narrow yards surrounding the garages and mobile home units.



A view from inside a car shows a flooded street in the Wildwood Hills Mobile Home Park during an early August storm.

Figure 6: Image of Street Flooding In Wildwood Hills (Looking South At Unit 24)

**Above picture shows flow in street as it exits the rock channel under deck of Unit 23. The flow can be seen in the streets and between units.*

Rainfall events are clearly subjecting the WWH residents with unsafe conditions. Flows ripping through and between homes and streets in this nature create massive, forceful momentum that can pick up objects, knock down people and cause significant property damages. It also poses hazardous conditions for not only vehicles but also for pedestrian accessibility.



Figure 7: Rock Channel Between Units 17, 18, 23 And 24 (Looking East)

**Above picture shows Unit 23 deck over the rock channel at the far end.*



Figure 8: Rock Channel Termination Under Unit 23 Deck (Looking West)

For further description of the example storms and news reports of the WWH drainage issues, the following links to videos are listed.

https://www.youtube.com/watch?v=rgcPMqq2P-k

https://azdailysun.com/news/local/video-august-flooding-in-wildwood-hills-mobile-home-park/youtube_b11faaa2-5ec2-5f2d-9eec-e0e03a33455e.html

https://azdailysun.com/news/local/video-flooding-in-wildwood-hills-mobile-home-park/youtube_82a94ada-e9cb-5b2e-bdd8-064363f80f24.html

https://www.youtube.com/watch?v=kz3nQxyb-tw

https://www.youtube.com/watch?v=yupWhcb_zYY

3. STUDY OBJECTIVES

70%

The purpose of this report is to provide conceptual design options for the mitigation of the flooding conditions in the Wildwood Hills (WWH) property. Although this is private property, the City of Flagstaff is offering to provide mitigation of at least 140 cfs of the existing overall estimated Q_{100} peak discharge of 197 cfs. This mitigation will entail the accommodation/conveyance of the flow on/through the WWH property. The remaining 57 cfs will be the responsibility of the WWH owners. For this study, the remaining flow of 57 cfs is assumed to continue as overland flow. Any additional off-site flow resulting from the planned Woody Mountain Campground development (increase in impervious areas) west of WWH will be negated by detention and LID/retention facilities on that property. The hydrology required for the estimation of the flow rates was completed in previous studies by Woodson Engineering (Preliminary Drainage Report for Wildwood Hills Detention Basin, May 2018). This current study of mitigation options for WWH includes only hydraulic analyses using conceptual methodology to size conduits. Subsequent to this study, final design proceedings will be necessary to assess all head losses and detailed hydraulic grade-line (HGL) determinations.

Further to the discussion on the off-site runoff from the west of WWH, there is an option for the reduction of the previously mentioned 197 cfs amount of runoff leading to the WWH property by eliminating one culvert (24" diameter) under Route 66 that is located west of the WWH property. Representatives from the ADOT advise that this culvert could be eliminated, and the flow can be re-channeled to flow along the northern part of the Route 66 right-of-way, thereby avoiding the WWH property. In fact, this work is proposed by ADOT as one of 250 "District-Wide" projects of which none were selected last year. It is understood that this work will not be prioritized anytime soon, unless the City of Flagstaff wanted to fund it. Although this work would somewhat reduce the extent of the flooding conditions at WWH from the estimated 197 cfs to approximately 188 cfs. This small improvement to the condition is considered not worth the significant cost when compared to the cost of augmenting the capacity of the conveyance of floodwaters through the WWH property. It is clearly more economically prudent to size the chosen on-site mitigation option to convey all the nominated flow (140 cfs).

Consideration should also be given to the on-site options to accommodate the entire 197 cfs flow to fully solve the flooding issue. The following options analysis will identify what the costs would be for these two levels of solution. It should be noted that the accommodation of the offsite runoff contribution of 140 cfs or the full 197 cfs does nothing to address the additional runoff that is currently being generated by the WWH itself, i.e. rainwater from existing onsite roofs, streets and yard areas and also the other offsite flows that impact the site from south (from Presidio in Pines) and from north from a 24-inch culvert under Route 66. However, both Option 1A and Option 1B can include grated manhole covers to allow onsite flows into the storm drain system. Though the storm drain is sized for only offsite flows for 100-year storm event, the system can accommodate some onsite flows for storm events lower than 100- year storm event. Also, with the time lag between onsite and offsite flows, the onsite flow may enter and leave the storm drain system sooner or before the arrival of the offsite flows. The option of adding grated manholes is also contingent upon the detailed storm drain analysis to ensure the HGL is below grade to avoid surging of flows from the manhole grates.

In this feasibility report, consideration has been given to both surface flow improvements and subsurface flow improvements. The options are discussed in the next section below.

These conceptual design efforts are based on available aerial imagery, City's GIS with 2-foot contours and as-built plan sheets from the Wildwood Hills Water and Sewer Extension project, please see Appendix D for the as builts. The depths of the existing water and sewer crossings are estimated from the rough contours and inverts provided on these as-builts. The actual location will require verification by potholing in the future for detailed design phase of the project.

4. MITIGATION OPTIONS

A. OPTION 1A – SUBSURFACE ACCOMMODATION OF 140 CFS

This option involves the installation/construction of underground storm drain piping through the streets of the WWH property. Appendix B Exhibits illustrate the conceptual plan and profile design of this system. At the western boundary of the WWH property the off-site runoff currently enters into the existing "makeshift" above-ground channel walls on both sides of Unit No. 9. It is proposed to channel all of the flow to one location and improve the open channel to be mostly underground while traversing over the existing sewer line and leading to a proposed inlet structure designed to receive 140 cfs. This grated inlet will have capture walls on both sides and allows for an overflow of the 57 cfs (197-140 = 57) that the City is suggesting to be handled by the WWH property facilities. The inlet structure will lead to a 48-inch diameter pipe, with smooth interior and with an exterior corrugated steel shell through the Unit No. 9 property and continue through the streets as shown. **This will involve the relocation/removal of the home Unit No. 9.** Consideration was given to constructing this piping while maintaining the home in place, however, the disruption of both Unit No 9 and the neighboring Unit No 10 would be so drastic that the complete removal of Unit No. 9 is more feasible. In this way, the construction can avoid the removal of trees that would otherwise greatly affect the homes. Upon removal of Unit No. 9, this space can be utilized to implement a sediment pond to capture sediment and debris from the offsite flow. Final design proceedings can further review and assess the possibility of

constructing without removal of the home, but for the costing of this concept study it is assumed that this one Unit will be displaced.

From Unit No. 9 the piping is proposed to follow the street alignment, as opposed to following the natural lowpoint areas running through the other home units and causing further disruption of personal property. Following this less intrusive street alignment necessarily involves a pipeline construction that "bucks" grade resulting in a 12-foot depth of trenching to lay the 48-inch diameter pipe through the high point at the street corner near Unit No. 15. The piping would be constructed at a minimum one (1) percent slope (required for pipeline capacity) and continue easterly in the middle of the street, requiring adjustments to the two water pipe crossings (near Unit No. 51) and possibly avoiding the sanitary sewer crossing (near Unit No. 49). For the cost analysis of this study, an allowance has been included for relocation of the utilities at potential conflict locations which should be confirmed by potholing at detailed design phase. To minimize the conflict with these utilities the stormwater line is proposed to transition from the 48-inch diameter pipe to a 6'x 3' (Width x Height) Reinforced Concrete Box Culvert (RCBC), enabling better cover from the top of the structure to the underside of the pavement.

Near the end of this proposed storm drain system, near Unit No. 47, there is an unavoidable conflict with the existing sanitary sewer crossing the street and leading to a lift station located in a shed next to the garage by Unit No. 47. This sewer crossing will need to be lowered. Additionally, this may lead to modifications to the lift station, due to the lowering of the influent pipe. Again, the exact elevation of the sewer system needs to be confirmed prior to final design. An allowance is made in this conceptual design phase for the lowering of the sewer crossing and the reconstruction of the lift station. It is noted that this lift station pumps the sewage up along the eastern property line of WWH to a gravity line in the Route 66 right-of-way.

As the traverse of the 6'x 3' RCBC leads to the eastern property line it is still too deep to "daylight" in the WWH property. The owners of the Kit Carson RV park will need to be agreeable to allowing the City to excavate an open channel through their property to a point as shown in the Exhibits. It would behoove the Kit Carson owners to have the open channel in their property to provide a clear channelization of the floodwaters and have the benefit of eliminating the flooding problems currently being experienced in this property as well. In fact, the extension of the open channel all the way to the existing culvert under Route 66 may be very beneficial to the Kit Carson property.

The overall cost of Option 1A has been estimated to be $1,133,578 (please see Appendix C for the detailed cost estimate). The overall cost includes an estimated $250,000 for the elimination of the home Unit No. 9. This cost includes demolition of Unit No. 9, either salvage the Unit or purchase of new Unit, owner compensation and installation costs. This figure may need to be revised based on more expert market value analytics and/or relocation procedures.

B. OPTION 1B – SUBSURFACE ACCOMMODATION OF 197 CFS PLUS ALLOWANCE FOR ON-SITE RUNOFF.

Subsurface Option 1B is identical to Option 1A except that the conveyance is sized to accommodate the entirety of the 197 cfs peak flow during the 100-year storm event, intercepting all the offsite flow. Additionally, allowance has been made for the cost of grated inlets directly

above the proposed pipeline in particular locations within the existing (pavement to be removed and replaced due to pipeline trenching) inverted crown of the roadways. It will be important to add a grated inlet at the low point in the road (next to Units 16 and 17) to deal more completely with the on-site runoff. The pipeline will need to be "upsized" from the previously discussed 48-inch diameter to a 54-inch diameter, and the box culvert section will require a 8'x3' (Width X Height) section instead of the 6'x3' section from the Option 1A design. This Option 1B will solve the flooding problems by receiving all the offsite runoff, and additionally dealing with the on-site runoff. The added cost for the grated inlets to deal with the on-site runoff is insignificant when compared to the overall cost of the pipeline required for the off-site flows. The project should consider adding these grated inlets to the Option 1A as well.

Consideration has also been given to the notion of constructing a detention basin somewhere in the WWH property such as the lot for Unit No. 9 or at the downstream outlet at the eastern property line. However, these areas are too small to amount to significant reduction in the flows and it would require unsightly safety fencing around the ponding or present an unsafe condition due to their close proximity to the neighboring units.

Additionally, in the scoping of this study it was mentioned to consider the upsizing of the detention basins located to the southwest in the Presidio in Pines residential development. There is a small detention basin in Presidio that discharges to the north half of WWH. It is a located between the street and lots. This basin being in midst of already improved areas has negligible scope of upsizing to cause any reduction in offsite flows.

There is another larger detention basin that discharges to the south half of WWH. While this basin may have some upsizing possibilities, it will require negotiations with the Presidio HOA. Since this basin discharges to the south half of WWH, the reduction to this basin outflow would affect the end of the subject system at the open channel being proposed in the Kit Carson property but does not have any impact on the flooding in the north half of WWH.

The overall cost of Option 1B has been estimated to be $1,213,684. Please see Appendix C for the detailed cost estimate. As mentioned for Option 1A, the overall cost includes an estimated $250,000 for the elimination of the home Unit No. 9. Again, this figure may need to be revised based on more expert market value analytics and/or relocation procedures.

C. OPTION 2 – SURFACE CHANNEL AND STORM DRAIN SYSTEM

The consideration of this option involves the improvements of surface channel (through properties) flow path which naturally exists in areas of least resistance. There are flood walls and other makeshift channelization efforts in place between Unit Nos. 8 and 9, Unit Nos. 9 and 10, Unit Nos. 17 and 18, Unit Nos. 23 and 24. These areas could be improved upon and extending the channel between Unit Nos. 29 and 30, and Unit Nos. 35 and 36, with a concrete channel between the units and culverts at the street crossings. However, this option would involve significant disruption through the yards, removal of trees, relocation of utilities, deep trenches near buildings, and destruction of all the personal property such as landscaping, decking, walkways and other established conditions built up over the past decades. Also, the channel option may require railing on both the sides for safety. Thus, this option would not be easily adopted as it would involve multiple unit owners and utility relocations which will significantly

impact the project timeline and compensation costs and possible legal costs. Per cost analysis, this option is estimated to cost about $1,284,667 which is higher than Option1A and 1B. Thus, it is concluded that this option does not warrant further consideration.

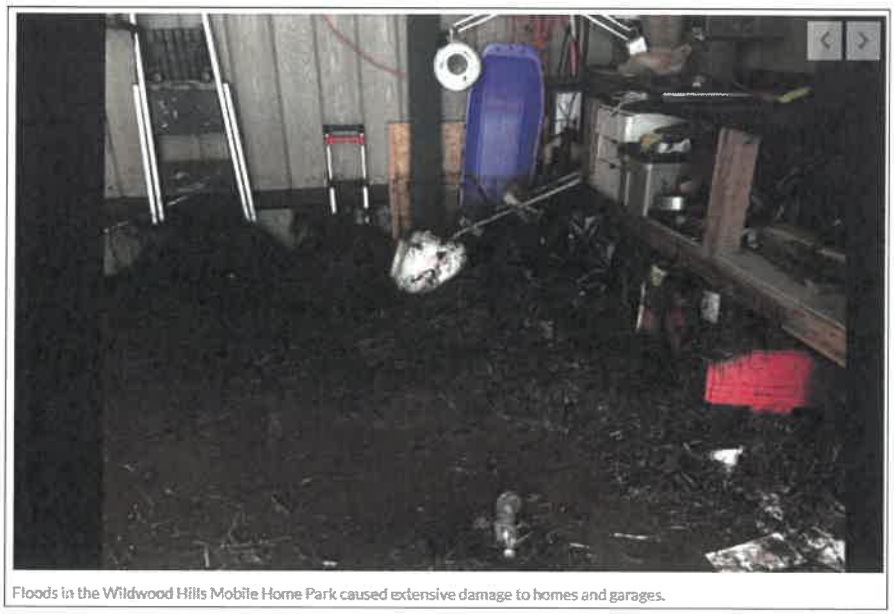
D. OPTION 3 – NON-STRUCTURAL MITIGATION MEASURES

The non-structural option of protecting the properties in the drainage path by floodproofing, flood gates and possible relocation of homes in the drainage path, also is not worth serious consideration, due again to the unacceptable conditions presented by the resultant flow spilling out into the streets. This option may somewhat improve the protection of the units in the drainage path, but it would also lead to diversion of flows to the otherwise safe units. In addition, the residents are already implementing some measures to temporarily protect them from flooding, however, they require manual intervention of the residents to install gates prior to the storm event. Given, the fact that these are senior citizen dwellings, these measures may not be effective if not implemented in a timely fashion. Also, the offsite flows carry significant amount of sediment and debris which may cause clean up and property damage after major storm events. Following are some of the pictures with non-structural mitigation measures that the residents have implemented and the damage after the storm event.



Todd Vanosdell shows one of two flood gates he installed in the fence of his Wildwood Hills home to help floodwaters escape his property. The neighborhood tucked in a low-lying area between Wood Mountain Road and West Route 66 in Flagstaff has seen a massive increase in flooding from monsoon rains recently.

Figure 9: Image of Flood Gates Installed By The Residents



Floods in the Wildwood Hills Mobile Home Park caused extensive damage to homes and garages.

Figure 10: Image of Flood Damages To The Private Property



Figure 11: Image of Gates At Garage Installed By Residents (Unit 17)

5. RECOMMENDATIONS AND CONCLUSIONS

The study includes the subsurface and surface mitigation options, and the associated costs. Following are the conclusions and recommendations.

A. CONCLUSIONS

The two feasible options are Option 1A and 1B with storm drain system that convey either a portion of the flow or the entire offsite flow rate from the west.

- Options 1A and 1B cause the least disruption to the units as most the work will be in the street.
- These options also involve minimum utility conflicts as compared to the channel option (Option 2).
- With the storm drain system in the street, the future maintenance can be done without accessing yards or private properties.
- Option 1A costs are estimated at $1,133,578 while Option 1B is estimated at $1,213,684. Project may consider option 1B to provide additional benefits based on the available budget.

B. RECOMMENDATIONS

Following are some of the recommendations regarding the implementation of the chosen option:

- Coordination with the owner of the Kit Carson parcel to inform about the channel and obtain permission for construction and for drainage easement. City may consider extension of the channel through the Kit Carson parcel to the culvert crossing under Route 66, which could further benefit the property owner.
- Coordination with WWH MHP owner to discuss the remove/relocation of the home designated as Unit 9.
- Coordination with the Woody Mountain campground parcel owner to tie in the drainage improvements to bring offsite flow to the chosen WWH flood mitigation option.
- Ensure that a geotechnical investigation is carried out for the location of the proposed pipeline. Limestone bedrock was found in the Woody Mountain Campground development just west of the WWH property, and if encountered, could add significantly to the trenching costs. Rock excavation is currently not included in the cost estimates.
- Negotiation with affected homeowners. The cost estimates presented in Appendix C have allowances for compensating the affected homeowners. The $250,000 allowance for the removal of the Unit 9 home is based on an estimated market value of $100,000, plus relocation expenses. Similarly, in Option 2 allowances are identified for the compensation of all the properties affected. No legal fees have been included.

6. REFERENCES

i. Preliminary Drainage Report for Wildwood Hills Detention Basin, May 2018

ii. City of Flagstaff, GIS (2-foot contours)

iii. Wildwood Hills Water and Sewer Extension As-Builts, Rockwell Consultants, 1982

iv. FlowMaster, Bentley's Heastad Methods Solution Center

v. Autodesk Civil 3D, 2019

APPENDIX A: CONCEPTUAL STORMWATER CONVEYANCE SIZING

OPTION 1A

48-INCH ULTRA FLO CMP PIPE FLOW CAPACITY @ 1.0% SLOPE

6' X 3' (WIDTH X HEIGHT) REINFORCED CONCRETE BOX CULVERT FLOW CAPACITY @ 0.5% SLOPE

OPTION 1B

54-INCH ULTRA FLO CMP PIPE FLOW CAPACITY @ 1.0% SLOPE

8' X 3' (WIDTH X HEIGHT) REINFORCED CONCRETE BOX CULVERT FLOW CAPACITY @ 0.5% SLOPE

OPTION 2

5' x 3' (WIDTH X HEIGHT) RECTANGULAR CONCRETE CHANNEL CAPACITY @ 1.0% SLOPE

Worksheet for 48-Inch @ Slope=1% (Ultra Flo CMP)

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010
Normal Depth	48.0
Diameter	48.0
Discharge	155.61

Results	
Discharge	155.61
Normal Depth	48.0
Flow Area	12.6
Wetted Perimeter	12.6
Hydraulic Radius	12.0
Top Width	0.00
Critical Depth	43.7
Percent Full	100.0
Critical Slope	0.009
Velocity	12.38
Velocity Head	2.38
Specific Energy	6.38
Froude Number	(N/A)
Maximum Discharge	167.39
Discharge Full	155.61
Slope Full	0.010
Flow Type	Undefined

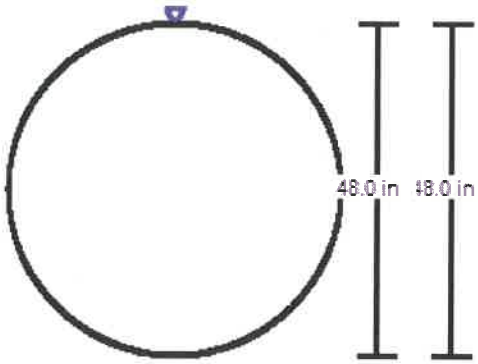
GVF Input Data	
Downstream Depth	0.0
Length	0.0
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0
Profile Description	N/A
Profile Headloss	0.00
Average End Depth Over Rise	0.0
Normal Depth Over Rise	100.0
Downstream Velocity	Infinity
Upstream Velocity	Infinity
Normal Depth	48.0
Critical Depth	43.7
Channel Slope	0.010
Critical Slope	0.009

Cross Section for 48-Inch @ Slope=1% (Ultra Flo CMP)

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010
Normal Depth	48.0
Diameter	48.0
Discharge	155.61



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Worksheet for 6'X3' (WxH) RCBC @ Slope=0.5%

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.013
Channel Slope	0.005
Normal Depth	36.0
Height	3.0
Bottom Width	6.00
Discharge	145.48

Results	
Flow Area	18.0
Wetted Perimeter	18.0
Hydraulic Radius	12.0
Top Width	6.00
Critical Depth	31.6
Percent Full	100.0
Critical Slope	0.004
Velocity	8.08
Velocity Head	1.02
Specific Energy	4.02
Froude Number	0.823
Discharge Full	145.48
Slope Full	0.005
Flow Type	Subcritical

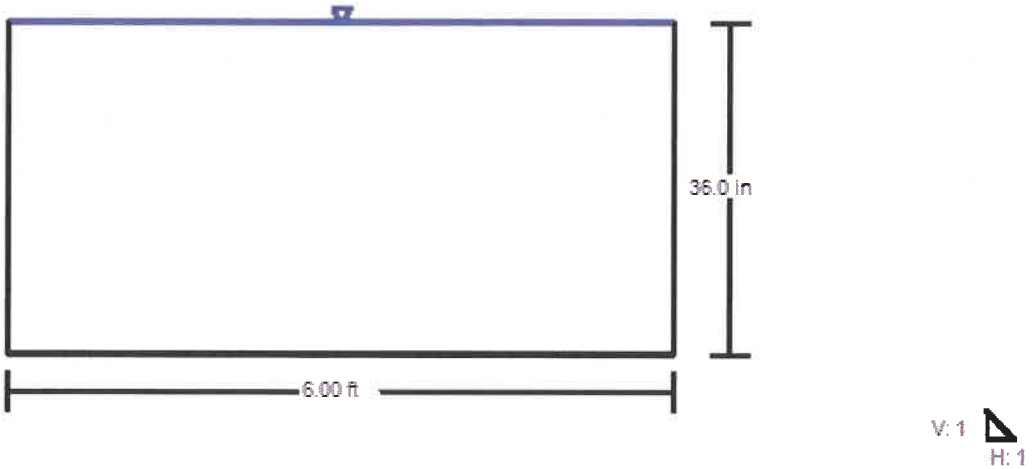
GVF Input Data	
Downstream Depth	0.0
Length	0.0
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0
Profile Description	N/A
Profile Headloss	0.00
Average End Depth Over Rise	0.0
Normal Depth Over Rise	100.0
Downstream Velocity	Infinity
Upstream Velocity	Infinity
Normal Depth	36.0
Critical Depth	31.6
Channel Slope	0.005
Critical Slope	0.004

Cross Section for 6'X3' (WxH) RCBC @ Slope=0.5%

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.013
Channel Slope	0.005
Normal Depth	36.0
Height	3.0
Bottom Width	6.00
Discharge	145.48



Worksheet for 54-Inch @ Slope=1% (Ultra Flo CMP)

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010
Normal Depth	54.0
Diameter	54.0
Discharge	213.02

Results	
Discharge	213.02
Normal Depth	54.0
Flow Area	15.9
Wetted Perimeter	14.1
Hydraulic Radius	13.5
Top Width	0.00
Critical Depth	49.4
Percent Full	100.0
Critical Slope	0.009
Velocity	13.39
Velocity Head	2.79
Specific Energy	7.29
Froude Number	(N/A)
Maximum Discharge	229.15
Discharge Full	213.02
Slope Full	0.010
Flow Type	Undefined

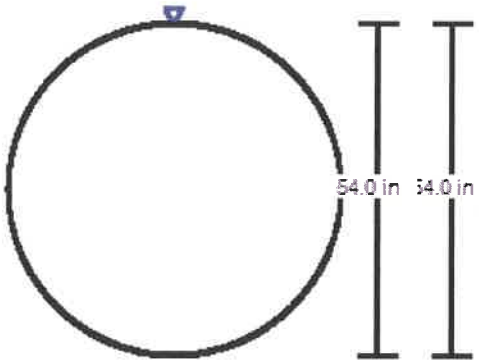
GVF Input Data	
Downstream Depth	0.0
Length	0.0
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0
Profile Description	N/A
Profile Headloss	0.00
Average End Depth Over Rise	0.0
Normal Depth Over Rise	100.0
Downstream Velocity	Infinity
Upstream Velocity	Infinity
Normal Depth	54.0
Critical Depth	49.4
Channel Slope	0.010
Critical Slope	0.009

Cross Section for 54-Inch @ Slope=1% (Ultra Flo CMP)

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010
Normal Depth	54.0
Diameter	54.0
Discharge	213.02





Worksheet for 8'x3' (WXH) RCBC @ Slope=0.5%

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.013
Channel Slope	0.005
Normal Depth	36.0
Height	3.0
Bottom Width	8.00
Discharge	205.56

Results	
Flow Area	24.0
Wetted Perimeter	22.0
Hydraulic Radius	13.1
Top Width	8.00
Critical Depth	32.9
Percent Full	100.0
Critical Slope	0.004
Velocity	8.57
Velocity Head	1.14
Specific Energy	4.14
Froude Number	0.872
Discharge Full	205.56
Slope Full	0.005
Flow Type	Subcritical

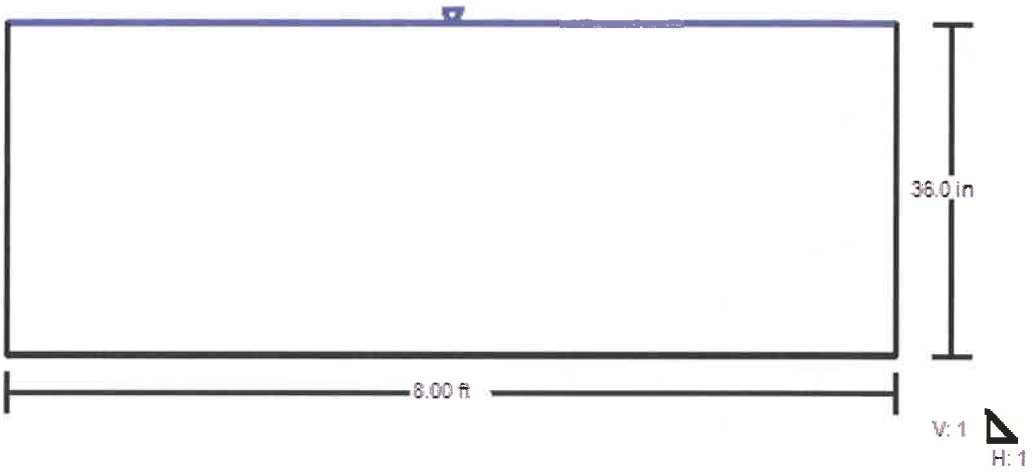
GVF Input Data	
Downstream Depth	0.0
Length	0.0
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0
Profile Description	N/A
Profile Headloss	0.00
Average End Depth Over Rise	0.0
Normal Depth Over Rise	100.0
Downstream Velocity	Infinity
Upstream Velocity	Infinity
Normal Depth	36.0
Critical Depth	32.9
Channel Slope	0.005
Critical Slope	0.004

Cross Section for 8'x3' (WXH) RCBC @ Slope=0.5%

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.013
Channel Slope	0.005
Normal Depth	36.0
Height	3.0
Bottom Width	8.00
Discharge	205.56



Worksheet for 5'x3' Rectangular Channel @ Slope=1%

Project Description	
Friction Method	Manning Formula
Solve For	Discharge

Input Data	
Roughness Coefficient	0.013
Channel Slope	0.010
Normal Depth	36.0
Bottom Width	5.00

Results	
Discharge	210.83
Flow Area	15.0
Wetted Perimeter	11.0
Hydraulic Radius	16.4
Top Width	5.00
Critical Depth	45.7
Critical Slope	0.005
Velocity	14.06
Velocity Head	3.07
Specific Energy	6.07
Froude Number	1.431
Flow Type	Supercritical

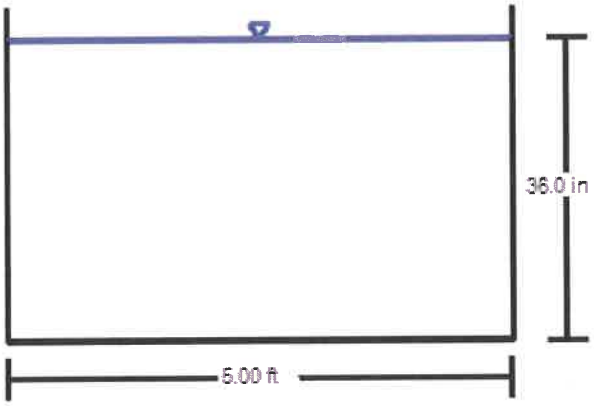
GVF Input Data	
Downstream Depth	0.0
Length	0.0
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0
Profile Description	N/A
Profile Headloss	0.00
Downstream Velocity	Infinity
Upstream Velocity	Infinity
Normal Depth	36.0
Critical Depth	45.7
Channel Slope	0.010
Critical Slope	0.005

Cross Section for 5'x3' Rectangular Channel @ Slope=1%

Project Description	
Friction Method	Manning Formula
Solve For	Discharge

Input Data	
Roughness Coefficient	0.013
Channel Slope	0.010
Normal Depth	36.0
Bottom Width	5.00
Discharge	210.83



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27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

APPENDIX B: CONCEPTUAL DESIGN PLANS

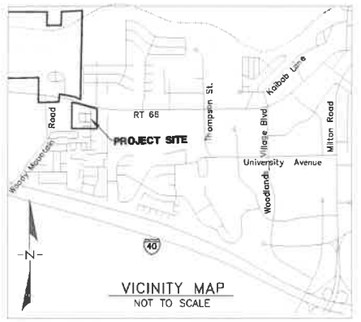
OPTION 1A PLAN AND PROFILE
OPTION 1B PLAN AND PROFILE
OPTION 2 PLAN

WILDWOOD HILLS
DRAINAGE FEASIBILITY STUDY

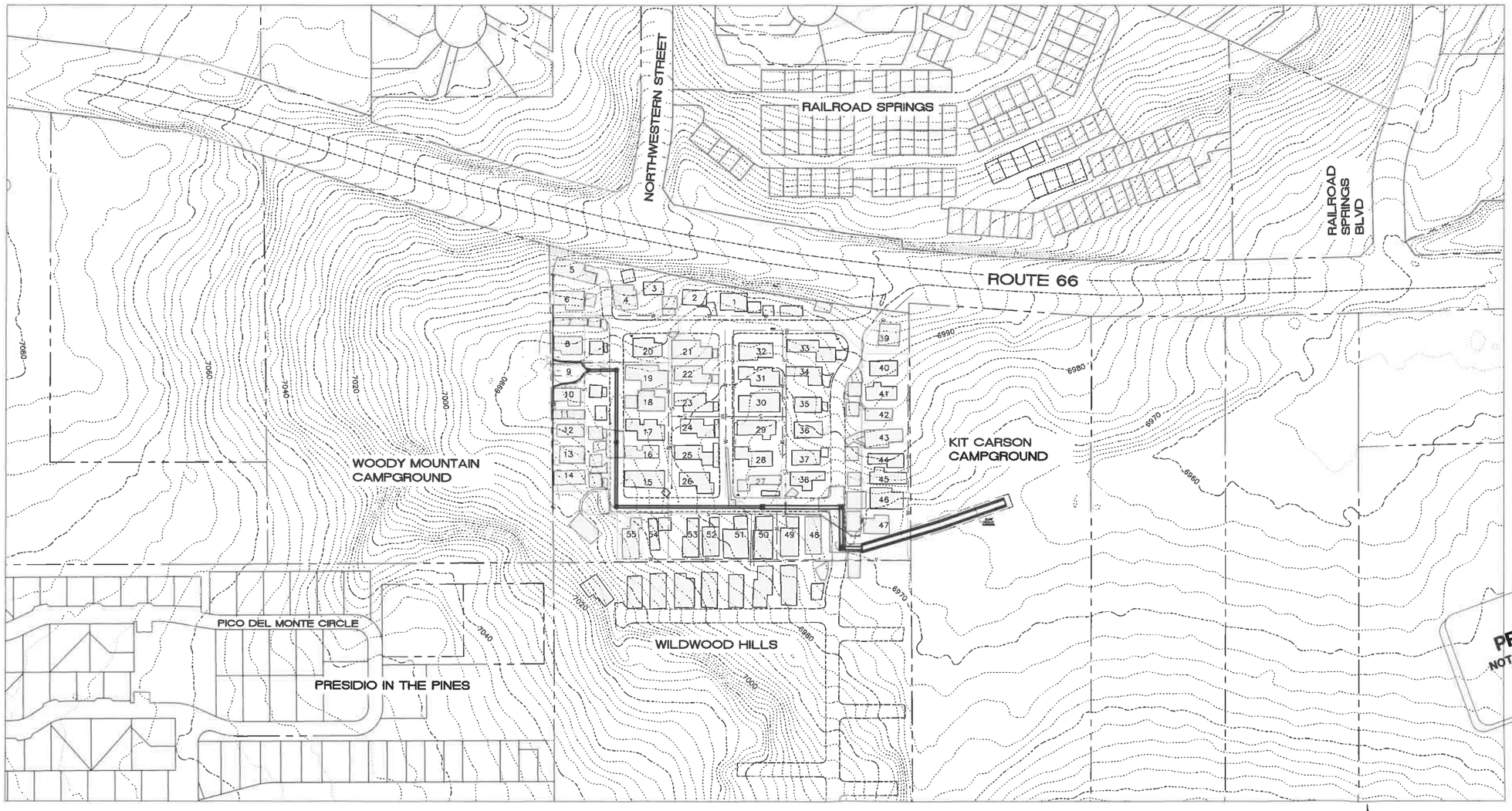
A PROPOSED IMPROVEMENT IN THE SE CORNER OF SECTION 19, TOWNSHIP 21 NORTH, RANGE 7 EAST, GILA AND SALT RIVER BASE AND MERIDIAN, COCONINO COUNTY, ARIZONA

LEGEND

- EXISTING PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING FLOWLINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING BARBED WIRE FENCE
- EXISTING WALL
- EXISTING CONCRETE
- EXISTING STRUCTURE
- EXISTING PAVEMENT
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED CATCH BASIN



VICINITY MAP
NOT TO SCALE



PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

SHEET INDEX

1	COVER
2	OPTION 1A
3	OPTION 1A
4	OPTION 1B
5	OPTION 1B
6	OPTION 2

FIELD TOPOGRAPHY AND BOUNDARY SURVEY INFORMATION USED TO PREPARE THIS DRAWING WERE BASED ON CITY OF FLAGSTAFF GIS.

SHEET 1 OF 6

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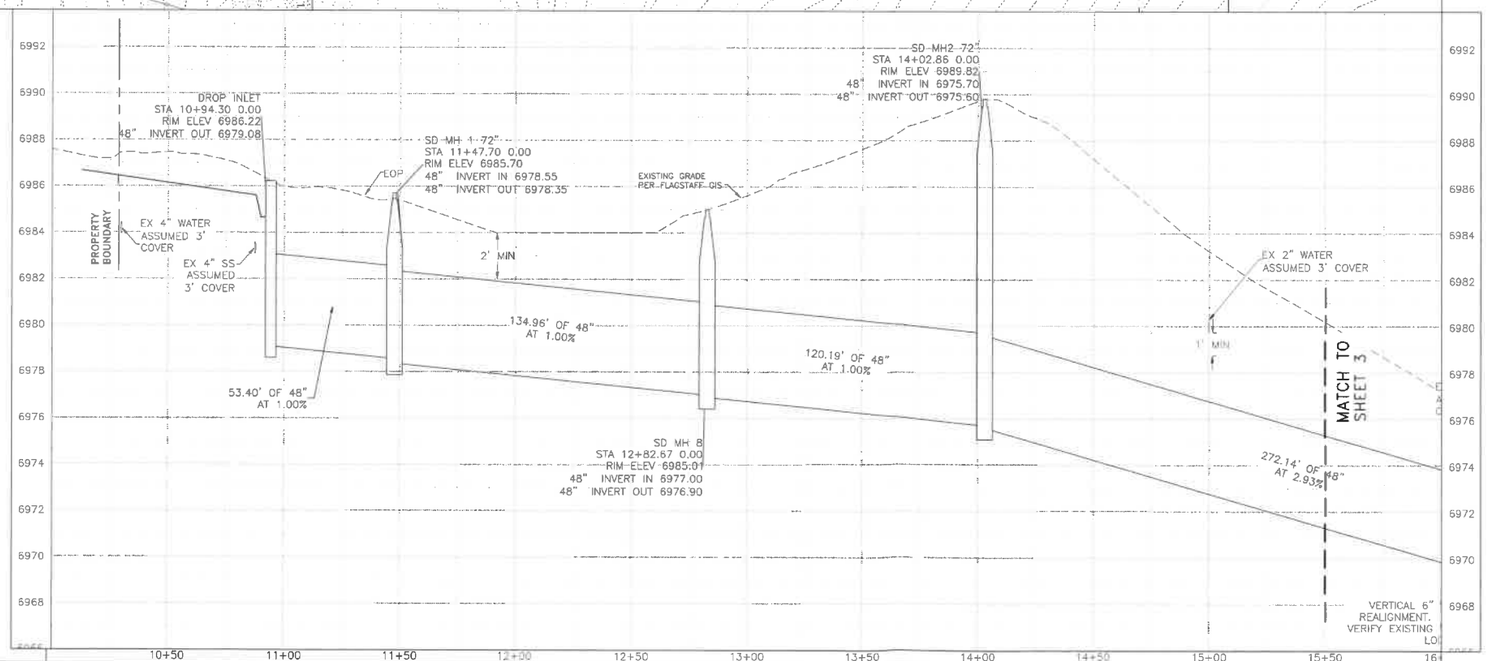
117806

1/2/19

WILDWOOD HILLS DRAINAGE FEASIBILITY STUDY

DRAFTED BY: AAS
DATE: 1/2/19
PROJ. NO.: 117806
FN: PP OPT 1





CONSTRUCTION NOTES
PUBLIC IMPROVEMENTS

(01) REMOVE EXISTING ROCK WALL CHANNEL.

(10) INSTALL 48" CONTECH ULTRA FLO CMP OR APPROVED EQUAL IN ACCORDANCE WITH MAG SS 601 & 618.

(13) CONSTRUCT STORM DRAIN MANHOLE IN ACCORDANCE WITH MAG SD NO. 521, & NO. 522. GRATE IN LID.

(14) CONSTRUCT DITCH TO CONVEY OFFSITE FLOW TO DROP INLET STRUCTURE.

(16) CONSTRUCT DROP INLET STRUCTURE WITH CAPTURE WALLS TO RECEIVE A MAXIMUM OF 140 CFS.

(60) REMOVE AND REPLACE CONCRETE PAVEMENT

(61) REMOVE AND REPLACE ASPHALT ROADWAY PER TRENCHING AND BACKFILL DETAIL COF SD 9-01-03.

(90) INSTALL SAFETY RAILING.

N

0 15 30 60

SCALE: 1" = 30'
CONTOUR INTERVAL: 2'

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GENERAL NOTES

FIELD TOPOGRAPHY AND BOUNDARY SURVEY INFORMATION USED TO PREPARE THIS DRAWING WERE BASED ON CITY OF FLAGSTAFF GIS.

ALL ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS (EXCEPT AS NOTED).

THE INFORMATION ON THESE PLANS CONCERNING THE TYPE, SIZE, AND LOCATION OF UTILITIES HAS BEEN SHOWN BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINATION OF EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES, IN PLACE, UNLESS OTHERWISE NOTED OR SPECIFIED.

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1/9/19

WILDWOOD HILLS DRAINAGE
FEASIBILITY STUDY
OPTION 1A

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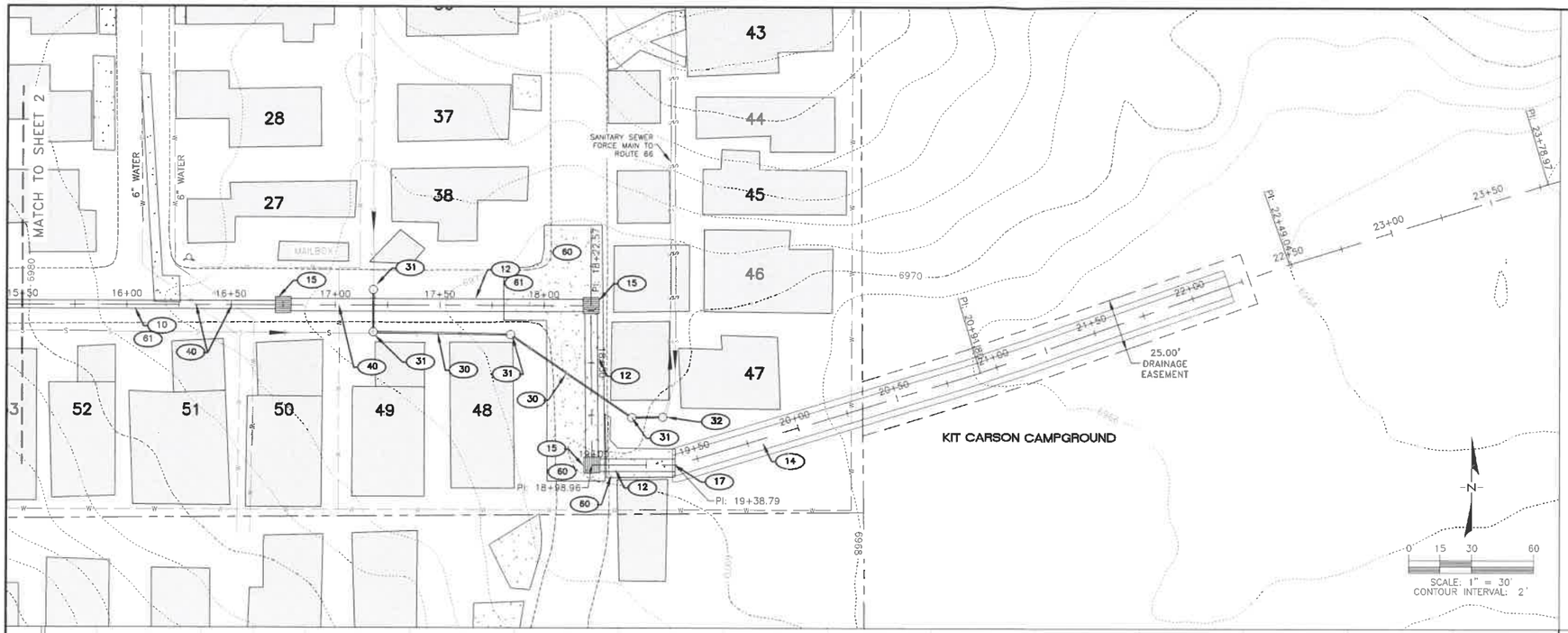
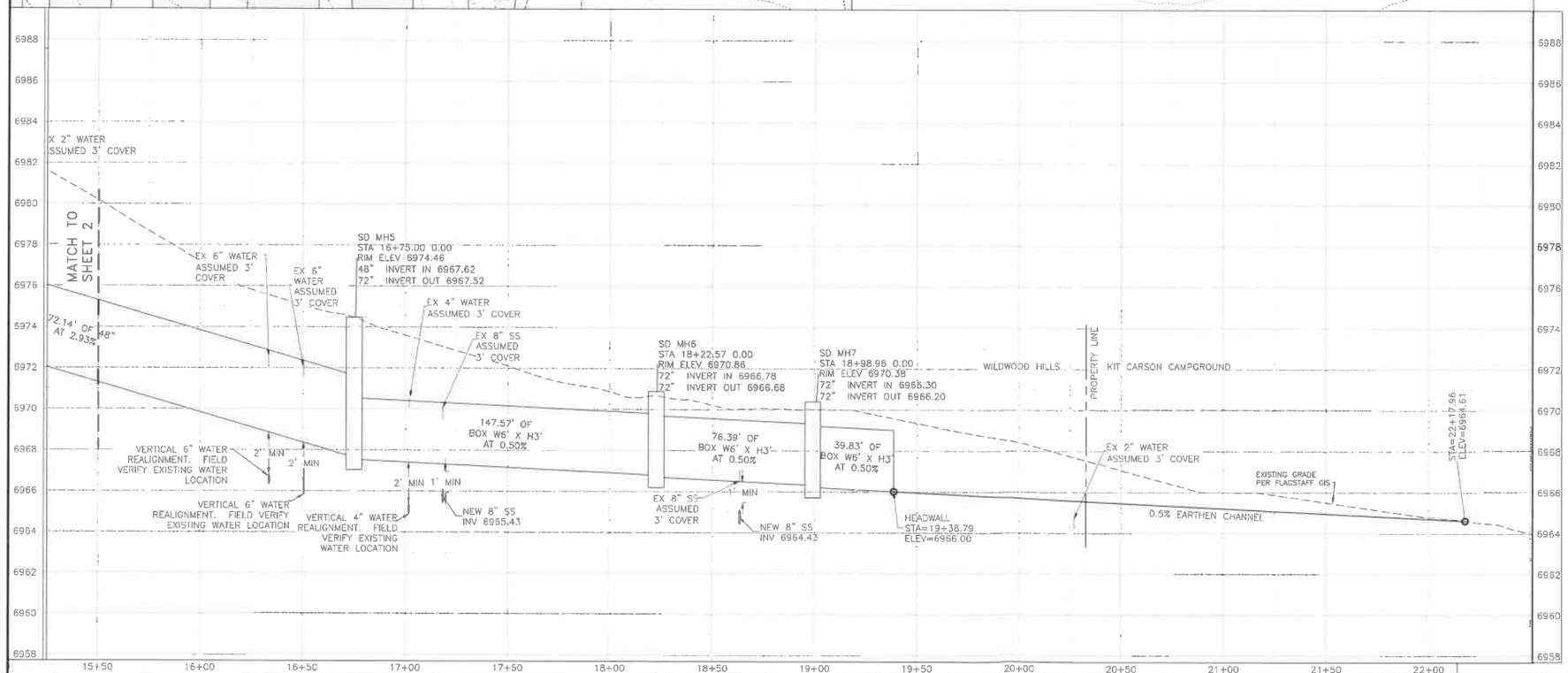
WILDWOOD HILLS DRAINAGE
FEASIBILITY STUDY

OPTION 1A

HOR SCALE: 1"=30'
VERT SCALE: 1"=3'
DATE: 1/9/19
PROJECT NO.: 117806
AGENCY NO.:
SHEET NO.: 2 OF 6

DESIGNED BY: SK
DRAFTED BY: AS
CHECKED BY: JH





CONSTRUCTION NOTES
PUBLIC IMPROVEMENTS

(10) INSTALL 48" CONTECH ULTRA FLO CMP OR APPROVED EQUAL IN ACCORDANCE WITH MAG SS 601 & 618.

(12) INSTALL 6'W X 3'H REINFORCED CONCRETE BOX CULVERT IN ACCORDANCE WITH MAG SS 206 & 505.

(13) CONSTRUCT STORM DRAIN MANHOLE IN ACCORDANCE WITH MAG SD NO. 521, & NO. 522.

(14) CONSTRUCT DITCH PER DETAIL ON THIS SHEET.

(15) CONSTRUCT CONCRETE JUNCTION BOX.

(17) CONSTRUCT HEADWALL

(30) INSTALL 8" PVC SEWER PER MAG SS 601 & 615. TYPICAL TRENCHING AND BACKFILL PER COF SD 9-01-030. REMOVE EXISTING SEWER.

(31) INSTALL SEWER CLEANOUT PER MAG SS 441.

(32) ADJUST EXISTING SEWER PUMP STATION OR REPLACE AS NEEDED.

(40) CONSTRUCT A VERTICAL REALIGNMENT OF EXISTING WATERLINE IN ACCORDANCE WITH MAG SD NO. 370. PROVIDE ADDITIONAL WATER PROTECTION IN ACCORDANCE WITH MAG SD NO. 404.

(60) REMOVE AND REPLACE CONCRETE PAVEMENT

(61) REMOVE AND REPLACE ASPHALT ROADWAY PER TRENCHING AND BACKFILL DETAIL COF SD 9-01-03.



LOCATED AT STORM DRAIN OUTLET IN WILDWOOD HILLS AND CONTINUES INTO KIT CARSON CAMPGROUND

EARTHEN CHANNEL DETAIL
N.T.S.

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GENERAL NOTES

FIELD TOPOGRAPHY AND BOUNDARY SURVEY INFORMATION USED TO PREPARE THIS DRAWING WERE BASED ON CITY OF FLAGSTAFF GIS.

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REVISIONS:

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ENGINEERING & SURVEYING
124 N ELDEN ST, FLAGSTAFF, AZ 86001
(928) 774-4636 | WWW.WOODSONENG.COM

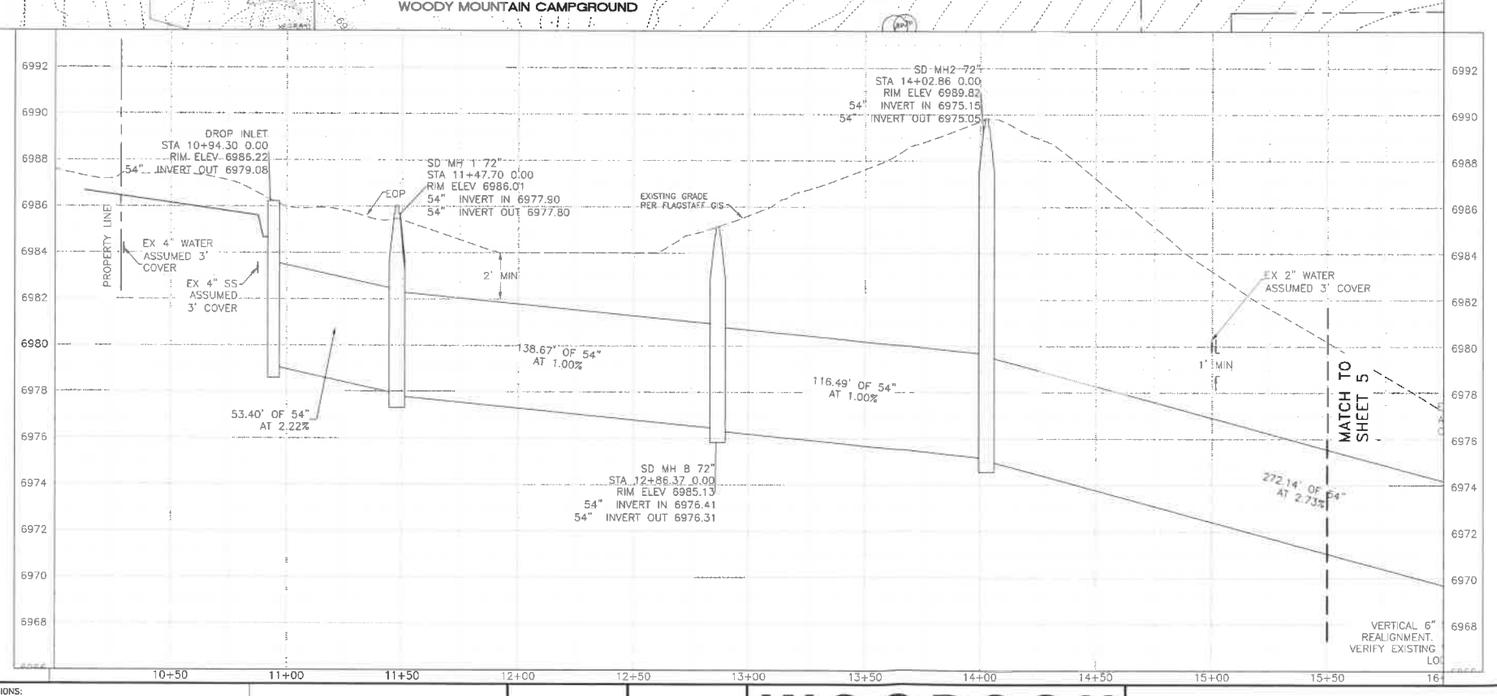
WILDWOOD HILLS DRAINAGE
FEASIBILITY STUDY

OPTION 1A

HOR SCALE: 1"=30'
VERT SCALE: 1"=3'
DATE: 1/2/19
PROJECT NO.: 117806
AGENCY NO.: .
SHEET NO.: 3 OF 6

DESIGNED BY: SK
DRAFTED BY: AS
CHECKED BY: JH





CONSTRUCTION NOTES
PUBLIC IMPROVEMENTS

- (01) REMOVE EXISTING ROCK WALL CHANNEL.
- (10) INSTALL 54" CONTECH ULTRA FLO CMP OR APPROVED EQUAL IN ACCORDANCE WITH MAG SS 601 & 618.
- (13) CONSTRUCT STORM DRAIN MANHOLE IN ACCORDANCE WITH MAG SD NO. 521, & NO. 522. GRATE IN LID.
- (14) CONSTRUCT DITCH TO CONVEY OFFSITE FLOW TO DROP INLET STRUCTURE.
- (16) CONSTRUCT DROP INLET STRUCTURE WITH CAPTURE WALLS TO RECEIVE A MAXIMUM 197 CFS.
- (60) REMOVE AND REPLACE CONCRETE PAVEMENT
- (61) REMOVE AND REPLACE ASPHALT ROADWAY PER TRENCHING AND BACKFILL DETAIL COF SD 9-01-03.
- (90) INSTALL SAFETY RAILING.

N

0 15 30 60

SCALE: 1" = 30'
CONTOUR INTERVAL: 2'

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

GENERAL NOTES

FIELD TOPOGRAPHY AND BOUNDARY SURVEY INFORMATION USED TO PREPARE THIS DRAWING WERE BASED ON CITY OF FLAGSTAFF GIS.

ALL ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS (EXCEPT AS NOTED).

THE INFORMATION ON THESE PLANS CONCERNING THE TYPE, SIZE, AND LOCATION OF UTILITIES HAS BEEN SHOWN BASED ON THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINATION OF EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES, IN PLACE, UNLESS OTHERWISE NOTED OR SPECIFIED.

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117806

1/9/19

WILDWOOD HILLS DRAINAGE
FEASIBILITY STUDY
OPTION 1B

A guide to getting underground facilities located before you dig
Know what's below. Call before you dig.
ARIZONA811
Call 811 or visit www.Arizona811.com

FN: OPTION 1B

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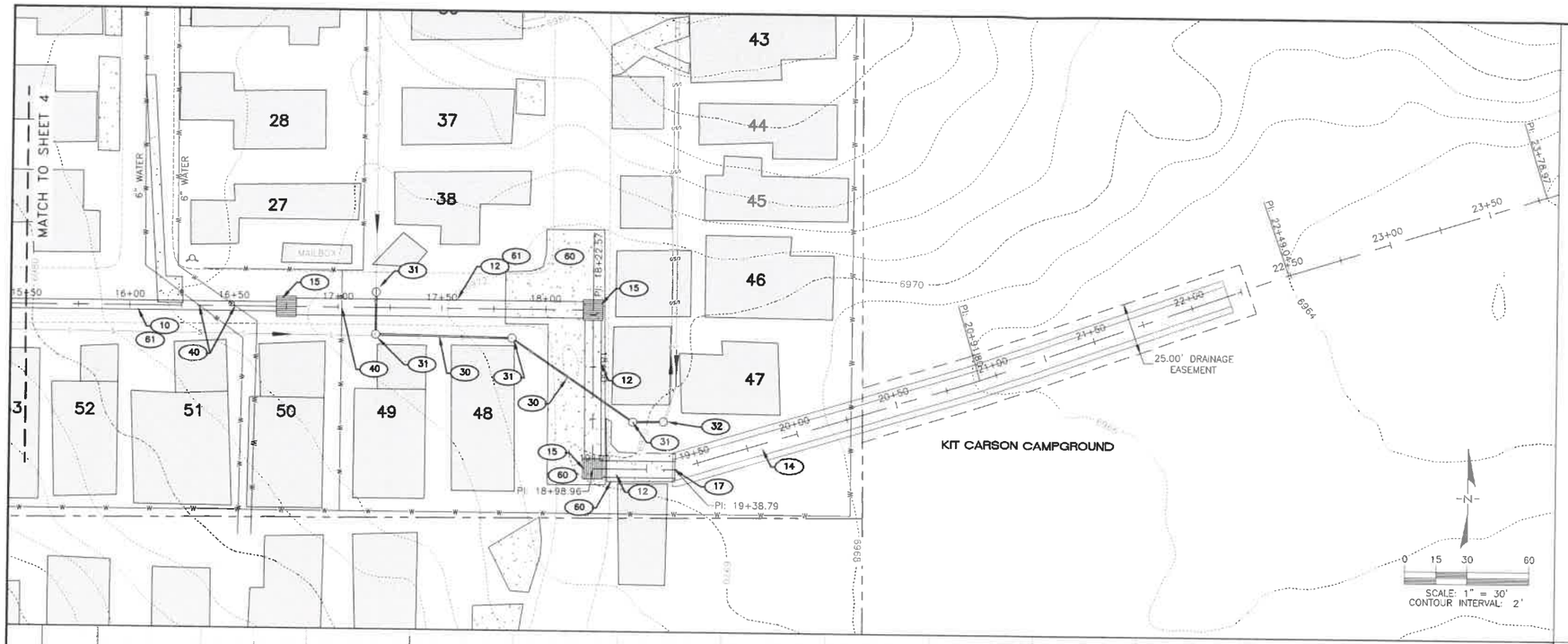
WILDWOOD HILLS DRAINAGE FEASIBILITY STUDY

OPTION 1B

HOR SCALE: 1"=30'
VERT SCALE: 1"=3'
DATE: 1/9/19
PROJECT NO.: 117806
AGENCY NO.:
SHEET NO.: 4 OF 6

DESIGNED BY: SK
DRAFTED BY: AS
CHECKED BY: JH



CONSTRUCTION NOTES
PUBLIC IMPROVEMENTS

(10) INSTALL 54" CONTECH ULTRA FLO CMP OR APPROVED EQUAL IN ACCORDANCE WITH MAG SS 601 & 618.

(12) INSTALL 8'W X 3'H REINFORCED CONCRETE BOX CULVERT IN ACCORDANCE WITH MAG SS 206 & 505.

(13) CONSTRUCT STORM DRAIN MANHOLE IN ACCORDANCE WITH MAG SD NO. 521, & NO. 522.

(14) CONSTRUCT DITCH PER DETAIL ON THIS SHEET.

(15) CONSTRUCT CONCRETE JUNCTION BOX.

(17) CONSTRUCT HEADWALL

(30) INSTALL 8" PVC SEWER PER MAG SS 601 & 615. TYPICAL TRENCHING AND BACKFILL PER COF SD 9-01-030. REMOVE EXISTING SEWER.

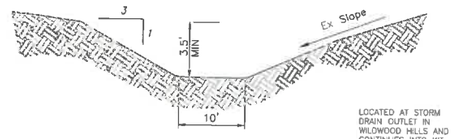
(31) INSTALL SEWER CLEANOUT PER MAG SS 441.

(32) ADJUST EXISTING SEWER PUMP STATION OR REPLACE AS NEEDED.

(40) CONSTRUCT A VERTICAL REALIGNMENT OF EXISTING WATERLINE IN ACCORDANCE WITH MAG SD NO. 370. PROVIDE ADDITIONAL WATER PROTECTION IN ACCORDANCE WITH MAG SD NO. 404.

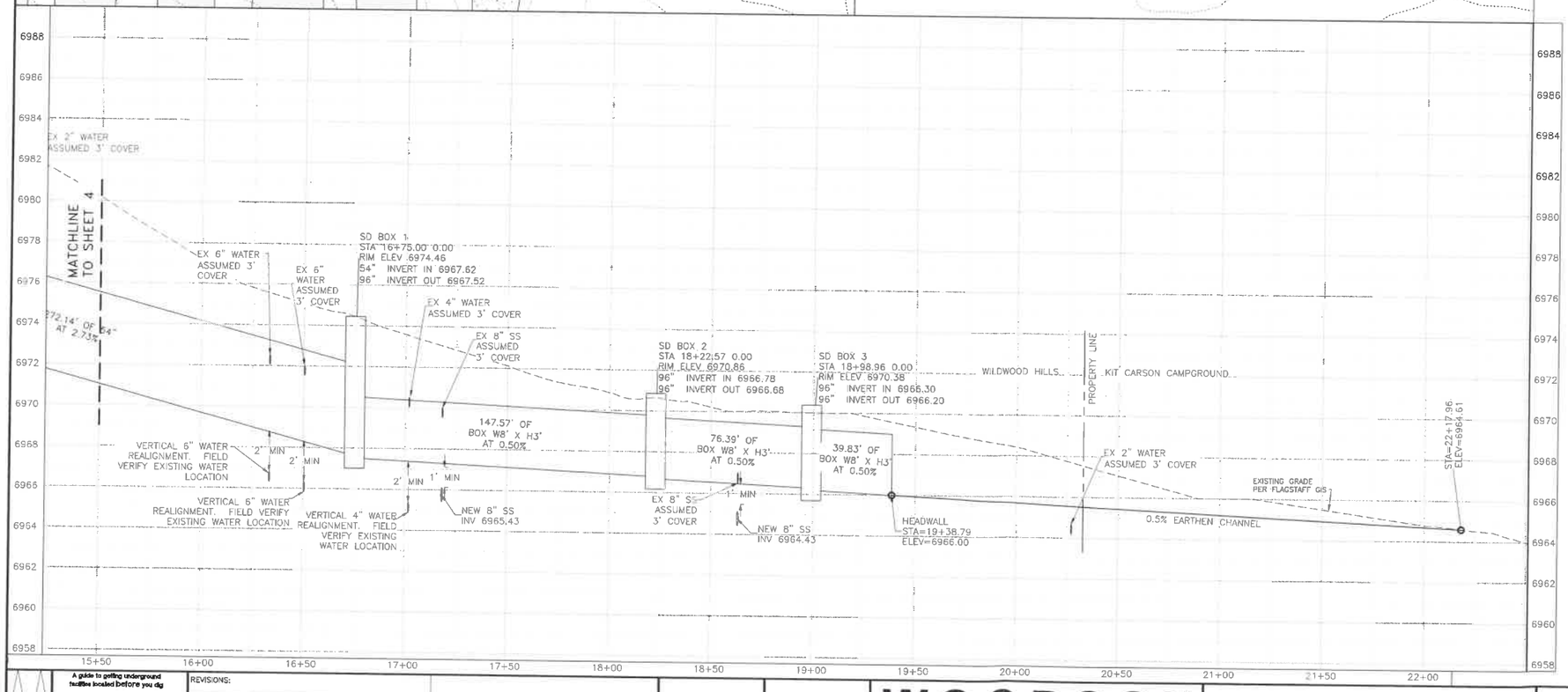
(60) REMOVE AND REPLACE CONCRETE PAVEMENT

(61) REMOVE AND REPLACE ASPHALT ROADWAY PER TRENCHING AND BACKFILL DETAIL COF SD 9-01-03.



LOCATED AT STORM DRAIN OUTLET IN WILDWOOD HILLS AND CONTINUES INTO KIT CARSON CAMPGROUND

EARTHEN CHANNEL DETAIL
N.T.S.



GENERAL NOTES

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PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

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1/9/19

WILDWOOD HILLS DRAINAGE
FEASIBILITY STUDY
OPTION 1B

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Call 811 or visit www.Arizona811.com

FN: OPTION 1B

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WILDWOOD HILLS DRAINAGE FEASIBILITY STUDY

OPTION 1B

HOR SCALE: 1"=30'
VERT SCALE: 1"=3'
DATE: 1/9/19
PROJECT NO.: 117806
AGENCY NO.:
SHEET NO.: 5 OF 6

DESIGNED BY: SK
DRAFTED BY: AS
CHECKED BY: JH



CONSTRUCTION NOTES
PUBLIC IMPROVEMENTS

(01) REMOVE EXISTING ROCK WALL CHANNEL.

(10) INSTALL 48" CONTECH ULTRA FLO CMP OR APPROVED EQUAL IN ACCORDANCE WITH MAG SS 601 & 618.

(11) INSTALL 36" CONTECH ULTRA FLO CMP OR APPROVED EQUAL IN ACCORDANCE WITH MAG SS 601 & 618.

(12) INSTALL 6'W X 3'H REINFORCED CONCRETE BOX CULVERT IN ACCORDANCE WITH MAG SS 206 & 505.

(13) CONSTRUCT STORM DRAIN MANHOLE IN ACCORDANCE WITH MAG SD NO. 521, & NO. 522.

(14) CONSTRUCT DITCH PER DETAIL ON SHEET 2.

(15) CONSTRUCT CONCRETE JUNCTION BOX.

(16) CONSTRUCT DROP INLET STRUCTURE WITH CAPTURE WALLS TO RECEIVE A MAXIMUM OF 140 CFS.

(17) CONSTRUCT HEADWALL.

(18) CONSTRUCT CONCRETE RECTANGULAR CHANNEL PER DETAIL ON THIS SHEET.

(30) INSTALL 8" DIA. PVC SEWER LINE IN ACCORDANCE WITH MAG SS 601 & 615. TYPICAL TRENCHING AND BACKFILL PER COF SD NO. 9-01-030.

(31) INSTALL SEWER CLEANOUT PER MAG SS 441.

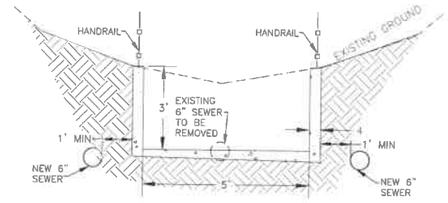
(32) ADJUST EXISTING SEWER PUMP STATION OR REPLACE AS NEEDED.

(40) CONSTRUCT A VERTICAL REALIGNMENT OF EXISTING WATERLINE IN ACCORDANCE WITH MAG SD NO. 370. PROVIDE ADDITIONAL WATER PROTECTION IN ACCORDANCE WITH MAG SD NO. 404.

(60) REMOVE AND REPLACE CONCRETE PAVEMENT

(61) REMOVE AND REPLACE ASPHALT ROADWAY PER TRENCHING AND BACKFILL DETAIL COF SD 9-01-03.

(90) INSTALL SAFETY RAILING.



(18) CONCRETE CHANNEL SECTION
NOT TO SCALE

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1/9/19

WILDWOODHILLS DRAINAGE FEASIBILITY STUDY OPTION 2

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Call 811 or visit www.Arizona811.com

FN: OPTION 2

REVISIONS:

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124 N ELDEN ST, FLAGSTAFF, AZ 86001
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WILD WOOD HILLS DRAINAGE FEASIBILITY STUDY

OPTION 2

HOR SCALE: 1"=30'
VERT SCALE: NA
DATE: 1/9/19
PROJECT NO.: 117806
AGENCY NO.:
SHEET NO.: 6 OF 6

DESIGNED BY: SR
DRAFTED BY: AS
CHECKED BY: JH

APPENDIX C: OPTIONS COST ESTIMATES

OPTION 1A COST ESTIMATE
OPTION 1B COST ESTIMATE
OPTION 2 COST ESTIMATE

Wildwood Hills Feasibility Study
Opinion of Probable Cost
Option 1A

Date: January 9, 2019

Item #	Item Description	Est Quant.	Unit	Unit Price	Total Price
1	Remove Existing Channels (bet. Units 8, 9 & 10)	1	LS	$5,000	$5,000
2	Remove Existing Sidewalk	250	SF	$4	$1,000
3	Remove Asphalt Pavement	1290	SY	$5	$6,449
4	Remove Private Driveways (Units 9, 48 & 49)	1750	SF	$4	$7,000
5	Remove Concrete pavement/pads	5888	SF	$5	$29,440
6	Replace Asphalt Pavement	1290	SY	$50	$64,489
7	Replace Private Driveways (Units 9, 48 & 49)	1150	EA	$10	$11,500
8	Replace Sidewalk	250	SF	$10	$2,500
9	Replace Concrete Pavement/Pads	5888	SF	$10	$58,880
10	ALLOWANCE Remove Unit (#9)	1	EA	$250,000	$250,000
11	Grade to Drain (between Units 8 and 10)	1	LS	$5,000	$5,000
12	Inlet Structure (between units 8 and 10)	1	EA	$15,000	$15,000
13	Earthern Channel (Kit Carson)	1	LS	$10,000	$10,000
14	48-Inch Ultra Flo CMP (Contech)	729	LF	$100	$72,900
15	6'x3' (Width X Height) RCBC (Forterra)	265	LF	$600	$159,000
16	Headwall (6'x3' RCBC) at Outlet	1	EA	$10,000	$10,000
17	Manholes (MAG 521-51" or larger)	3	EA	$9,000	$27,000
18	Transition Structures (cast-in-place)	3	EA	$15,000	$45,000
19	Vertical Water realignment at crossing (6-inch)	3	EA	$5,000	$15,000
20	8" Sanitary Sewer Remove/Replace	185	LF	$65	$12,025
21	Adjust sewer services (Units 48 & 49)	2	EA	$1,000	$2,000
22	New Sewer Cleanouts	4	EA	$700	$2,800
23	Sewer Lift Station	1	EA	$10,000	$10,000
24	Traffic Control	1	LS	$50,000	$50,000
Subtotal					***$871,983***
25	Engineering and Survey (10%)	1	LS	$87,198	$87,198
26	Contingency (20%)	1	LS	$174,397	$174,397
Total					**$1,133,578**

This estimate is based on the preliminary plans for the project dated 1/2/19
This estimate is made on the basis of oour experience and qualifications and represents our best judgement.
ALLOWANCE for removal of Unit 9 is based on an estimated market value of $100,000 plus relocation expenses. No allowance has been made for legal costs
Rock excavation cost (if any) is not included in the estimate. Geotechnical evaluation is recommended for detailed design phase.

Wildwood Hills Feasibility Study
Opinion of Probable Cost
Option 1B

Date: January 9, 2019

Item #	Item Description	Est Quant.	Unit	Unit Price	Total Price
1	Remove Existing Channels (bet. Units 8, 9 & 10)	1	LS	$5,000	$5,000
2	Remove Existing Sidewalk	250	SF	$4	$1,000
3	Remove Asphalt Pavement	1290	SY	$5	$6,449
4	Remove Private Driveways (Units 9, 48 & 49)	1750	SF	$4	$7,000
5	Remove Concrete pavement/pads	5888	SF	$5	$29,440
6	Replace Asphalt Pavement	1290	SY	$50	$64,489
7	Replace Private Driveways (Units 9, 48 & 49)	1150	EA	$10	$11,500
8	Replace Sidewalk	250	SF	$10	$2,500
9	Replace Concrete Pavement/Pads	5888	SF	$10	$58,880
10	ALLOWANCE Remove Unit (#9)	1	EA	$250,000	$250,000
11	Grade to Drain (between Units 8 and 10)	1	LS	$5,000	$5,000
12	Inlet Structure (between units 8 and 10)	1	EA	$15,000	$15,000
13	Earthern Channel (Kit Carson)	1	LS	$10,000	$10,000
14	54-Inch Ultra Flo CMP (Contech)	729	LF	$130	$94,770
15	8'x3' (Width X Height) RCBC (Forterra)	265	LF	$750	$198,750
16	Headwall (8'x3' RCBC) at Outlet	1	EA	$10,000	$10,000
17	Manholes (MAG 521-51" or larger)	3	EA	$9,000	$27,000
18	Transition Structures (cast-in-place)	3	EA	$15,000	$45,000
19	Vertical Water realignment at crossing (6-inch)	3	EA	$5,000	$15,000
20	8" Sanitary Sewer Remove/Replace	185	LF	$65	$12,025
21	Adjust sewer services (Units 48 & 49)	2	EA	$1,000	$2,000
22	New Sewer Cleanouts	4	EA	$700	$2,800
23	Sewer Lift Station	1	EA	$10,000	$10,000
24	Traffic Control	1	LS	$50,000	$50,000
Subtotal					***$933,603***
25	Engineering and Survey (10%)	1	LS	$93,360	$93,360
26	Contingency (20%)	1	LS	$186,721	$186,721
Total					**$1,213,684**

This estimate is based on the preliminary plans for the project dated 1/2/19
This estimate is made on the basis of oour experience and qualifications and represents our best judgement.
ALLOWANCE for removal of Unit 9 is based on an estimated market value of $100,000 plus relocation expenses. No allowance has been made for legal costs
Rock excavation cost (if any) is not included in the estimate. Geotechnical evaluation is recommended for detailed design phase.

Wildwood Hills Feasibility Study
Opinion of Probable Cost

Date: January 9, 2019

Option 2

Item#	Item Description	Est Quant.	Unit	Unit Price	Total Price
1	Remove Existing Channels (bet. Units 8, 9 & 10)	1	LS	$5,000	$5,000
2	Remove Existing Sidewalk	250	SF	$4	$1,000
3	Remove Asphalt Pavement	336	SY	$5	$1,680
4	Remove Concrete pavement/pads	1992	SF	$5	$9,960
5	Replace Asphalt Pavement	336	SY	$50	$16,800
6	Replace Sidewalk	250	SF	$10	$2,500
7	Replace Concrete Pavement/Pads	1992	SF	$10	$19,920
8	ALLOWANCE Remove Unit (#9)	1	EA	$250,000	$250,000
9	Grade to Drain (between Units 8 and 10)	1	LS	$5,000	$5,000
10	Inlet Structure (between units 8 and 10)	1	EA	$15,000	$15,000
11	Earthern Channel (Kit Carson)	1	LS	$10,000	$10,000
12	48-Inch Ultra Flo CMP (Contech)	359	LF	$100	$35,900
13	2 X 36-inch Ultra Flo CMP (Contech)	35	LF	$150	$5,250
14	Concrete Rectangular Channel (5-ft bottom width)	238	LF	$600	$142,800
15	ALLOWANCE disruption to Units 17, 18, 23, 24, 29, 30, 35, and 36	1	LS	$160,000	$160,000
16	6'x3' (Width X Height) RCBC (Forterra)	181	LF	$600	$108,600
17	Headwall (6'x3' RCBC) at Outlet	1	EA	$10,000	$10,000
18	Manholes (MAG 521-51" or larger)	2	EA	$9,000	$18,000
19	Transition Structures (cast-in-place)	3	EA	$15,000	$45,000
20	Vertical Water realignment at crossing (6-inch)	2	EA	$5,000	$10,000
21	8" Sanitary Sewer Remove/Replace	783	LF	$65	$50,895
22	New Sewer Cleanouts	7	EA	$700	$4,900
23	Sewer Lift Station	1	EA	$10,000	$10,000
24	Traffic Control	1	LS	$50,000	$50,000
Subtotal					***$988,205***
25	Engineering and Survey (10%)	1	LS	$98,821	$98,821
26	Contingency (20%)	1	LS	$197,641	$197,641
Total					**$1,284,667**

This estimate is based on the preliminary plans for the project dated 1/2/19
This estimate is made on the basis of oour experience and qualifications and represents our best judgement.
ALLOWANCE for removal of Unit 9 is based on an estimated market value of $100,000 plus relocation. No allowance has been made for legal costs
ALLOWANCE for disruption to other units is based on $20,000 per unit for areas that would be drastically affected. No allowance has been made for legal costs.
Rock excavation cost (if any) is not included in the estimate. Geotechnical evaluation is recommended for detailed design phase.

APPENDIX D: REFRENCE INFORMATION

AS BUILTS FOR WILDWOOD HILLS WATER AND SEWER EXTENSION

WILDWOOD HILLS

WATER & SEWER LINE EXTENSION

GENERAL NOTES

1. Approval of these plans by the City Engineer is for a one year period, subsequent to date of review. If construction work is not started within the one year period, or has been discontinued for any reason for longer than one year, the plans shall be resubmitted for review.

2. Plan review by the City Engineer does not extend to material quantities shown on these plans.

3. A public works permit, issued by the City, is required for all work in City rights-of-way or easements and for construction of any improvements intended to become public property.

4. The City shall be notified 24 hours prior to beginning different phases of construction so that inspectors may be scheduled.

5. All materials and workmanship shall comply with the City of Flagstaff "Design and Construction Standards and Specifications" and the M.A.G. "Uniform Standard Specifications for Public Works Construction" latest revision, with the latest City of Flagstaff Additions and Revisions, and with generally accepted good construction practice. All work and materials which do not conform to the Standards and Specifications are subject to removal and replacement at the Contractor's expense.

6. Any work performed without the knowledge and approval of the City Engineer or his representative, is subject to removal and replacement at the Contractor's expense.

7. The City Engineer or his representative may suspend the work by written notice when, in his judgement, progress is unsatisfactory, work being done is unauthorized or defective, weather conditions are unsuitable, or there is danger to the public health or safety.

8. The City Engineer may order any or all materials used in the work to be tested according to AASHO and ASTM Standards. The Contractor shall, at his expense, supply all samples required for testing.

9. The Contractor shall be responsible for maintenance of the streets and of partically completed portions of the work until final acceptance of the work. Any streets required to be closed for the construction activity shall be reopened within a reasonable time or upon order of the City Engineer. The regulation and control of all traffic shall be as directed by the City Engineer.

10. Approval of a portion of the work in progress does not guarantee its final acceptance. Testing and evaluation may continue until written final acceptance of a complete workable unit. Any defects which appear in the work within one year from the date of acceptance and which are due to improper workmanship or inferior materials supplied shall be corrected by or at the expense of the owner/developer or the Contractor.

11. Acceptance of completed public improvements will not be given until defective or unauthorized work is removed, final clean-up completed.

12. Location of underground utilities before work is begun is to be accomplished in accordance with ARS 40-366.22. Contact BLUE STAKE at 799-5139.

WATER AND SEWER NOTES

1. Rough grading must be completed prior to installation of underground utilities.

2. If backfilling is compacted by water settling, the trench shall be jetted when the pipe has one foot of cover.

3. No trench shall be filled with bedding material or backfilled until the excavation and pipe laying, respectively, have been approved by the City Engineer.

4. A pressure test is required of all water lines, and a hydrostatic or air test is required of all sewer lines. Test are to be conducted after backfilling is complete and compacted.

5. Water and sewer service lines are to be marked as shown on the standard service details.

6. Water line disinfection is to be accomplished as outline in Arizona State Department of Health Engineering Bulletin No. 8.

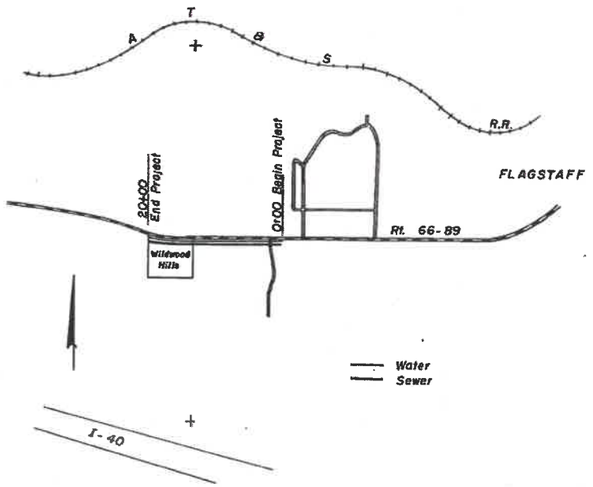
7. Water pipe classifications shall be Class 200 for A.C.P. and Class 150 for ductile iron pipe unless otherwise specified by the City Engineer.

8. All sewer lines will also be television inspected prior to acceptance by the City.

9. When a sewer crosses a water pipe at a point at which the sewer is 2 feet or more below the water pipe, no extra protection is required. At all other crossings the sewer shall be constructed of cast iron with leaded or mechanical joints for a distance of at least 6 feet in each direction from the crossing or, as an alternate, the sewer can be encased in concrete of 6 inches minimum thickness for the same distance.

NOTICE TO CONTRACTORS

1. THE DEPTH AND LOCATION OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES PRIOR TO ANY EXCAVATION TO VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF THEIR UTILITY.
2. QUANTITIES ARE FOR PRELIMINARY COST ESTIMATING AND SHOULD NOT BE USED AS A BASIS FOR CONTRACTS OR BIDS.
3. A 48 HOUR NOTIFICATION IS REQUIRED PRIOR TO ANY NEED FOR STAKES TO SCHEDULE SURVEY CREWS.
4. A BLASTING PERMIT FOR WORK IN CITY OF FLAGSTAFF AND STATE OF ARIZONA RIGHT-OF-WAY SHALL BE OBTAINED FROM THE CITY OF FLAGSTAFF FIRE DEPARTMENT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. TRAFFIC CONTROL IS REQUIRED AND SHALL BE DONE IN CONFORMANCE WITH THE "TRAFFIC CONTROL MANUAL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE", ARIZONA DEPARTMENT OF TRANSPORTATION, LATEST EDITION. TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES ON U.S. HIGHWAYS 66 AND 89.
6. A PUBLIC WORKS PERMIT, ISSUED BY THE ARIZONA DEPARTMENT OF TRANSPORTATION, IS REQUIRED FOR ALL WORK IN THE STATE OF ARIZONA RIGHT-OF-WAY.



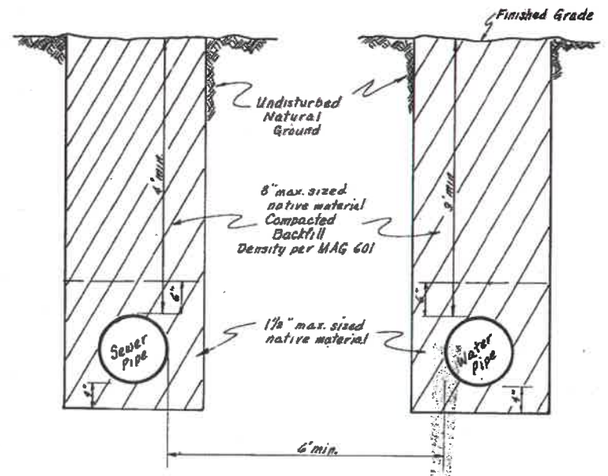
KEY MAP

1" = 1000'

Two working days before you dig, CALL FOR THE BLUE STAKE 779-5139 Blue Stake Center 24hr. Service

APPROXIMATE QUANTITIES

Item	Unit	Quantity	Std Dwg. No.
10" V.C.P. Sewer Pipe	L.F.	2000	
Standard Manhole	Ea.	5	I- 20.10
6" ACP Water Pipe	L.F.	1318	
6" Gate Valve, Box & Cover	Ea.	7	I- 30.10
12" ACP Water Pipe	L.F.	2010	
12" Gate Valve, Box & Cover	Ea.	3	I- 30.10
12"x6" Tee	Ea.	2	I- 30.00
12" 45° Bend	Ea.	3	I- 30.00
Temp. Blow off	Ea.	1	I- 30.11
12"x2" Tap Sleeve & Valve	Ea.	1	MAG-340
Pavement Replacement	S.Y.	65	MAG-200
6" D.I. Pipe	L.F.	30	
6" Fire Hydrant	Ea.	3	I-30.20
Conc. Encasement or DIP		as req	I-10.10
6" 45° Bend	Ea	4	I-30.10
6" 90° Bend	Ea	2	"



APPROVALS

CONCEPT APPROVAL: *The City approves these plans for concept only. This certifies that the Developers Engineer has satisfied the minimum requirements of the City of Flagstaff design standards. All liability for errors or ommissions is the responsibility of the Developers Engineer.*

APPROVED BY Ronald A Sevian for FLAGSTAFF CITY ENGINEER — DATE 11/12/82

FLAGSTAFF CITY UTILITY DIRECTOR — DATE 10-14-82

NOTE: *Contractor must obtain Permit from ADOT prior to any construction in State of Arizona right-of-way.*

APPROVED BY ADOT — DATE 9-15-82

APPROVED BY FILE NO. 820425 ARIZONA DEPT. of HEALTH SERVICE — DATE 10-18-82

PLANS REVIEWED BY	DATE
A.P.S. Thomas W Brink	9/8/82
SO. UNION	
M.T. BELL Bruce Bartlett	9-8-82
WARNER CABLE To-24	9-8-82

AS BUILT

Revised per City 6/15/82
Revised per City 8/11/82
Revised per City 9/8/82
Revised per City 9/7/82
Revised per City 9/20/82

OFFSITE WATER & SEWER

ROCKWELL CONSULTANTS
3006 N. 38th Street Phoenix, Arizona 85018
(602) 957-1839

Job No: 1185/173 Sheet 1 of 3

CP-2468

SUB-95 POCKET-28

Sta 0+00 Exist M.H.

Install 400 L.F. New 10" VCP Sewer. Conn. to exist. stubout

Encase in Conc until 2' min. cover is reached I-10.10

Sta 4+00 M.H. #1 Install Standard M.H. per Std. Dwg. I-20.10

Install 400 L.F. 10" VCP Sewer

Sta. 8+00 M.H. #2 Install Standard M.H. per Std. Dwg. I-20.10

Install 200 L.F. New 10" VCP Sewer

Sta 0+00 Exist 12" Valve

US 66 & 89

Remove 65 S.Y. Pavement Replace in kind - Tee-Top MAG. 200

Install 800 L.F. New 12" ACP Water Line Conn. to Exist. Valve

Sta. 14+18 Install 12 Gate Valve B & C. per I-30.10

MATCH LINE STA. 10+00 Below

B.M. Elev. 6955.16'
Top 3" A.H.D. Brass Cap center of north concrete headwall ± 140' west of Kit Carson Park office.

PLAN — SURVEYED, PLOTTED, DRAWN, CHECKED, R.W. CHECKED, RT. OF WAY CHECKED, NOTE BOOK, NO., BY, DATE

Exist. M.H. Sta 0+00 — Rim 33.18 — Exist. Profile of ℄ Propose Sewer — M.H. #1 Sta 4+00 — Rim 39.50 — 400 L.F. 10" VCP S=0.0034 — Exist. 10" S=0.0040 — 47.29 — 40.89

M.H. #2 Sta 8+00 — Rim 49.20 — 400 L.F. 10" VCP S=0.0329 — 200 L.F. 10" VCP S=0.0510 — 42.05

6962 6958 6954 6950 — 0 2 4 6 8 10 — 6962 6976 6958 6972 6954 6968 6950 6964 — 6976 6972 6968 6964

Install 200 L.F. New 10" VCP Sewer

Sta 12+00 M.H. #3 Install Std. M.H. per Std. Dwg. I-20.10

MATCH LINE STA. 10+00 Above Right

Sta. 13+00 Install 4" Sewer Tap (6' Deep)

Install 780 L.F. 12" ACP Water

Sta 15+55 Install 12"x6" Tee & Thrust Blk per SD I-30.00

Sta 15+90 Install 2" Tap & 2" Water Meter

Sta 15+90 Install 12" Gate Valve, B & C. per I-30.10

Install 190 L.F. New 10" VCP Sewer

Sta 16+00 M.H. #4 Install Std. M.H. per Std. Dwg. I-20.10

Install 380 L.F. 12" ACP Water

Sta 16+00 Install 12"x6" Tee & Thrust Blk. per I-30.00

Install ~~380~~ 320 L.F. New 10" VCP Sewer

Sta 19+90 M.H. #5 Install Std. M.H per S.D. I-20.10

Sta 19+50 Install 12" Gate Valve B & C S.D. I-30.10

Install 50 LF 12" ACP Water

Sta 20+00 Install Temp. Blow-off per SD I-30.11

US 66 & 89

SCALE: Horiz 1" = 40'
Vert. 1" = 4'

Rim 31.50 — 90 LF 10" VCP S=0.0034 — 200 LF 10" VCP S=0.0590 — M.H. #3 Sta 12+00 — 88.94 — 6990 6986 6982 6978 — 6990 6996 6986 6992 6982 6988 6978 6984

Rim 30.60 — 328 LF 10" VCP S=0.0034 — 120 LF 10" VCP S=0.0750 — 120 LF 10" VCP S=0.0175 — 160 LF 10" VCP S=0.0750 — 10" DIP until cover exceeds 4' — 22.90 — M.H. #4 Sta 16+00 — 6996 7008 7008 7016 7004 7012 6988 7000 7000 7008 6984 6996 6996 — 10" Stub Plugged — 7013.80 — M.H. #5 Sta 19+90 — Rim 19.08 — 7016 7012 7008 7004

PROFILE — SURVEYED, PLOTTED, DRAWN, CHECKED, EL. DIA. NOTED, STRUCTURE, NOTATIONS CHKD, NOTE BOOK, NO., BY, DATE

Blue Stake, Inc. CALL FOR THE BLUE STAKES 779-5139 CALL COLLECT

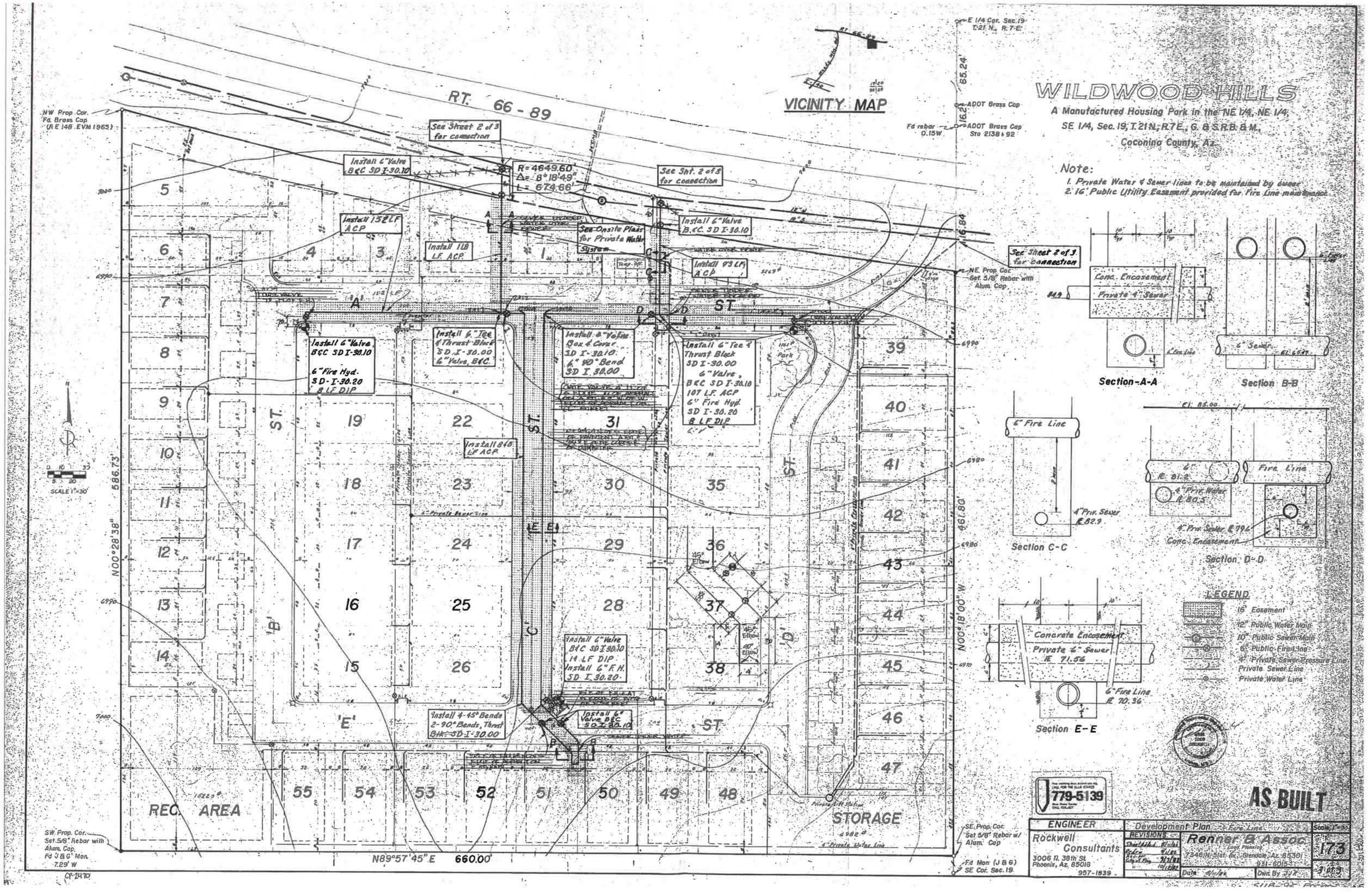
AS BUILT

OFF-SITE WATER & SEWER
ROCKWELL CONSULTANTS
3006 N. 38th Street Phoenix, Arizona 85018
(602) 957-1839
Job No. 1185/173 Sheet 2 of 3
6/15/82

PLATE 2-DOUBLE PLAN AND PROFILE-FULL DOT
HIGHWAY FEDERAL AID SHEET
WITEDYE
PRINTED IN U.S.A.

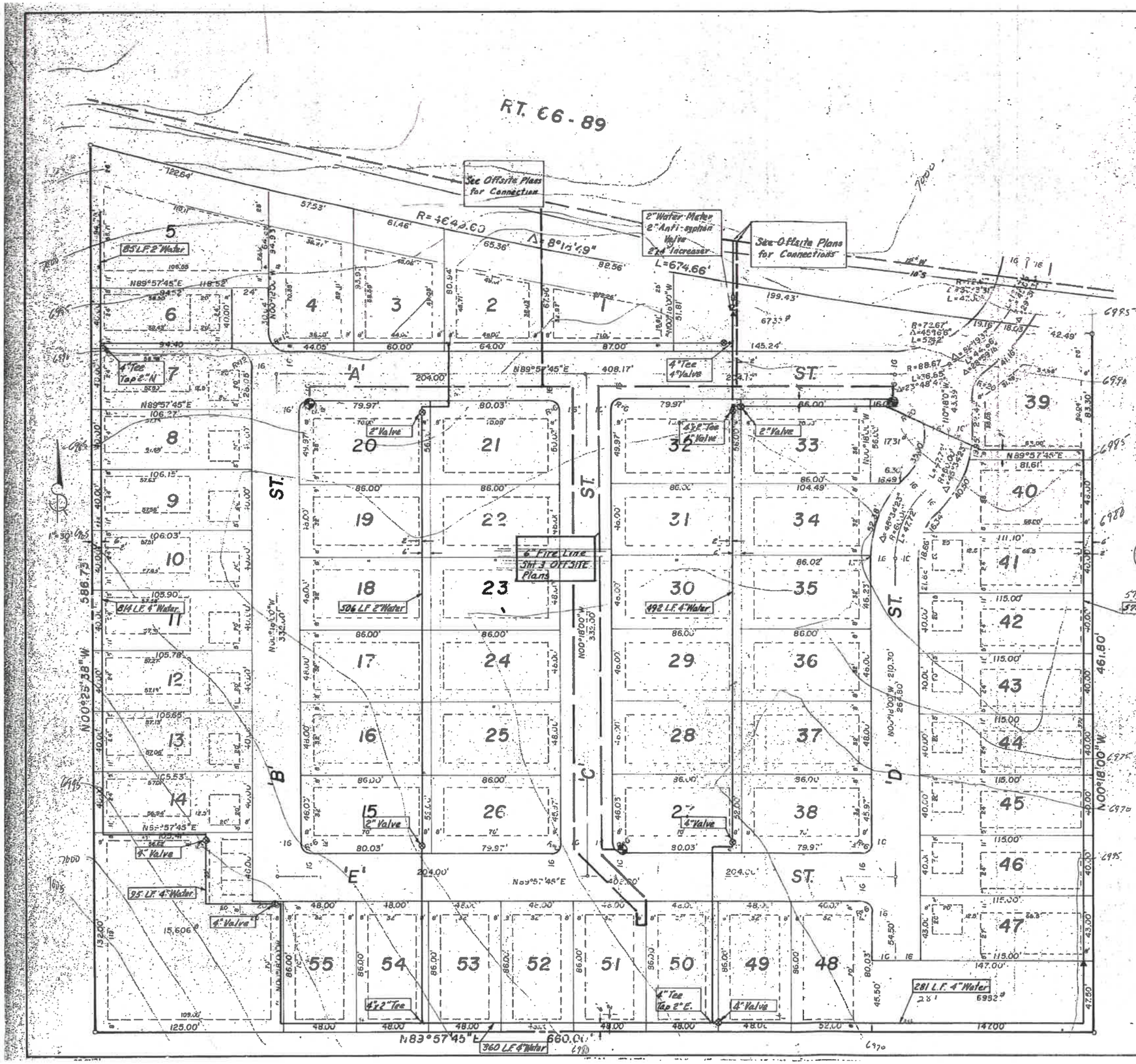
CF-74A

SUB OF SHEET - 78



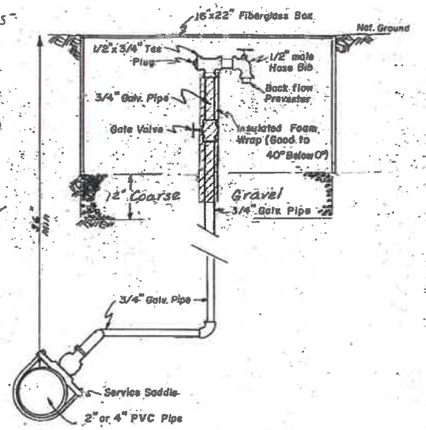
WILDWOOD HILLS
A Manufactured Housing Park in the NE 1/4, NE 1/4, SE 1/4, Sec. 19, T.21N., R.7E., G. & S.R.B. & M., Coconino County, Az.
Note:
1. Private Water & Sewer lines to be maintained by owner
2. 16' Public Utility Easement provided for Fire Line maintenance
VICINITY MAP
RT. 66 - 89
See Sheet 2 of 3 for connection
Install 6" Valve B&C SD I-30.10
R=4649.60'
Δ= 8°18'49"
L= 674.66'
See Sht. 2 of 3 for connection
Install 152 LF ACP
Install 118 LF ACP
See Onsite Plans for Private Water System
Install 6" Valve B.&C. SD I-30.10
Install 93 LF ACP
See Sheet 2 of 3 for connection
Install 6" Valve B&C SD I-30.10
6" Fire Hyd. SD-I-30.20
8 LF DIP
Install 6" Tee & Thrust Block SD I-30.00 6" Valve, B&C
Install 6" Valve Box & Cover SD I-30.10
6" 90° Bend SD I 30.00
Install 6" Tee & Thrust Block SD I-30.00
6" Valve, B&C SD I-30.10
107 LF ACP
6" Fire Hyd. SD I-30.20
8 LF DIP
Install 848 LF ACP
Install 6" Valve B&C SD I-30.10
14 LF DIP
Install 6" F.H. SD I 30.20
Install 4-45° Bends 2-90° Bends, Thrust Blk. SD I-30.00
Install 6" Valve B&C SD I-30.10
REC. AREA
STORAGE
N89°57'45"E 660.00'
N00°28'38" 586.73'
N00°18'00" W 461.80'
SCALE 1"=30'
NW Prop. Cor. Fd. Brass Cap (R.E. 148 EVM 1965)
SW Prop. Cor. Set 5/8" Rebar with Alum. Cap. Fd J&G Mon. 7.29' W
SE Prop. Cor. Set 5/8" Rebar w/ Alum. Cap
Fd Mon (J&G) SE Cor. Sec. 19
E 1/4 Cor. Sec. 19 T.21 N., R.7 E.
ADOT Brass Cap
Fd rebar 0.15W
ADOT Brass Cap Sta 2138+92
NE Prop. Cor. Set 5/8" Rebar with Alum. Cap
Conc. Encasement
Private 4" Sewer
Section-A-A
6" Sewer
Section B-B
6" Fire Line
4" Priv. Sewer
Section C-C
Fire Line
4" Priv. Water
4" Priv. Sewer
Conc. Encasement
Section D-D
Concrete Encasement
Private 6" Sewer
6" Fire Line
Section E-E
LEGEND
16' Easement
12" Public Water Main
10" Public Sewer Main
6" Public Fire Line
4" Private Sewer Pressure Line
Private Sewer Line
Private Water Line
779-5139
AS BUILT
ENGINEER
Rockwell Consultants
3006 N. 38th St
Phoenix, Az. 85018
957-1839
Development Plan
Renner & Assoc.
Land Planning
7346 N. 51st Av., Glendale, Az. 85301
931-6015
Scale 1"=30'
173

WILDWOOD HILLS

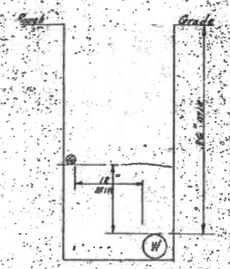


NOTES:

1. Water lines to have a minimum of 36" of cover over top of barrel.
2. Water and Sewer line separation to conform to Std. Dwg. I-10.10
3. Fire Hydrant installation per Std. Dwg. I-30.20
4. Install 6" ACP Fire Main per City of Flagstaff Standards and Specifications Std. Dwg. I-30.00
5. 2" and 4" water lines are to be privately maintained by property owner.



RISER DETAIL



TRENCH B

LEGEND

- Fire Hydrant & Valve
- Valve
- Water Meter
- Anti-siphon Valve

APPROXIMATE QUANTITIES

4" Water Line PVC	2052 L.F.
4" Tee	2 Ea.
4"x2" Tee	3 Ea.
4" Valve	6 Ea.
2" Water Meter	1 Ea.
2" Anti syphon Valve	1 Ea.
2" Water Line PVC	1159 L.F.
2" Valve	3 Ea.
Service Taps PVC	56 Ea.

AS BUILT

Revised Fire Line 10/12/82
Moved Fire Line 9/2/82
Revised Per City 8/11/82
Revised Per City 6/28/82
5/25/82

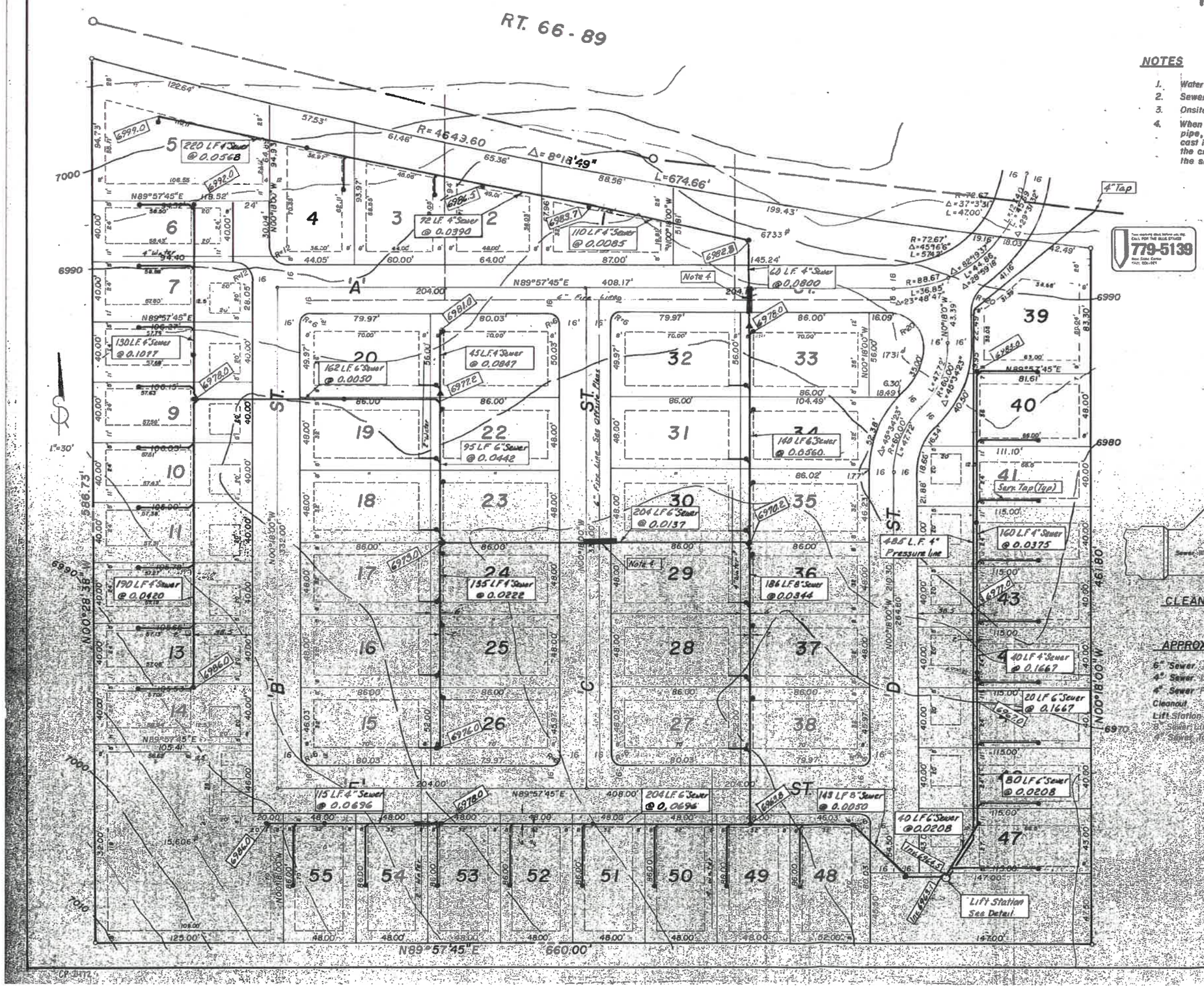
779-5139

ONSITE WATER

ROCKWELL CONSULTANTS
3006 N. 38th Street Phoenix, Arizona 85018
(602) 957-1839

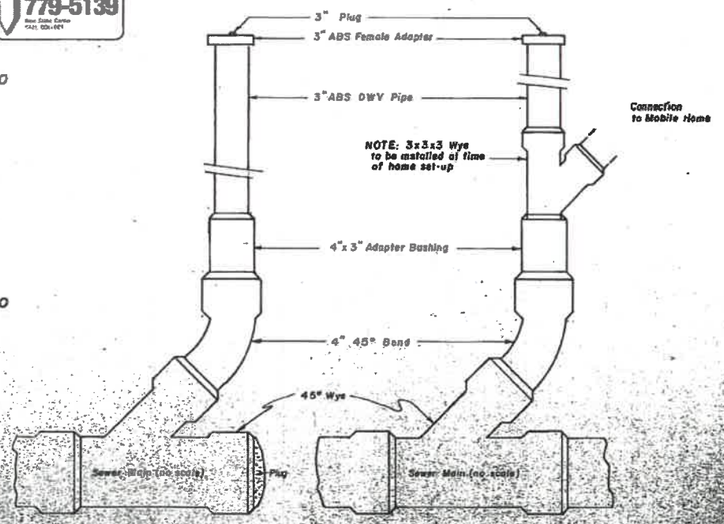
Job No. 1185/173 Sheet 1 of 1

WILDWOOD HILLS



NOTES

1. Water and Sewer line separation shall conform to Std. Dwg. I-10.10
2. Sewer line installation shall conform to the latest U.P.C.
3. Onsite private sewer lines to be maintained by property owner.
4. When a sewer crosses a water pipe at a point at which the sewer is 2' or more below the water pipe, no extra protection is required. At all other crossings the sewer shall be constructed of cast iron with leaded or mechanical joints for a distance of at least 6' in each direction from the crossing or, as an alternate, the sewer can be encased in concrete of 6" min. thickness for the same distance.



CLEANOUT

SEWER CONNECTION

APPROXIMATE QUANTITIES

6" Sewer Line	945 L.F.
4" Sewer Line	1277 L.F.
4" Sewer Pressure	485 L.F.
Cleanout	75 Ea.
Lift Station	1 Ea.
8" Sewer Line	329 L.F.
4" Sewer Tap to City Main	1 Ea.

LEGEND

- Cleanout
- Reducer
- 6992.0 Propose invert elevation
- Exist. Contours
- Proposed Onsite Sewer
- Proposed Offsite Sewer
- Cond. Encasement or D.I.P.

AS BUILT

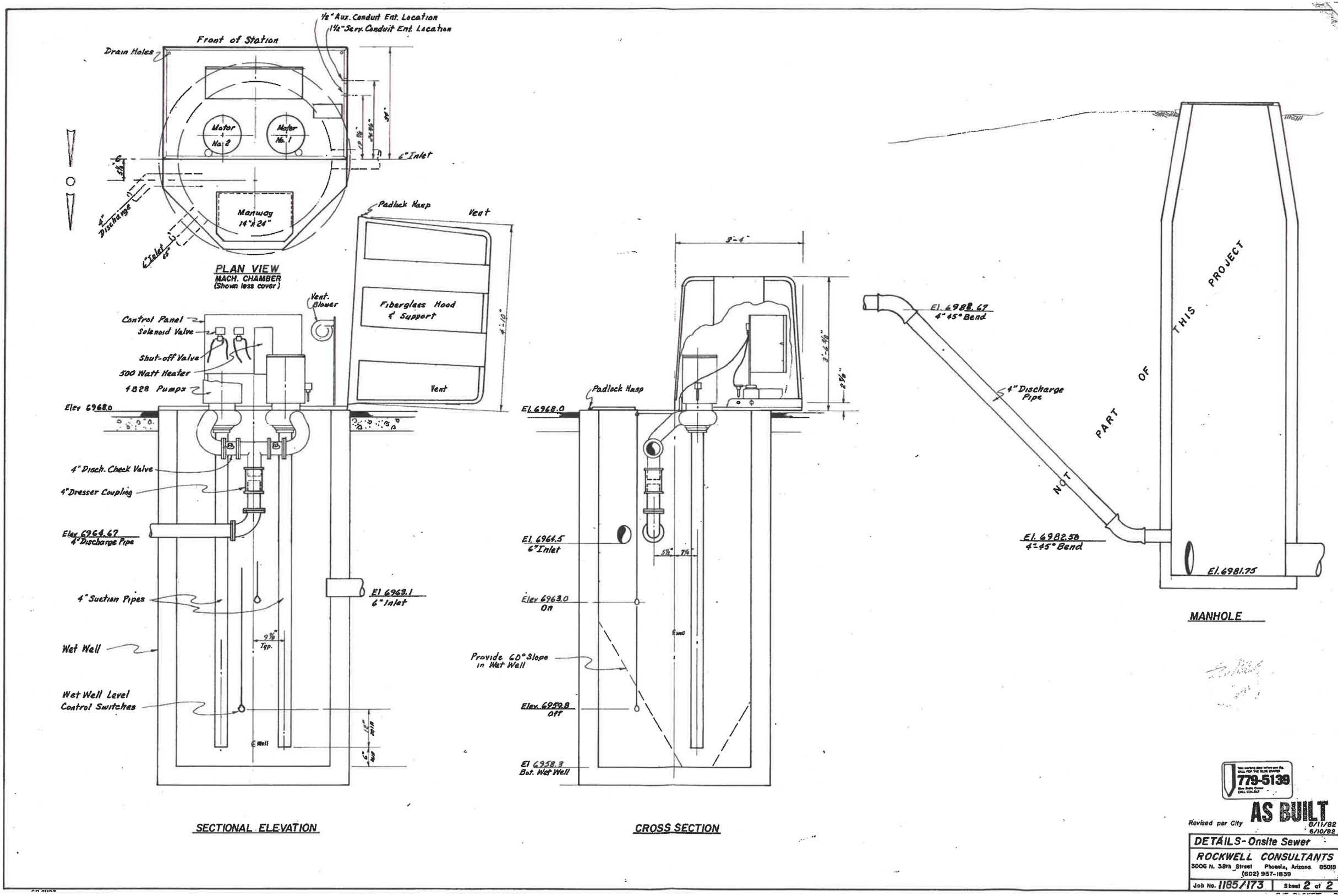
Add Fire Line
Revised per City
Revised per City

ONSITE SEWER

ROCKWELL CONSULTANTS
3006 N. 38th Street · Phoenix, Arizona 85018
(602) 957-1839

Job No. 1185 / 1787 | Sheet 1 of 2

SUB-SEC POCKET



1/2" Aux. Conduit Ent. Location
1 1/2" Serv. Conduit Ent. Location
Front of Station
Drain Holes
Motor No. 2
Motor No. 1
6" Inlet
4" Discharge
6" Inlet
Manway 14" x 24"
PLAN VIEW
MACH. CHAMBER
(Shown less cover)
Padlock Hasp
Vent
Fiberglass Hood & Support
Vent
4'-10"
Vent. Blower
Control Panel
Solenoid Valve
Shut-off Valve
500 Watt Heater
4B28 Pumps
Elev 6968.0
4" Disch. Check Valve
4" Dresser Coupling
Elev 6964.67
4" Discharge Pipe
4" Suction Pipes
Wet Well
Wet Well Level Control Switches
El 6963.1
6" Inlet
9 7/8" Typ.
℄ Well
SECTIONAL ELEVATION
3'-4"
3'-6 3/8"
2 7/8"
Padlock Hasp
El. 6968.0
El. 6964.5
6" Inlet
5 1/2"
7 1/4"
Elev 6963.0
On
Provide 60° Slope in Wet Well
Elev. 6959.8
Off
El 6958.3
Bot. Wet Well
CROSS SECTION
El. 6988.67
4" 45° Bend
4" Discharge Pipe
NOT PART OF THIS PROJECT
El. 6982.58
4"-45° Bend
El. 6981.75
MANHOLE
779-5139
AS BUILT
Revised per City
8/11/82
6/10/82
DETAILS - Onsite Sewer
ROCKWELL CONSULTANTS
3006 N. 38th Street Phoenix, Arizona. 85018
(602) 957-1839
Job No. 1185/173
Sheet 2 of 2

When recorded, return to:

City Clerk
City of Flagstaff
211 West Aspen Avenue
Flagstaff, Arizona 86001

POND AGREEMENT

THIS POND AGREEMENT ("**Agreement**") is entered into this _____ day of _____, 2019, by and between the City of Flagstaff, a municipal corporation organized and existing under the laws of the State of Arizona (the "**City**"), and Wanderland Flagstaff, LLC, an Arizona limited liability company ("**Owner**").

RECITALS

A. Owner owns real property located along west Route 66 in Flagstaff, known as the "Woody Mountain Campground", also identified as Coconino County Assessor Parcel Nos. 112-01-007 and 112-01-008 (**"Owner's Property**");

B. At the request of City, Owner (with input from the City) engaged third party consultants to design a regional stormwater detention basin on a portion of Owner's Property to reduce peak stormwater runoff flows on downstream properties;

C. The parties are entering into this Agreement to provide for the orderly design, construction, and maintenance of a regional stormwater detention basin and recreational pond (together "**the Pond"**) on a portion of the Owner's Property as shown on the City approved site plan for the Owner's Property, attached hereto as **Exhibit A** ("**Approved Site Plan**");

D. The City desires to acquire non-exclusive easements for regional stormwater detention capacity across Owner's Property; access rights for maintenance and inspection across Owner's Property and Owner's Adjacent Property;

E. City has authority pursuant to A.R.S. § 9-401 and its City Charter, Article I, Section 3, to acquire land and easements for public purposes;

F. City has authority pursuant to A.R.S. § 9-500.05 to enter into development agreements, and the parties believe the Pond construction will qualify for the exemption from public bidding set forth in A.R.S. § 34-201.G;

NOW, THEREFORE, in consideration of the mutual promises set forth herein, the parties agree as follows:

1. Term of Agreement. This Agreement shall commence on September 27, 2019 and continue in perpetuity, unless sooner terminated as provided for herein.

2. Pond. Owner, at its expense, will design and construct the Pond on Owner's Property per the Approved Site Plan and as depicted in the conceptual renderings attached hereto as **Exhibit B**. The Pond will have the capacity to hold approximately 10 acre feet of water, and will have a total depth of approximately twelve feet (12'), designed as follows:

a. Recreational Pond. The lower four-foot (4') depth of the Pond is designed to establish a permanent pool of water for recreational use, and will be able to hold approximately 1.68 acre feet of water ("**Recreational Pond**").

b. Regional Stormwater Detention Capacity. The upper eight-foot (8') depth of the Pond is designed for regional stormwater detention capacity needs and will be able to hold at least 8.31 acre feet of water ("**Regional Stormwater Detention Capacity**").

c. Stormwater facilities. The Pond to be constructed by Owner will include stormwater facilities identified in the Approved Site Plan as Outlet 1, Outlet 2, and Emergency Overflow (collectively referred to as the "**Outfall Structure**"). City, at its expense, may install ancillary stormwater facilities (e.g. flow measuring device).

3. Construction and Warranties.

a. Schedule. Owner shall complete the construction of the Pond on or before July 1, 2020, subject to extension for force majeure delays, and provided that City will provide expedited review as further provided for in this paragraph 3. Owner will apply for issuance of all permits required for construction of the Pond in 2019.

b. Standard Community Development Review. Owner at its own expense will obtain all permits required for the Pond. The project will proceed through standard City Community Development Review, except that the City agrees to waive all review fees. The City Community Development Division shall expedite the review and approval of all requested permits and approvals. This means all applications will be reviewed within 20 business days from initial submission to City and any subsequent review will be completed within 10 business days from submission to City. Owner will provide City with a copy of the civil drawings and plans for review prior to City issuance of permits for construction, and the City may require corrections.

c. Design. Owner will retain qualified third party consultants or engineers to prepare the design plans, in compliance with applicable laws and adopted City Engineering Standards. Each party shall be entitled to rely upon the work of the consultants or engineers that prepare the design plans for the Pond.

d. No Owner Warranties as to Design. Owner makes no warranty, either express or implied, with respect to the Pond design (including but not limited to, any warranty of fitness for any particular purpose), and such warranties are hereby expressly excluded and disclaimed by the City.

e. Construction. Owner will retain qualified, licensed and insured third party contractors to construct the Pond. Each party shall be entitled to rely upon the work of the contractors that construct the Pond. City shall have the right to inspect the Pond prior to issuance of final acceptance.

f. No Owner Warranties as to Construction. Owner makes no warranty, either express or implied, with respect to the Pond construction (including but not limited to, any warranty of fitness for any particular purpose), and such warranties are hereby expressly excluded and disclaimed by the City.

g. Procurement. Owner will competitively bid the work for the Pond, or may enter into contracts under the same terms and conditions of an existing state cooperative purchase contract on file with State Procurement Office or existing City job-order contract. Alternatively, the Owner may request the City Procurement Division to solicit the work pursuant to City competitive procurement processes, after which the Owner will enter into a contract with the selected Contractor.

h. Contracts for Design, Construction, and Maintenance.

i. Owner shall cause the City to be named as an additional insured and third party beneficiary of the insurance, indemnity, warranty, and attorney fees provisions of all Owner contracts for design, construction, project management, and maintenance of the Pond. Owner shall cause the contracts to include a clause that "the City of Flagstaff's review and acceptance of work shall not be construed to waive any contract requirements or specifications" or similar language.

ii. Owner will cause the contract for design to include a warranty or certification that the Pond will provide the recreational pond and regional stormwater detention capacity as contemplated by this Agreement, and will reduce peak flow in a 100-year flood event by at least 60% (from 191 cubic feet per second ("**CFS**") to at least 78 CFS).

Owner will cause the contract for construction to incorporate any City Engineering Standards applicable to the construction of the Pond and ancillary improvements ("**City Standards**").

The City will have the right to review and approve Owner's contracts in advance, and may request commercially reasonable contract language, which requests will not be unreasonably denied. If Owner or its contractors or consultants believes any of the City Standards are not commercially reasonable, then the parties will cooperate in good faith to resolve such concerns.

In the event City determines that any work related to design, construction, or maintenance of the Pond is unsatisfactory, the City will be responsible for pursuing any contract remedies and Owner at its own expense shall reasonably cooperate with City in terms of providing access to documents, witnesses, and all factual discovery. Nothing

herein shall be construed as establishing any City contractual liability under the Owner's contracts.

4. **Easement.** Owner hereby grants a perpetual, non-exclusive easement to the City for Regional Stormwater Detention Capacity and stormwater facilities in, across, over and under a portion of Owner's Property as shown in the Approved Site Plan and legally described in **Exhibit C** attached hereto **("Easement Area")** subject to the terms and conditions provided for in this Agreement.

5. **Recreational Use.** The easement is non-exclusive and Owner may use the Recreational Pond for any recreational use so long as that does not materially interfere with the Regional Stormwater Detention Capacity or stormwater facilities.

6. **Maintenance of Pond.** Subject to the terms and conditions of this Agreement, Owner will maintain the Pond at its expense. Owner's maintenance obligations include but are not limited to the following:

a. Vector Control. Owner shall maintain the Recreational Pond for vector control (e.g., mosquitos) and compliance with applicable health regulations (e.g., Coconino County).

b. Slopes and Dredging. Owner shall maintain the Pond slopes and dredge the Pond to maintain the Regional Stormwater Detention Capacity. Owner may dredge the Pond to maintain the Recreational Pond Capacity.

c. Outfall Structure. Owner shall maintain the Outfall Structure, which maintenance shall include without limitation repairs and keeping the Outfall Structure reasonably free and clear of sediment, debris, litter, and other obstructions.

d. Access Roads. Owner shall maintain the Access Roads to the Pond as described in Paragraph 8.

e. Water for the Recreational Pond. Owner may purchase potable or reclaimed water in accordance with the City Code to add water to the Recreational Pond in times when precipitation and stormwater runoff is not adequate to fill the Recreational Pond to a depth of four feet (4').

6. **City Inspection of Pond.** The City Stormwater Manager will establish an annual inspection process for inspection of the Pond to determine if the Pond is being adequately maintained for stormwater detention purposes. A copy of the annual inspection report will be provided to the Owner, City Water Services Director, and the City Public Works Director.

7. **City Rights to Maintain Easement.** If Owner fails to maintain the Regional Stormwater Detention Capacity or Outflow Structure, City shall notify Owner in writing of deficiencies. Owner shall promptly perform the maintenance within the reasonable time specified by City or approved by City in writing. If Owner fails to timely correct the deficiencies, City may, at its election and as its sole and exclusive remedy against Owner for such failure, correct the deficiencies and charge the Owner for the actual reasonable out of pocket costs incurred by the City to correct such deficiencies. Owner shall pay such costs to the City within thirty (30) days

following receipt of a written request for payment supported by documentation of the costs incurred by the City. If Owner fails to timely pay the payment request, then the City shall have all remedies available at law for collection of such unpaid amount. So long as City uses insured, bonded, and licensed contractors to perform maintenance of the Easement Area, naming Owner as a third party beneficiary, City shall not be liable for any property damage caused to Owner and Owner shall look to the contractor or its insurer for recovery of any damages as its sole remedy. Nothing herein shall be construed to require City to dredge the Recreational Pond.

8. **Right of Entry for Inspection and Maintenance.** Owner hereby grants to City a perpetual non-exclusive right of entry across Owner's Property and across adjacent property belonging to Owner on those roads as shown in the legal description attached hereto as **Exhibit C** ("**Access Roads")**, for inspection and maintenance of the Regional Stormwater Detention Capacity and stormwater facilities. Except in the event of an emergency, the City will provide Owner or the on-site manager of the Owner's Property with reasonable advance notice (at least 72-hours) prior to exercising its right of entry and any activities on the Owner's Property. Owner shall have the right from time to time to relocate the easement area for the Access Roads provided that the relocated easement area provides comparable access as the replaced easement area, and Owner records an amendment to this Agreement that legally described the new easement area.

9. **Easements across Wildwood Hills Mobile Home Park Property.** Owner at its own expense will use commercially reasonable efforts to obtain a non-exclusive temporary construction easement and if appropriate, a non-exclusive easement for ongoing drainage, maintenance and inspection of the Pond, entitling City and Owner to exercise the easement rights across property owned by Wildwood Hills MHC, LLC.

10. **Consideration.** In consideration for this Agreement, including the easement and access rights granted herein, the City of Flagstaff will pay Owner a one-time sum of $345,000.00, plus remit an additional $60,000.00 in funds to Owner being contributed by Wildwood Hills MHC, LLC. This combined sum is due and payable to Owner when the City Community Development Division has issued final acceptance of the constructed Pond.

11. **Reduction of Improvement Obligations.** As additional consideration for this Agreement, the City agrees that Owner's contribution for edge improvements along Route 66 as called for in the approved Site Plan, including any approved Site Plan extension, will be reduced to $25,000.00. Payment of the $25,000.00 is due prior to City issuance of a permit for construction of the Pond.

12. **Recordation.** This Agreement shall be recorded in the official records of the Coconino County Recorder, State of Arizona, no later than ten (10) days from the date of its execution by the City.

13. **Termination of Agreement.** City and Owner may mutually agree in writing to terminate this Agreement. Either party may terminate this agreement for cause, after notice to the non-breaching party and reasonable opportunity to cure. In the event of termination, the City will record a notice of termination of the easement in the records of the Coconino County Recorder's Office.

14. Indemnification.

a. Indemnification of City by Owner. Owner shall indemnify, defend, and hold harmless City, its officers, employees, and agents from all losses, claims, suits, payments and judgments, demands, expenses, attorney's fees or actions of any kind resulting from personal injury to any person or damages to any property occurring on Owner's Property related to flooding on Owner's Property or recreational use of the Pond including accidental drowning, except to the extent any such injury or damages arises out of the gross negligence or willful misconduct of the indemnified party, its officers, agents or employees. The provisions of this Section 14(a) shall survive termination of this Agreement, as to any injury or damages occurring prior to the termination date.

b. Indemnification of Owner by City. City shall indemnify, defend, and hold harmless Owner, its officers, employees, and agents from all losses, claims, suits, payments and judgments, demands, expenses, attorney's fees or actions of any kind ("**Claims**") resulting from personal injury to any person or damages to any property due to flooding downstream (east) of Owner's Property, except to the extent any such injury or damages arises out of the gross negligence or willful misconduct of the indemnified party, its officers, agents or employees. Without limiting the generality of the foregoing, the City agrees to indemnify, defend and hold harmless Owner from any Claims made by any downstream property owners that the Stormwater Detention Capacity, Outfall Structure, or related stormwater facilities were not properly designed, constructed or maintained. The provisions of this Section 14(b) shall survive termination as to any injury or damages occurring prior to the termination date.

15. Amendment. This Agreement may be amended at any time by written amendment executed by both Parties; all amendments shall be recorded in the official records of Coconino County, Arizona, within ten (10) days following the execution thereof.

16. Authorization. The parties to this Agreement represent and warrant that the persons executing this Agreement **on** their behalves have full authority to bind the respective parties.

17. Cancellation. This Agreement is subject to the cancelation provisions of A.R.S. § 38-511.

18. Compliance with Laws. The parties will comply with all applicable Federal, State, County and City laws, regulations and policies in performance of this Agreement.

19. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall constitute an original, but all of which together shall constitute but one and the same instrument. The signature pages from one or more counterparts may be removed from such counterparts and such signature pages all attached to a single instrument so that the signatures of all parties may be physically attached to a single document.

20. Default and Remedies. Failure of a party to perform a material obligation of this Agreement shall constitute a breach by that party of this Agreement and, if the breach is not cured within thirty (30) days after written notice thereof from the other party (the "**Cure Period**"), shall constitute a default under this Agreement. In the event a breach is not cured within the Cure Period, except as otherwise provided herein, the non-defaulting party shall have all the rights and

remedies that may be available under law or equity, including the right to file an action for damages and/or termination for cause.

21. **Waiver.** No delay in exercising any right or remedy shall constitute a waiver thereof and no waiver by the parties of the breach of any provision of this Agreement shall be construed as a waiver of any preceding or succeeding breach of the same or any other provision of this Agreement.

22. **No Default.** Any delay in performance of this Agreement caused by a third party who has brought a judicial challenge or referendum will not be deemed a default.

23. **Litigation and Attorneys' Fees.** Except as otherwise agreed by the parties, any litigation brought by either party against the other to enforce the provisions of this Agreement must be filed in the Coconino County Superior Court. In the event any action at law or in equity is instituted between the parties in connection with this Agreement, the prevailing party in the action shall be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing party.

24. **Entire Agreement.** This Agreement contains the entire understanding and agreement between the parties with respect to the subject matter hereof and supersedes any prior written or oral understandings or agreements between the parties. Each party has participated in negotiation of the Agreement and has engaged legal counsel in review.

25. **Further Acts.** Each of the parties hereto shall cooperate in good faith and execute and deliver such documents and perform such acts as are reasonably necessary to carry out the matters contemplated by this Agreement.

26. **Governing Law.** This Agreement shall be governed by and construed under the laws of the State of Arizona and shall be deemed made and entered into in Coconino County.

27. **No Joint Venture.** Neither party is acting as the agent of the other in any respect hereunder, and that each party is an independent contracting entity with respect to the terms, covenants, and conditions contained in this Agreement. None of the terms or provisions of this Agreement shall be deemed to create a joint venture or partnership.

28. **Notices.** All notices, demands, or other communications given hereunder shall be in writing and shall be deemed to have been duly delivered upon personal delivery or as of the third business day after mailing by the United States mail, postage prepaid, by registered or certified mail, return receipt requested, addressed as follows:

To City:	City of Flagstaff Attn: City Manager 211 West Aspen Avenue Flagstaff, AZ 86001
With copy to:	City of Flagstaff Attn: City Water Services Director 211 West Aspen Avenue Flagstaff, AZ 86001
To Owner:	Wanderland Flagstaff 2502 East Camelback Road, Suite 214 Phoenix, Arizona 85016 Attn: Mark Ortman

Either party may send notice to the other party of a change in address for purposes of all notices under this Agreement. Notice may be provided via email only as a supplemental means of notice.

29. Severability. In the event that any phrase, clause, sentence, paragraph, section, article, or other portion of this Agreement shall become illegal, null or void or against public policy, for any reason, or shall be held by any court of competent jurisdiction to be illegal, null or void or against public policy, the remaining portions of this Agreement shall not be affected thereby and shall remain in force and effect.

30. Successors and Assigns. All of the terms and conditions of this Agreement shall run with the land, and shall be binding upon, and burden and benefit the successors, successors in title and assigns of the parties.

31. Third Parties. Nothing contained in this Agreement shall be deemed to grant or confirm to any other person, other than Owner and the City, the right to assert or exercise a separate or independent right to enforce this Agreement, or a separate or independent right to enjoy any of the benefits or privileges granted, it being understood that such rights are forever expressly held, retained and shall be exercised solely by and through the parties hereto and their successors, successors in title, and assigns.

32. Computation of Time. The time in which any act is to be done under this Agreement shall be computed by excluding the first day and including the last day. As used in this Agreement, the term "day" means calendar day and the term "business day" shall mean a day that is not a Saturday, Sunday or federal or State of Arizona legal holiday.

33. Development Agreement Fee. Following recordation of this Agreement, Community Development Division will invoice Owner the sum of $5,000.00, as the development agreement fee per City Code. Owner will pay such fee to City prior to issuance of a permit for construction of the Pond.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on or as of the day and year first above written.

OWNER:

Wanderland Flagstaff, LLC, an Arizona limited liability company

By: Woodlands Village Self Storage, LLC an Arizona limited liability company
Its: Administrative Member

By: _____
Its: _____

CITY OF FLAGSTAFF

_____
Coral Evans, Mayor

Attest:

_____
City Clerk

Approved as to form:

_____
City Attorney

Exhibits:

A. Approved Site Plan
B. Conceptual renderings of Pond and cross-section
C. Legal description of Easement Area (for stormwater detention capacity), and Access Roads

EASEMENT DESCRIPTION

A portion of that parcel described in Instrument No. 3802843, Records of Coconino County, Arizona (RCC), situated in the east half of Section 19, Township 21 North, Range 7 East, Gila and Salt River Meridian, City of Flagstaff, Coconino County, Arizona, described as follows:

COMMENCING for reference at a 2" diameter aluminum cap marked "ARIZONA ENGINEERING CO. LS 13010 LS 37496" at the northeast corner of said parcel described in said Instrument No. 3802843, RCC, and the northwest corner of that parcel described in Instrument No. 3418698, RCC;

Thence South 00°11'23" East, 94.93 feet along the line common to said parcels to the POINT OF BEGINNING;

Thence continuing South 00°11'23" East along said common line, 161.26 feet;

Thence South 89°47'27" West, 12.23;

Thence South 08°49'07" West, 110.28;

Thence South 15°53'06" West, 55.41;

Thence southwesterly and northwesterly, 49.25 feet along the arc of a 26.83 foot radius curve, concave to the northwest, having a central angle of 105°09'23" to a point of reverse curvature;

Thence northwesterly and southwesterly, 54.41 feet along the arc of a 64.00 foot radius curve, concave to the southwest, having a central angle of 48°42'44" to point of reverse curvature;

Thence southwesterly and northwesterly, 75.06 feet along the arc of a 49.50 foot radius curve, concave to the northeast, having a central angle of 86°52'46" to a point of reverse curvature;

Thence northwesterly, 43.45 feet along the arc of a 88.00 foot radius curve, concave to the southwest, having a central angle of 28°17'26" to a point of reverse curvature;

Thence northwesterly, 53.87 feet along the arc of a 66.00 foot radius curve, concave to the northeast, having a central angle of 46°46'04" to a point of reverse curvature;

Thence northwesterly, 27.84 feet along the arc of a 63.65 foot radius curve, concave to the southwest, having a central angle of 25°03'44" to a point of reverse curvature;

Thence northwesterly and northeasterly, 69.81 feet along the arc of a 56.00 foot radius curve, concave to the southeast, having a central angle of 71°25'31" to a point of reverse curvature;

Thence northeasterly and northwesterly, 58.18 feet along the arc of a 30.67 foot radius curve, concave to the West, having a central angle of 108°40'46" to a point of reverse curvature;

Thence northwesterly, 65.59 feet along the arc of a 81.00 foot radius curve, concave to the Northeast, having a central angle of 46°23'36" to a point of compound curvature;

Thence northwesterly and northeasterly, a distance of 70.24 feet along said compound curve, having a radius of 42.00 feet and a central angle of 95°49'32" to a point of reverse curvature;

Thence northeasterly, 34.55 feet along the arc of a 52.00 foot radius curve, concave to the northwest, having a central angle of 38°04'06" to a point of reverse curvature;

Thence northeasterly, 34.44 feet along the arc of a 48.50 foot radius curve, concave to the Southeast, having a central angle of 40°40'56" to a point of reverse curvature;

Thence northeasterly, 11.10 feet along the arc of a 14.00 foot radius curve, concave to the Northwest, having a central angle of 45°25'30";

Thence North 34°46'40" East, 11.76 feet;

Thence North 39°28'46" East, 6.00 feet to a point herein after referred to as Point A;

Thence continuing North 39°28'46" East, 6.00 feet to a point of non-tangency through which a radial line bears South 13°22'47" West;

Thence southeasterly, 22.32 feet along the arc of a 49.00 foot radius curve, concave to the Northeast, having a central angle of 26°05'59" to a point of reverse curvature;

Thence southeasterly, 66.25 feet along the arc of a 138.67 foot radius curve, concave to the southwest, having a central angle of 27°22'28" to a point of reverse curvature;

Thence southeasterly, 49.41 feet along the arc of a 144.00 foot radius curve, concave to the Northeast, having a central angle of 19°39'38";

Thence North 21°05'36" East, 7.00 feet;

Thence South 68°54'24" East, 62.01 feet to the POINT OF BEGINNING.

TOGETHER WITH a 12.00 foot wide strip lying 6.00 feet on each side of the following described centerline;

BEGINNING at the herein before referred to Point A, which is a point of non-tangency through which a radial line bears South 49°09'55" West;

Thence northwesterly, 9.30 feet along the arc of a 55.00 foot radius curve, concave to the northeast, having a central angle of 09°41'09" at a point of reverse curvature;

Thence northwesterly and southwesterly, 102.20 feet along the arc of a 76.17 foot radius curve, concave to the southwest, having a central angle of 76°52'52" at a point of reverse curvature;

Thence southwesterly and northwesterly, 76.32 feet along the arc of a 105.00 foot radius curve, concave to the northwest, having a central angle of 41°38'36" at a point of reverse curvature;

Thence northwesterly and southwesterly, 62.75 feet along the arc of a 42.58 foot radius curve, concave to the southeast, having a central angle of 84°25'29" at a point of reverse curvature;

Thence Southwesterly, 52.10 feet along the arc of a 74.00 foot radius curve, concave to the Northwest, having a central angle of 40°20'08" at a point of reverse curvature;

Thence southwesterly and southeasterly, 59.61 feet along the arc of a 53.00 foot radius curve, concave to the southeast, having a central angle of 64°26'25" at a point of compound curvature;

Thence southeasterly, a distance of 148.17 feet along said compound curve, having a radius of 821.50 feet and a central angle of 10°20'03" at a point of reverse curvature;

Thence southeasterly and southwesterly, 18.65 feet along the arc of a 30.00 foot radius curve, concave to the northwest, having a central angle of 35°37'28" at a point of compound curvature;

Thence southwesterly and northwesterly, a distance of 101.07 feet along said compound curve, having a radius of 40.00 feet and a central angle of 144°45'56" at a point of compound curvature;

Thence northwesterly and northeasterly, a distance of 228.65 feet along said compound curve, having a radius of 900.00 feet and a central angle of 14°33'24";

Thence North 00°00'36" East, 196.70 feet, at which point said easement becomes a 20.00 foot wide strip lying 10.00 feet on each side of the following described centerline;

Thence North 89°59'38" West, 382.26 feet;

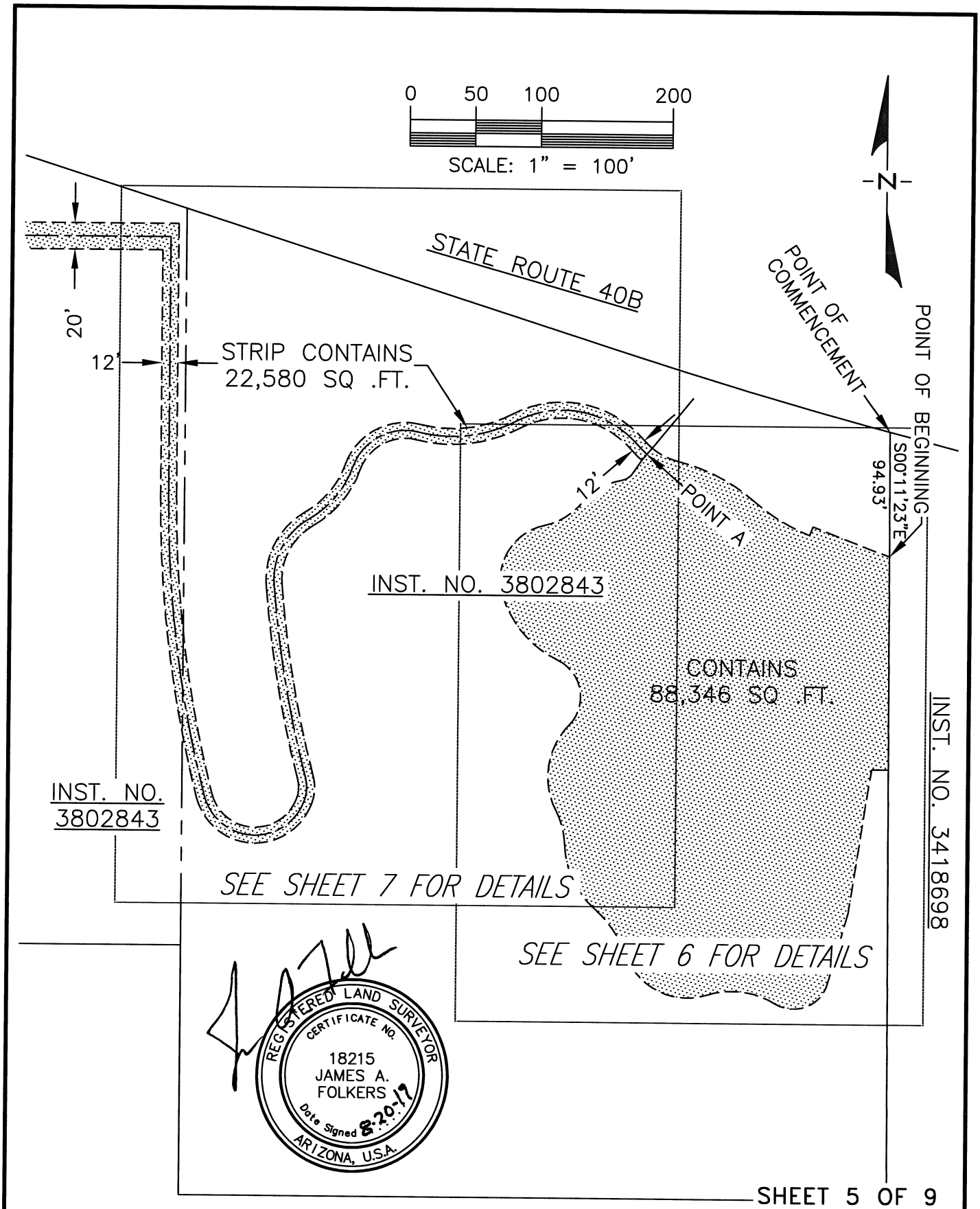
Thence North 00°00'31" East, 113.43 feet, more or less, to the POINT OF TERMINUS on the southerly line of State Route B40, as shown on the attached Exhibit drawing, which is made a part hereof by this reference.

The sidelines of said strip are to be shortened or prolonged as necessary at the POINT OF TERMINUS to terminate on the southerly line of State Route B40.

CONTAINING 110,926 square feet (2.55 acres), more or less.

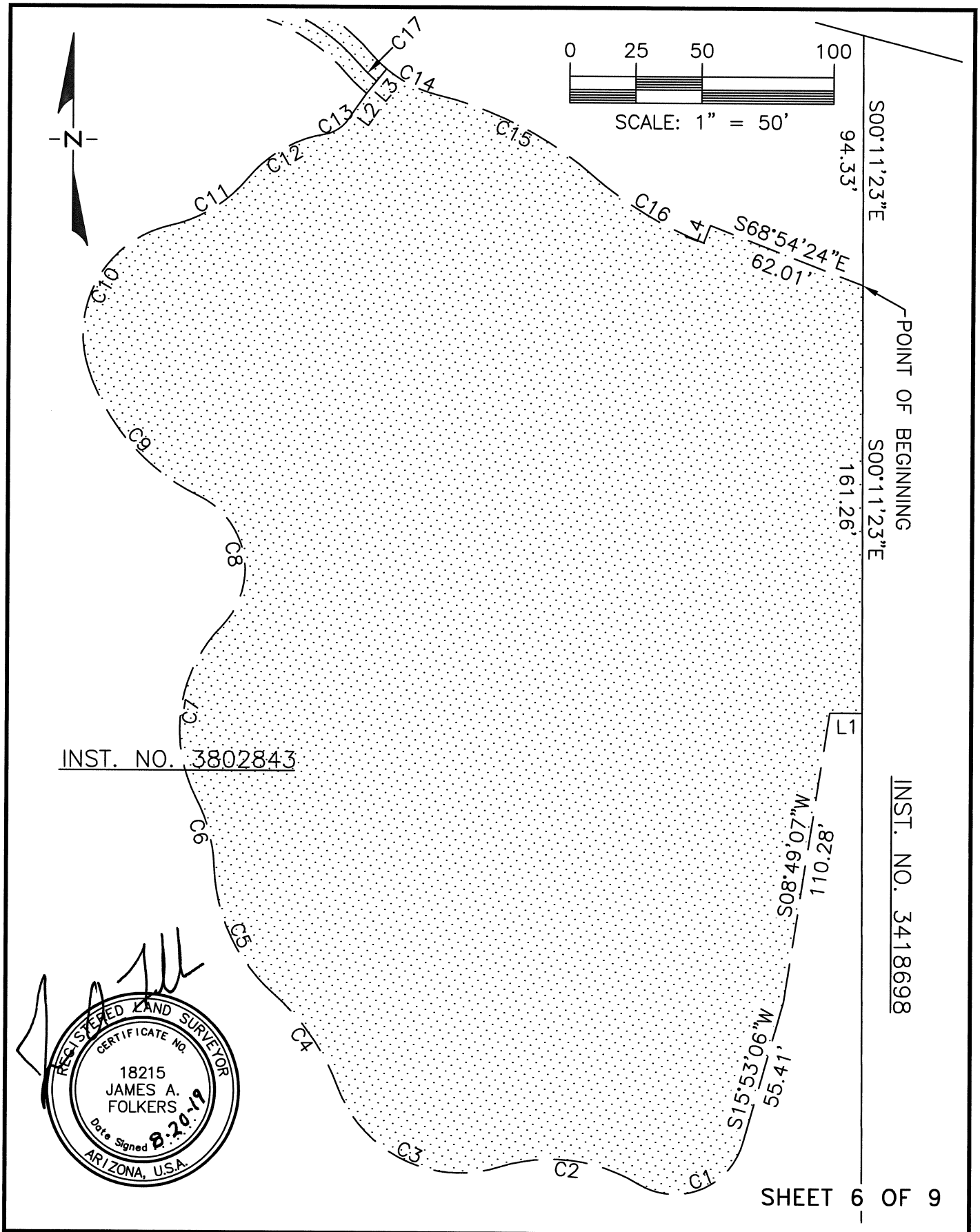


Prepared by:
James A. Folkers, RLS
Woodson Engineering & Surveying, Inc.
124 N. Elden Street
Flagstaff, Arizona 86001
Project No. 118044



SHEET 5 OF 9

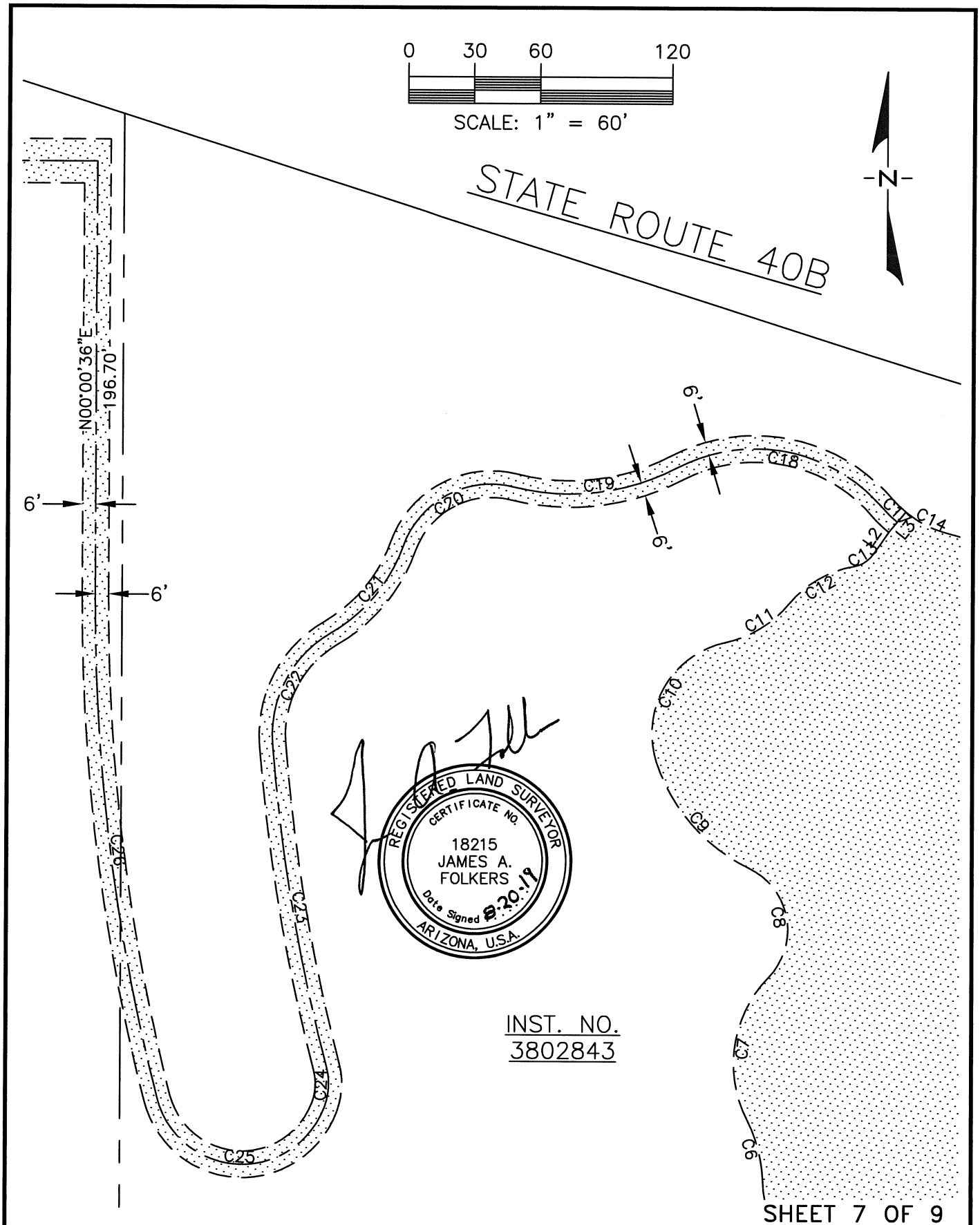
DRAWN BY: JAF DATE: 8/2019 FN: POND AND ACCESS PROJECT NO.: 118044	**WOODSON** **ENGINEERING AND SURVEYING, INC.** 124 N. ELDEN ST. FLAGSTAFF, AZ 86001 PHONE:(928)774-4636 FAX:(928)774-4646	EXHIBIT WOODY MTN. CAMPGROUND



REGISTERED LAND SURVEYOR
CERTIFICATE NO.
18215
JAMES A.
FOLKERS
Date Signed 8-20-19
ARIZONA, U.S.A.

SHEET 6 OF 9

DRAWN BY: JAF DATE: 8/2019 FN: POND AND ACCESS PROJECT NO.:118044	**WOODSON** **ENGINEERING AND SURVEYING, INC.** 124 N. ELDEN ST. FLAGSTAFF, AZ 86001 PHONE:(928)774-4636 FAX:(928)774-4646	EXHIBIT WOODY MTN. CAMPGROUND



SHEET 7 OF 9

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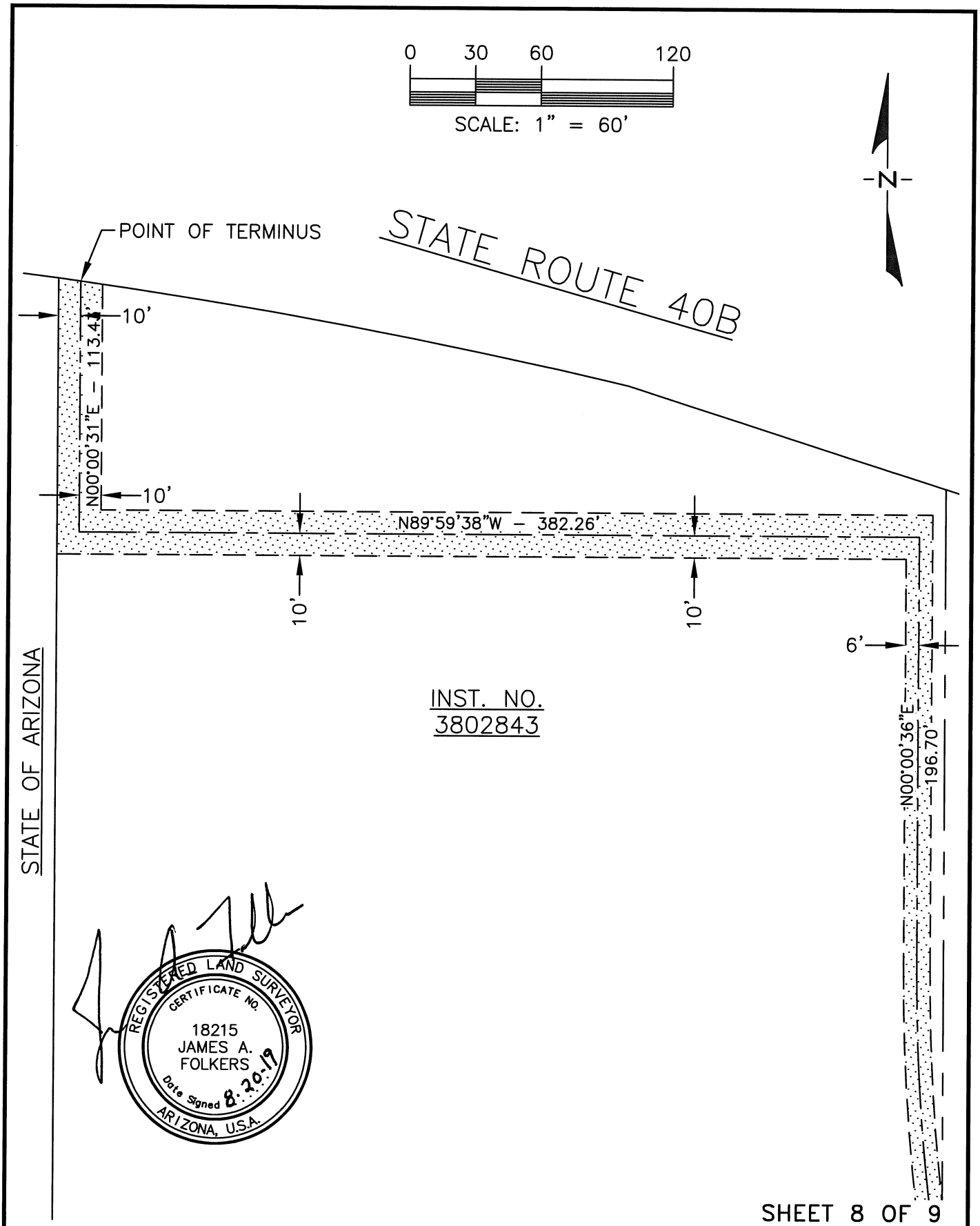

SHEET 8 OF 9

DRAWN BY: JAF DATE: 8/2019 FN: POND AND ACCESS PROJECT NO.: 118044	**WOODSON** **ENGINEERING AND SURVEYING, INC.** 124 N. ELDEN ST. FLAGSTAFF, AZ 86001 PHONE:(928)774–4636 FAX:(928)774–4646	EXHIBIT WOODY MTN. CAMPGROUND

LINE TABLE		
LINE NO.	BEARING	LENGTH
L1	S89° 47' 27"W	12.23'
L2	N34° 46' 40"E	11.76'
L3	N39° 28' 46"E	12.00'
L4	N21° 05' 36"E	7.00'

CURVE TABLE			
CURVE NO.	DELTA	RADIUS	LENGTH
C1	105°09'23"	26.83'	49.24'
C2	048°42'44"	64.00'	54.41'
C3	086°52'46"	49.50'	75.06'
C4	028°17'26"	88.00'	43.45'
C5	046°46'04"	66.00'	53.87'
C6	025°03'44"	63.65'	27.84'
C7	071°25'31"	56.00'	69.81'
C8	108°40'46"	30.67'	58.18'
C9	046°23'36"	81.00'	65.59'
C10	095°49'32"	42.00'	70.24'
C11	038°04'06"	52.00'	34.55'
C12	040°40'56"	48.50'	34.44'
C13	045°25'30"	14.00'	11.10'
C14	026°05'59"	49.00'	22.32'
C15	027°22'28"	138.67'	66.25'
C16	019°39'38"	144.00'	49.41'
C17	009°41'09"	55.00'	9.30'
C18	076°52'52"	76.17'	102.20'
C19	041°38'36"	105.00'	76.32'
C20	084°25'29"	42.58'	62.75'
C21	040°20'08"	74.00'	52.10'
C22	064°26'25"	53.00'	59.61'
C23	010°20'03"	821.50'	148.17'
C24	035°37'28"	30.00'	18.65'
C25	144°45'56"	40.00'	101.07'
C26	014°33'24"	900.00'	228.65'



DRAWN BY: JAF DATE: 8/2019 FN: POND AND ACCESS PROJECT NO.:118044	**WOODSON** **ENGINEERING AND SURVEYING, INC.** 124 N. ELDEN ST. FLAGSTAFF, AZ 86001 PHONE:(928)774-4636 FAX:(928)774-4646	EXHIBIT WOODY MTN. CAMPGROUND

FINAL DRAINAGE REPORT

FOR

WOODY MOUNTAIN CAMPGROUND
Phase 1 Construction

July 12, 2019

COF No. PZ-18-00210

Project Location:

2727 W Route 66
Flagstaff, AZ 86001

Prepared For:

Wanderland Flagstaff LLC
2502 E Camelback Rd No 214
Phoenix, Arizona 85016

Prepared By:



EXPIRES 06-30-2020

Sirisha Kalluri, P.E, **CFM**

WOODSON

ENGINEERING AND SURVEYING
124 N. Elden St. • Flagstaff, AZ • 86001-5262
Phone: (928) 774-4636
www.woodsoneng.com

WE Project No. 118044

Final Drainage Report
for
Woody Mountain Campground
Phase 1 Construction



EXPIRES 06-30-2020

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Final Drainage Report
for
Woody Mountain Campground
Phase 1 Construction

1. INTRODUCTION

This is the final drainage report for the proposed Woody Mountain Campground (Campground) development on parcels 112-01-007, 102-01-008 and 102-01-701, with an area of 20.53 acres. The current zoning is Rural Residential (RR). The site is located in Section 19, Township 21 N, and Range 07E, located south of Route 66 and east of Woody Mountain Road in the City of Flagstaff. Please note that the northwest corner of the site (the portion of the site in County's jurisdiction) has no proposed improvements. However, since it naturally flows east along with other contributing areas to the subject site, it is included (Sub-3C) in the drainage analysis to account for the flow generated by it.

The site is currently used as a campground with RV sites in the western half of the site. The proposed layout calls for 80 RV sites, 41 park model houses and 42 tent sites with other amenities which include ramadas, bath houses and numerous trails. Figure 1 shows the parcel map for the subject site. The site will be accessed via a driveway on Route 66 and an emergency access driveway from Woody Mountain Road.

Wildwood Hills (WWH) Mobile Home Park (MHP) located east of the subject site is a senior living community and has a history of frequent flooding. The original design and construction of the MHP made little or no allowance for the conveyance of off-site stormwater entering the property from the west. The historic flow pattern of the stormwater enters the MHP around the location of Unit 9 and travels in an east-southeast direction towards Unit 47 and discharging into the Kit Carson RV Park. The flow discharged into the WWH flows through the development with no positive drainage consideration except for some make-shift rock channels built later as an effort to mitigate flooding. Flood walls and flood proofing measures have been attempted by the WWH residents with little success. There are no underground piping facilities to take even a portion of the flow. Establishing a flood conduit for the 100-year flow in Wildwood Hills would be projected to cost more than $1.1 million.

Large rainfall events, typically during the Flagstaff monsoon season, are clearly subjecting the WWH residents to flooding conditions. Flows ripping through and between homes and streets in this nature create massive, forceful momentum that can pick up objects, knock down people and cause significant property damages. It also poses hazardous conditions for not only vehicles but also for pedestrian accessibility.

The Woody Mountain Campground project, thru a joint project with the City of Flagstaff, includes a detention basin that mitigates the increased flow due to proposed Campground improvements and provides significant peak flow attenuation for flood mitigation purposes for Wildwood Hills. The project would like to accommodate some of the offsite flow in the proposed detention basin

to provide relief to the flooding on the neighboring development. Since the detention basin is proposed at a natural concentration point, it is a great opportunity to detain and mitigate the flow released into the WWH MHP thereby assisting the senior living community in partnership with the City of Flagstaff.

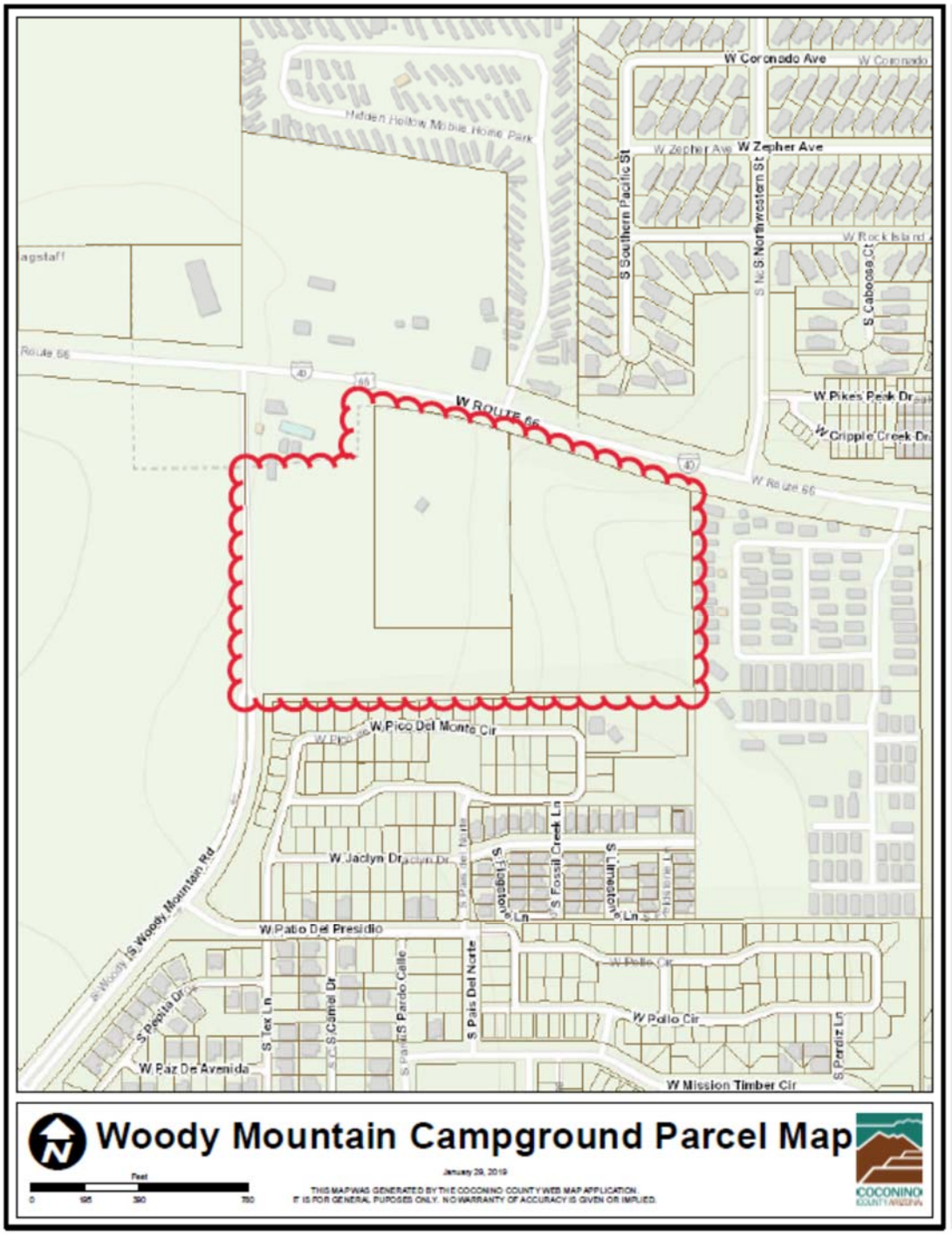


Figure 1: Parcel Map

2. DEVELOPMENT PHASES

Due to the onset of the monsoons and the risk of continued flooding at WWH's, the Woody Mountain Campground improvements will be performed in two Phases to prioritize the detention basin construction to help mitigate WWH MHP flooding risk. This report will serve as a Master Drainage Report for the WMC improvements with the following phases:

i) Phase I

Phase 1 will consist of the construction and installation of most of the proposed improvements on the easterly 8-acre parcel plus a portion of access drive in the middle 8-acre parcel. The work will include the detention basin including the liner and permanent pond portion, outlet pipes and overflow structures, LID basins, culverts, improved channels, access drive, utilities, trails, gazebo, tent sites and other site amenities. This work is anticipated to occur this fall.

ii) Phase 2

Phase 2 will consist of all of the remaining improvements on the middle and westerly parcels. There are RV sites, Park model units, access drives, utilities, bath houses. This work is anticipated to occur this fall into the spring of 2020. All of the main stormwater management facilities will be installed with Phase 1. Only conveyances, etc. will be part of Phase 2 construction. We intend to provide an Addendum to this Final Drainage Report at that time to cover the improvements proposed in Phase 2.

Also, it should be noted that there are no proposed improvements in the northwest portion of the site (County's jurisdiction). However, as it naturally flows to the proposed detention pond, the pond is sized to provide stormwater mitigation for the future improvements on this portion of the site. A separate drainage report will be prepared as and when needed to the concerned jurisdiction to address the future improvements on this portion of the site.

3. OBJECTIVES AND PROCEDURES

The purpose of this Final Drainage Report is to support the Phase 1 Construction Plan submittal and to provide calculations and results of the proposed stormwater management facilities and outlets.

i) Objectives

- To provide Low Impact Development ("LID") Integrated Management Practices ("IMP's") based on the City of Flagstaff (COF or City) Ordinance No. 2009-07. The Runoff Control Volume ("ROCV") is incorporated within the LID basins.
- To provide stormwater detention facilities to mitigate the increase in flowrate from existing to proposed conditions.
- In addition, stormwater mitigation is provided for the increase in flowrate from the future half street improvements of the adjacent Right-of-Way (ROW) off Rte 66 and Woody Mountain Road.
- In addition, the proposed detention basin **mitigates about 72% of the offsite flow rate to help alleviate the flooding problems of the WWH MHP**. The pond serves as a multi-

purpose facility by providing detention for onsite and offsite flows and also functions as an amenity to the Campground.

ii) Methodology

- The proposed improvements include three (3) Bio-Retention Basins (BRB) to provide the ROCV from the proposed onsite improvements.
- Bio-Retention basins consists of a low-lying vegetated area underlain by a sand/soil bed and gravel/underdrain system. A shallow surcharge zone exists above the bio-retention for temporary storage of the ROCV. During a storm, accumulated runoff ponds in the vegetated zone and infiltrates into the underlying sand/soil bed, filling the void spaces of the sand. The underdrain gradually dewaters the sand/soil bed and discharges the runoff to a nearby channel, swale or storm sewer. If the site has a percolation rate greater than 1 inch per hour, underdrain and the supporting gravel layers may be eliminated.
- The flow is then directed to the stormwater detention basin to address the flow rate control requirements and provide a regional detention benefit.

iii) Procedures

- Hydrologic calculations are performed per the of Flagstaff Stormwater Design Manual (SWDM) Chapter 3. United States Army Corps Engineer's (USACE) Hydrologic Engineering Center software (HEC-1), Version 4.1 is used for the runoff computation as this analysis references hydrology from previous drainage studies for the Presidio in the Pines development which used HEC-1 analysis for runoff computation. We are matching procedures for the major contributing watershed.

- Time of Concentration (Tc) calculations are performed per SWDM section 3.1.6.

- Rainfall depths are referenced from the COF SWDM Table 3-2 for a 6-hour storm duration since the watershed area is less than 1 square mile.

- Per SWDM Section 3.2, Curve Numbers for undeveloped forest are referenced from Arizona Department of Water Resources' (ADWR) "Oak Creek Flood Warning System Hydrology Report, TR 90-4, September 1990" (will be referred to as Oak Creek Hydrology Report hereafter). Curve Numbers for other land cover types are referenced from Natural Resources Conservation Services' (NRCS) National Engineering Handbook (NEH) Part 630 Hydrology, Chapter 9 Hydrologic Soil Cover Complexes Tables 9-2 (runoff curve numbers for arid and semiarid rangelands) and Table 9-5 (runoff curve numbers for urban areas). Please note the runoff curve number tables from NEH are the same as the runoff curve number tables from the NRCS Technical Release-55 (TR-55).

- The project site lies within Zone X per FEMA FIRM 04005C6804G, 04005C6808G, 04005C6816G and 04005C6812G dated September 3, 2010.

- Federal Emergency Management Agency (FEMA) defines Zone X as areas of moderate flood hazard which are areas outside the Special flood Hazard Area (SFHA) and higher

than the elevation of the 0.2% annual-chance flood. The following Figure shows the FEMA's flood zones.



Figure 2: Floodzone Map

4. RUNOFF CONTROL VOLUME (ROCV)

This project proposes three (3) Bio-Retention basins and one (1) detention basin to address the LID and detention needs.

i) Impervious Area Summary

There is an existing building with some paved areas in the northwest corner of the site. The existing impervious area on the site is 2150 SF (excluding the parcel in the County's jurisdiction).

The total impervious area in the proposed condition is 130,101 SF. Thus, the total increase in the impervious area of the site is 127,952 SF. Please see Appendix B for the breakdown of the impervious areas in the proposed condition.

ii) ROCV Calculations

ROCV required $= ((1" \, Rain)/12) \times Area$
$= ((1" \, Rain)/12) \times 127952 \, sq.ft = 10{,}663 \, cu.ft$=0. 24 ac-ft

Where: Area = increase in the impervious area (Roofs, streets, and paved parking areas)

ROCV provided $= 0.27 \, ac.ft$ (Sum of ROCV in LID ponds 1 thru 3)
ROCV provided (0.27 ac.ft) >ROCV required (0.24ac.ft).

iii) LID Basins Summary

The following table summarizes the volume of the proposed Bio-Retention basin volumes. Please see Appendix B for elevation volume calculations of the LID basins.

Table 1-Summary of Bio-Retention Basin Volumes

ID	Vol. (CF)
LID-1	5952
LID-2	2297
LID-3	3704
Total	**11953**

Geotechnical exploration was performed for the detention pond and it was found that the soils on the site generally have good infiltration rates (more than 1 inch/hr). Therefore, no under drain system is proposed to drain the ROCV. Please see Appendix D for the geotechnical report.

5. REFERENCE DRAINAGE STUDIES

The subject site and the contributing offsite watershed areas were included in previous drainage studies for Presidio in the Pines (Presidio). The hydrologic analysis from the Presidio drainage study has been referenced into the HEC-1 analysis of the current study. Excerpts from the Presidio drainage study are included in Appendix D for reference.

6. HYDROLOGY

The City's Stormwater Design Manual (SWDM) guidelines are followed to analyze the runoff generated by the site. Pre-developed and Post developed runoff is computed to design the detention facilities to mitigate the increase in flow rate from pre to post developed condition.

i) Rainfall

Rainfall depths are referenced from COF SWDM Table 3-2 for 6-hour storm duration since the watershed area is less than 1 square mile.

Table 2-Rainfall Depths

Storm Event	Intensity	Depth
	(inches/hour)	**(inches)**
10	0.36	2.16
25	0.43	2.58
100	0.53	3.18

ii) Time of Concentration (Tc)

Tc calculations were performed per SWDM's section 3.1.6 and are included in Appendix B. Some of the calculated Tc values were too low. Thus, a minimum Tc of 15 mins and 10 mins are used for the pre and post developed conditions.

As a guidance to the minimum Tc, ADOT Hydrologic Drainage Design Manual, HDDM Section 2.2.4 has been referenced, the minimum Tc per HDDM is 10 minutes which is more realistic for Improved/Impervious areas. With the ADOT improvements which mostly include paved/impervious areas, the minimum Tc of 10 minutes is used for post developed condition. With this approach, the minimum Tc for pre-developed condition uses a slightly higher Tc of 15 minutes. While the minimum Tc for pre-developed condition could use 10 minutes, it would underestimate the increase in flow rate from pre to post developed condition. Please note that the standard TR-55 Tc calculations do not include a component to account for the time the rain drop takes to traverse from roof top, pass thru roof gutters and then join the surface/overland flow. Thus, it is believed that the Tc of 15 minutes and 10 minutes is apt for the pre and the post developed condition.

iii) Hydrologic Soil Group (HSG)

The soils information is referenced from Natural Resources Conservation Services' (NRCS) Web Soil Survey (WSS). WSS references soil map for Oak Creek-San Francisco Peaks Area which shows the soils on site to be composed of cobbly clay loam and stony clay loam with Hydrologic Soil Group "C" and "D" (HSG C and HSG D). Curve numbers are referenced from Oak Creek Hydrology Report and NRCS curve numbers tables. Composite curve number calculations are performed to account for the landcover/land use and different hydrologic soil groups. (Please see Appendix B for Soils Information and Curve Number tables).

iv) Existing Condition

The offsite watershed area includes both developed and undeveloped areas. The contributing offsite watershed area is comprised of the Vintage 37-acre parcel located southwest of Route 66 and Woody Mountain Road, northwest portion of Presidio in Pines and southern tip of Hidden Hollow Manufactured Homes and a portion of Rail Road Springs located north of Rte 66.

The Vintage 37-acre parcel was a part of the 2006 Woody Fire burn area. To reflect this existing condition, the current analysis uses curve numbers for the post burn condition.

The Campground site receives offsite flows from the following three locations:

- South perimeter: Offsite flow is released as a point source on southern boundary from the Presidio subdivision via a 30-inch cmp. The majority of the Vintage 37-acre parcel (drainage area SUB-1A), most of the Woody Mountain Road (SUB-1B) and a portion of the Presidio subdivision discharge flow to the 30-inch cmp. The flow from the Vintage parcel and the flow generated by the Woody Mountain Road discharge into a 4'x3' RCBC under Woody Mountain Road that connects into a storm drain system in Presidio. The storm drain system conveys onsite flows from Presidio and offsite flows and eventually discharges into a 30-inch cmp that drains into the Campground site. Please note that there is some portion of Timber Sky development Blocks 1 and 2 that historically drains east towards the WWH MHP. Per City's request to Timber Sky development, this area is diverted to flow west to provide relief to the flooding issues on WWH-MHP.
- North perimeter: An existing 24-inch cmp under Rte 66 discharges flow from Hidden Hollow north of Rte 66 (SUB-2) and a portion of Rte 66 (SUB-2A) discharges into the 24-inch cmp via an existing catch basin in Rte 66. Also flow from Rte 66 flows along the roadside ditch on the south side of the road which eventually terminates and discharges into the Campground site.
- West perimeter: An existing 24"x36" arch cmp under Woody Mountain Road discharges flow from a minor portion of the Vintage 37-acre parcel (SUB-1) and Rte 66 (SUB-2A) which flows in the roadside ditch which eventually terminates and discharges into the Campground site.

The onsite watershed area is divided into three (3) drainage areas: Sub-3A, Sub-3B and Sub-3C. Drainage area Sub-3A which includes the southwest quadrant of the site, flows in a southeasterly direction, along the south perimeter wall. This flow eventually combines with the offsite flow released from the Presidio subdivision, the combined flow then continues northeasterly towards the existing pond in the campground site.

The drainage area SUB-3B comprises the majority of the site. Runoff generated by Sub-3B and 3C traverses through the existing swales and eventually continues as ditches at the steeper easterly portion of the site.

All the onsite and offsite flow ultimately discharges into a makeshift pond that was roughly excavated to pond flows before the flow continues east into the WWH MHP. Based on the existing pond size, it appears that the pond may detain flows generated by smaller storms only. Once the pond fills up, the flow enters the MHP at the west perimeter of the MHP via two (2) rock/grouted channels located on north and south sides of WWH MHP unit 9. This is the single outlet for the stormwater discharged from the Campground site into the WWH MHP. The following table summarizes the 10-year and the 100-year storm event flows discharged at the Outlet in existing condition. Please see Exhibit 1 and Exhibit-2 for the offsite drainage map and the existing condition onsite drainage map included in Appendix A.

Table 3-Existing Condition-Outlet Flow Summary

Storm Event	Flow Rate (cfs)
10-year	97
100-year	199

v) Proposed Condition-Unattenuated

The offsite flow patterns remain the same as in the existing condition. However, per COF, the runoff generated by the additional impervious area for future half street improvements of the adjacent ROWs has been included in the post developed hydrologic calculations and in the detention facility design. Curve numbers are revised for the drainage areas SUB-1B and SUB-2A to account for the future street improvements.

The campground intends to maintain the existing grades to the maximum possible extent except for the pond grading and grading for RV pads and roads. For the onsite drainage areas SUB-3A and SUB-3B, the curve numbers area was revised to account for the newly added impervious areas. Sub-3C is assumed to have commercial improvements in the future and thus appropriate curve numbers for future improvements are used to estimate runoff in the proposed condition. Again, the improvements in SUB-3C are not a part of this project. The proposed runoff is computed just to accommodate mitigation of the increased flow from this portion of the site. A separate drainage study or addendum will be prepared as and when needed to address improvements on this portion of the site in future. Please refer to the composite curve number calculations included in Appendix B. Post developed runoff calculations are performed to account for the newly added impervious areas and the future half street improvements of adjacent ROWs. The following table summarizes the 10-year and the 100-year storm events flows discharged at the Outlet in post developed unattenuated condition.

Table 4-Proposed Condition Unattenuated-Outlet Flow Summary

Storm Event	Flow Rate (cfs)
10-year	118
100-year	234

vi) Post-Developed Condition-Attenuated

The detention basin is proposed at the downstream end of the campground, along the east perimeter of the site. The proposed detention basin serves as a campground amenity by maintaining a body of water year-round. The pond provides mitigation to the increased flows due to the proposed Campground improvements, and also mitigates the offsite flows discharged into the WWH MHP by almost 72%. Please see Section 7 of the report for the detention basin design description. The following table summarizes the 10-year and the 100-year storm event flows discharged at the Outlet in post developed attenuated condition.

Table 5-Proposed Condition Attenuated-Outlet Flow Summary

Storm Event	Flow Rate (cfs)
10-year	37
100-year	55

7. DETENTION BASIN

The pond will have 4' of dead storage at the bottom, with 8' live storage above the permanent pool. It should be noted that the dead storage volume is not included in the pond routing calculations. The pond will have rock lined sides with Malapai boulders to mimic a natural stream/waterbody. Please see Appendix B for the detention volume calculations.

The flow from the proposed improvements will be routed to the LID basins first and then directed to the detention basin. Rock swales/channels are proposed to bring the flow to the detention basin along the existing drainage paths. The rock swales are also analyzed to ensure that the 100-year storm event is contained within the channel. Please see Appendix C for channel calculations. The following table summarizes the pond elevations and volume.

Table 6-Detention Basin Elevation and Volume Summary

Permanent Pool		Detention				Emergency Spillway	Freeboard min. (1 ft)
Bottom	**Top**	**Bottom**	**Top**	**Vol. (ac-ft)**	**100-yr WSE**	**Elev.**	**Elev.**
6988	6992	6992	7000	8.31	6998.5	6998.5	1.5

The Arizona Department of Water Resources (ADWR) defines "jurisdictional dam" as an artificial barrier for the impounding or diversion of water either 25 feet or more in height or having a storage capacity of more than 50 ac-ft. From the above table, the total height is 12' and the embankment height is 8' and the storage capacity is 8.31 ac-ft. Thus, the proposed detention basin is not categorized as a "jurisdictional dam". The following chart from ADWR's "Jurisdictional dam" criteria shows the height and the volume limits.

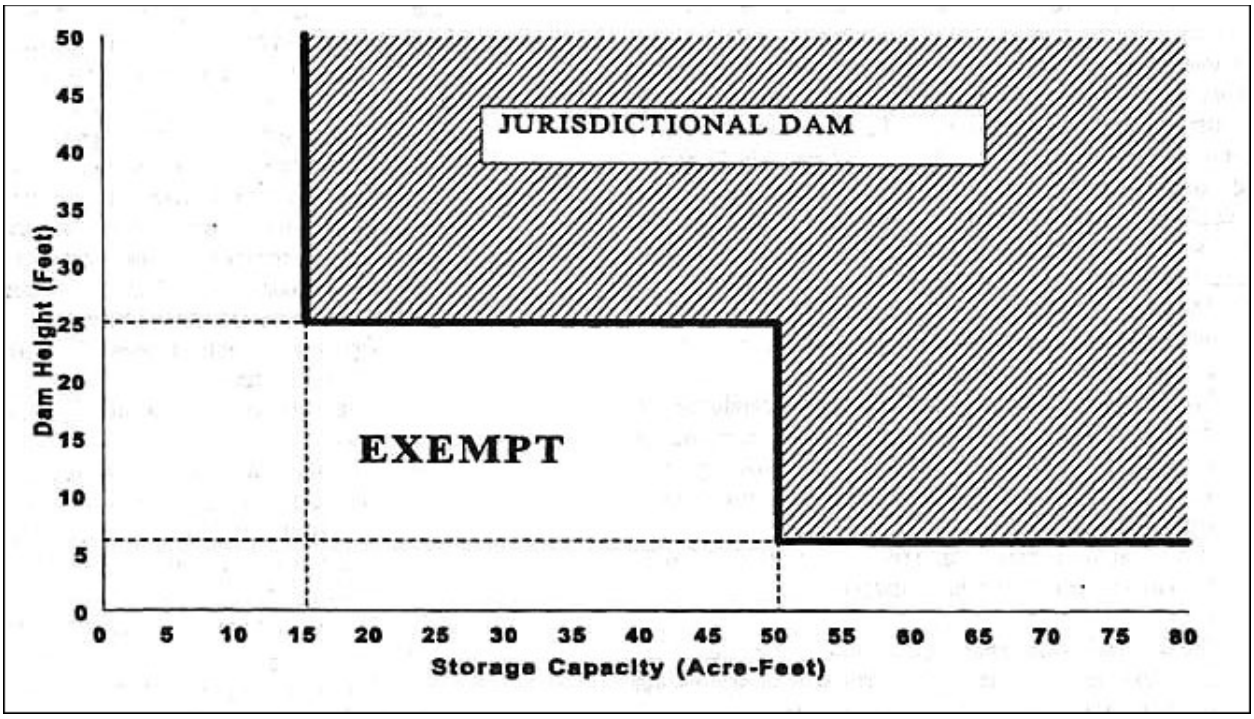


Figure 3: ADWR Dam Criteria Chart

i) Detention Embankment

The detention embankment is twelve (12) feet. As per the COF SWM manual section 8.4.6, a geotechnical engineering study and slope stability analysis is required for the embankments exceeding ten (10) feet. Thus, the embankment will be analyzed by a geotechnical engineer.

The top width of the embankment is eight (8) feet and is more than ½ of the height of the embankment per the COF SWM manual section 8.4.6.

ii) Outlet Facilities

Two (2) outlet pipes are proposed to discharge the detained volume. Both the outlet pipes are 21-inch cmps and will have an invert elevation of 6,988', above the permanent pond elevation.

Outlet pipe-1 discharges flow into the existing south channel east of the basin. Outlet pipe-2 discharges flow into the existing north channel east of the basin. Safety gates will be proposed at the inlet and the outlet ends of the pipes to capture debris and to limit access through the pipes. Please see Appendix C for the outlet flow calculations.

The combined 100-year discharge from the outlet pipes is about 62 cfs which is slightly higher than the 100-year outflow from the detention basin (55 cfs). Thus, the pipes are sized adequately to convey the 100-year outflow released from the detention basin.

iii) Emergency Spillway

Per COF SWDM Section 8.4.6.1, emergency overflow facilities/spillways are required for instances where the primary outlet structure fails or storm events greater than the design capacity

occur. The emergency overflow shall be designed to pass the 100-year peak discharge at a minimum.

Since the flow from the subject site discharges into two (2) existing channels in Wildwood Hills Mobile Home Park, two (2) emergency overflow weirs are proposed to convey the 100-year flow. The emergency overflow weirs are sized to discharge the 100-year inflow released into the detention basin (234 cfs). The total flow is distributed between both the spillways. Thus, each spillway is designed to discharge about 118 cfs. Shallow rectangular concrete flumes are proposed on the slope of the embankment to carry the flow from the emergency overflow weirs and convey it to the existing channels. Please see Appendix C for weir sizing and concrete flume sizing calculations.

iv) Maintenance Road

A 10’ access drive is proposed to provide access into the pond for maintenance. The pond will be maintained privately by the property owner. However, easement is provided to the City to access the pond.

8. HYDRAULICS

i) Culvert Crossings

Culvert crossings are proposed under access roads and trails. Per COF SWDM manual section 5.2.1, culverts under local streets are designed for a 25-year storm event. While the access roads are private roads, the culvert crossings are designed for 100-year storm event (with no overtopping of roads/trails) with exception to culverts 4 and 5 which are designed for 25-year storm event. Safety gates are proposed at the culvert ends to restrict entry into the culverts.

Culvert analysis is performed for both 25-year and 100-year storm events to ensure the Hw/D (Headwater depth/diameter to be less than 1.50) criteria is met per COF SWDM section 5.2.3. Please refer to Appendix C for culvert analysis calculations.

The culverts daylight into either riprap-lined or gabion-lined channels which provide erosion protection. Riprap protection is proposed at the culvert inlets where needed.

The following table summarizes the culvert flows, sizes and Hw/D for 25-yr and 100-yr storm events.

Table 7 : Culvert Summary Table

Culvert ID	Contributing Catchment	Pipe Size	Q25 (cfs)	Hw/D 25 yr	Q100 (cfs)	Hw/D 100 yr
BC1	35% of 3B	1-24" cmp	11	0.96	15	1.21
BC2	3B+2A+1	2-36" cmp	66	1.02	90	1.29
BC3	Sub-2	1-24" cmp	8	0.75	12	1.01
BC4	CP-30	1-9'x3' RCBC	99	0.92	137	1.19
1	Sub-2A+Sub-1	2-30" cmp	36	0.88	48	1.1
2	Sub-2	1-24" cmp	8	0.76	12	1.01
4	65% of 3B	2-24" cmp	20	0.85	27	1.07
5	35% of 3B	2-18" cmp	11	0.98	15	1.24
6	35% of 3B	2-18" cmp	11	0.91	15	1.17

ii) Channels

Channels are proposed to convey offsite flows released into the site to the detention basin and from LID basins to the detention basins. Per COF SWDM Section 4.3, the channels are designed for 25-year storm event and checked for 100-year storm event. The site's natural terrain is steep which leads to steep channels with high velocities. Due to the high velocity, the channels are proposed to be gabion lined with D50=6" rock. Stepped weir structures are adopted to break the natural steep grades and to slow down the flows.

Following is the summary of the channel flow rates.

Table 8: Channel Flow Rate Summary

Channel ID	Contributing Catchment	Q25 (cfs)	Q100 (cfs)
A	Sub-2	8	12
B	Sub-2A+Sub-1	36	48
C	Sub-3B	30	42
D	35% of 3B	11	15
E	CP-30	99	137
F	Sub-3A	9	14

9. SUMMARY AND CONCLUSIONS

- The proposed stormwater management facilities satisfy the rate control and the LID/ROCV requirement. Rate control is provided for the increased flows due to proposed improvements. In addition, mitigation is provided for offsite flows to alleviate flooding on WWH MHP.
- While this serves as a Master Drainage Report for the entire site including the northwest parcel, the Phase I improvements are for the easterly 8-acre parcel. Any future improvements on the rest of the Campground site will be covered by a future addendum. The future improvements on the northwest parcel will have a separate addendum as and when improvements will be proposed in future on that parcel. Since all of the site discharges into the natural low point where the proposed detention is planned, the pond is designed to address mitigation for increased flows due to proposed and future improvements along with additional mitigation to alleviate WWH MHP historic flooding.
- Though the proposed flow attenuation facilities do not completely reduce the flows to the capacity of existing drainage/conveyance facilities in WWH MHP, the flows are significantly lower than the existing condition flows (72% reduction).
- All the impervious areas are directed to the proposed LID basins to address the ROCV requirements to the maximum possible extent.
- The outlet location and the flow pattern in post developed condition is the same as pre-developed condition.
- Post developed flow rate released at the outlets is less than or equal to pre-developed flow rate.
- The drainage areas from the 2006 burn area use an existing burn condition for the curve numbers for the hydrologic analysis. This a conservative approach as the vegetation will eventually be re-established and the curve number will drop significantly.
- To reduce flows from the west of Woody Mountain Road to Wildwood Hills MHP, some areas of Timber Sky that naturally drain east will be routed west as recommended by the City with the Timber Sky improvements.
- The proposed detention basin is at the same location as the existing makeshift pond which is a natural concentration point with more than one inflow points. The proposed detention basin maintains the same flow pattern as in the existing condition. The permanent pond provides an additional site amenity.

10.REFERENCES

City of Flagstaff Stormwater Management Design Manual, City of Flagstaff Engineering Division, 2000

City of Flagstaff Low Impact Development Manual (January 2009)

Natural Resources Conservation Services' (NRCS) Web Soil Survey

Natural Resources Conservation Services' (NRCS) National Engineering Handbook.

Arizona Department of Water Resources (ADWR) Oak Creek Flood Warning System Hydrology Report, TR 90-4, September 1990

United States Army Corps Engineer's (USACE) Hydrologic Engineering Center software

(HEC-1), Version 4.1

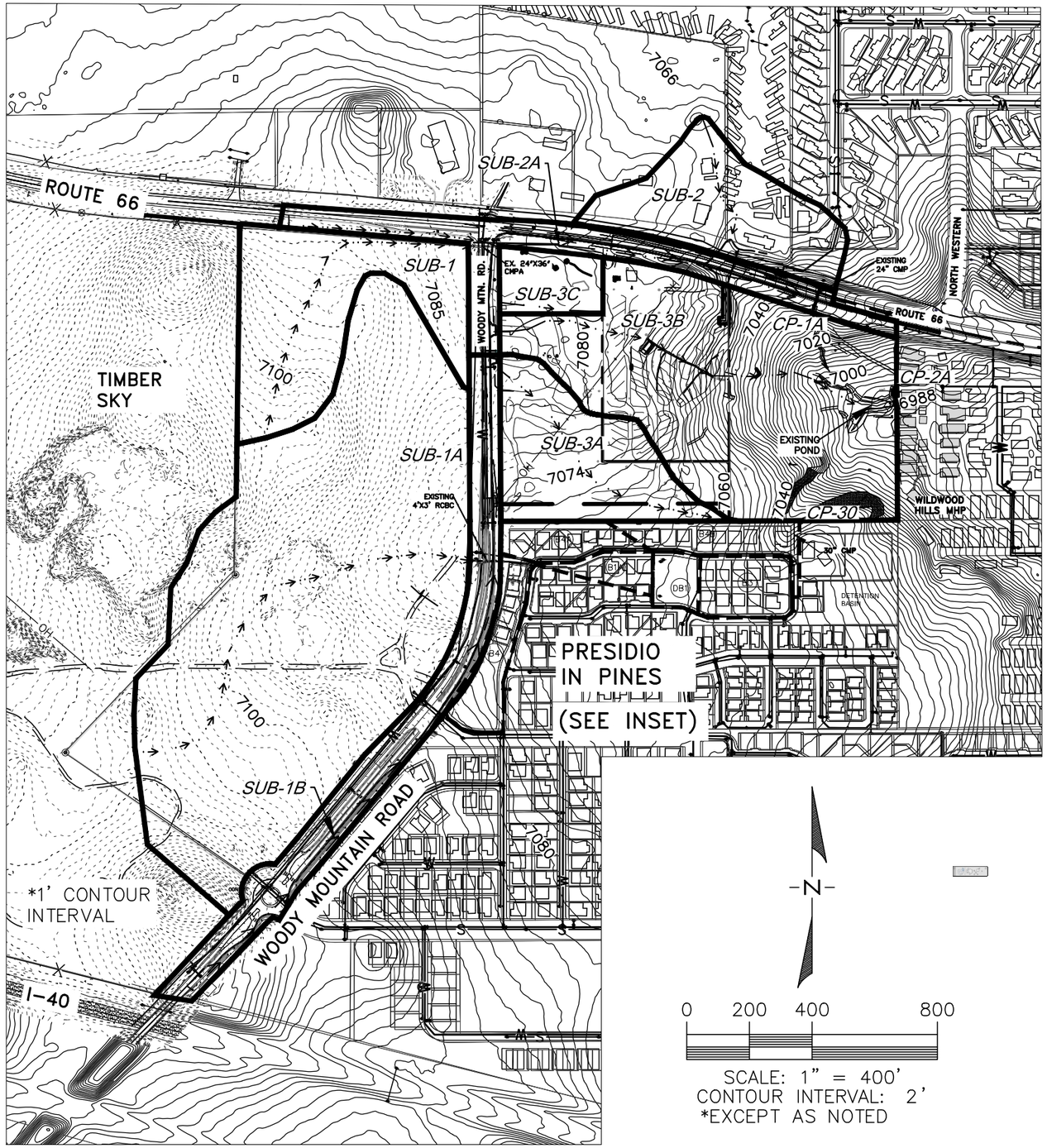
Hydraflow Express Extension for Autodesk AutoCAD Civil 3D by Autodesk, Inc.

Gabion structures, Maccaferri, Inc.

Presidio in Pines Drainage Report excerpts (December 2004)

APPENDIX A

Exhibit 1- Drainage Area Map-Offsite Drainage Areas
Exhibit 2 - Drainage Area Map -Existing Conditions
Exhibit 3 - Drainage Area Map -Proposed Conditions
Exhibit 4 - Overall Plan



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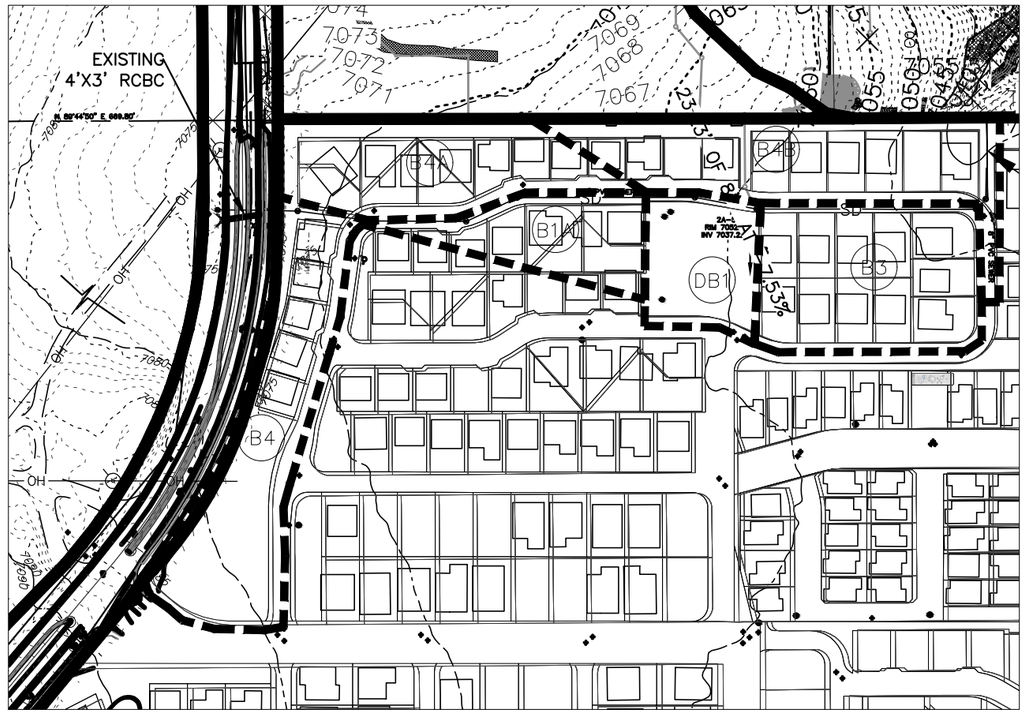
*EXCEPT AS NOTED



PRESIDIO IN THE PINES
DRAINAGE AREAS

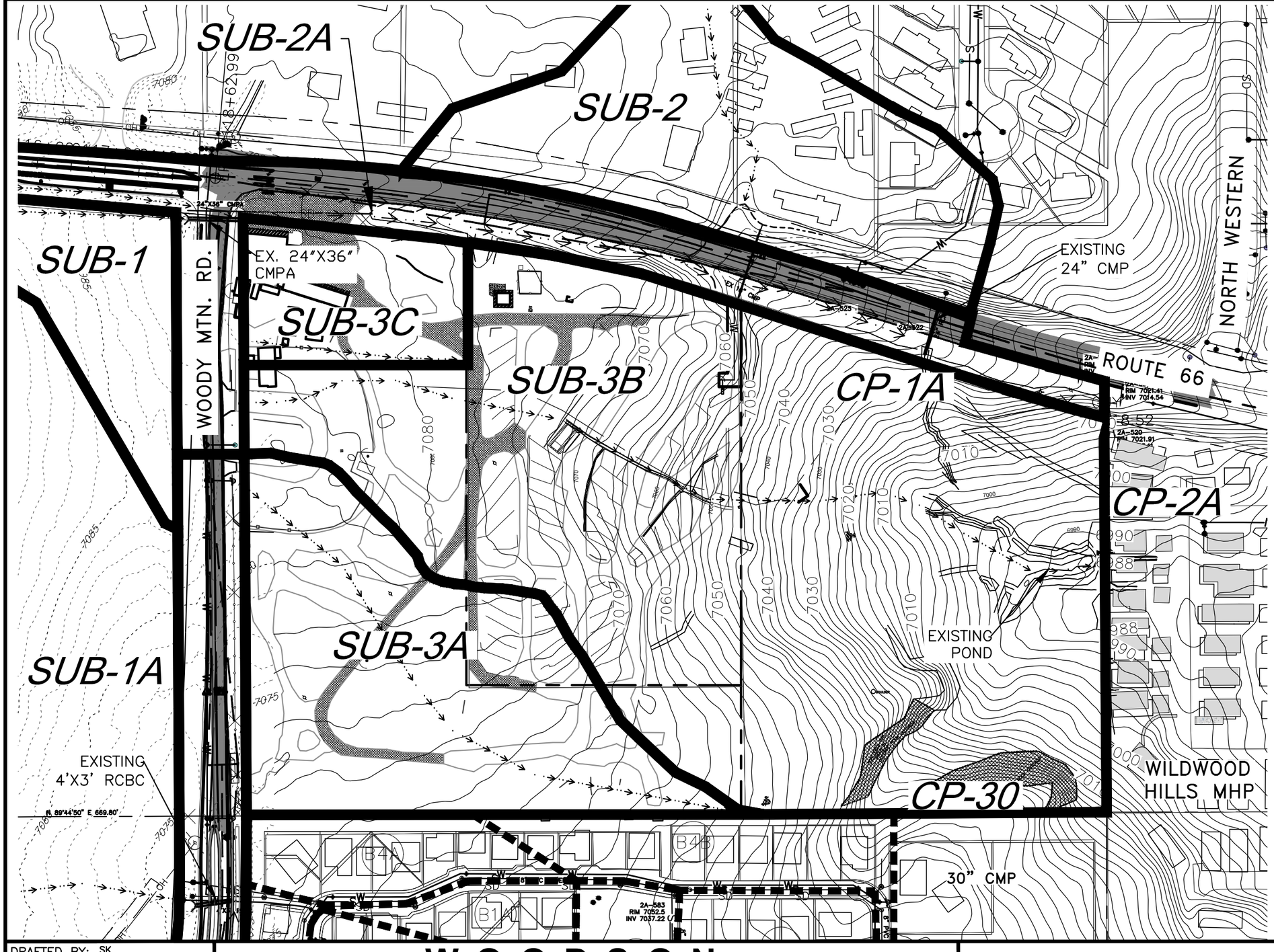
LEGEND

SUB-1	DRAINAGE AREA ID
———	DRAINAGE AREA LIMITS
· · →· · →· ·	TRAVEL TIME PATH

DRAFTED BY:	SK
DATE:	06/24/19
PROJ. NO.:	118044
FN:	118044-Drainage

WOODSON
ENGINEERING & SURVEYING
(928)774-4636 | WWW.WOODSONENG.COM

WOODY MOUNTAIN CAMPGROUND
EXHIBIT 1-OFFSITE DRAINAGE AREA MAP



LEGEND

SUB1	DRAINAGE AREA ID
▬▬	DRAINAGE AREA LIMITS
···→···	TRAVEL TIME PATH

PLEASE SEE OFFSITE DRAINAGE AREA MAP FOR THE COMPLETE EXTENTS OF THE OFFSITE DRAINAGE AREAS.

N

0 75 150 300

SCALE: 1" = 150'
CONTOUR INTERVAL: 1'

DRAFTED BY:	SK
DATE:	07/15/2019
PROJ. NO.:	118044
FN:	118044 Drainage.dwg

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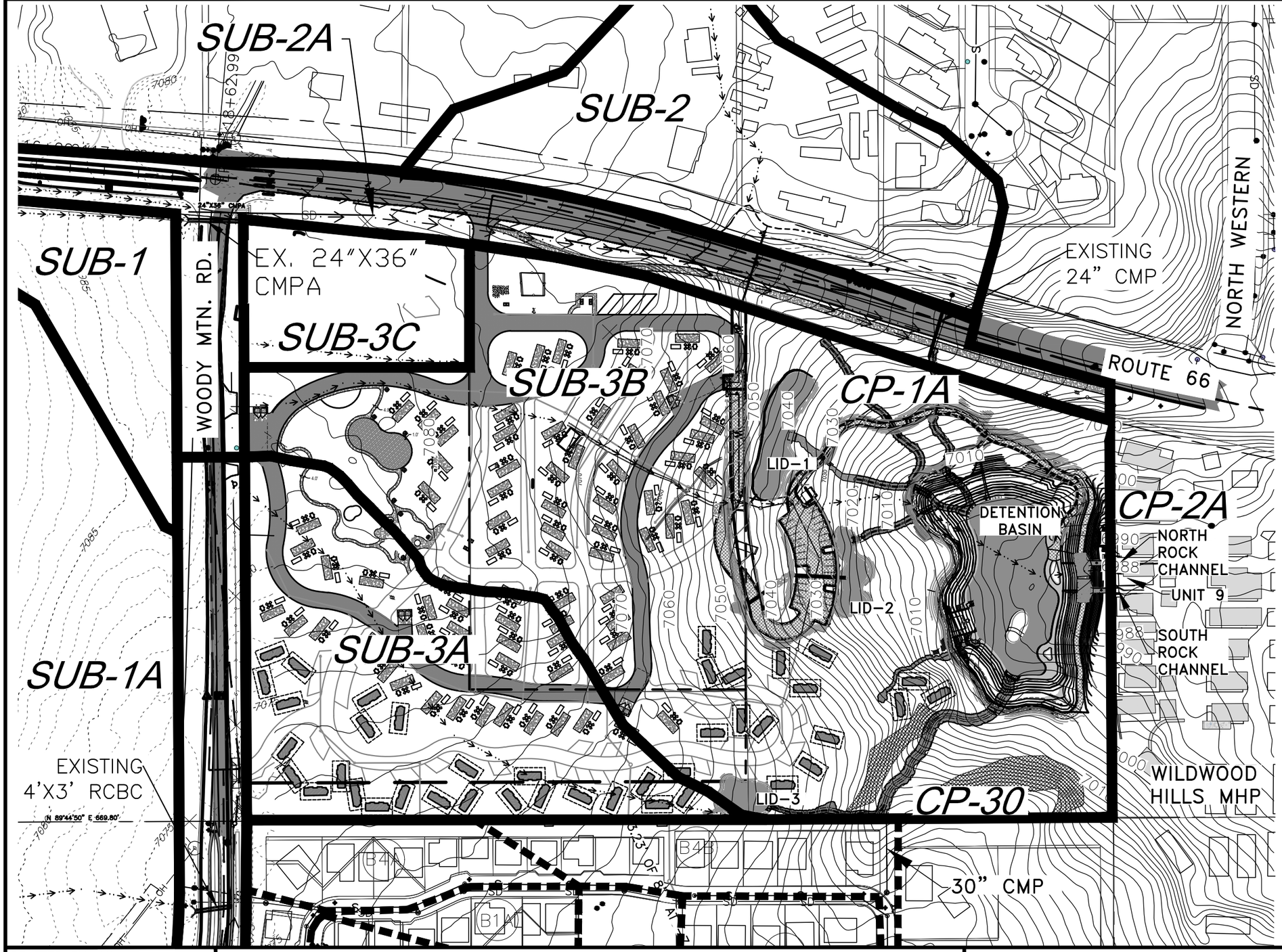
WOODY MOUNTAIN CAMPGROUND
EXHIBIT 2-DRAINAGE AREA MAP EXISTING CONDITION



LEGEND

SUB 1 DRAINAGE AREA ID

DRAINAGE AREA LIMITS

TRAVEL TIME PATH

PLEASE SEE OFFSITE DRAINAGE AREA MAP FOR THE COMPLETE EXTENTS OF THE OFFSITE DRAINAGE AREAS.

THE PHASE II IMPROVEMENTS ON THE CAMPGROUND ARE SHOWN FOR REFERENCE ONLY. PLEASE SEE EXHIBIT 4 FOR THE OVERALL PLAN THAT SHOWS THE PROPOSED IMPROVEMENTS IN PHASE I.

N

0 75 150 300

SCALE: 1" = 150'
CONTOUR INTERVAL: 1'

DRAFTED BY:	SK
DATE:	07/15/19
PROJ. NO.:	118044
FN:	118044-Drainage.dwg

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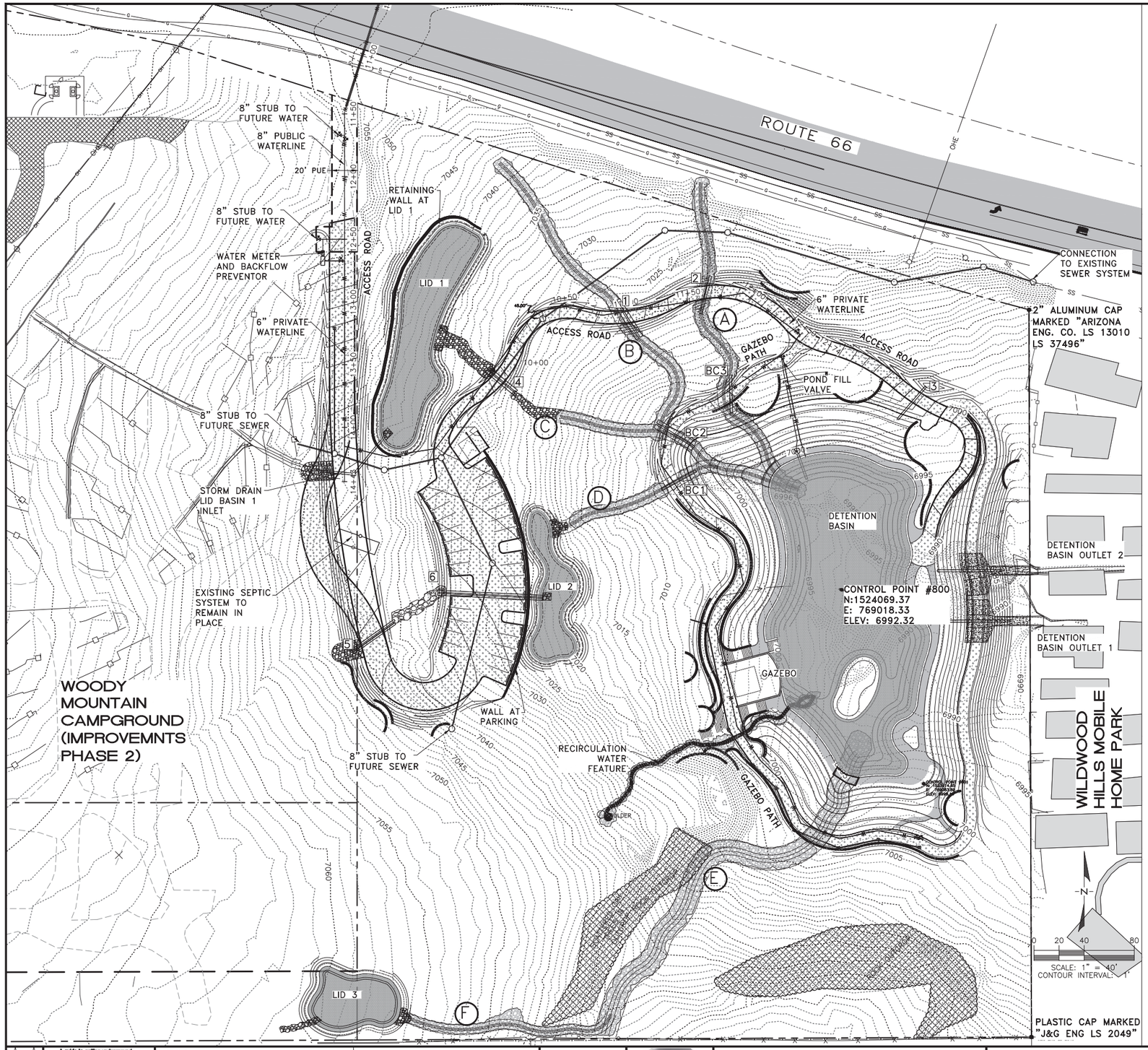
WOODY MOUNTAIN CAMPGROUND

EXHIBIT 3-DRAINAGE AREA MAP PROPOSED CONDITION



CIVIL INDEX

C1	OVERALL
C2	NOTES AND QUANTITIES
C3	DETAILS
C4	DETAILS
C5	GRADING PLAN – ACCESS ROAD
C6	GRADING PLAN – ACCESS ROAD
C7	GRADING PLAN – GAZEBO PATH
C8	UTILITY PLAN
C9	UTILITY PLAN
C10	UTILITY PLAN
C11	FILL STATION
C12	LID BASINS
C13	STORM DRAIN – ACCESS ROAD
C14	DETENTION BASIN CONTROL
C15	DETENTION BASIN OUTLETS
C16	RETAINING WALL PARKING
C17	RETAINING WALL AT LID 1
C18	SWPPP
C19	SWPPP DETAILS

LEGEND

(D)	CHANNEL NAME
6	CULVERT NAME

EARTHWORK QUANTITIES (CY)

	DETENTION BASIN	LID1	LID2	LID3	ACCESS ROAD	GAZEBO ROAD	TOTAL
EXCAVATION	9,787	1,166	294	360	1,176	516	13,300
EMBANKMENT	3,394	35	90	12	3,084	62	6,677

BY SIGNING THESE PLANS, THE DESIGNER OF THE LANDSCAPING PLANS CONFIRMS THAT THESE GRADING PLANS HAVE BEEN REVIEWED, IS AWARE OF THE SCOPE OF THE PROJECT, AND HAS IDENTIFIED AND ADDRESSED ANY POTENTIAL CONFLICTS BETWEEN THE GRADING AND LANDSCAPING PLANS.

LANDSCAPE DESIGNER DATE

WOODSON ENGINEERING AND SURVEYING, INC.
124 N. ELDEN ST. • FLAGSTAFF, AZ 86001 • PHONE: (928) 774-4636 • WWW.WOODSONENG.COM

118044

7/10/19

WOODY MTN. CAMPGROUND
PHASE 1
CONSTRUCTION PLANS

A guide to getting underground facilities located before you dig
Know what's below. Call before you dig.
ARIZONA811
Call 811 or visit www.Arizona811.com

FN: 01 TO 03 DETAILS

REVISIONS:

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WOODY MTN. CAMPGROUND
PHASE 1

OVERALL PLAN

HOR SCALE: 1"=30'
VERT SCALE: NA
DATE: 7/10/19
PROJECT NO.: 118044
AGENCY NO.: PZ18-00210
SHEET NO.: C1 OF 19

DESIGNED BY: AAS
DRAFTED BY: AAS
CHECKED BY: RLS

APPENDIX B

Soils Information
Composite Curve Number Calculations
Time of Concentration Calculations
Drainage Areas Summary Table
HEC-1 Output-Existing Condition 10-year Storm Event
HEC-1 Output-Existing Condition 100-year Storm Event
HEC-1 Output-Proposed Condition Unattenuated 10-year Storm Event
HEC-1 Output-Proposed Condition Unattenuated 100-year Storm Event
HEC-1 Output-Proposed Condition Attenuated 10-year Storm Event
HEC-1 Output-Proposed Condition Attenuated 100-year Storm Event
Summary of Impervious Area and ROCV Calculations

Search

Map Unit Legend

HSG C

HSG D

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County (AZ693)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Jacques clay loam, 0 to 2 percent slopes	31.7	4.5%
2	Brolliar stony clay loam, 0 to 2 percent slopes	159.2	22.9%
2A	Brolliar stony clay loam, 2 to 8 percent slopes	193.2	27.7%
2B	Brolliar stony clay loam, 8 to 30 percent slopes	16.2	2.3%
12	Brolliar cobbly clay loam, deep variant, 0 to 5 percent slopes	270.0	38.8%
15A	Tortugas-Daze complex, 0 to 15 percent slopes	25.9	3.7%
Totals for Area of Interest		**696.2**	**100.0%**

HSG D

HSG D

HSG C

HSG D

Soil Map

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps areas of contrasting soils that could have been shown at a more detailed scale.

WILDWOOD HILLS-SOILS MAP

Soil Data Available

Name	Area Symbol	Data Availability	Version
Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County	AZ693	Tabular and Spatial, incomplete	Survey Area: Version 5, Sep 14, 2014 Tabular: Version 4, Sep 14, 2014 Spatial: Version 2, Dec 17, 2013

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Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

1—Jacques clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vhjq
Elevation: 6,580 to 7,080 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Jacques and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Jacques

Setting

Landform: Drainageways, valleys
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 16 inches: clay loam
H2 - 16 to 60 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

2—Brolliar stony clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vhjr
Elevation: 6,790 to 7,420 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar

Setting

Landform: Plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: stony clay loam
H2 - 3 to 30 inches: clay
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 0 to 2 percent
Percent of area covered with surface fragments: 15.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: D

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

2A—Brolliar stony clay loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vhjs
Elevation: 6,620 to 7,540 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar

Setting

Landform: Plains
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: stony clay loam
H2 - 3 to 30 inches: clay
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent
Percent of area covered with surface fragments: 15.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: D

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

2B—Brolliar stony clay loam, 8 to 30 percent slopes

Map Unit Setting

National map unit symbol: 1vhjt
Elevation: 6,760 to 7,550 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: stony clay loam
H2 - 3 to 30 inches: clay
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 8 to 30 percent
Percent of area covered with surface fragments: 20.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: D

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

12—Brolliar cobbly clay loam, deep variant, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhk4
Elevation: 6,870 to 7,560 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar, deep, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar, Deep

Setting

Landform: Plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: cobbly clay loam
H2 - 3 to 60 inches: clay

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: C

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

15A—Tortugas-Daze complex, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 1vhkb
Elevation: 6,670 to 7,090 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Tortugas and similar soils: 55 percent
Daze and similar soils: 45 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tortugas

Setting

Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium and/or residuum weathered from limestone

Typical profile

H1 - 0 to 3 inches: cobbly loam
H2 - 3 to 14 inches: very cobbly loam
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 50 percent
Available water storage in profile: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D

Hydric soil rating: No

Description of Daze

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone and sandstone

Typical profile

H1 - 0 to 3 inches: fine sandy loam
H2 - 3 to 7 inches: clay loam
H3 - 7 to 18 inches: clay
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

OAK CREEK FLOOD WARNING SYSTEM

HYDROLOGY REPORT

ARIZONA DEPARTMENT OF WATER RESOURCES

ENGINEERING DIVISION

FLOOD MANAGEMENT SECTION

TR 90 - 4
SEPTEMBER 1990

Table 2

RUNOFF CURVE NUMBERS

Cover Type	Cover Condition	Hydrologic Soil Group	Curve Number
BARE ROCK	NO CONDITION		94
RIVERWASH	NO CONDITION		53
CINDERS/LAVA	POOR 0 - 30%		53
SPRUCE - FIR	GOOD 70 - 100%	B	41
MIXED CONIFER	GOOD 70 - 100%	B	41
MIXED CONIFER	GOOD 70 - 100%	C	51
MIXED CONIFER	FAIR 30 - 70%	A	48
MIXED CONIFER	FAIR 30 - 70%	B	53
MIXED CONIFER	FAIR 30 - 70%	C	65
MIXED CONIFER	FAIR 30 - 70%	D	75
MIXED CONIFER	POOR 0 - 30%	A	60
MIXED CONIFER	POOR 0 - 30%	B	71
MIXED CONIFER	POOR 0 - 30%	C	80
MIXED CONIFER	POOR 0 - 30%	D	87
PONDEROSA PINE	GOOD 70 - 100%	B	41
PONDEROSA PINE	GOOD 70 - 100%	C	51
PONDEROSA PINE	FAIR 30 - 70%	A	48
PONDEROSA PINE	FAIR 30 - 70%	B	53
PONDEROSA PINE	FAIR 30 - 70%	C	65
PONDEROSA PINE	FAIR 30 - 70%	D	75
PONDEROSA PINE	POOR 0 - 30%	B	71
PONDEROSA PINE	POOR 0 - 30%	C	80
PINON - JUNIPER	GOOD 70 - 100%	B	41
PINON - JUNIPER	GOOD 70 - 100%	C	61
PINON - JUNIPER	GOOD 70 - 100%	D	71
PINON - JUNIPER	FAIR 30 - 70%	A	40
PINON - JUNIPER	FAIR 30 - 70%	B	58
PINON - JUNIPER	FAIR 30 - 70%	C	73
PINON - JUNIPER	FAIR 30 - 70%	D	80
PINON - JUNIPER	POOR 0 - 30%	A	62
PINON - JUNIPER	POOR 0 - 30%	B	75
PINON - JUNIPER	POOR 0 - 30%	C	85
PINON - JUNIPER	POOR 0 - 30%	D	89
CHAPARRAL	GOOD 70 - 100%	B	52
CHAPARRAL	GOOD 70 - 100%	C	68
CHAPARRAL	GOOD 70 - 100%	D	78
CHAPARRAL	FAIR 30 - 70%	B	65
CHAPARRAL	FAIR 30 - 70%	C	77
CHAPARRAL	FAIR 30 - 70%	D	85
CHAPARRAL	POOR 0 - 30%	B	78
CHAPARRAL	POOR 0 - 30%	C	86
CHAPARRAL	POOR 0 - 30%	D	91
GRASSLAND	GOOD 70 - 100%	B	48
GRASSLAND	GOOD 70 - 100%	C	60
GRASSLAND	GOOD 70 - 100%	D	70
GRASSLAND	FAIR 30 - 70%	B	61
GRASSLAND	FAIR 30 - 70%	C	72
GRASSLAND	FAIR 30 - 70%	D	80
GRASSLAND	POOR 0 - 30%	B	74
GRASSLAND	POOR 0 - 30%	C	82
GRASSLAND	POOR 0 - 30%	D	89
FOREST PARK	FAIR 30 - 70%	A	55
FOREST PARK	FAIR 30 - 70%	C	69
FOREST PARK	POOR 0 - 30%	B	74
FOREST PARK	POOR 0 - 30%	D	89
DESERT GRASSLAND	GOOD 70 - 100%	B	62
DESERT GRASSLAND	GOOD 70 - 100%	C	74
DESERT GRASSLAND	GOOD 70 - 100%	D	85
DESERT GRASSLAND	FAIR 30 - 70%	B	71
DESERT GRASSLAND	FAIR 30 - 70%	C	81
DESERT GRASSLAND	FAIR 30 - 70%	D	89
DESERT GRASSLAND	POOR 0 - 30%	B	80
DESERT GRASSLAND	POOR 0 - 30%	C	87
DESERT GRASSLAND	POOR 0 - 30%	D	93
SONORA DESERT	GOOD 70 - 100%	A	49
SONORA DESERT	GOOD 70 - 100%	B	68
SONORA DESERT	GOOD 70 - 100%	C	79
SONORA DESERT	GOOD 70 - 100%	D	84
SONORA DESERT	FAIR 30 - 70%	A	55
SONORA DESERT	FAIR 30 - 70%	B	72
SONORA DESERT	FAIR 30 - 70%	C	81
SONORA DESERT	FAIR 30 - 70%	D	86
SONORA DESERT	POOR 0 - 30%	A	63
SONORA DESERT	POOR 0 - 30%	B	77
SONORA DESERT	POOR 0 - 30%	C	85
SONORA DESERT	POOR 0 - 30%	D	88
RIPARIAN	GOOD 70 - 100%	B	57
RIPARIAN	GOOD 70 - 100%	C	63
RIPARIAN	FAIR 30 - 70%	A	55
RIPARIAN	FAIR 30 - 70%	C	68
RIPARIAN SCRUB	FAIR 30 - 70%	A	53
MEADOW	GOOD 70 - 100%	D	70

Table 9–5 Runoff curve numbers for urban areas [1/]

Cover description cover type and hydrologic condition	Average percent impervious area [2/]	-- CN for hydrologic soil group -- A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3/]					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4/]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation)		77	86	91	94

1/ Average runoff condition, and $I_a = 0.2S$.

2/ The average percent impervious area shown was used to develop the composite CNs. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition.

3/ CNs shown are equivalent to those of pasture. Composite CNs may be computed for other combinations of open space type.

4/ Composite CNs for natural desert landscaping should be computed using figures 9–3 or 9–4 based on the impervious area percentage (CN=98) and the pervious area CN. The pervious area CNs are assumed equivalent to desert shrub in poor hydrologic condition.

Sub-1

Sheet Flow

Input Data		
	Elev Start [ft]	7106
	Elev End [ft]	7105
	Length [ft]	70
	n (Short Grass)	0.15
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.178

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7105
	Elev End [ft]	7095
	Length [ft]	335
OUTPUT		
	S [ft/ft]	0.0299
	V [ft/s]	2.79
	Tt [min]	2.00
	Tt [hr]	0.033

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7095
	Elev End [ft]	7077
	Length [ft]	695
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0259
OUTPUT		
	Area [sf]	23.50
	Wetted Perimeter [ft]	41.06
	Hydraulic Radius	0.57
	Velocity [fps]	4.12
	Tt [min]	2.81
	Tt [hr]	0.047

Tc [hr]	0.258
Tc [min]	15.47
SCS Lag [hr]	0.155

Sub-1A

Sheet Flow

Input Data		
	Elev Start [ft]	7113
	Elev End [ft]	7111
	Length [ft]	98
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.02
	Tt [hr]	0.202

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7111
	Elev End [ft]	7098
	Length [ft]	561
	Output	
	S [ft/ft]	0.0232
	V [ft/s]	2.46
	Tt [min]	3.81
	Tt [hr]	0.063

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7098
	Elev End [ft]	7070
	Length [ft]	904
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0310
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	27.50
	Wetted Perimeter [ft]	40.08
	Hydraulic Radius	0.69
	Velocity [fps]	5.09
	Tt [min]	2.96
	Tt [hr]	0.049

Tc [hr]	0.314
Tc [min]	18.87
SCS Lag [hr]	0.189

Sub-1B

Sheet Flow

Input Data		
	Elev Start [ft]	7131
	Elev End [ft]	7130
	Length [ft]	36
	n (Asphalt)	0.011
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.010

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7130
	Elev End [ft]	7115
	Length [ft]	490
	Output	
	S [ft/ft]	0.0306
	V [ft/s]	2.82
	Tt [min]	2.89
	Tt [hr]	0.048

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7115
	Elev End [ft]	7076
	Length [ft]	1219
	Channel Slope [ft/ft]	0.0320
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	2.25
	Wetted Perimeter [ft]	4.03
	Hydraulic Radius	0.56
	Velocity [fps]	9.01
	Tt [min]	2.26
	Tt [hr]	0.038

Tc [hr]	0.096	
Tc [min]	10.00	(Min. 10 min)
SCS Lag [hr]	0.100	

Sub-2A

Sheet Flow

Input Data		
	Elev Start [ft]	7088
	Elev End [ft]	7087
	Length [ft]	35
	n (Asphalt)	0.011
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.010

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7087
	Elev End [ft]	7080
	Length [ft]	674
	Output	
	S [ft/ft]	0.0104
	V [ft/s]	1.64
	Tt [min]	6.83
	Tt [hr]	0.114

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7080
	Elev End [ft]	7040
	Length [ft]	945
	Manning's n	0.020
	Channel Slope [ft/ft]	0.0423
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	16.00
	Wetted Perimeter [ft]	27.09
	Hydraulic Radius	0.59
	Velocity [fps]	10.76
	Tt [min]	1.46
	Tt [hr]	0.024

Tc [hr]	0.148	
Tc [min]	10.00	(Min. 10 min)
SCS Lag [hr]	0.100	

Sub-2

Sheet Flow

Input Data		
	Elev Start [ft]	7072
	Elev End [ft]	7069
	Length [ft]	97
	n (dense grasses)	0.24
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.247

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7069
	Elev End [ft]	7068
	Length [ft]	203
	Output	
	S [ft/ft]	0.0049
	V [ft/s]	1.13
	Tt [min]	2.99
	Tt [hr]	0.050

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7068
	Elev End [ft]	7060
	Length [ft]	125
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0640
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	7.00
	Wetted Perimeter [ft]	12.20
	Hydraulic Radius	0.57
	Velocity [fps]	6.49
	Tt [min]	0.32
	Tt [hr]	0.005

Tc [hr]	0.302
Tc [min]	18.11
SCS Lag [hr]	0.181

Sub-3A Existing Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7083
	Elev End [ft]	7081
	Length [ft]	42
	n (dense grasses)	0.24
OUTPUT		
	S [ft/ft]	0.05
	Tt [hr]	0.106

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081
	Elev End [ft]	7050
	Length [ft]	1056
	Output	
	S [ft/ft]	0.0294
	V [ft/s]	2.76
	Tt [min]	6.37
	Tt [hr]	0.106

Tc [hr]	0.212
Tc [min]	12.74
Tc [min] used	15.00
Tc [hr] used	0.25
SCS Lag [hr]	0.150

Sub-3B Existing Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7082.6
	Elev End [ft]	7082
	Length [ft]	95
	n (Dense Grasses)	0.25
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.473

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7082
	Elev End [ft]	7072
	Length [ft]	400
	Output	
	S [ft/ft]	0.0250
	V [ft/s]	2.55
	Tt [min]	2.61
	Tt [hr]	0.044

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7072
	Elev End [ft]	6988
	Length [ft]	912
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0921
	Depth [ft]	2.00
OUTPUT DATA:		
	Area [sf]	90.00
	Wetted Perimeter [ft]	85.10
	Hydraulic Radius	1.06
	Velocity [fps]	11.70
	Tt [min]	1.30
	Tt [hr]	0.022

Tc [hr]	0.538
Tc [min]	32.30
SCS Lag [hr]	0.32

Sub-3C Existing Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7082.00
	Elev End [ft]	7081.25
	Length [ft]	72
	n (dense grasses)	0.03
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.049

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081.25
	Elev End [ft]	7079
	Length [ft]	245
	Output	
	S [ft/ft]	0.0092
	V [ft/s]	1.55
	Tt [min]	2.64
	Tt [hr]	0.044

Tc [hr]	0.093	
Tc [min]	15.00	(Min. 15 min)
SCS Lag [hr]	0.15	

Sub-3A Proposed Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7083
	Elev End [ft]	7081
	Length [ft]	42
	n (short grasses)	0.15
OUTPUT		
	S [ft/ft]	0.05
	Tt [hr]	0.073

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081
	Elev End [ft]	7050
	Length [ft]	1056
	Output	
	S [ft/ft]	0.0294
	V [ft/s]	2.76
	Tt [min]	6.37
	Tt [hr]	0.106

Tc [hr]	0.179
Tc [min]	10.74
Tc [min] used	10.00
Tc [hr] used	0.17
SCS Lag [hr]	0.100

Sub-3B Proposed Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7082.75
	Elev End [ft]	7082
	Length [ft]	43
	n (dense grasses)	0.25
OUTPUT		
	S [ft/ft]	0.02
	Tt [hr]	0.167

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7082
	Elev End [ft]	7072
	Length [ft]	448
	Output	
	S [ft/ft]	0.0223
	V [ft/s]	2.41
	Tt [min]	3.10
	Tt [hr]	0.052

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7072
	Elev End [ft]	7000
	Length [ft]	548
	Manning's n	0.040
	Channel Slope [ft/ft]	0.1314
	Depth [ft]	2.00
OUTPUT DATA:		
	Top Width [ft]	85.00
	Area [sf]	90.00
	Wetted Perimeter [ft]	85.10
	Hydraulic Radius	1.06
	Velocity [fps]	13.98
	Tt [min]	0.65
	Tt [hr]	0.011

Tc [hr]	0.230
Tc [min]	13.78
SCS Lag [hr]	0.14

Sub-3C Proposed Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7082
	Elev End [ft]	7082
	Length [ft]	72
	n (dense grasses)	0.01
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.030

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081.5
	Elev End [ft]	7079
	Length [ft]	245
	Output	
	S [ft/ft]	0.0102
	V [ft/s]	1.63
	Tt [min]	2.51
	Tt [hr]	0.042

Tc [hr]	0.072	
Tc [min]	10.00	(Min. 10 min)
SCS Lag [hr]	0.10	

Composite Curve Number (CN) Calculations-Existing Condition

Drainage Area ID	Total Area (ac)	Total Area (sq mi)	Soil Map Symbol	Hydrologic Soil Group	Cover Type	Cover Condition	SCS Curve Number	Area for Individual CN	Composite SCS CN
*1	7.01	0.011	2A	D	Open Space (<50% grass cover)	NA	89	1.29	86.55
			12	C	Open Space (<50% grass cover)	Fair	86	5.72	
*1A	28.94	0.045	2	D	Open Space (<50% grass cover)	NA	89	13.20	87.37
			12	C	Open Space (<50% grass cover)	NA	86	15.74	
Sub-1B	5.84	0.009	2	D	Paved Street	NA	98	1.90	93.23
				D	Paved Street w/ Open Ditches		93	1.90	
				D	Dirt (including ROW)	NA	89	2.04	
Sub-2	4.97	0.008	2	D	Residential - 1/8 Acre	NA	92	0.85	79.72
			2A	D	Residential - 1/8 Acre	Fair	92	1.07	
			12	C	Ponderosa Pine (Fair)	Fair	65	1.53	
					Open Space (50% -70% cover)	NA	79	1.53	
Sub-2A	4.53	0.007	2A	D	Dirt (including ROW)	NA	89	2.101	91.15
					Paved Street w/ Open Ditches	NA	93	2.43	
Sub-3A	5.14	0.008	12	C	Ponderosa Pine (Fair)	Fair	65	2.57	72.00
					Open Space (Fair)	NA	79	2.57	
Sub-3B	15.42	0.024	2A	D	Ponderosa Pine (Fair)	Fair	75	8.97	75.49
			12	C	Ponderosa Pine (Fair)	Fair	65	3.12	
					Open Space (Fair)	NA	79	3.12	
			12	C	Roofs	Fair	98	0.22	
Sub-3C	1.51	0.002	12	C	Ponderosa Pine (Fair)	Fair	65	0.65	75.74
					Open Space (Fair)	NA	79	0.65	
					Roofs	Fair	98	0.22	

* Drainage Areas 1 and 1A use the post burn curve numbers - Open Sapce with less than 50% grass cover

Composite Curve Number (CN) Calculations-Proposed Condition

Drainage Area ID	Total Area (ac)	Total Area (sq mi)	Soil Map Symbol	Hydrologic Soil Group	Cover Type	Cover Condition	SCS Curve Number	Area for Individual CN	Composite SCS CN
*1	7.01	0.011	2A	D	Open Space (<50% grass cover)	NA	89	1.29	86.55
			12	C	Open Space (<50% grass cover)	Fair	86	5.72	
*1A	28.94	0.045	2	D	Open Space (<50% grass cover)	NA	89	13.20	87.37
			12	C	Open Space (<50% grass cover)	NA	86	15.74	
Sub-1B	5.84		2	D	Paved Street	NA	98	2.05	93.46
					Paved Street w/ Open Ditches	NA	93	1.90	
					Dirt (including ROW)	NA	89	1.89	
Sub-2	4.97	0.008	2	D	Residential - 1/8 Acre	NA	92	0.85	79.72
			2A	D	Residential - 1/8 Acre	Fair	92	1.07	
			12	C	Ponderosa Pine (Fair)	Fair	65	1.53	
					Open Space (<50% grass cover)	NA	79	1.53	
Sub-2A	4.53	0.007	2A	D	Dirt (including ROW)	NA	89	1.387	95.25
					Paved Street	NA	98	3.15	
Sub-3A	5.14	0.008	12	C	Ponderosa Pine (Fair)	Fair	65	1.75	78.72
					Open space (Fair)		79	1.75	
					Gravel		85	0.62	
					Rooftops/impervious areas	NA	98	1.02	
Sub-3B	15.42	0.024	2A	D	Ponderosa Pine (Fair)	Fair	75	3.97	86.44
					Open Space (Fair)		84	3.97	
					Permanent Pond		98	1.03	
			12	C	Ponderosa Pine (Fair)	Fair	65	2.03	
					Open space (Fair)		79	2.03	
					Gravel	NA	85	1.36	
			12		Rooftops/impervious areas	Fair	98	1.97	
Sub-3C	1.51	0.002	12	C	Open Space (Fair)	Fair	79	0.45	92.30
					Roofs	Fair	98	1.06	

* Drainage Areas 1 and 1A use the post burn curve numbers - Open Sapce with less than 50% grass cover

Drainage Area ID	Area	Area		CN	Tc	Tlag=0.6*Tc
	sq.ft	Acres	sq.miles		min	(hr)
Offsite						
Sub-1	305345	7.01	0.011	86.55	15.5	0.155
Sub-1A	1260517	28.94	0.045	87.37	18.9	0.189
Sub-1B	254229	5.84	0.009	93.23	10.0	0.100
Sub-2	216434	4.97	0.008	79.72	18.1	0.181
Sub-2A	197411	4.53	0.007	91.15	10.0	0.100
Onsite						
Sub-3A	223971	5.14	0.008	72.00	15.0	0.150
Sub-3B	671492	15.42	0.024	75.49	31.7	0.32
Sub-3C	65802	1.51	0.002	75.74	15.0	0.15

Woody Mountain Campground Drainage Area Summary-Proposed Conditions

Drainage Area ID	Area	Area		CN	Tc	Tlag=0.6*Tc
	sq.ft	Acres	sq.miles		min	(hr)
Offsite						
Sub-1	305345	7.01	0.011	86.55	15.5	0.155
Sub-1A	1260517	28.94	0.045	87.37	18.9	0.189
Sub-1B	254229	5.84	0.009	93.46	10.0	0.100
Sub-2	216434	4.97	0.008	79.72	18.1	0.181
Sub-2A	197411	4.53	0.007	95.25	10.0	0.100
Onsite						
Sub-3A	223971	5.14	0.008	78.72	10.0	0.100
Sub-3B	671492	15.42	0.024	86.44	24.2	0.242
Sub-3C	65802	1.51	0.002	92.30	10.0	0.100

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   20JUN19  TIME  17:21:18  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                PAGE  1

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                       *DIAGRAM
            1          ID        Woody Mountain Campground
            2          ID        Proposed-Conditions with Detention Basin HEC-1 Model
            3          ID        10-year, 6-hour Model
            4          ID        Woodson Engineering and Surveying
            5          ID        MAY 2019
            6          ID        PROPOSED CONDITION (WITH DETENTION BASIN)
            7          IT       3       0       0     125
            8          IO       5       0       0
            9          IN       5       0       0
                       *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   86.44
   30          UD    0.24
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   92.30
   35          UD    0.10
               *
1                                          HEC-1 INPUT                                                  PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *

  76            KK BASIN4B
  77            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  78            KM    RUNOFF FROM BASIN 4B
  79            BA    .002
  80            LS       0   87.81
  81            UD    .071
                *

  82            KK  BASIN3
  83            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  84            KM    RUNOFF FROM BASIN 3
  85            BA    .002
  86            LS       0   90.80
  87            UD    .071
                *

  88            KK  SUB-1A
  89            KM    RUNOFF FROM SUB-1A
  90            BA    .045
  91            LS       0   87.37
  92            UD    .189
                *

  93            KK  SUB-1B
  94            KM    RUNOFF FROM SUB-1B
  95            BA    .009
  96            LS       0   93.46
  97            UD     .10
                *

  98            KK  CP1A1B
  99            KM    COMBINE SUB-1A & SUB-1B
 100            HC       2
                *

 101            KK RCP1A1B
 102            KM    ROUTE CP1A1B TO CP30
 103            RK    1200    0.01   0.013       0    CIRC     2.5
                *

 104            KK  SUB-3A
 105            KM    RUNOFF FROM SUB-3A
 106            BA    .008
 107            LS       0   78.72
 108            UD     .10
                *
```



```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

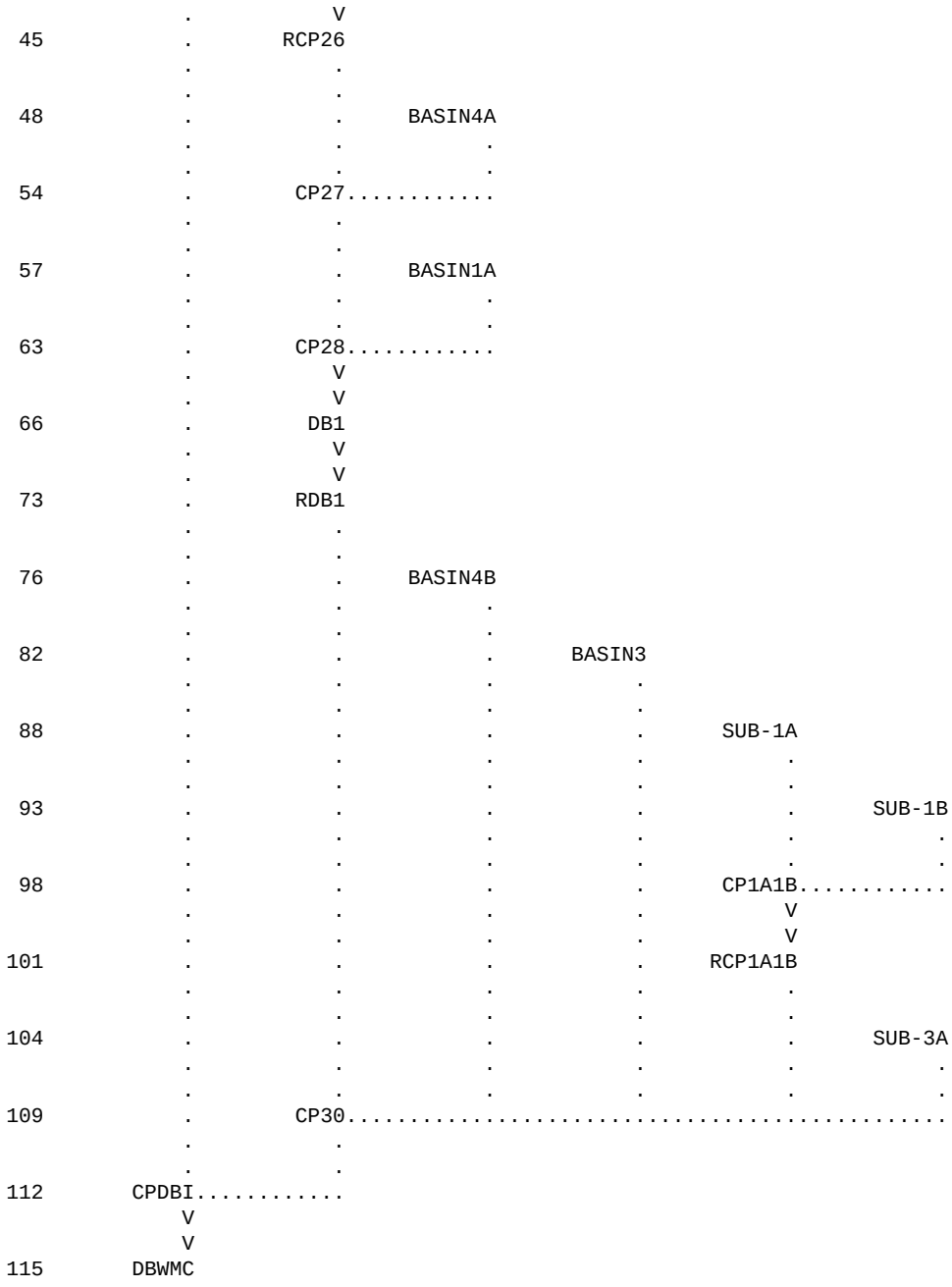
```
            109           KK    CP30
            110           KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
            111           HC       5
                          *

            112           KK   CPDBI
            113           KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
            114           HC       2
                          *
                          *

            115           KK   DBWMC
            116           KM    DETENTION BASIN WEST OF WILDWOOD HILLS MOBILE HOME PARK
            117           RS       1    STOR       0
            118           SV     0.0    0.76    1.59    2.49    3.46    4.52    5.69    6.96    8.31
            119           SE  6992.0  6993.0  6994.0  6995.0  6996.0  6997.0  6998.0  6999.0  7000.0
            120           SQ     0.0    28.5    24.6    33.8    40.9    47.0    52.4    57.3    61.8
                          *
            121           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23         CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36          CP2.........................
                 .
                 .
    39           .      BASIN4
                 .           V
```


RCP26
BASIN4A
CP27
BASIN1A
CP28
DB1
RDB1
BASIN4B
BASIN3
SUB-1A
SUB-1B
CP1A1B
RCP1A1B
SUB-3A
CP30
CPDBI
DBWMC

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************                ****************************************
 *                                      *                *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                *    U.S. ARMY CORPS OF ENGINEERS      *
 *               JAN   1997             *                *    HYDROLOGIC ENGINEERING CENTER     *
 *            VERSION 4.1               *                *          609 SECOND STREET           *
 *                                      *                *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   20JUN19  TIME  17:21:18  *                *           (916) 756-1104             *
 *                                      *                *                                      *
 ****************************************                ****************************************
```

Woody Mountain Campground
Proposed-Conditions with Detention Basin HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
PROPOSED CONDITION (WITH DETENTION BASIN)

8 IO	OUTPUT CONTROL VARIABLES			
	IPRNT		5	PRINT CONTROL
	IPLOT		0	PLOT CONTROL
	QSCAL		0.	HYDROGRAPH PLOT SCALE
IT	HYDROGRAPH TIME DATA			
	NMIN		3	MINUTES IN COMPUTATION INTERVAL
	IDATE	1	0	STARTING DATE
	ITIME		0000	STARTING TIME
	NQ		125	NUMBER OF HYDROGRAPH ORDINATES
	NDDATE	1	0	ENDING DATE
	NDTIME		0612	ENDING TIME
	ICENT		19	CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	SUB-1	12.	3.20	1.	1.	1.	.01		
+	HYDROGRAPH AT	SUB-2	5.	3.25	1.	1.	1.	.01		
+	HYDROGRAPH AT	SUB-2A	15.	3.10	1.	1.	1.	.01		
+	3 COMBINED AT	CP1A	29.	3.15	3.	3.	3.	.03		
+	HYDROGRAPH AT	SUB-3B	21.	3.30	3.	2.	2.	.02		
+	HYDROGRAPH AT	SUB-3C	4.	3.15	0.	0.	0.	.00		
+	3 COMBINED AT	CP2	49.	3.20	6.	6.	6.	.05		
+	HYDROGRAPH AT	BASIN4	2.	3.10	0.	0.	0.	.00		
+	ROUTED TO	RCP26	2.	3.15	0.	0.	0.	.00		
+	HYDROGRAPH AT	BASIN4A	2.	3.20	0.	0.	0.	.00		
+	2 COMBINED AT	CP27	4.	3.15	0.	0.	0.	.00		
+	HYDROGRAPH AT	BASIN1A	2.	3.10	0.	0.	0.	.00		
+	2 COMBINED AT	CP28	6.	3.15	1.	0.	0.	.01		
+	ROUTED TO	DB1	2.	3.45	0.	0.	0.	.01		
+									7053.69	3.45
+	ROUTED TO	RDB1	2.	3.45	0.	0.	0.	.01		

```
         HYDROGRAPH AT
+                      BASIN4B         3.    3.10          0.          0.          0.        .00

         HYDROGRAPH AT
+                       BASIN3         4.    3.10          0.          0.          0.        .00

         HYDROGRAPH AT
+                       SUB-1A        47.    3.25          5.          5.          5.        .05

         HYDROGRAPH AT
+                       SUB-1B        17.    3.10          1.          1.          1.        .01

         2 COMBINED AT
+                       CP1A1B        60.    3.20          6.          6.          6.        .05

         ROUTED TO
+                      RCP1A1B        59.    3.20          6.          6.          6.        .05

         HYDROGRAPH AT
+                       SUB-3A         6.    3.15          1.          0.          0.        .01

         5 COMBINED AT
+                         CP30        69.    3.20          8.          8.          8.        .07

         2 COMBINED AT
+                        CPDBI       118.    3.20         14.         13.         13.        .12

         ROUTED TO
+                        DBWMC        37.    3.65         13.         13.         13.        .12
+                                                                                        6995.42        3.65
1
                                    SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                        (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                               COMPUTATION INTERVAL
           ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                     PEAK                                    PEAK

                                (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

             RCP26  MANE          .79      2.18    187.57       .82      3.00      2.17    189.00         .82


 CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR=   -.1


              RDB1  MANE          .40      1.99    207.20       .86      3.00      1.99    207.00         .86


 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR=    .0
```

```
           RCP1A1B  MANE          .52     59.64    192.98      1.11      3.00     58.58    192.00        1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3186E+01 EXCESS= .0000E+00 OUTFLOW= .3184E+01 BASIN STORAGE= .3936E-02 PERCENT ERROR=   -.1



*** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   24JUN19  TIME  14:22:08  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions with Detention Basin HEC-1 Model
             3          ID        25-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        MAY 2019
             6          ID        PROPOSED CONDITION (WITH DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      25    0.19    0.57    1.10    1.76    2.04    2.22    2.58
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   86.44
   30          UD    0.24
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   92.30
   35          UD    0.10
               *
```



```
  LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *
 76             KK BASIN4B
 77             KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
 78             KM    RUNOFF FROM BASIN 4B
 79             BA    .002
 80             LS       0   87.81
 81             UD    .071
                *

 82             KK  BASIN3
 83             KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
 84             KM    RUNOFF FROM BASIN 3
 85             BA    .002
 86             LS       0   90.80
 87             UD    .071
                *

 88             KK  SUB-1A
 89             KM    RUNOFF FROM SUB-1A
 90             BA    .045
 91             LS       0   87.37
 92             UD    .189
                *

 93             KK  SUB-1B
 94             KM    RUNOFF FROM SUB-1B
 95             BA    .009
 96             LS       0   93.46
 97             UD     .10
                *

 98             KK  CP1A1B
 99             KM    COMBINE SUB-1A & SUB-1B
100             HC       2
                *

101             KK RCP1A1B
102             KM    ROUTE CP1A1B TO CP30
103             RK    1200    0.01   0.013       0    CIRC     2.5
                *

104             KK  SUB-3A
105             KM    RUNOFF FROM SUB-3A
106             BA    .008
107             LS       0   78.72
108             UD     .10
                *
```



```
           LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

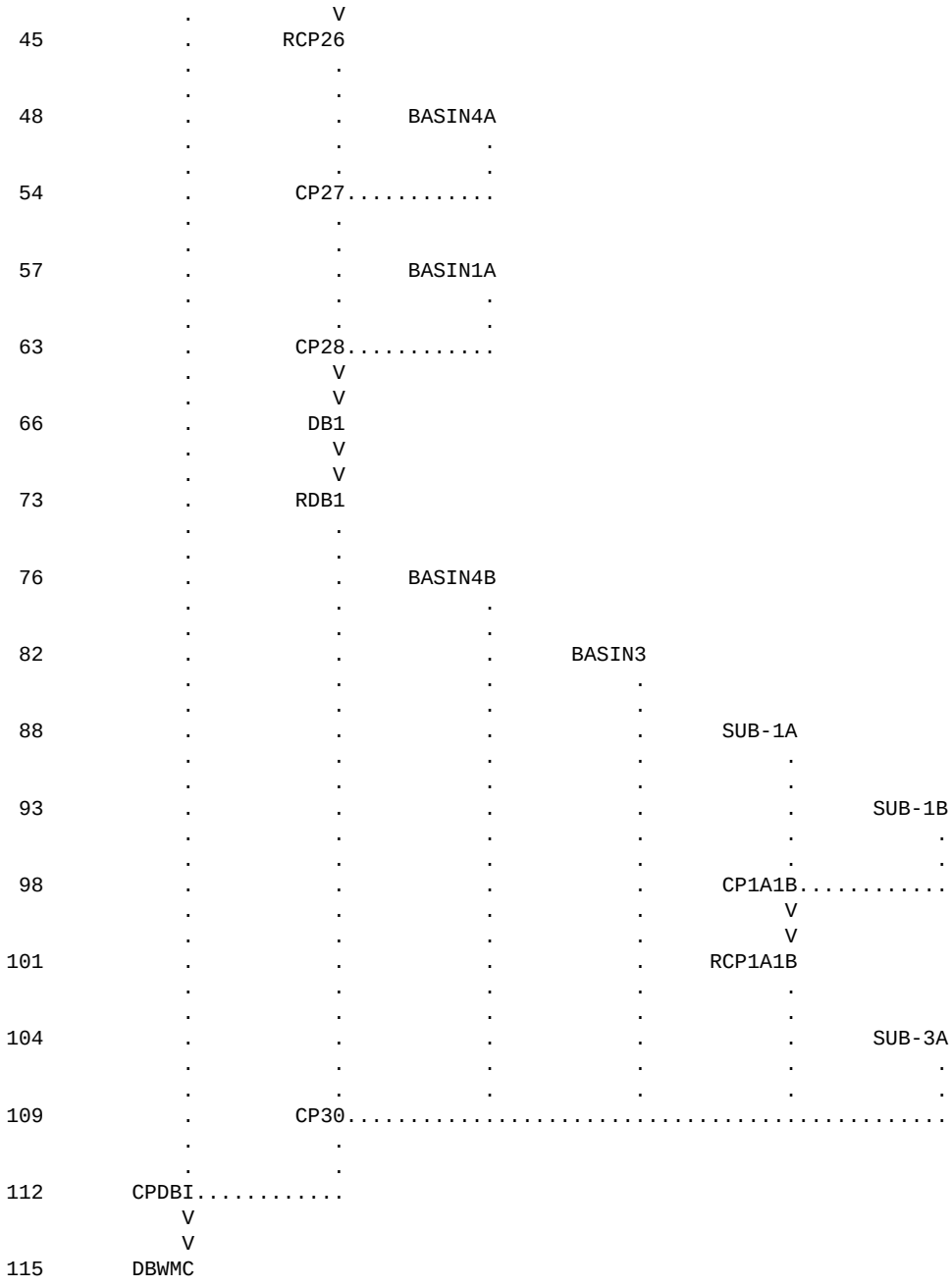
```
            109           KK    CP30
            110           KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
            111           HC       5
                          *

            112           KK   CPDBI
            113           KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
            114           HC       2
                          *
                          *

            115           KK   DBWMC
            116           KM    DETENTION BASIN WEST OF WILDWOOD HILLS MOBILE HOME PARK
            117           RS       1    STOR       0
            118           SV     0.0    0.76    1.59    2.49    3.46    4.52    5.69    6.96    8.31
            119           SE  6992.0  6993.0  6994.0  6995.0  6996.0  6997.0  6998.0  6999.0  7000.0
            120           SQ     0.0    28.5    24.6    33.8    40.9    47.0    52.4    57.3    61.8
                          *
            121           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31          .           .      SUB-3C
                .           .           .
                .           .           .
    36         CP2.........................
                .
                .
    39          .      BASIN4
                .           V
```


RCP26
BASIN4A
CP27
BASIN1A
CP28
DB1
RDB1
BASIN4B
BASIN3
SUB-1A
SUB-1B
CP1A1B
RCP1A1B
SUB-3A
CP30
CPDBI
DBWMC

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*               JAN   1997             *
*            VERSION 4.1               *
*                                      *
*  RUN DATE   24JUN19  TIME  14:22:08  *
*                                      *
****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 756-1104             *
*                                      *
****************************************
```

Woody Mountain Campground
Proposed-Conditions with Detention Basin HEC-1 Model
25-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
PROPOSED CONDITION (WITH DETENTION BASIN)

8 IO	OUTPUT CONTROL VARIABLES			
	IPRNT		5	PRINT CONTROL
	IPLOT		0	PLOT CONTROL
	QSCAL		0.	HYDROGRAPH PLOT SCALE
IT	HYDROGRAPH TIME DATA			
	NMIN		3	MINUTES IN COMPUTATION INTERVAL
	IDATE	1	0	STARTING DATE
	ITIME		0000	STARTING TIME
	NQ		125	NUMBER OF HYDROGRAPH ORDINATES
	NDDATE	1	0	ENDING DATE
	NDTIME		0612	ENDING TIME
	ICENT		19	CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS

DRAINAGE AREA	SQUARE MILES
PRECIPITATION DEPTH	INCHES
LENGTH, ELEVATION	FEET
FLOW	CUBIC FEET PER SECOND
STORAGE VOLUME	ACRE-FEET
SURFACE AREA	ACRES
TEMPERATURE	DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	SUB-1	17.	3.20	2.	2.	2.	.01		
+	HYDROGRAPH AT	SUB-2	8.	3.25	1.	1.	1.	.01		
+	HYDROGRAPH AT	SUB-2A	19.	3.10	2.	2.	2.	.01		
+	3 COMBINED AT	CP1A	41.	3.15	4.	4.	4.	.03		
+	HYDROGRAPH AT	SUB-3B	30.	3.30	3.	3.	3.	.02		
+	HYDROGRAPH AT	SUB-3C	5.	3.15	0.	0.	0.	.00		
+	3 COMBINED AT	CP2	69.	3.20	8.	7.	7.	.05		
+	HYDROGRAPH AT	BASIN4	3.	3.15	0.	0.	0.	.00		
+	ROUTED TO	RCP26	3.	3.15	0.	0.	0.	.00		
+	HYDROGRAPH AT	BASIN4A	3.	3.20	0.	0.	0.	.00		
+	2 COMBINED AT	CP27	6.	3.15	1.	1.	1.	.00		
+	HYDROGRAPH AT	BASIN1A	3.	3.10	0.	0.	0.	.00		
+	2 COMBINED AT	CP28	8.	3.15	1.	1.	1.	.01		
+	ROUTED TO	DB1	3.	3.40	1.	1.	1.	.01		
+									7054.01	3.40
+	ROUTED TO	RDB1	3.	3.40	1.	1.	1.	.01		

```
         HYDROGRAPH AT
+                      BASIN4B         4.    3.10           0.          0.          0.        .00

         HYDROGRAPH AT
+                       BASIN3         5.    3.10           0.          0.          0.        .00

         HYDROGRAPH AT
+                       SUB-1A        66.    3.25           7.          7.          7.        .05

         HYDROGRAPH AT
+                       SUB-1B        23.    3.15           2.          2.          2.        .01

         2 COMBINED AT
+                       CP1A1B        84.    3.20           9.          8.          8.        .05

         ROUTED TO
+                      RCP1A1B        82.    3.20           9.          8.          8.        .05

         HYDROGRAPH AT
+                       SUB-3A         9.    3.15           1.          1.          1.        .01

         5 COMBINED AT
+                         CP30        99.    3.20          11.         10.         10.        .07

         2 COMBINED AT
+                        CPDBI       168.    3.20          18.         18.         18.        .12

         ROUTED TO
+                        DBWMC        46.    3.65          18.         17.         17.        .12
+                                                                                          6996.75        3.65
1
                                    SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                        (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                               COMPUTATION INTERVAL
          ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                    PEAK                                    PEAK

                              (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

            RCP26  MANE          .64      3.20    189.74      1.15      3.00      3.20    189.00        1.15

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1226E+00 EXCESS= .0000E+00 OUTFLOW= .1226E+00 BASIN STORAGE= .1680E-03 PERCENT ERROR=   -.2

             RDB1  MANE          .42      3.17    203.94      1.20      3.00      3.17    204.00        1.20

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3197E+00 EXCESS= .0000E+00 OUTFLOW= .3192E+00 BASIN STORAGE= .4648E-03 PERCENT ERROR=    .0
```

```
           RCP1A1B  MANE          .52     83.33    192.94      1.48      3.00     81.85    192.00        1.48

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4262E+01 EXCESS= .0000E+00 OUTFLOW= .4257E+01 BASIN STORAGE= .5004E-02 PERCENT ERROR=    .0



*** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   20JUN19  TIME  17:21:49  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions with Detention Basin HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        MAY 2019
             6          ID        PROPOSED CONDITION (WITH DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH       1    0.19    0.71    1.37    2.21    2.56    2.76    3.18
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   86.44
   30          UD    0.24
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   92.30
   35          UD    0.10
               *
1                                          HEC-1 INPUT                                                  PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *
 76             KK BASIN4B
 77             KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
 78             KM    RUNOFF FROM BASIN 4B
 79             BA    .002
 80             LS       0   87.81
 81             UD    .071
                *

 82             KK  BASIN3
 83             KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
 84             KM    RUNOFF FROM BASIN 3
 85             BA    .002
 86             LS       0   90.80
 87             UD    .071
                *

 88             KK  SUB-1A
 89             KM    RUNOFF FROM SUB-1A
 90             BA    .045
 91             LS       0   87.37
 92             UD    .189
                *

 93             KK  SUB-1B
 94             KM    RUNOFF FROM SUB-1B
 95             BA    .009
 96             LS       0   93.46
 97             UD     .10
                *

 98             KK  CP1A1B
 99             KM    COMBINE SUB-1A & SUB-1B
100             HC       2
                *

101             KK RCP1A1B
102             KM    ROUTE CP1A1B TO CP30
103             RK    1200    0.01   0.013       0    CIRC     2.5
                *

104             KK  SUB-3A
105             KM    RUNOFF FROM SUB-3A
106             BA    .008
107             LS       0   78.72
108             UD     .10
                *
```



```
           LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

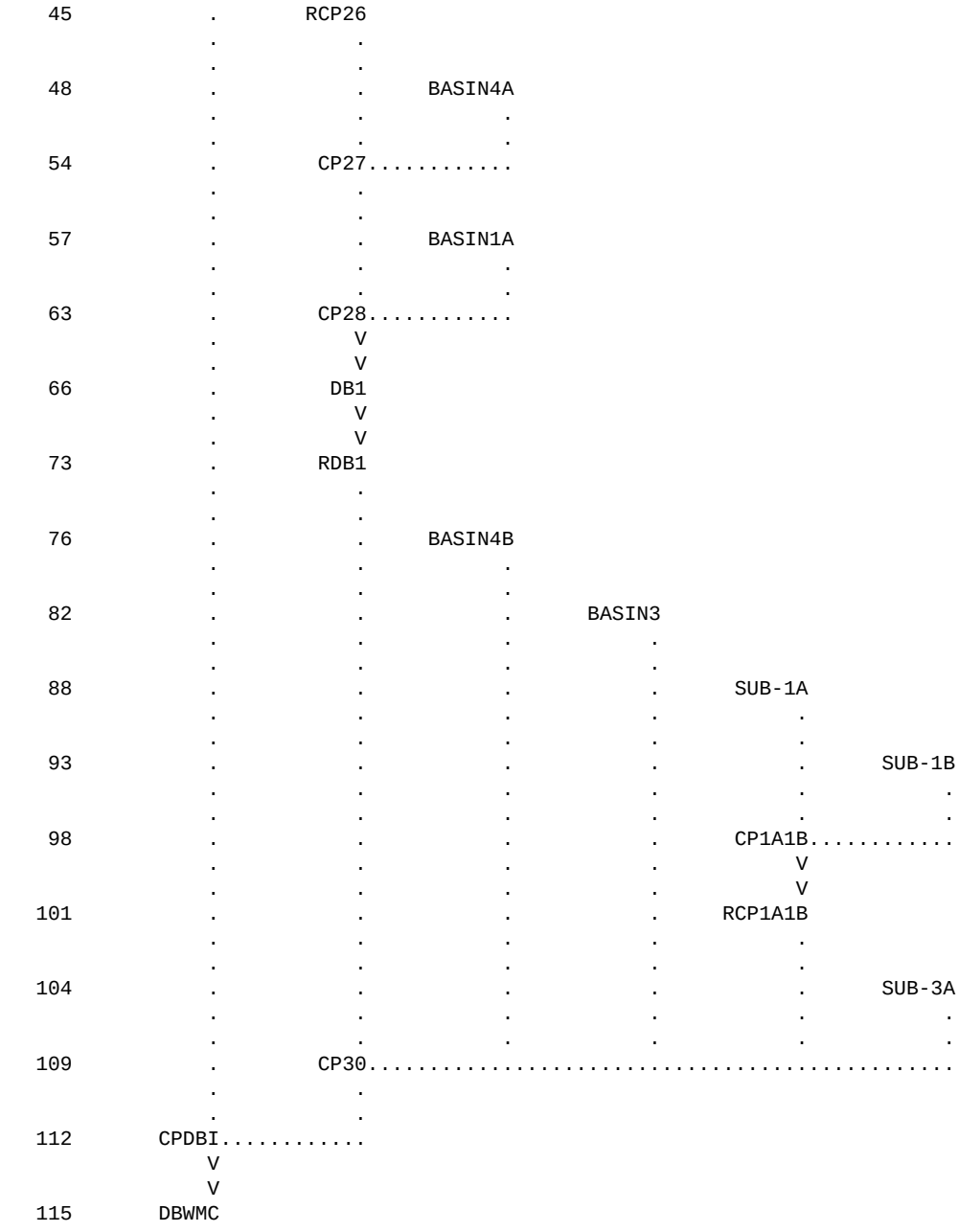
```
            109           KK    CP30
            110           KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
            111           HC       5
                          *

            112           KK   CPDBI
            113           KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
            114           HC       2
                          *

            115           KK   DBWMC
            116           KM    DETENTION BASIN WEST OF WILDWOOD HILLS MOBILE HOME PARK
            117           RS       1    STOR       0
            118           SV     0.0    0.76    1.59    2.49    3.46    4.52    5.69    6.96    8.31
            119           SE  6992.0  6993.0  6994.0  6995.0  6996.0  6997.0  6998.0  6999.0  7000.0
            120           SQ     0.0    28.5    24.6    33.8    40.9    47.0    52.4    57.3    61.8
                          *
            121           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23        CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36         CP2.........................
                 .
                 .
    39           .      BASIN4
                 .           V
                 .           V
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1****************************************                ****************************************
 *                                      *                *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                *    U.S. ARMY CORPS OF ENGINEERS      *
 *               JAN   1997             *                *    HYDROLOGIC ENGINEERING CENTER     *
 *            VERSION 4.1               *                *          609 SECOND STREET           *
 *                                      *                *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   20JUN19  TIME  17:21:49  *                *           (916) 756-1104             *
 *                                      *                *                                      *
 ****************************************                ****************************************

                              Woody Mountain Campground
                              Proposed-Conditions with Detention Basin HEC-1 Model
                              100-year, 6-hour Model
                              Woodson Engineering and Surveying
                              MAY 2019
                              PROPOSED CONDITION (WITH DETENTION BASIN)

    8 IO          OUTPUT CONTROL VARIABLES
                        IPRNT           5  PRINT CONTROL
                        IPLOT           0  PLOT CONTROL
                        QSCAL          0.  HYDROGRAPH PLOT SCALE

      IT          HYDROGRAPH TIME DATA
                         NMIN           3  MINUTES IN COMPUTATION INTERVAL
                        IDATE      1    0  STARTING DATE
                        ITIME        0000  STARTING TIME
                           NQ         125  NUMBER OF HYDROGRAPH ORDINATES
                       NDDATE      1    0  ENDING DATE
                       NDTIME        0612  ENDING TIME
                       ICENT          19  CENTURY MARK

                    COMPUTATION INTERVAL     .05 HOURS
                         TOTAL TIME BASE    6.20 HOURS

           ENGLISH UNITS
                DRAINAGE AREA         SQUARE MILES
                PRECIPITATION DEPTH   INCHES
                LENGTH, ELEVATION     FEET
                FLOW                  CUBIC FEET PER SECOND
                STORAGE VOLUME        ACRE-FEET
                SURFACE AREA          ACRES
                TEMPERATURE           DEGREES FAHRENHEIT
1
                                                    RUNOFF SUMMARY
                                               FLOW IN CUBIC FEET PER SECOND
                                            TIME IN HOURS,  AREA IN SQUARE MILES
```

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	24.	3.20	2.	2.	2.	.01		
	HYDROGRAPH AT									
+		SUB-2	12.	3.25	1.	1.	1.	.01		
	HYDROGRAPH AT									
+		SUB-2A	24.	3.10	2.	2.	2.	.01		
	3 COMBINED AT									
+		CP1A	56.	3.15	5.	5.	5.	.03		
	HYDROGRAPH AT									
+		SUB-3B	42.	3.30	5.	5.	5.	.02		
	HYDROGRAPH AT									
+		SUB-3C	6.	3.15	1.	0.	0.	.00		
	3 COMBINED AT									
+		CP2	97.	3.20	11.	10.	10.	.05		
	HYDROGRAPH AT									
+		BASIN4	5.	3.10	0.	0.	0.	.00		
	ROUTED TO									
+		RCP26	5.	3.15	0.	0.	0.	.00		
	HYDROGRAPH AT									
+		BASIN4A	4.	3.15	0.	0.	0.	.00		
	2 COMBINED AT									
+		CP27	9.	3.15	1.	1.	1.	.00		
	HYDROGRAPH AT									
+		BASIN1A	3.	3.10	0.	0.	0.	.00		
	2 COMBINED AT									
+		CP28	12.	3.15	1.	1.	1.	.01		
	ROUTED TO									
+		DB1	4.	3.40	1.	1.	1.	.01		
+									7054.42	3.40
	ROUTED TO									
+		RDB1	4.	3.40	1.	1.	1.	.01		
	HYDROGRAPH AT									

```
+                       BASIN4B         6.    3.10           0.          0.          0.        .00

          HYDROGRAPH AT
+                        BASIN3         7.    3.10           0.          0.          0.        .00

          HYDROGRAPH AT
+                        SUB-1A        92.    3.25           9.          9.          9.        .05

          HYDROGRAPH AT
+                        SUB-1B        29.    3.15           2.          2.          2.        .01

          2 COMBINED AT
+                        CP1A1B       115.    3.20          12.         11.         11.        .05

          ROUTED TO
+                       RCP1A1B       113.    3.20          12.         11.         11.        .05

          HYDROGRAPH AT
+                        SUB-3A        14.    3.15           1.          1.          1.        .01

          5 COMBINED AT
+                          CP30       137.    3.20          15.         14.         14.        .07

          2 COMBINED AT
+                         CPDBI       234.    3.20          25.         24.         24.        .12

          ROUTED TO
+                         DBWMC        55.    3.70          23.         22.         22.        .12
+                                                                                        6998.51        3.70
1
                                    SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                        (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                  INTERPOLATED TO
                                                                                COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                    PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .60      4.66    187.74      1.63      3.00      4.62    189.00        1.63

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+00 EXCESS= .0000E+00 OUTFLOW= .1741E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR=   -.2

               RDB1  MANE          .44      3.98    204.47      1.68      3.00      3.98    204.00        1.68

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4494E+00 EXCESS= .0000E+00 OUTFLOW= .4489E+00 BASIN STORAGE= .5692E-03 PERCENT ERROR=    .0
```

```
           RCP1A1B  MANE          .46    114.50    193.12      2.01      3.00    112.83    192.00        2.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5788E+01 EXCESS= .0000E+00 OUTFLOW= .5784E+01 BASIN STORAGE= .5657E-02 PERCENT ERROR=    .0



*** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   09MAY19  TIME  15:59:12  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                PAGE  1

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
            1           ID        Woody Mountain Campground
            2           ID        Existing-Conditions HEC-1 Model
            3           ID        10-year, 6-hour Model
            4           ID        Woodson Engineering and Surveying
            5           ID        MAY 2019
            6           ID        EXISTING CONDITION
            7           IT       3       0       0     125
            8           IO       5       0       0
            9           IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   91.51
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   75.49
   30          UD    0.32
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   75.74
   35          UD    0.15
               *
1                                          HEC-1 INPUT                                                  PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *

  76            KK BASIN4B
  77            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  78            KM    RUNOFF FROM BASIN 4B
  79            BA    .002
  80            LS       0   87.81
  81            UD    .071
                *

  82            KK  BASIN3
  83            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  84            KM    RUNOFF FROM BASIN 3
  85            BA    .002
  86            LS       0   90.80
  87            UD    .071
                *

  88            KK  SUB-1A
  89            KM    RUNOFF FROM SUB-1A
  90            BA    .045
  91            LS       0   87.37
  92            UD    .189
                *

  93            KK  SUB-1B
  94            KM    RUNOFF FROM SUB-1B
  95            BA    .009
  96            LS       0   93.23
  97            UD     .10
                *

  98            KK  CP1A1B
  99            KM    COMBINE HYDROGRAPHS FROM SUB-1A & SUB-1B
 100            HC       2
                *

 101            KK RCP1A1B
 102            KM    ROUTE CP1A1B TO CP30
 103            RK    1200    0.01   0.013       0    CIRC     2.5
                *

 104            KK  SUB-3A
 105            KM    RUNOFF FROM SUB-3A
 106            BA    .008
 107            LS       0   72.00
 108            UD     .15
                *
```



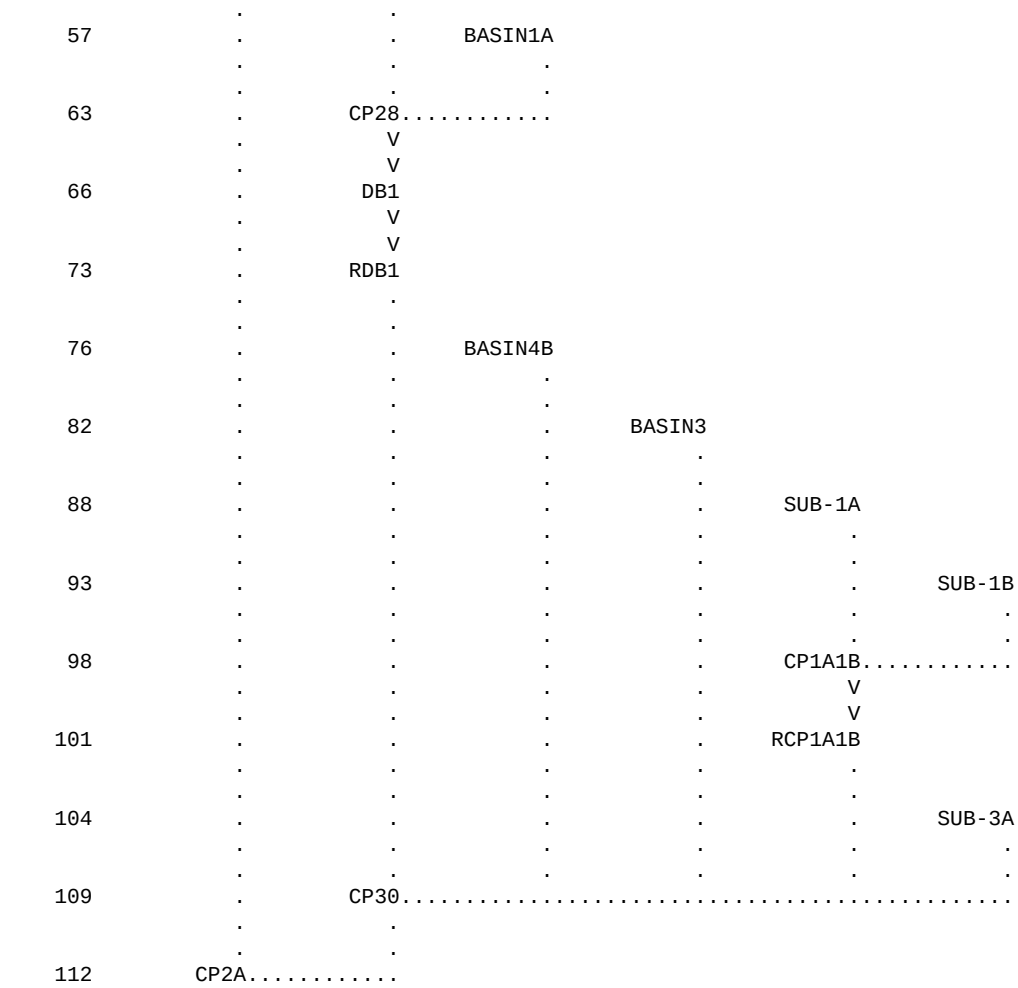
```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
            109           KK    CP30
            110           KM    COMBINE BASINS 3, 4B, DB1, & RCP1A1B
            111           HC       5
                          *

            112           KK    CP2A
            113           KM     COMBINE HYDROGRAPHS FROM CP30 & CP2
            114           HC       2
                          *
            115           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23        CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36        CP2........................
                 .
                 .
    39           .      BASIN4
                 .           V
                 .           V
    45           .       RCP26
                 .           .
                 .           .
    48           .           .     BASIN4A
                 .           .           .
                 .           .           .
    54           .        CP27............
                 .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   09MAY19  TIME  15:59:12   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Existing-Conditions HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
EXISTING CONDITION

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	12.	3.20	1.	1.	1.	.01		
	HYDROGRAPH AT									
+		SUB-2	5.	3.25	1.	1.	1.	.01		
	HYDROGRAPH AT									

```
+                        SUB-2A        12.    3.15           1.          1.          1.        .01

         3 COMBINED AT
+                          CP1A        27.    3.15           3.          3.          3.        .03

         HYDROGRAPH AT
+                        SUB-3B         7.    3.45           1.          1.          1.        .02

         HYDROGRAPH AT
+                        SUB-3C         1.    3.20           0.          0.          0.        .00

         3 COMBINED AT
+                           CP2        31.    3.20           4.          4.          4.        .05

         HYDROGRAPH AT
+                        BASIN4         2.    3.10           0.          0.          0.        .00

         ROUTED TO
+                         RCP26         2.    3.15           0.          0.          0.        .00

         HYDROGRAPH AT
+                       BASIN4A         2.    3.20           0.          0.          0.        .00

         2 COMBINED AT
+                          CP27         4.    3.15           0.          0.          0.        .00

         HYDROGRAPH AT
+                       BASIN1A         2.    3.10           0.          0.          0.        .00

         2 COMBINED AT
+                          CP28         6.    3.15           1.          0.          0.        .01

         ROUTED TO
+                           DB1         2.    3.45           0.          0.          0.        .01
+                                                                                                  7053.69        3.45

         ROUTED TO
+                          RDB1         2.    3.45           0.          0.          0.        .01

         HYDROGRAPH AT
+                       BASIN4B         3.    3.10           0.          0.          0.        .00

         HYDROGRAPH AT
+                        BASIN3         4.    3.10           0.          0.          0.        .00

         HYDROGRAPH AT
+                        SUB-1A        47.    3.25           5.          5.          5.        .05

         HYDROGRAPH AT
+                        SUB-1B        17.    3.10           1.          1.          1.        .01
```

```
          2 COMBINED AT
+                         CP1A1B        60.    3.20           6.          6.          6.        .05

          ROUTED TO
+                        RCP1A1B        58.    3.20           6.          6.          6.        .05

          HYDROGRAPH AT
+                         SUB-3A         2.    3.25           0.          0.          0.        .01

          5 COMBINED AT
+                           CP30        66.    3.20           8.          7.          7.        .07

          2 COMBINED AT
+                           CP2A        97.    3.20          12.         11.         11.        .12
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                              COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                     PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .79      2.18    187.57       .82      3.00      2.17    189.00         .82

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR=   -.1

               RDB1  MANE          .40      1.99    207.20       .86      3.00      1.99    207.00         .86

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR=    .0

             RCP1A1B  MANE          .64     59.35    193.37      1.10      3.00     58.41    192.00        1.10

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3177E+01 EXCESS= .0000E+00 OUTFLOW= .3173E+01 BASIN STORAGE= .4051E-02 PERCENT ERROR=    .0



 *** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   24JUN19  TIME  14:18:33  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Existing-Conditions HEC-1 Model
             3          ID        25-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        MAY 2019
             6          ID        EXISTING CONDITION
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
  10          KK   SUB-1
  11          BA   0.011
  12          PH      25    0.19    0.57    1.10    1.76    2.04    2.22    2.58
  13          LS       0   86.55
  14          UD   0.155
              *

  15          KK   SUB-2
  16          BA   0.008
  17          LS       0   79.72
  18          UD   0.181
              *

  19          KK  SUB-2A
  20          BA   0.007
  21          LS       0   91.51
  22          UD     0.1
              *

  23          KK    CP1A
  24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
  25          HC       3
              *

  26          KK  SUB-3B
  27          KM    RUNOFF FROM SUB-3B
  28          BA    .024
  29          LS       0   75.49
  30          UD    0.32
              *

  31          KK  SUB-3C
  32          KM    RUNOFF FROM SUB-3C
  33          BA    .002
  34          LS       0   75.74
  35          UD    0.15
              *
```



```
 LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  36          KK     CP2
  37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
  38          HC       3
              *

  39          KK  BASIN4
  40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  41          KM    RUNOFF FROM BASIN 4
  42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *
 76             KK BASIN4B
 77             KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
 78             KM    RUNOFF FROM BASIN 4B
 79             BA    .002
 80             LS       0   87.81
 81             UD    .071
                *

 82             KK  BASIN3
 83             KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
 84             KM    RUNOFF FROM BASIN 3
 85             BA    .002
 86             LS       0   90.80
 87             UD    .071
                *

 88             KK  SUB-1A
 89             KM    RUNOFF FROM SUB-1A
 90             BA    .045
 91             LS       0   87.37
 92             UD    .189
                *

 93             KK  SUB-1B
 94             KM    RUNOFF FROM SUB-1B
 95             BA    .009
 96             LS       0   93.23
 97             UD     .10
                *

 98             KK  CP1A1B
 99             KM    COMBINE HYDROGRAPHS FROM SUB-1A & SUB-1B
100             HC       2
                *

101             KK RCP1A1B
102             KM    ROUTE CP1A1B TO CP30
103             RK    1200    0.01   0.013       0    CIRC     2.5
                *

104             KK  SUB-3A
105             KM    RUNOFF FROM SUB-3A
106             BA    .008
107             LS       0   72.00
108             UD     .15
                *
```



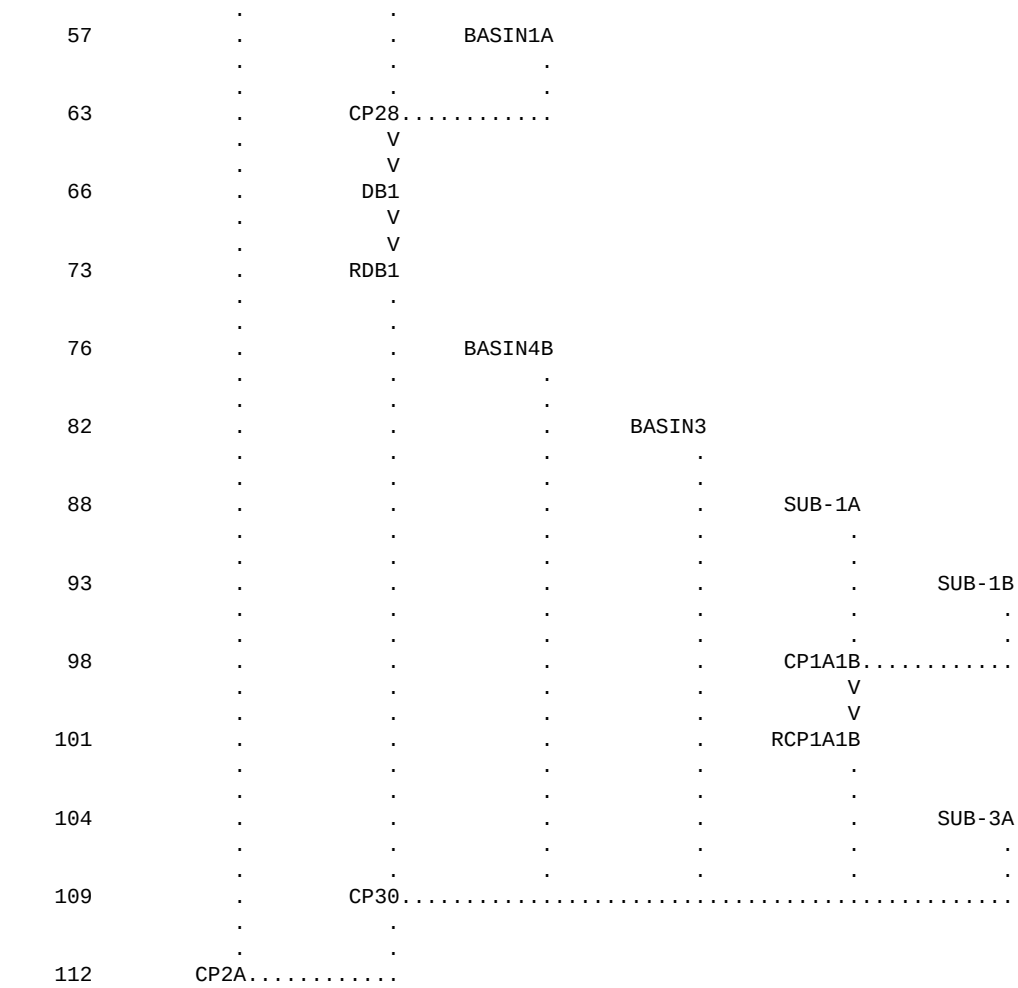
```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
            109           KK    CP30
            110           KM    COMBINE BASINS 3, 4B, DB1, & RCP1A1B
            111           HC       5
                          *

            112           KK    CP2A
            113           KM     COMBINE HYDROGRAPHS FROM CP30 & CP2
            114           HC       2
                          *
            115           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23        CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36        CP2........................
                 .
                 .
    39           .      BASIN4
                 .           V
                 .           V
    45           .       RCP26
                 .           .
                 .           .
    48           .           .     BASIN4A
                 .           .           .
                 .           .           .
    54           .        CP27............
                 .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *               JAN   1997              *
 *            VERSION 4.1                *
 *                                       *
 *  RUN DATE   24JUN19  TIME  14:18:33   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Existing-Conditions HEC-1 Model
25-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
EXISTING CONDITION

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	17.	3.20	2.	2.	2.	.01		
	HYDROGRAPH AT									
+		SUB-2	8.	3.25	1.	1.	1.	.01		
	HYDROGRAPH AT									

+		SUB-2A	16.	3.15	1.	1.	1.	.01	
	3 COMBINED AT								
+		CP1A	38.	3.15	4.	4.	4.	.03	
	HYDROGRAPH AT								
+		SUB-3B	12.	3.40	2.	2.	2.	.02	
	HYDROGRAPH AT								
+		SUB-3C	2.	3.20	0.	0.	0.	.00	
	3 COMBINED AT								
+		CP2	46.	3.20	6.	5.	5.	.05	
	HYDROGRAPH AT								
+		BASIN4	3.	3.15	0.	0.	0.	.00	
	ROUTED TO								
+		RCP26	3.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	3.	3.20	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	6.	3.15	1.	1.	1.	.00	
	HYDROGRAPH AT								
+		BASIN1A	3.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	8.	3.15	1.	1.	1.	.01	
	ROUTED TO								
+		DB1	3.	3.40	1.	1.	1.	.01	
+									7054.01 3.40
	ROUTED TO								
+		RDB1	3.	3.40	1.	1.	1.	.01	
	HYDROGRAPH AT								
+		BASIN4B	4.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	5.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	66.	3.25	7.	7.	7.	.05	
	HYDROGRAPH AT								
+		SUB-1B	22.	3.15	2.	2.	2.	.01	

```
          2 COMBINED AT
+                          CP1A1B        83.    3.20           9.          8.          8.        .05

          ROUTED TO
+                         RCP1A1B        82.    3.20           9.          8.          8.        .05

          HYDROGRAPH AT
+                          SUB-3A         5.    3.25           0.          0.          0.        .01

          5 COMBINED AT
+                            CP30        95.    3.20          10.         10.         10.        .07

          2 COMBINED AT
+                            CP2A       141.    3.20          16.         16.         16.        .12
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                  INTERPOLATED TO
                                                                               COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                    PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .64      3.20    189.74      1.15      3.00      3.20    189.00        1.15

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1226E+00 EXCESS= .0000E+00 OUTFLOW= .1226E+00 BASIN STORAGE= .1680E-03 PERCENT ERROR=   -.2

               RDB1  MANE          .42      3.17    203.94      1.20      3.00      3.17    204.00        1.20

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3197E+00 EXCESS= .0000E+00 OUTFLOW= .3192E+00 BASIN STORAGE= .4648E-03 PERCENT ERROR=    .0

             RCP1A1B  MANE          .56     83.07    192.93      1.47      3.00     81.68    192.00        1.48

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4252E+01 EXCESS= .0000E+00 OUTFLOW= .4247E+01 BASIN STORAGE= .5026E-02 PERCENT ERROR=    .0



 *** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   09MAY19  TIME  15:59:32  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Existing-Conditions HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        MAY 2019
             6          ID        EXISTING CONDITION
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH       1    0.19    0.71    1.37    2.21    2.56    2.76    3.18
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   91.51
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   75.49
   30          UD    0.32
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   75.74
   35          UD    0.15
               *
1                                          HEC-1 INPUT                                                PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *

  76            KK BASIN4B
  77            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  78            KM    RUNOFF FROM BASIN 4B
  79            BA    .002
  80            LS       0   87.81
  81            UD    .071
                *

  82            KK  BASIN3
  83            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  84            KM    RUNOFF FROM BASIN 3
  85            BA    .002
  86            LS       0   90.80
  87            UD    .071
                *

  88            KK  SUB-1A
  89            KM    RUNOFF FROM SUB-1A
  90            BA    .045
  91            LS       0   87.37
  92            UD    .189
                *

  93            KK  SUB-1B
  94            KM    RUNOFF FROM SUB-1B
  95            BA    .009
  96            LS       0   93.23
  97            UD     .10
                *

  98            KK  CP1A1B
  99            KM    COMBINE HYDROGRAPHS FROM SUB-1A & SUB-1B
 100            HC       2
                *

 101            KK RCP1A1B
 102            KM    ROUTE CP1A1B TO CP30
 103            RK    1200    0.01   0.013       0    CIRC     2.5
                *

 104            KK  SUB-3A
 105            KM    RUNOFF FROM SUB-3A
 106            BA    .008
 107            LS       0   72.00
 108            UD     .15
                *
```



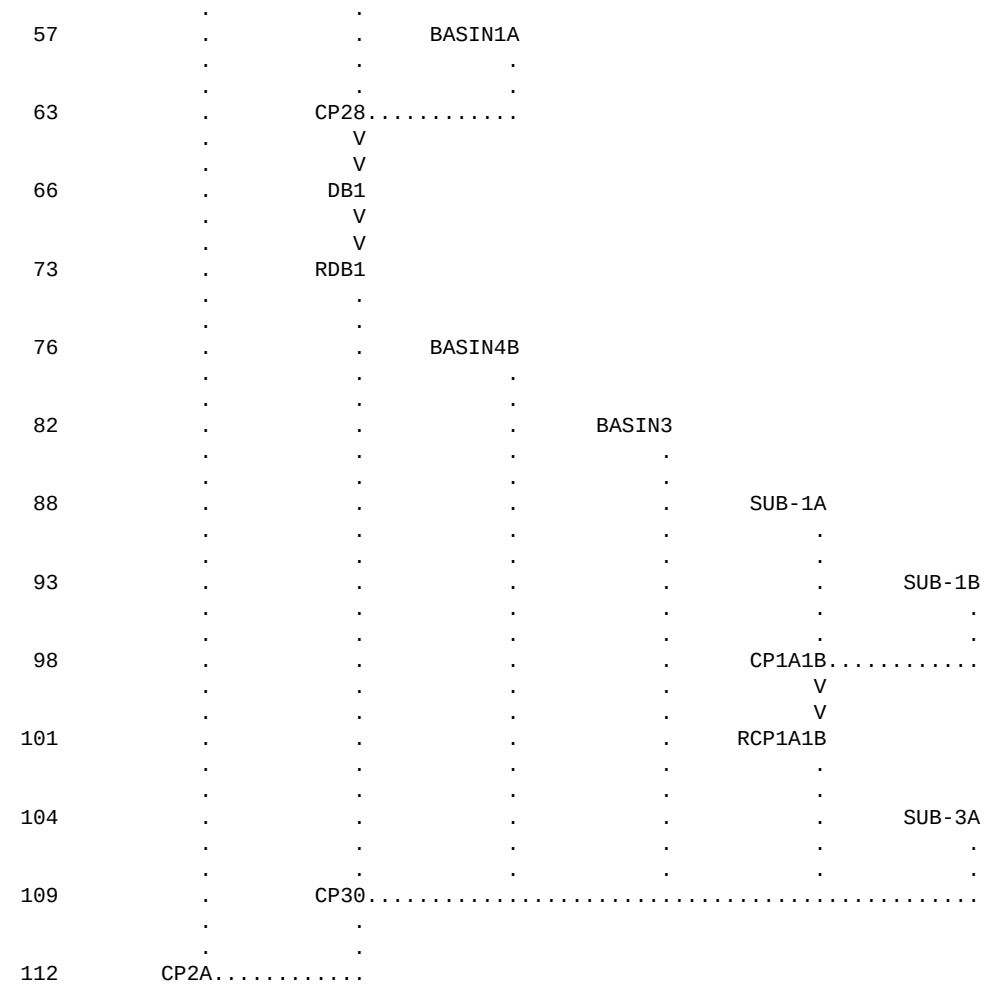
```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
            109           KK    CP30
            110           KM    COMBINE BASINS 3, 4B, DB1, & RCP1A1B
            111           HC       5
                          *

            112           KK    CP2A
            113           KM     COMBINE HYDROGRAPHS FROM CP30 & CP2
            114           HC       2
                          *
            115           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23        CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36        CP2........................
                 .
                 .
    39           .      BASIN4
                 .           V
                 .           V
    45           .       RCP26
                 .           .
                 .           .
    48           .           .     BASIN4A
                 .           .           .
                 .           .           .
    54           .        CP27............
                 .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   09MAY19  TIME  15:59:32   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Existing-Conditions HEC-1 Model
100-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
EXISTING CONDITION

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	24.	3.20	2.	2.	2.	.01		
	HYDROGRAPH AT									
+		SUB-2	12.	3.25	1.	1.	1.	.01		
	HYDROGRAPH AT									

+		SUB-2A	22.	3.15	2.	2.	2.	.01	
	3 COMBINED AT								
+		CP1A	54.	3.15	5.	5.	5.	.03	
	HYDROGRAPH AT								
+		SUB-3B	20.	3.40	3.	3.	3.	.02	
	HYDROGRAPH AT								
+		SUB-3C	3.	3.20	0.	0.	0.	.00	
	3 COMBINED AT								
+		CP2	67.	3.20	8.	8.	8.	.05	
	HYDROGRAPH AT								
+		BASIN4	5.	3.10	0.	0.	0.	.00	
	ROUTED TO								
+		RCP26	5.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	4.	3.15	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	9.	3.15	1.	1.	1.	.00	
	HYDROGRAPH AT								
+		BASIN1A	3.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	12.	3.15	1.	1.	1.	.01	
	ROUTED TO								
+		DB1	4.	3.40	1.	1.	1.	.01	
+									7054.42 3.40
	ROUTED TO								
+		RDB1	4.	3.40	1.	1.	1.	.01	
	HYDROGRAPH AT								
+		BASIN4B	6.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	7.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	92.	3.25	9.	9.	9.	.05	
	HYDROGRAPH AT								
+		SUB-1B	29.	3.15	2.	2.	2.	.01	

```
          2 COMBINED AT
+                         CP1A1B       115.    3.20          12.         11.         11.        .05

          ROUTED TO
+                        RCP1A1B       113.    3.20          12.         11.         11.        .05

          HYDROGRAPH AT
+                         SUB-3A         8.    3.20           1.          1.          1.        .01

          5 COMBINED AT
+                           CP30       132.    3.20          14.         14.         14.        .07

          2 COMBINED AT
+                           CP2A       199.    3.20          22.         22.         22.        .12
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                              COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                     PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .60      4.66    187.74      1.63      3.00      4.62    189.00        1.63

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+00 EXCESS= .0000E+00 OUTFLOW= .1741E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR=   -.2

               RDB1  MANE          .44      3.98    204.47      1.68      3.00      3.98    204.00        1.68

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4494E+00 EXCESS= .0000E+00 OUTFLOW= .4489E+00 BASIN STORAGE= .5692E-03 PERCENT ERROR=    .0

             RCP1A1B  MANE          .43    114.50    192.75      2.00      3.00    112.68    192.00        2.00

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .5777E+01 EXCESS= .0000E+00 OUTFLOW= .5773E+01 BASIN STORAGE= .5669E-02 PERCENT ERROR=    .0



 *** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   09MAY19  TIME  16:03:06  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions without Detention Basin HEC-1 Model
             3          ID        10-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        MAY 2019
             6          ID        PROPOSED CONDITION (WITHOUT DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   86.44
   30          UD    0.24
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   92.30
   35          UD    0.10
               *
1                                          HEC-1 INPUT                                                  PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *

  76            KK BASIN4B
  77            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  78            KM    RUNOFF FROM BASIN 4B
  79            BA    .002
  80            LS       0   87.81
  81            UD    .071
                *

  82            KK  BASIN3
  83            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  84            KM    RUNOFF FROM BASIN 3
  85            BA    .002
  86            LS       0   90.80
  87            UD    .071
                *

  88            KK  SUB-1A
  89            KM    RUNOFF FROM SUB-1A
  90            BA    .045
  91            LS       0   87.37
  92            UD    .189
                *

  93            KK  SUB-1B
  94            KM    RUNOFF FROM SUB-1B
  95            BA    .009
  96            LS       0   93.46
  97            UD     .10
                *

  98            KK  CP1A1B
  99            KM    COMBINE SUB-1A & SUB-1B
 100            HC       2
                *

 101            KK RCP1A1B
 102            KM    ROUTE CP1A1B TO CP30
 103            RK    1200    0.01   0.013       0    CIRC     2.5
                *

 104            KK  SUB-3A
 105            KM    RUNOFF FROM SUB-3A
 106            BA    .008
 107            LS       0   78.72
 108            UD     .10
                *
```



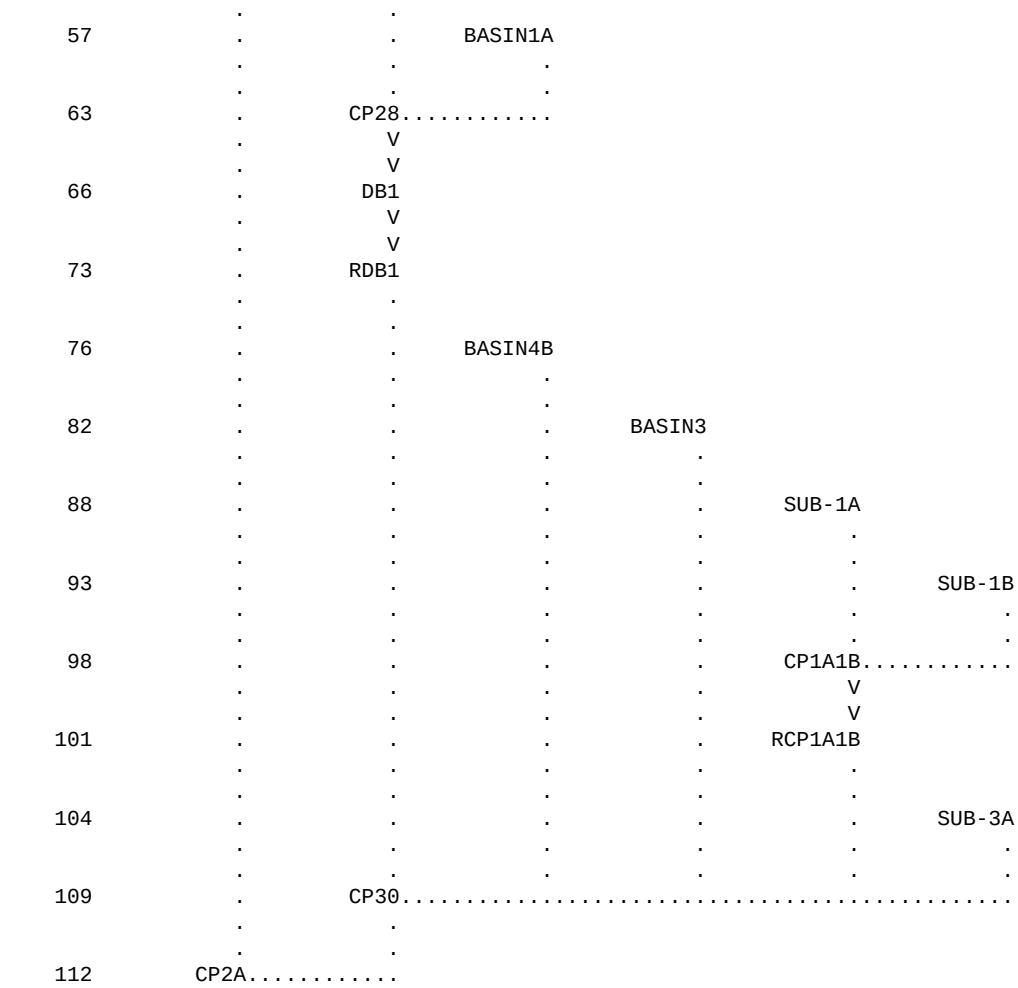
```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
            109           KK    CP30
            110           KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
            111           HC       5
                          *

            112           KK    CP2A
            113           KM     COMBINE HYDROGRAPHS FROM CP30 & CP-2
            114           HC       2
                          *
            115           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23        CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36         CP2.......................
                 .
                 .
    39           .      BASIN4
                 .           V
                 .           V
    45           .       RCP26
                 .           .
                 .           .
    48           .           .     BASIN4A
                 .           .           .
                 .           .           .
    54           .        CP27............
                 .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   09MAY19  TIME  16:03:06   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Proposed-Conditions without Detention Basin HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
PROPOSED CONDITION (WITHOUT DETENTION BASIN)

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	12.	3.20	1.	1.	1.	.01		
	HYDROGRAPH AT									
+		SUB-2	5.	3.25	1.	1.	1.	.01		
	HYDROGRAPH AT									

+		SUB-2A	15.	3.10	1.	1.	1.	.01	
	3 COMBINED AT								
+		CP1A	29.	3.15	3.	3.	3.	.03	
	HYDROGRAPH AT								
+		SUB-3B	21.	3.30	3.	2.	2.	.02	
	HYDROGRAPH AT								
+		SUB-3C	4.	3.15	0.	0.	0.	.00	
	3 COMBINED AT								
+		CP2	49.	3.20	6.	6.	6.	.05	
	HYDROGRAPH AT								
+		BASIN4	2.	3.10	0.	0.	0.	.00	
	ROUTED TO								
+		RCP26	2.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	2.	3.20	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	4.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN1A	2.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	6.	3.15	1.	0.	0.	.01	
	ROUTED TO								
+		DB1	2.	3.45	0.	0.	0.	.01	
+									7053.69 3.45
	ROUTED TO								
+		RDB1	2.	3.45	0.	0.	0.	.01	
	HYDROGRAPH AT								
+		BASIN4B	3.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	4.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	47.	3.25	5.	5.	5.	.05	
	HYDROGRAPH AT								
+		SUB-1B	17.	3.10	1.	1.	1.	.01	

```
          2 COMBINED AT
+                          CP1A1B        60.    3.20           6.          6.          6.        .05

          ROUTED TO
+                         RCP1A1B        59.    3.20           6.          6.          6.        .05

          HYDROGRAPH AT
+                          SUB-3A         6.    3.15           1.          0.          0.        .01

          5 COMBINED AT
+                            CP30        69.    3.20           8.          8.          8.        .07

          2 COMBINED AT
+                            CP2A       118.    3.20          14.         13.         13.        .12
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                              COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                     PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .79      2.18    187.57       .82      3.00      2.17    189.00         .82

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR=   -.1

               RDB1  MANE          .40      1.99    207.20       .86      3.00      1.99    207.00         .86

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR=    .0

             RCP1A1B  MANE          .52     59.64    192.98      1.11      3.00     58.58    192.00        1.11

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3186E+01 EXCESS= .0000E+00 OUTFLOW= .3184E+01 BASIN STORAGE= .3936E-02 PERCENT ERROR=   -.1



 *** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   09MAY19  TIME  15:59:12  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Existing-Conditions HEC-1 Model
             3          ID        10-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        MAY 2019
             6          ID        EXISTING CONDITION
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   91.51
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   75.49
   30          UD    0.32
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   75.74
   35          UD    0.15
               *
1                                          HEC-1 INPUT                                                  PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
   43          LS       0   83.56
   44          UD    .086
               *

   45          KK   RCP26
   46          KM    ROUTE CP26 TO CP27
   47          RK     400    0.01   0.016       0      21      10      10
               *

   48          KK BASIN4A
   49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   50          KM    RUNOFF FROM BASIN 4A
   51          BA    .002
   52          LS       0    86.0
   53          UD    .136
               *

   54          KK    CP27
   55          KM    COMBINE BASINS RCP26 & BASIN4A
   56          HC       2
               *

   57          KK BASIN1A
   58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   59          KM    RUNOFF FROM BASIN 1A
   60          BA    .001
   61          LS       0    90.4
   62          UD    .054
               *

   63          KK    CP28
   64          KM    COMBINE BASINS BASIN1A & CP27
   65          HC       2
               *

   66          KK     DB1
   67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   68          KM    DETENTION BASIN 1
   69          RS       1    STOR       0
   70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
   71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
   72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
               *
1                                          HEC-1 INPUT                                          PAGE  3

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   73          KK    RDB1
   74          KM    ROUTE DB1 TO CP30
   75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *

  76            KK BASIN4B
  77            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  78            KM    RUNOFF FROM BASIN 4B
  79            BA    .002
  80            LS       0   87.81
  81            UD    .071
                *

  82            KK  BASIN3
  83            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  84            KM    RUNOFF FROM BASIN 3
  85            BA    .002
  86            LS       0   90.80
  87            UD    .071
                *

  88            KK  SUB-1A
  89            KM    RUNOFF FROM SUB-1A
  90            BA    .045
  91            LS       0   87.37
  92            UD    .189
                *

  93            KK  SUB-1B
  94            KM    RUNOFF FROM SUB-1B
  95            BA    .009
  96            LS       0   93.23
  97            UD     .10
                *

  98            KK  CP1A1B
  99            KM    COMBINE HYDROGRAPHS FROM SUB-1A & SUB-1B
 100            HC       2
                *

 101            KK RCP1A1B
 102            KM    ROUTE CP1A1B TO CP30
 103            RK    1200    0.01   0.013       0    CIRC     2.5
                *

 104            KK  SUB-3A
 105            KM    RUNOFF FROM SUB-3A
 106            BA    .008
 107            LS       0   72.00
 108            UD     .15
                *
```



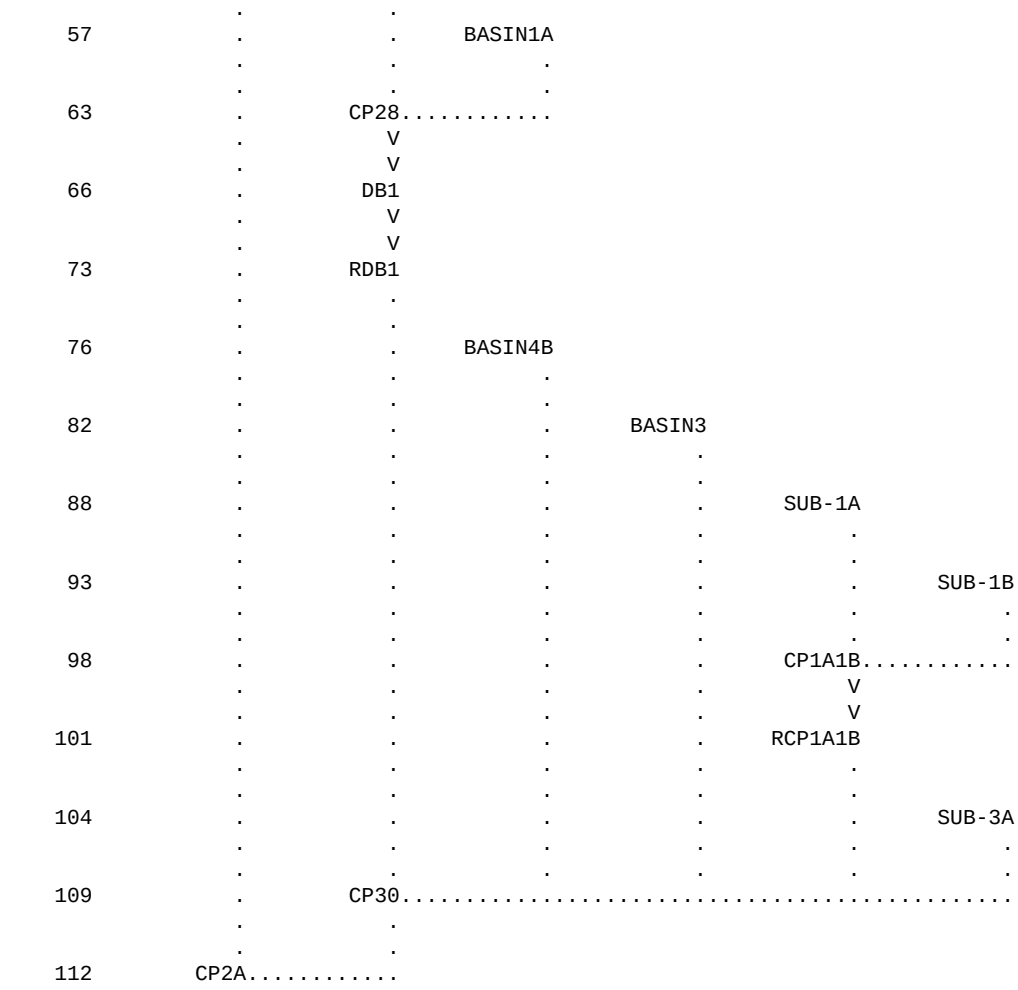
```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
            109           KK    CP30
            110           KM    COMBINE BASINS 3, 4B, DB1, & RCP1A1B
            111           HC       5
                          *

            112           KK    CP2A
            113           KM     COMBINE HYDROGRAPHS FROM CP30 & CP2
            114           HC       2
                          *
            115           ZZ
1
                 SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                 .
                 .
    15           .       SUB-2
                 .           .
                 .           .
    19           .           .      SUB-2A
                 .           .           .
                 .           .           .
    23        CP1A.......................
                 .
                 .
    26           .      SUB-3B
                 .           .
                 .           .
    31           .           .      SUB-3C
                 .           .           .
                 .           .           .
    36         CP2.......................
                 .
                 .
    39           .      BASIN4
                 .           V
                 .           V
    45           .       RCP26
                 .           .
                 .           .
    48           .           .     BASIN4A
                 .           .           .
                 .           .           .
    54           .        CP27............
                 .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   09MAY19  TIME  15:59:12   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Existing-Conditions HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
MAY 2019
EXISTING CONDITION

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT									
+		SUB-1	12.	3.20	1.	1.	1.	.01		
	HYDROGRAPH AT									
+		SUB-2	5.	3.25	1.	1.	1.	.01		
	HYDROGRAPH AT									

```
+                        SUB-2A        12.    3.15           1.          1.          1.        .01

         3 COMBINED AT
+                          CP1A        27.    3.15           3.          3.          3.        .03

         HYDROGRAPH AT
+                        SUB-3B         7.    3.45           1.          1.          1.        .02

         HYDROGRAPH AT
+                        SUB-3C         1.    3.20           0.          0.          0.        .00

         3 COMBINED AT
+                           CP2        31.    3.20           4.          4.          4.        .05

         HYDROGRAPH AT
+                        BASIN4         2.    3.10           0.          0.          0.        .00

         ROUTED TO
+                         RCP26         2.    3.15           0.          0.          0.        .00

         HYDROGRAPH AT
+                       BASIN4A         2.    3.20           0.          0.          0.        .00

         2 COMBINED AT
+                          CP27         4.    3.15           0.          0.          0.        .00

         HYDROGRAPH AT
+                       BASIN1A         2.    3.10           0.          0.          0.        .00

         2 COMBINED AT
+                          CP28         6.    3.15           1.          0.          0.        .01

         ROUTED TO
+                           DB1         2.    3.45           0.          0.          0.        .01
+                                                                                                  7053.69        3.45

         ROUTED TO
+                          RDB1         2.    3.45           0.          0.          0.        .01

         HYDROGRAPH AT
+                       BASIN4B         3.    3.10           0.          0.          0.        .00

         HYDROGRAPH AT
+                        BASIN3         4.    3.10           0.          0.          0.        .00

         HYDROGRAPH AT
+                        SUB-1A        47.    3.25           5.          5.          5.        .05

         HYDROGRAPH AT
+                        SUB-1B        17.    3.10           1.          1.          1.        .01
```

```
          2 COMBINED AT
+                          CP1A1B        60.    3.20           6.          6.          6.        .05

          ROUTED TO
+                         RCP1A1B        58.    3.20           6.          6.          6.        .05

          HYDROGRAPH AT
+                          SUB-3A         2.    3.25           0.          0.          0.        .01

          5 COMBINED AT
+                            CP30        66.    3.20           8.          7.          7.        .07

          2 COMBINED AT
+                            CP2A        97.    3.20          12.         11.         11.        .12
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                              COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                     PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .79      2.18    187.57       .82      3.00      2.17    189.00         .82

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR=   -.1

               RDB1  MANE          .40      1.99    207.20       .86      3.00      1.99    207.00         .86

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR=    .0

             RCP1A1B  MANE          .64     59.35    193.37      1.10      3.00     58.41    192.00        1.10

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3177E+01 EXCESS= .0000E+00 OUTFLOW= .3173E+01 BASIN STORAGE= .4051E-02 PERCENT ERROR=    .0



 *** NORMAL END OF HEC-1 ***
```

```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   09MAY19  TIME  16:03:27  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions without Detention Basin HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        Feb 2019
             6          ID        PROPOSED CONDITION (WITHOUT DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH       1    0.19    0.71    1.37    2.21    2.56    2.76    3.18
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .024
   29          LS       0   86.44
   30          UD    0.24
               *

   31          KK  SUB-3C
   32          KM    RUNOFF FROM SUB-3C
   33          BA    .002
   34          LS       0   92.30
   35          UD    0.10
               *
1                                          HEC-1 INPUT                                          PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   36          KK     CP2
   37          KM     COMBINE HYDROGRAPHS FROM SUB-3B,SUB-3C & CP1A
   38          HC       3
               *

   39          KK  BASIN4
   40          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   41          KM    RUNOFF FROM BASIN 4
   42          BA    .002
```

```
          43          LS       0   83.56
          44          UD    .086
                      *

          45          KK   RCP26
          46          KM    ROUTE CP26 TO CP27
          47          RK     400    0.01   0.016       0      21      10      10
                      *

          48          KK BASIN4A
          49          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          50          KM    RUNOFF FROM BASIN 4A
          51          BA    .002
          52          LS       0    86.0
          53          UD    .136
                      *

          54          KK    CP27
          55          KM    COMBINE BASINS RCP26 & BASIN4A
          56          HC       2
                      *

          57          KK BASIN1A
          58          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          59          KM    RUNOFF FROM BASIN 1A
          60          BA    .001
          61          LS       0    90.4
          62          UD    .054
                      *

          63          KK    CP28
          64          KM    COMBINE BASINS BASIN1A & CP27
          65          HC       2
                      *

          66          KK     DB1
          67          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
          68          KM    DETENTION BASIN 1
          69          RS       1    STOR       0
          70          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
          71          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
          72          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
                      *
1                                      HEC-1 INPUT                                          PAGE  3

        LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

          73          KK    RDB1
          74          KM    ROUTE DB1 TO CP30
          75          RK     320    0.01   0.013       0    CIRC     0.5
```

```
                *

  76            KK BASIN4B
  77            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  78            KM    RUNOFF FROM BASIN 4B
  79            BA    .002
  80            LS       0   87.81
  81            UD    .071
                *

  82            KK  BASIN3
  83            KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  84            KM    RUNOFF FROM BASIN 3
  85            BA    .002
  86            LS       0   90.80
  87            UD    .071
                *

  88            KK  SUB-1A
  89            KM    RUNOFF FROM SUB-1A
  90            BA    .045
  91            LS       0   87.37
  92            UD    .189
                *

  93            KK  SUB-1B
  94            KM    RUNOFF FROM SUB-1B
  95            BA    .009
  96            LS       0   93.46
  97            UD     .10
                *

  98            KK  CP1A1B
  99            KM    COMBINE SUB-1A & SUB-1B
 100            HC       2
                *

 101            KK RCP1A1B
 102            KM    ROUTE CP1A1B TO CP30
 103            RK    1200    0.01   0.013       0    CIRC     2.5
                *

 104            KK  SUB-3A
 105            KM    RUNOFF FROM SUB-3A
 106            BA    .008
 107            LS       0   78.72
 108            UD     .10
                *
```



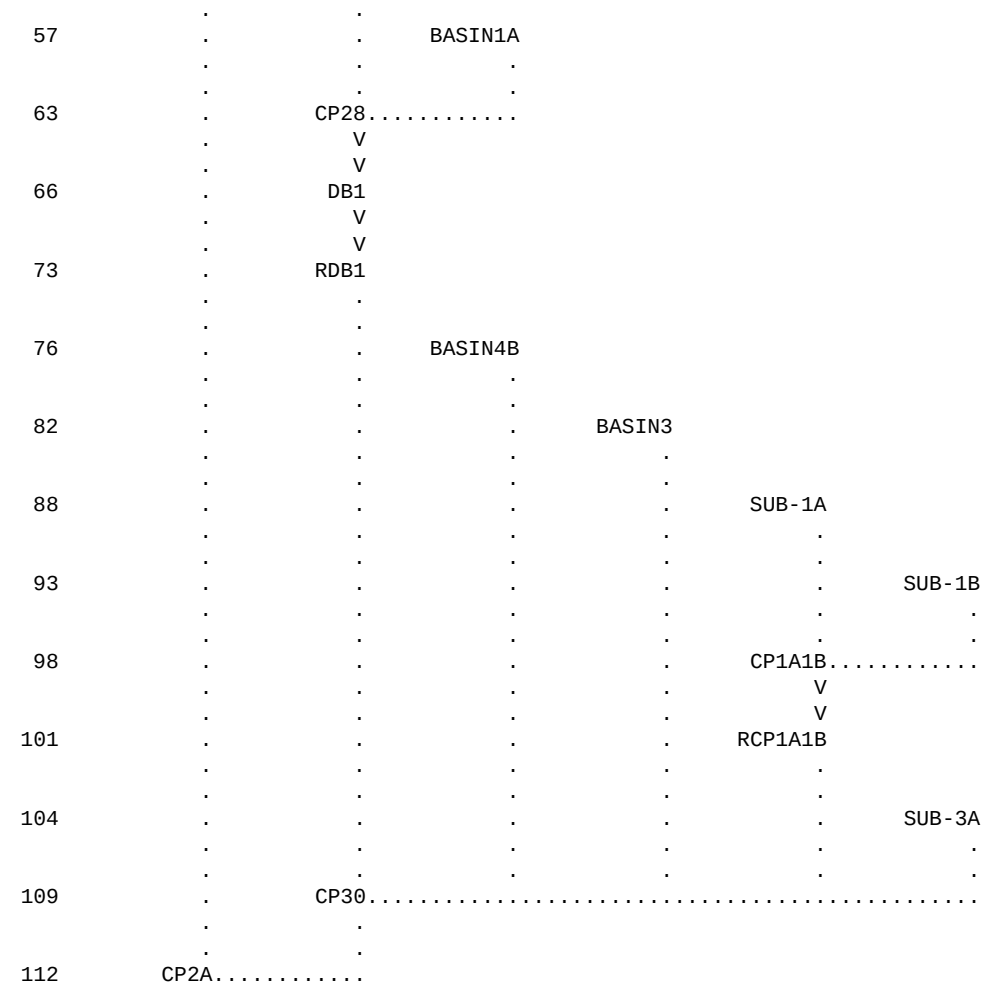
```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
```

```
           109          KK    CP30
           110          KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
           111          HC       5
                        *

           112          KK    CP2A
           113          KM     COMBINE HYDROGRAPHS FROM CP30 & CP-2
           114          HC       2
                        *
           115          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31          .           .      SUB-3C
                .           .           .
                .           .           .
    36         CP2.......................
                .
                .
    39          .      BASIN4
                .           V
                .           V
    45          .       RCP26
                .           .
                .           .
    48          .           .     BASIN4A
                .           .           .
                .           .           .
    54          .        CP27............
                .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   09MAY19  TIME  16:03:27   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

```
                          Woody Mountain Campground
                          Proposed-Conditions without Detention Basin HEC-1 Model
                          100-year, 6-hour Model
                          Woodson Engineering and Surveying
                          Feb 2019
                          PROPOSED CONDITION (WITHOUT DETENTION BASIN)

    8 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE

      IT          HYDROGRAPH TIME DATA
                        NMIN           3  MINUTES IN COMPUTATION INTERVAL
                       IDATE      1    0  STARTING DATE
                       ITIME        0000  STARTING TIME
                          NQ         125  NUMBER OF HYDROGRAPH ORDINATES
                      NDDATE      1    0  ENDING DATE
                      NDTIME        0612  ENDING TIME
                      ICENT           19  CENTURY MARK

                    COMPUTATION INTERVAL     .05 HOURS
                         TOTAL TIME BASE    6.20 HOURS

           ENGLISH UNITS
                DRAINAGE AREA         SQUARE MILES
                PRECIPITATION DEPTH   INCHES
                LENGTH, ELEVATION     FEET
                FLOW                  CUBIC FEET PER SECOND
                STORAGE VOLUME        ACRE-FEET
                SURFACE AREA          ACRES
                TEMPERATURE           DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                           FLOW IN CUBIC FEET PER SECOND
                                         TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
           OPERATION       STATION      FLOW     PEAK                                        AREA      STAGE     MAX STAGE
+                                                          6-HOUR     24-HOUR     72-HOUR

           HYDROGRAPH AT
+                            SUB-1        24.    3.20           2.          2.          2.        .01

           HYDROGRAPH AT
+                            SUB-2        12.    3.25           1.          1.          1.        .01

           HYDROGRAPH AT
```

+	SUB-2A	24.	3.10	2.	2.	2.	.01	
	3 COMBINED AT							
+	CP1A	56.	3.15	5.	5.	5.	.03	
	HYDROGRAPH AT							
+	SUB-3B	42.	3.30	5.	5.	5.	.02	
	HYDROGRAPH AT							
+	SUB-3C	6.	3.15	1.	0.	0.	.00	
	3 COMBINED AT							
+	CP2	97.	3.20	11.	10.	10.	.05	
	HYDROGRAPH AT							
+	BASIN4	5.	3.10	0.	0.	0.	.00	
	ROUTED TO							
+	RCP26	5.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT							
+	BASIN4A	4.	3.15	0.	0.	0.	.00	
	2 COMBINED AT							
+	CP27	9.	3.15	1.	1.	1.	.00	
	HYDROGRAPH AT							
+	BASIN1A	3.	3.10	0.	0.	0.	.00	
	2 COMBINED AT							
+	CP28	12.	3.15	1.	1.	1.	.01	
	ROUTED TO							
+	DB1	4.	3.40	1.	1.	1.	.01	
+								7054.42 3.40
	ROUTED TO							
+	RDB1	4.	3.40	1.	1.	1.	.01	
	HYDROGRAPH AT							
+	BASIN4B	6.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT							
+	BASIN3	7.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT							
+	SUB-1A	92.	3.25	9.	9.	9.	.05	
	HYDROGRAPH AT							
+	SUB-1B	29.	3.15	2.	2.	2.	.01	

```
          2 COMBINED AT
+                          CP1A1B       115.    3.20          12.         11.         11.        .05

          ROUTED TO
+                         RCP1A1B       113.    3.20          12.         11.         11.        .05

          HYDROGRAPH AT
+                          SUB-3A        14.    3.15           1.          1.          1.        .01

          5 COMBINED AT
+                            CP30       137.    3.20          15.         14.         14.        .07

          2 COMBINED AT
+                            CP2A       234.    3.20          25.         24.         24.        .12
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                  INTERPOLATED TO
                                                                               COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                    PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .60      4.66    187.74      1.63      3.00      4.62    189.00        1.63

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+00 EXCESS= .0000E+00 OUTFLOW= .1741E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR=   -.2

               RDB1  MANE          .44      3.98    204.47      1.68      3.00      3.98    204.00        1.68

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4494E+00 EXCESS= .0000E+00 OUTFLOW= .4489E+00 BASIN STORAGE= .5692E-03 PERCENT ERROR=    .0

             RCP1A1B  MANE          .46    114.50    193.12      2.01      3.00    112.83    192.00        2.01

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .5788E+01 EXCESS= .0000E+00 OUTFLOW= .5784E+01 BASIN STORAGE= .5657E-02 PERCENT ERROR=    .0



 *** NORMAL END OF HEC-1 ***
```

LID Basin -1: Elevation Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume		
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)	
7036.5	5324	0.12	0	0	0	0	0.00	
7037	5947	0.14	0.5	5636	2818	2818	0.06	
7037.5	6591	0.15	0.5	6269	3135	*5952*	0.14	ROCV
7038	7235	0.17	0.5	6913	3457	9409	0.22	

LID Basin -2: Elevation Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume		
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)	
7020.5	1866	0.04	0	0	0	0	0.00	
7021	2291	0.05	0.5	2079	1039	1039	0.02	
7021.5	2738	0.06	0.5	2515	1257	*2297*	0.05	ROCV
7022	3185	0.07	1	2962	2962	4001	0.09	

LID Basin -3: Elevation Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume		
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)	
7055.5	2033	0.05	0	0	0	0	0.00	
7056	2314	0.05	0.5	2174	1087	1087	0.02	
7056.5	2617	0.06	0.5	2466	1233	*2320*	0.05	
7057	2920	0.07	0.5	2769	1384	3704	0.09	ROCV

Summary of Impervious Areas

Description	Area (sf)
RV Sites	33600
Park Model	16154
Tent Sites	6132
Asphalt	63389
Site Amenities	4188
Ramada	1200
Trash Enclosures	1708
Bath House	1842
Impervious Road	1888
Total	**130101**

Summary of ROCV Calculations

Total ROCV (for 1")= 10842 CF

Impervious area in drainage area Sub-3A (SF)= 44300
ROCV required (Sub-3A) (CF)= 3692

ROCV provided in LID basin 3 (CF)= 3704

Thus, ROCV provided for SUB-3A (3704 CF) > ROCV required for SUB-3A (3692 CF)

Impervious area in Drainage area Sub-3B (SF)= 85801
ROCV required (Sub-3B) (CF)= 7150

ROCV provided in LID basins 1 & 2 (CF)= 8249

Thus, ROCV provided for SUB-3B (8914 CF) > ROCV required for SUB-3B (7150 CF)

APPENDIX C

Detention Basin Stage Volume Calculations
Detention Basin Outlet Pipes Calculations
Culvert Analysis Results
Detention Basin Emergency Spillway Weir-1
Detention Basin Emergency Spillway Weir-2
Detention Basin Emergency Spillway Weir Channel-1
Detention Basin Emergency Spillway Weir Channel-2
LID Basin 1 Weir
LID Basin 2 Weir
LID Basin 3 Weir
Channel Analysis Results

Detention Basin Stage-Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume	
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)
6992	31543	0.72	0	0	0	0	0.00
6993	34546	0.79	1	33045	33045	33045	0.76
6994	37594	0.86	1	36070	36070	69115	1.59
6995	40785	0.94	1	39190	39190	108304	2.49
6996	44131	1.01	1	42458	42458	150762	3.46
6997	47978	1.10	1	46055	46055	196817	4.52
6998	53773	1.23	1	50876	50876	247692	5.69
6998.5	55301.5	1.27	0.5	54537	27269	274961	6.31
6999	56830	1.30	1	55302	55302	302994	6.96
7000	61411	1.41	1	59121	59121	362114	8.31

Detention Basin Outlet-Flow Calculations

Outlet-1

Orifice Dia.	21	in
Orifice Dia.	1.75	ft
Orifice area	2.40	sq.ft
No. of openings	1	
Elev-Inv. In	6992.00	
Elev-Inv. Out	6987.15	
Length=	54.65	
Slope=	0.0887	
Centroid	6992.875	
Orifice-top	6993.75	
Orifice Co-eff	0.6	
G (gravity)	32.2	ft/s
pipe material	cmp	
Outlet-1 Flow		
Elev.	**Flow (cfs)**	**Flow Type**
6992	0	Pipe Flow
6993	15.9	Pipe Flow
6994	12.28	Orifice
6995	16.87	Orifice
6996	20.46	Orifice
6997	23.51	Orifice
6998	26.21	Orifice
6999	28.65	Orifice
7000	30.90	Orifice

Outlet-2

Orifice Dia.	21	in
Orifice Dia.	1.75	ft
Orifice area	2.40	sq.ft
No. of openings	1	
Elev-Inv. In	6992	
Elev-Inv. Out	6989.17	
Length=	50.78	
Slope=	0.0557	
Centroid	6992.875	
Orifice-top	6993.75	
Orifice Co-eff	0.6	
G (gravity)	32.2	ft/s
Outlet-2 Flow		
Elev.	**Flow (cfs)**	**Flow Type**
6992	0	Pipe Flow
6993	12.6	Pipe Flow
6994	12.28	Orifice
6995	16.87	Orifice
6996	20.46	Orifice
6997	23.51	Orifice
6998	26.21	Orifice
6999	28.65	Orifice
7000	30.90	Orifice

Total outflow=Outlet-1+Outlet-2

Elev.	**Flow (cfs)**
6992	0.00
6993	28.50
6994	24.56
6995	33.75
6996	40.93
6997	47.02
6998	52.41
6999	57.30
7000	61.80

10-yr WSE 6995.42

Combined flow rate from outlets-1&2= 37 cfs

Approximate flow rate from outlet-1= 18.5 cfs

Approximate flow rate from outlet-2= 18.5 cfs

100-yr WSE 6998.51

Combined flow rate from outlets-1&2= 55 cfs

Approximate flow rate from outlet-1= 27.5 cfs

Approximate flow rate from outlet-2= 27.5 cfs

Culvert Report

BASIN CULVERT 1 (BC1)-Q25

Invert Elev Dn (ft)	=	6998.50
Pipe Length (ft)	=	31.03
Slope (%)	=	3.19
Invert Elev Up (ft)	=	6999.49
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

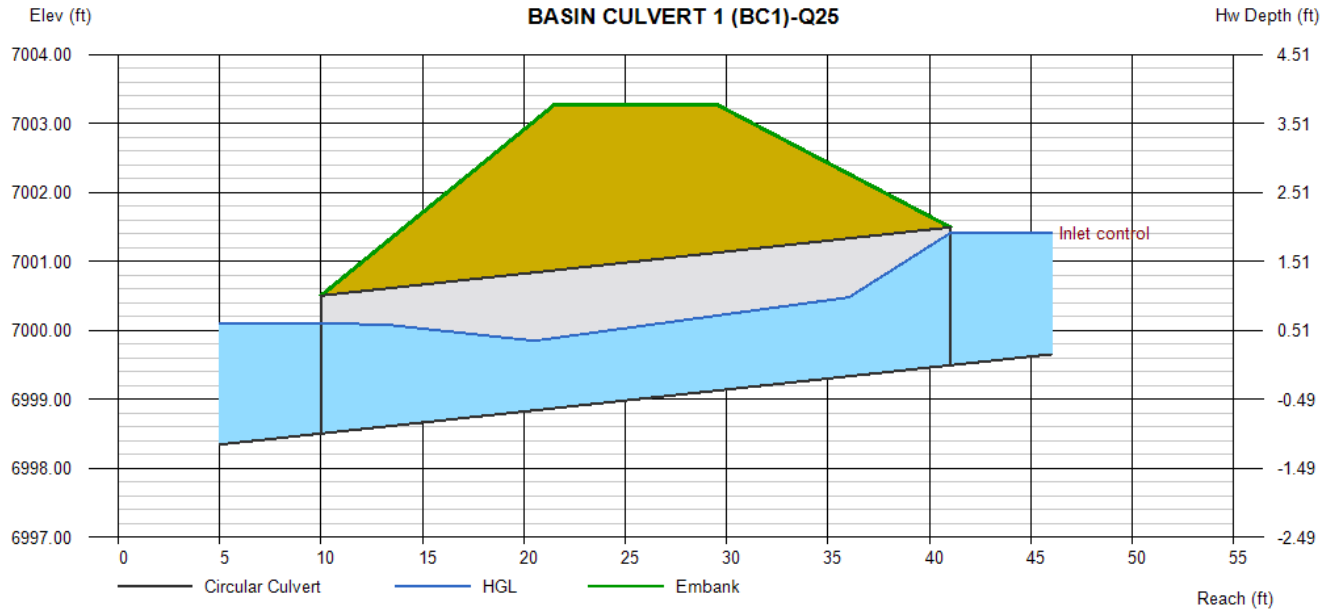
Top Elevation (ft)	=	7003.27
Top Width (ft)	=	8.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	11.00
Qmax (cfs)	=	15.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	11.00
Qpipe (cfs)	=	11.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.10
Veloc Up (ft/s)	=	5.66
HGL Dn (ft)	=	7000.09
HGL Up (ft)	=	7000.68
Hw Elev (ft)	=	7001.41
Hw/D (ft)	=	0.96
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 1 (BC1)-Q100

Invert Elev Dn (ft)	=	6998.50
Pipe Length (ft)	=	31.03
Slope (%)	=	3.19
Invert Elev Up (ft)	=	6999.49
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

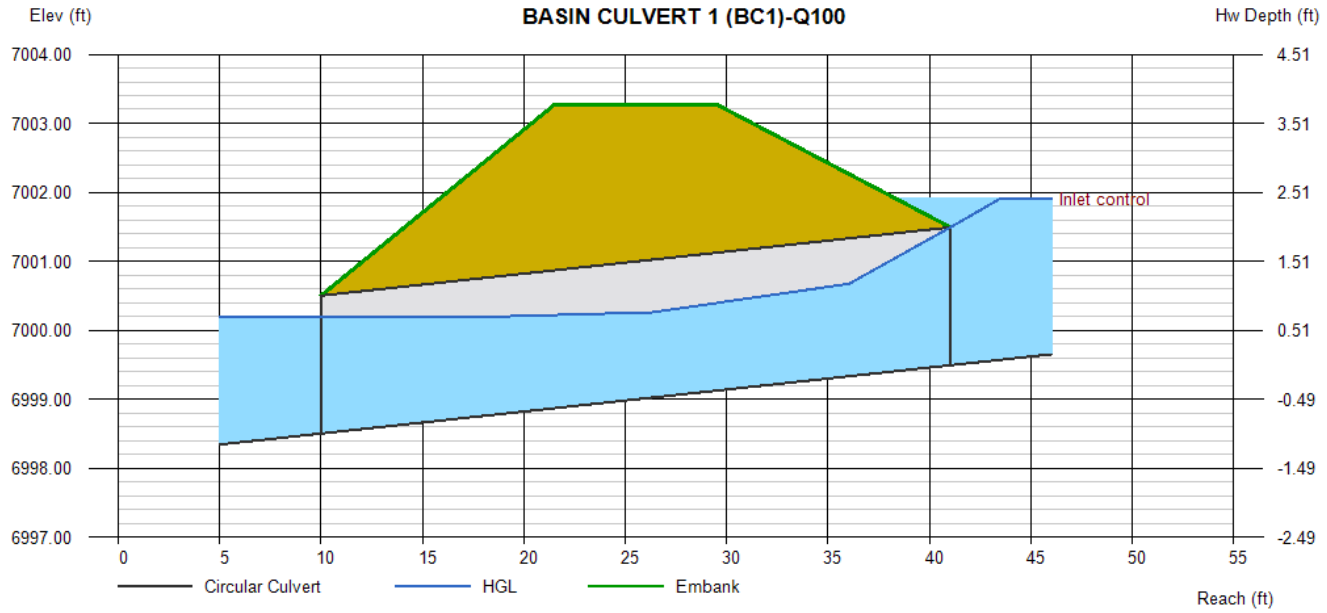
Top Elevation (ft)	=	7003.27
Top Width (ft)	=	8.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	5.00
Qmax (cfs)	=	15.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	15.00
Qpipe (cfs)	=	15.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.28
Veloc Up (ft/s)	=	6.41
HGL Dn (ft)	=	7000.20
HGL Up (ft)	=	7000.89
Hw Elev (ft)	=	7001.91
Hw/D (ft)	=	1.21
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 2 (BC2)-Q25

Invert Elev Dn (ft)	=	6999.38
Pipe Length (ft)	=	35.46
Slope (%)	=	4.20
Invert Elev Up (ft)	=	7000.87
Rise (in)	=	36.0
Shape	=	Circular
Span (in)	=	36.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

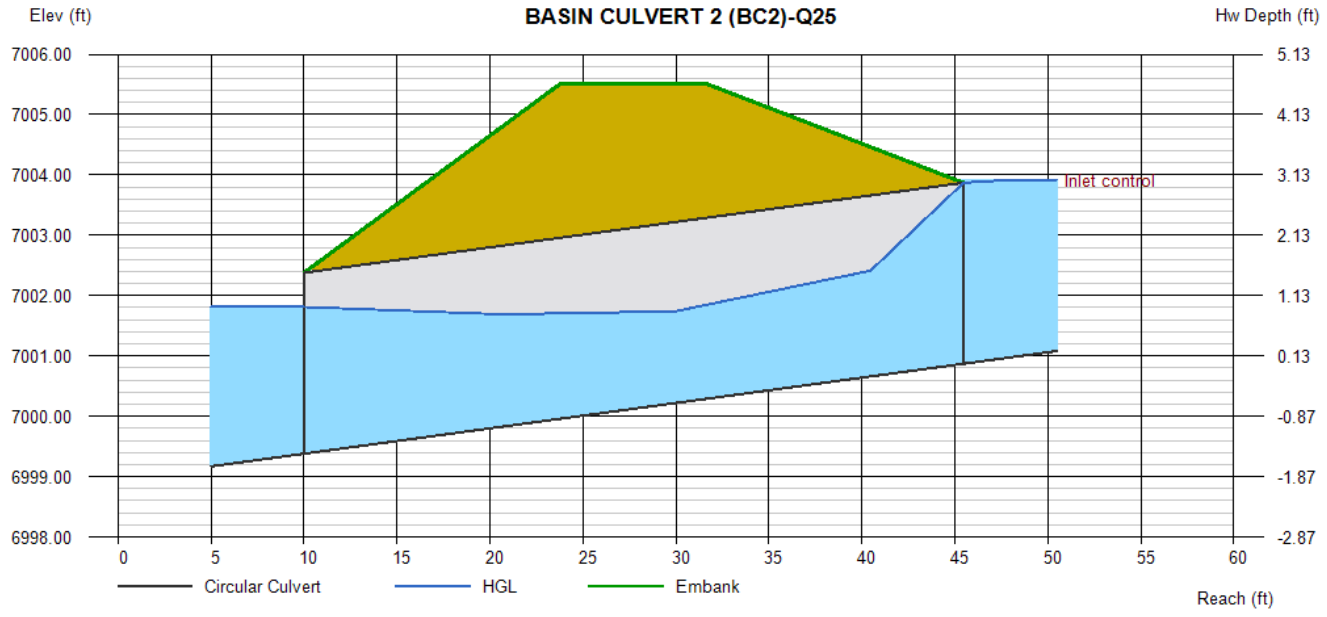
Top Elevation (ft)	=	7005.50
Top Width (ft)	=	8.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	66.00
Qmax (cfs)	=	100.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	66.00
Qpipe (cfs)	=	66.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.38
Veloc Up (ft/s)	=	7.15
HGL Dn (ft)	=	7001.81
HGL Up (ft)	=	7002.73
Hw Elev (ft)	=	7003.92
Hw/D (ft)	=	1.02
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 2 (BC2)-Q100

Invert Elev Dn (ft)	=	6999.38
Pipe Length (ft)	=	35.46
Slope (%)	=	4.20
Invert Elev Up (ft)	=	7000.87
Rise (in)	=	36.0
Shape	=	Circular
Span (in)	=	36.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

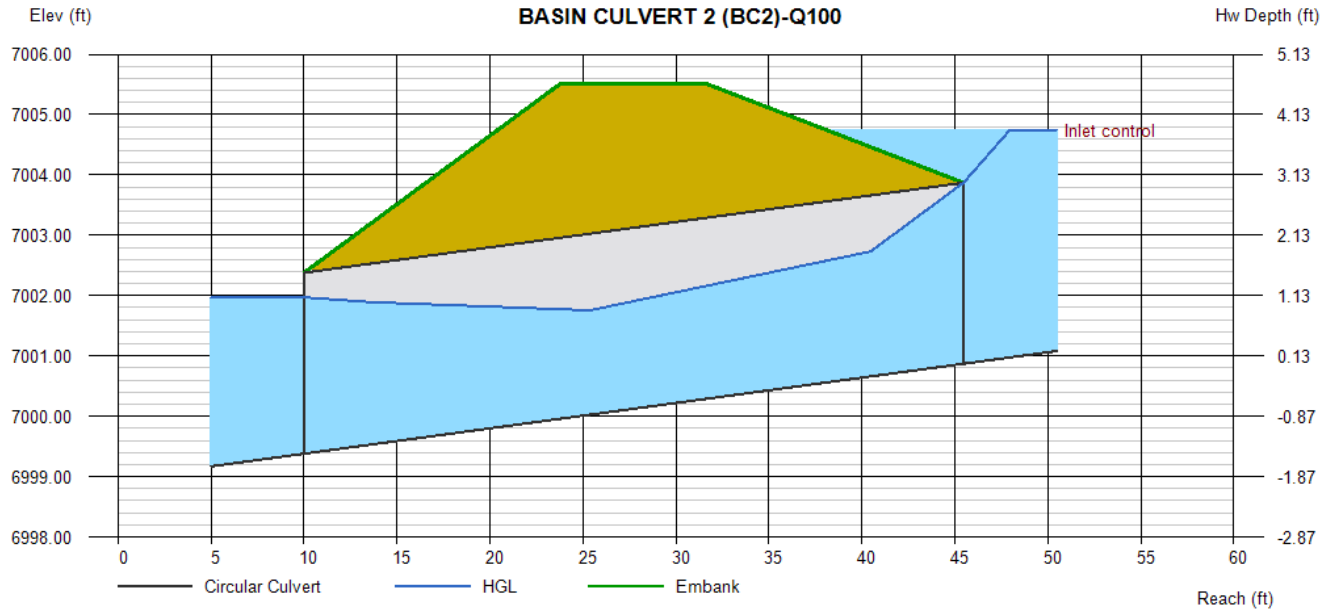
Top Elevation (ft)	=	7005.50
Top Width (ft)	=	8.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	50.00
Qmax (cfs)	=	100.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	90.00
Qpipe (cfs)	=	90.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	6.93
Veloc Up (ft/s)	=	8.16
HGL Dn (ft)	=	7001.97
HGL Up (ft)	=	7003.05
Hw Elev (ft)	=	7004.75
Hw/D (ft)	=	1.29
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 3 (BC3)-Q25

Invert Elev Dn (ft)	=	7004.00
Pipe Length (ft)	=	30.10
Slope (%)	=	5.88
Invert Elev Up (ft)	=	7005.77
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

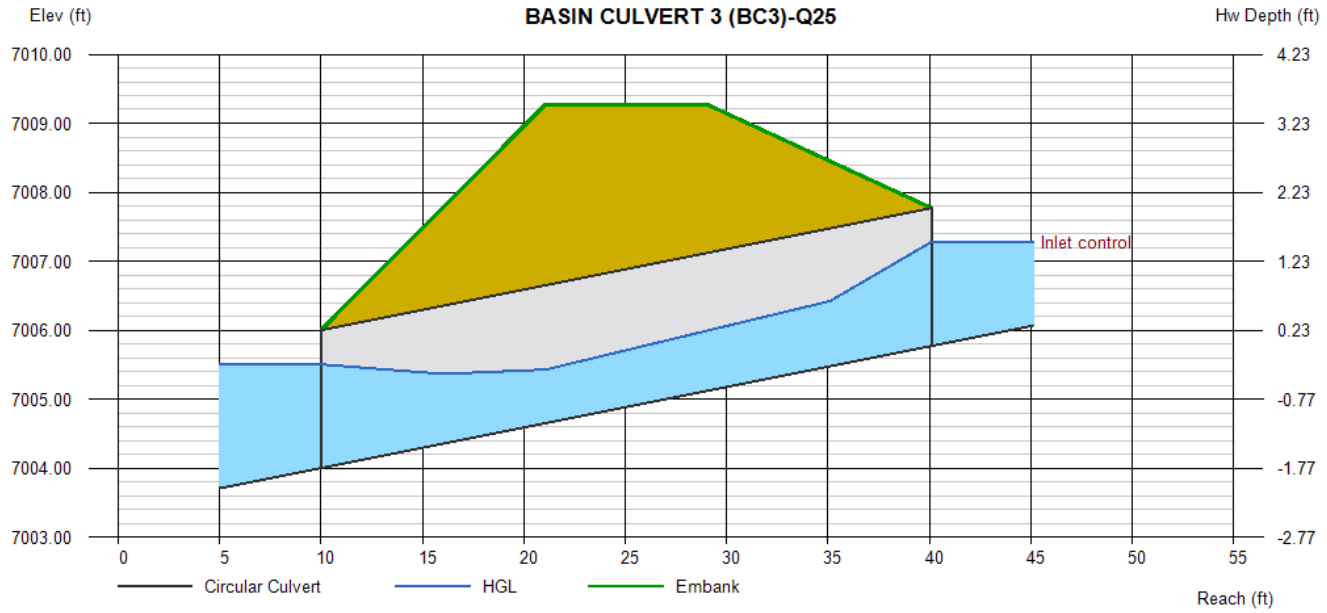
Top Elevation (ft)	=	7009.27
Top Width (ft)	=	8.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	8.00
Qmax (cfs)	=	12.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	8.00
Qpipe (cfs)	=	8.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	3.16
Veloc Up (ft/s)	=	5.06
HGL Dn (ft)	=	7005.50
HGL Up (ft)	=	7006.78
Hw Elev (ft)	=	7007.28
Hw/D (ft)	=	0.75
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 3 (BC3)-Q100

Invert Elev Dn (ft)	=	7004.00
Pipe Length (ft)	=	30.10
Slope (%)	=	5.88
Invert Elev Up (ft)	=	7005.77
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

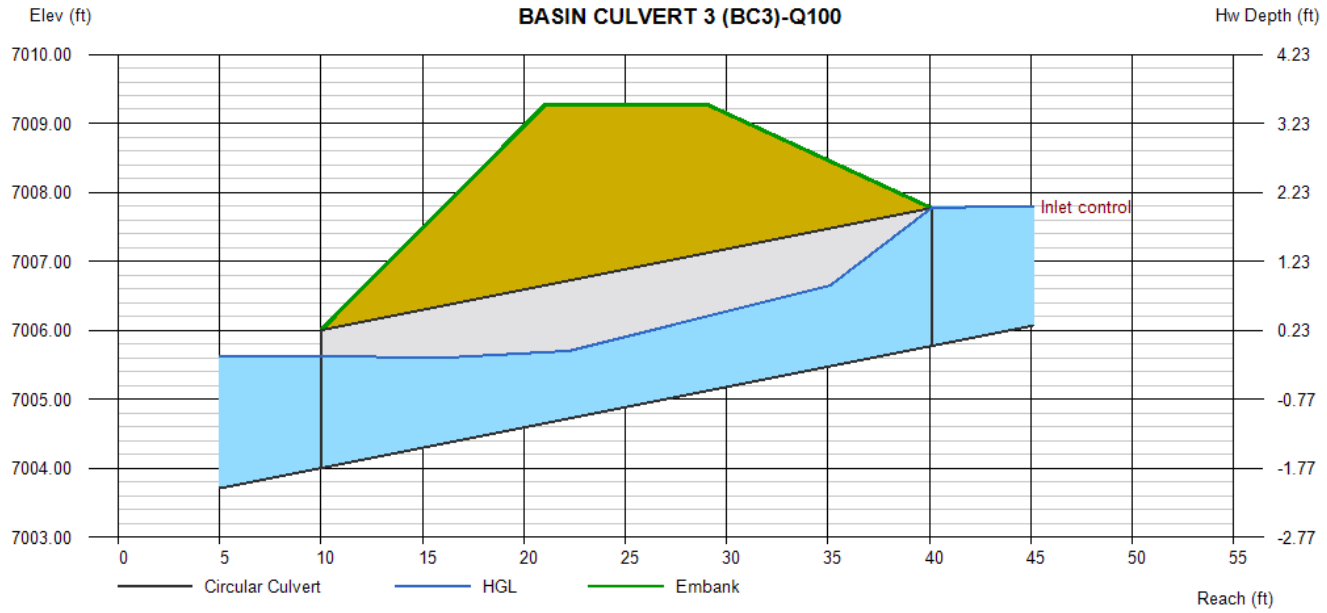
Top Elevation (ft)	=	7009.27
Top Width (ft)	=	8.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	8.00
Qmax (cfs)	=	12.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	12.00
Qpipe (cfs)	=	12.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.40
Veloc Up (ft/s)	=	5.85
HGL Dn (ft)	=	7005.62
HGL Up (ft)	=	7007.01
Hw Elev (ft)	=	7007.79
Hw/D (ft)	=	1.01
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 4 (BC4)-Q25

Invert Elev Dn (ft)	=	6999.00
Pipe Length (ft)	=	50.00
Slope (%)	=	1.00
Invert Elev Up (ft)	=	6999.50
Rise (in)	=	36.0
Shape	=	Box
Span (in)	=	96.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	90D Headwall, Chamfered or Beveled Inlet Edges
Culvert Entrance	=	90D headwall w/3/4-in chamfers
Coeff. K,M,c,Y,k	=	0.515, 0.667, 0.0375, 0.79, 0.2

Embankment

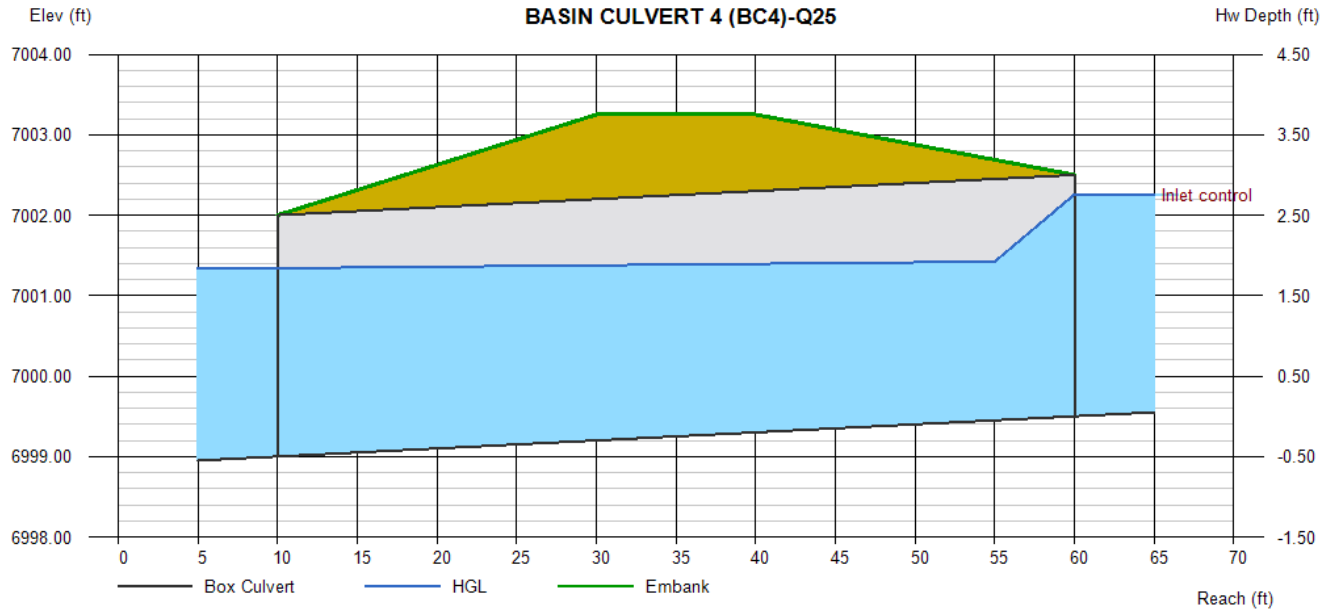
Top Elevation (ft)	=	7003.25
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	99.00
Qmax (cfs)	=	137.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	99.00
Qpipe (cfs)	=	99.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.29
Veloc Up (ft/s)	=	6.41
HGL Dn (ft)	=	7001.34
HGL Up (ft)	=	7001.43
Hw Elev (ft)	=	7002.26
Hw/D (ft)	=	0.92
Flow Regime	=	Inlet Control



Culvert Report

BASIN CULVERT 4 (BC4)-Q100

Invert Elev Dn (ft)	=	6999.00
Pipe Length (ft)	=	50.00
Slope (%)	=	1.00
Invert Elev Up (ft)	=	6999.50
Rise (in)	=	36.0
Shape	=	Box
Span (in)	=	96.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	90D Headwall, Chamfered or Beveled Inlet Edges
Culvert Entrance	=	90D headwall w/3/4-in chamfers
Coeff. K,M,c,Y,k	=	0.515, 0.667, 0.0375, 0.79, 0.2

Embankment

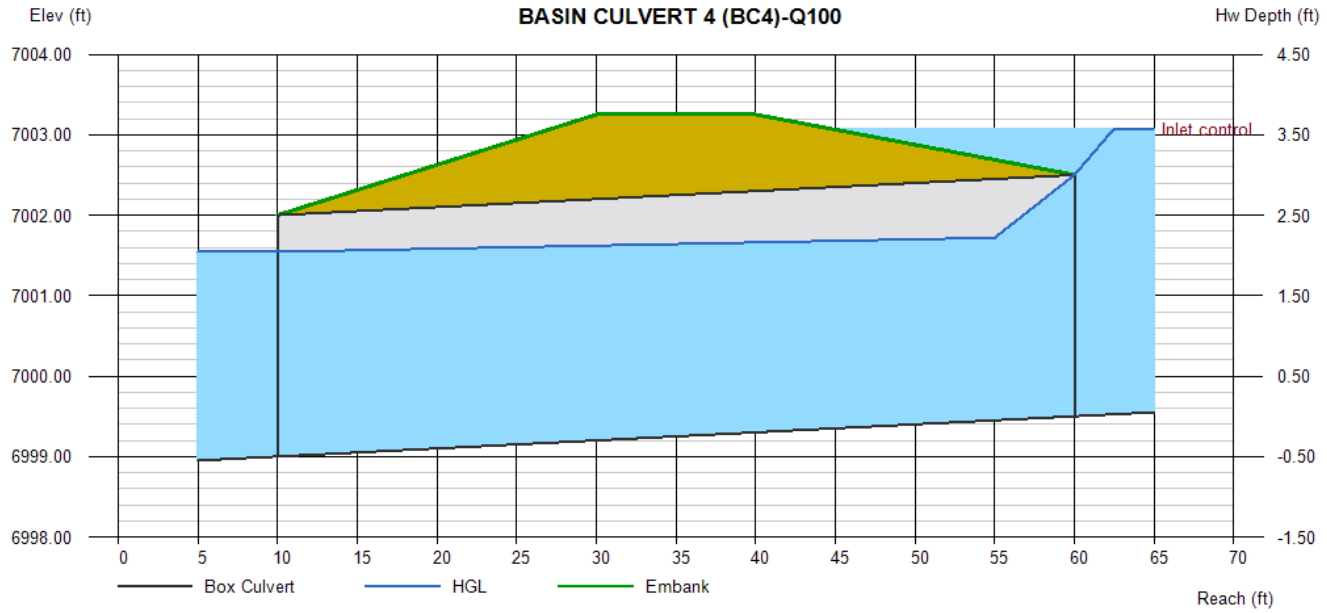
Top Elevation (ft)	=	7003.25
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	99.00
Qmax (cfs)	=	137.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	137.00
Qpipe (cfs)	=	137.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	6.73
Veloc Up (ft/s)	=	7.65
HGL Dn (ft)	=	7001.54
HGL Up (ft)	=	7001.74
Hw Elev (ft)	=	7003.08
Hw/D (ft)	=	1.19
Flow Regime	=	Inlet Control



Culvert Report

Culvert 1 (Q25)

Invert Elev Dn (ft)	=	7016.25
Pipe Length (ft)	=	36.83
Slope (%)	=	10.16
Invert Elev Up (ft)	=	7019.99
Rise (in)	=	30.0
Shape	=	Circular
Span (in)	=	30.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

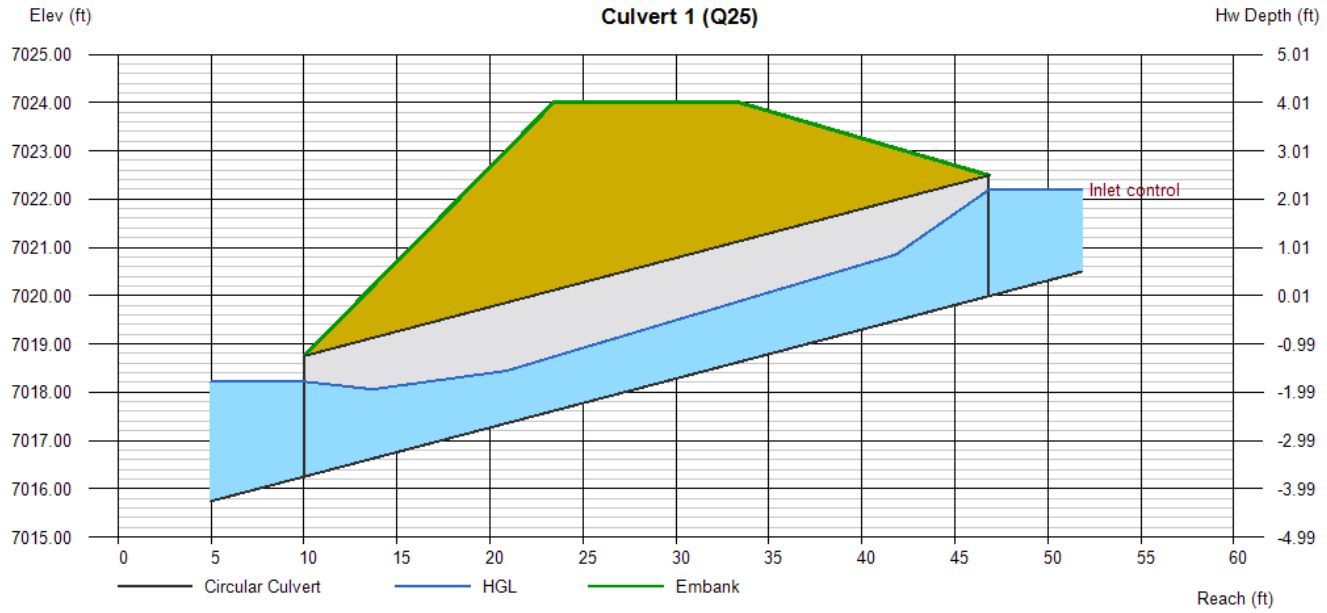
Top Elevation (ft)	=	7024.00
Top Width (ft)	=	10.00
Crest Width (ft)	=	200.00

Calculations

Qmin (cfs)	=	36.00
Qmax (cfs)	=	48.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	36.00
Qpipe (cfs)	=	36.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.34
Veloc Up (ft/s)	=	6.17
HGL Dn (ft)	=	7018.22
HGL Up (ft)	=	7021.43
Hw Elev (ft)	=	7022.19
Hw/D (ft)	=	0.88
Flow Regime	=	Inlet Control



Culvert Report

Culvert 1 (Q100)

Invert Elev Dn (ft)	=	7016.25
Pipe Length (ft)	=	36.83
Slope (%)	=	10.16
Invert Elev Up (ft)	=	7019.99
Rise (in)	=	30.0
Shape	=	Circular
Span (in)	=	30.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

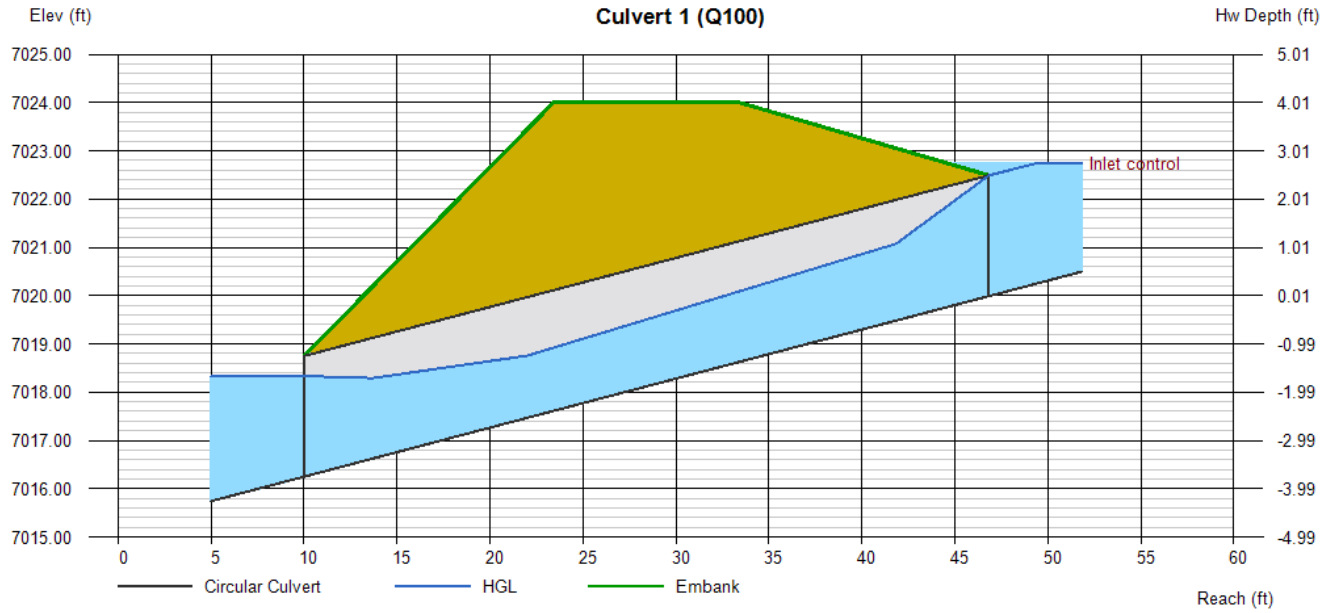
Top Elevation (ft)	=	7024.00
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	28.00
Qmax (cfs)	=	48.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	48.00
Qpipe (cfs)	=	48.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	5.49
Veloc Up (ft/s)	=	6.90
HGL Dn (ft)	=	7018.33
HGL Up (ft)	=	7021.66
Hw Elev (ft)	=	7022.73
Hw/D (ft)	=	1.10
Flow Regime	=	Inlet Control



Culvert Report

Culvert 2 (Q25)

Invert Elev Dn (ft)	=	7014.73
Pipe Length (ft)	=	30.96
Slope (%)	=	4.78
Invert Elev Up (ft)	=	7016.21
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

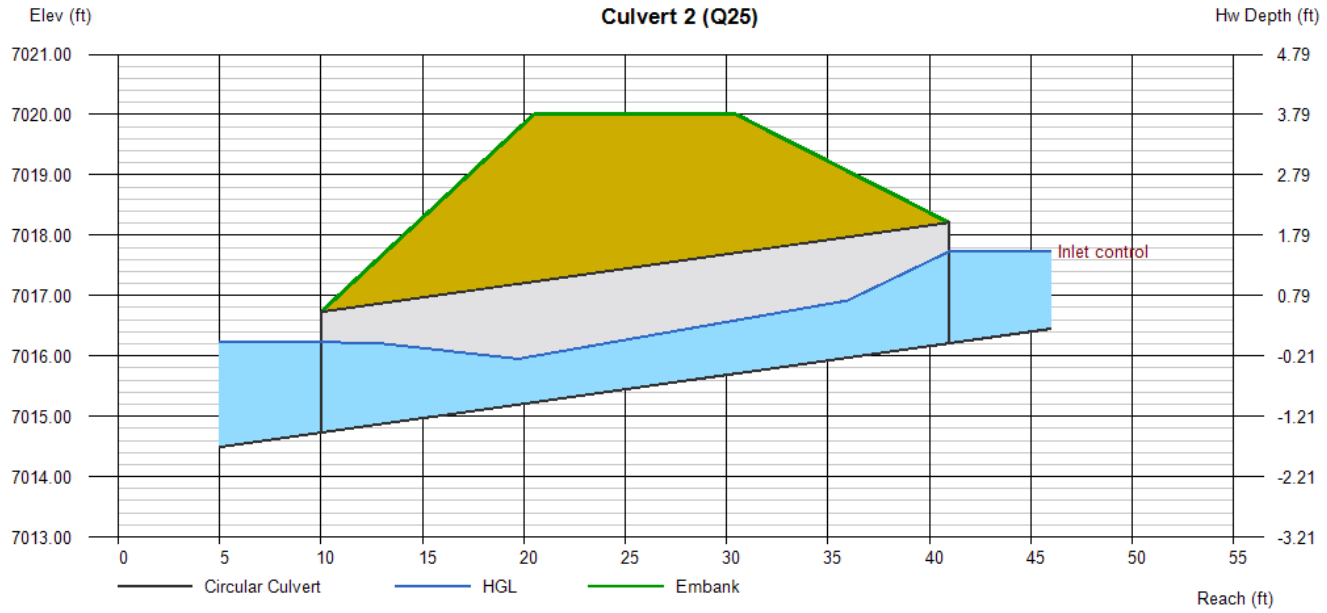
Top Elevation (ft)	=	7020.00
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	5.00
Qmax (cfs)	=	12.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	8.00
Qpipe (cfs)	=	8.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	3.16
Veloc Up (ft/s)	=	5.06
HGL Dn (ft)	=	7016.23
HGL Up (ft)	=	7017.22
Hw Elev (ft)	=	7017.73
Hw/D (ft)	=	0.76
Flow Regime	=	Inlet Control



Culvert Report

Culvert 2 (Q100)

Invert Elev Dn (ft)	=	7014.73
Pipe Length (ft)	=	30.96
Slope (%)	=	4.78
Invert Elev Up (ft)	=	7016.21
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	1
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

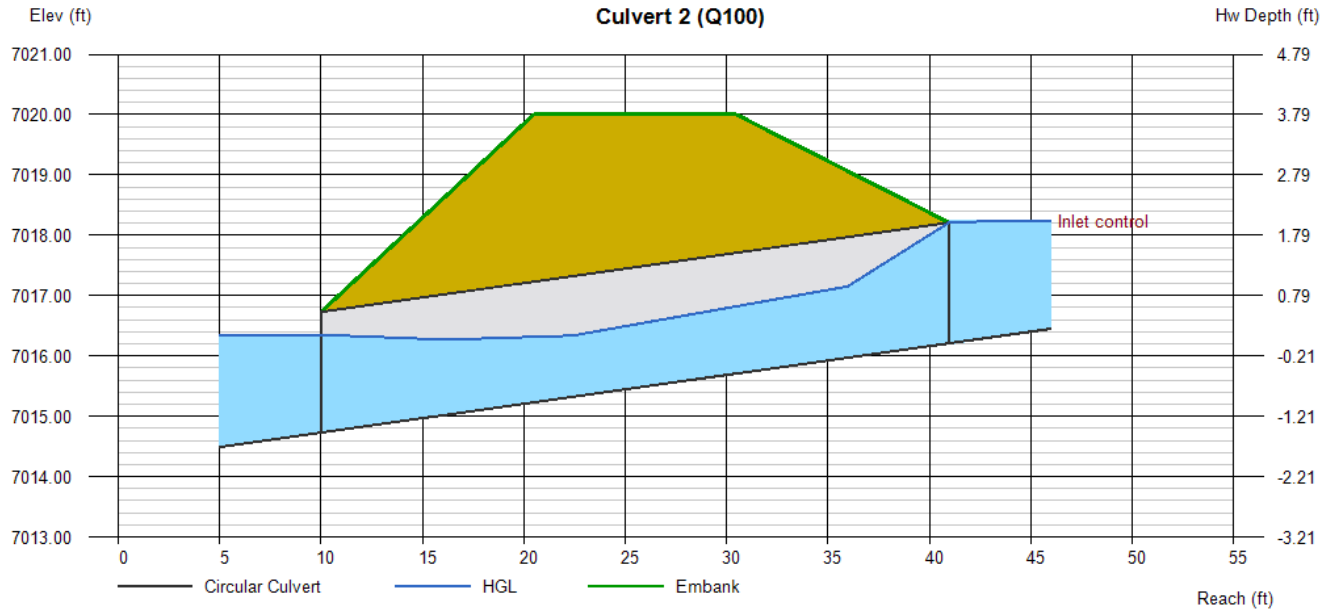
Top Elevation (ft)	=	7020.00
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	6.00
Qmax (cfs)	=	12.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	12.00
Qpipe (cfs)	=	12.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.40
Veloc Up (ft/s)	=	5.85
HGL Dn (ft)	=	7016.35
HGL Up (ft)	=	7017.45
Hw Elev (ft)	=	7018.24
Hw/D (ft)	=	1.01
Flow Regime	=	Inlet Control



Culvert Report

Culvert 4 (Q25)

Invert Elev Dn (ft)	=	7026.09
Pipe Length (ft)	=	30.76
Slope (%)	=	13.07
Invert Elev Up (ft)	=	7030.11
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

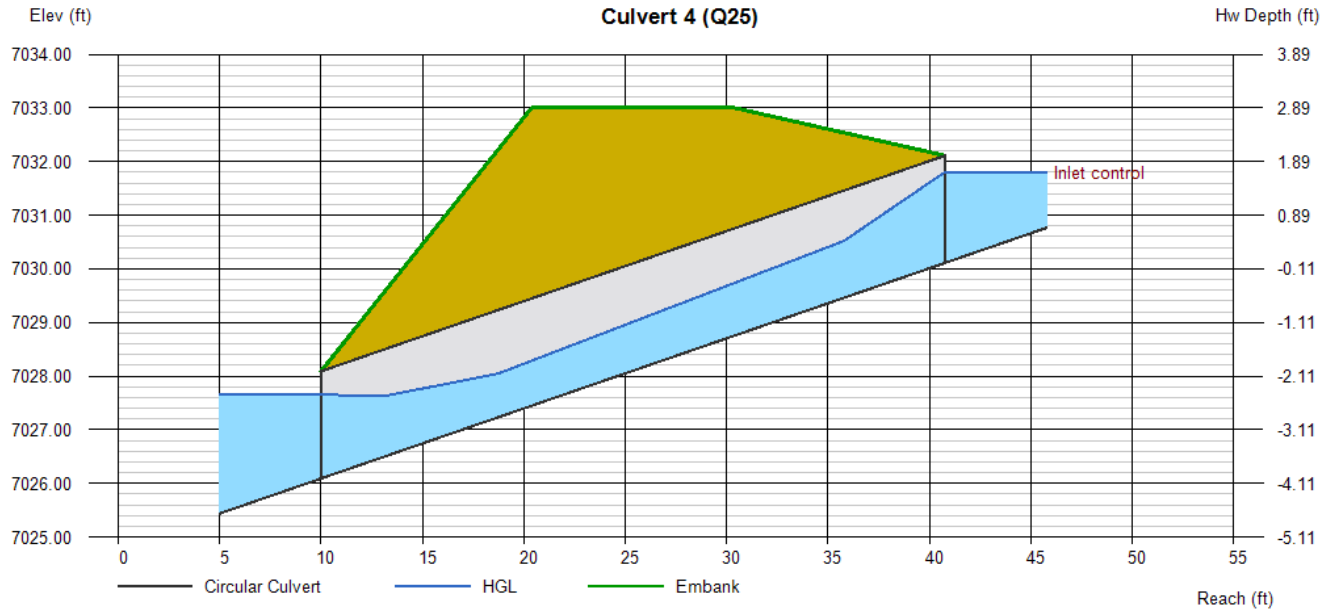
Top Elevation (ft)	=	7033.00
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	20.00
Qmax (cfs)	=	28.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	20.00
Qpipe (cfs)	=	20.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	3.79
Veloc Up (ft/s)	=	5.46
HGL Dn (ft)	=	7027.66
HGL Up (ft)	=	7031.24
Hw Elev (ft)	=	7031.80
Hw/D (ft)	=	0.85
Flow Regime	=	Inlet Control



Culvert Report

Culvert 4 (Q100)

Invert Elev Dn (ft)	=	7026.09
Pipe Length (ft)	=	30.76
Slope (%)	=	13.07
Invert Elev Up (ft)	=	7030.11
Rise (in)	=	24.0
Shape	=	Circular
Span (in)	=	24.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

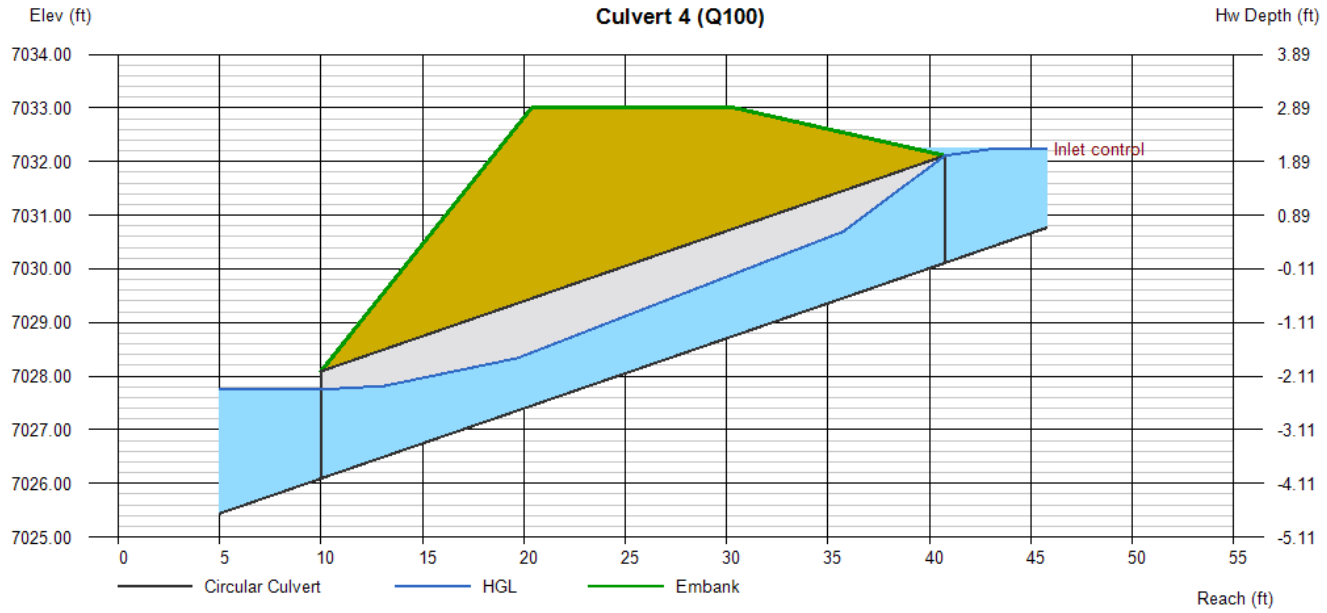
Top Elevation (ft)	=	7033.00
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	20.00
Qmax (cfs)	=	28.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	27.00
Qpipe (cfs)	=	27.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.84
Veloc Up (ft/s)	=	6.13
HGL Dn (ft)	=	7027.75
HGL Up (ft)	=	7031.43
Hw Elev (ft)	=	7032.25
Hw/D (ft)	=	1.07
Flow Regime	=	Inlet Control



Culvert Report

Culvert 5 (Q25)

Invert Elev Dn (ft)	=	7038.65
Pipe Length (ft)	=	40.83
Slope (%)	=	3.31
Invert Elev Up (ft)	=	7040.00
Rise (in)	=	18.0
Shape	=	Circular
Span (in)	=	18.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

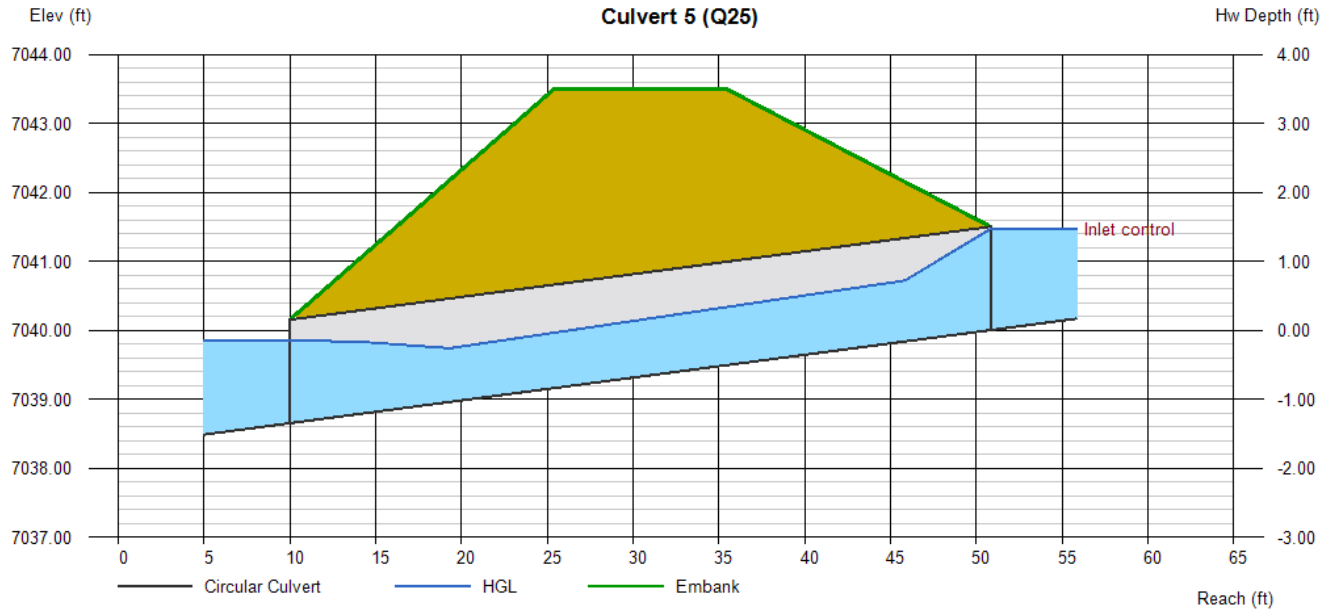
Top Elevation (ft)	=	7043.50
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	11.00
Qmax (cfs)	=	15.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	11.00
Qpipe (cfs)	=	11.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	3.62
Veloc Up (ft/s)	=	4.94
HGL Dn (ft)	=	7039.85
HGL Up (ft)	=	7040.90
Hw Elev (ft)	=	7041.47
Hw/D (ft)	=	0.98
Flow Regime	=	Inlet Control



Culvert Report

Culvert 5 (Q100)

Invert Elev Dn (ft)	=	7038.65
Pipe Length (ft)	=	40.83
Slope (%)	=	3.31
Invert Elev Up (ft)	=	7040.00
Rise (in)	=	18.0
Shape	=	Circular
Span (in)	=	18.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

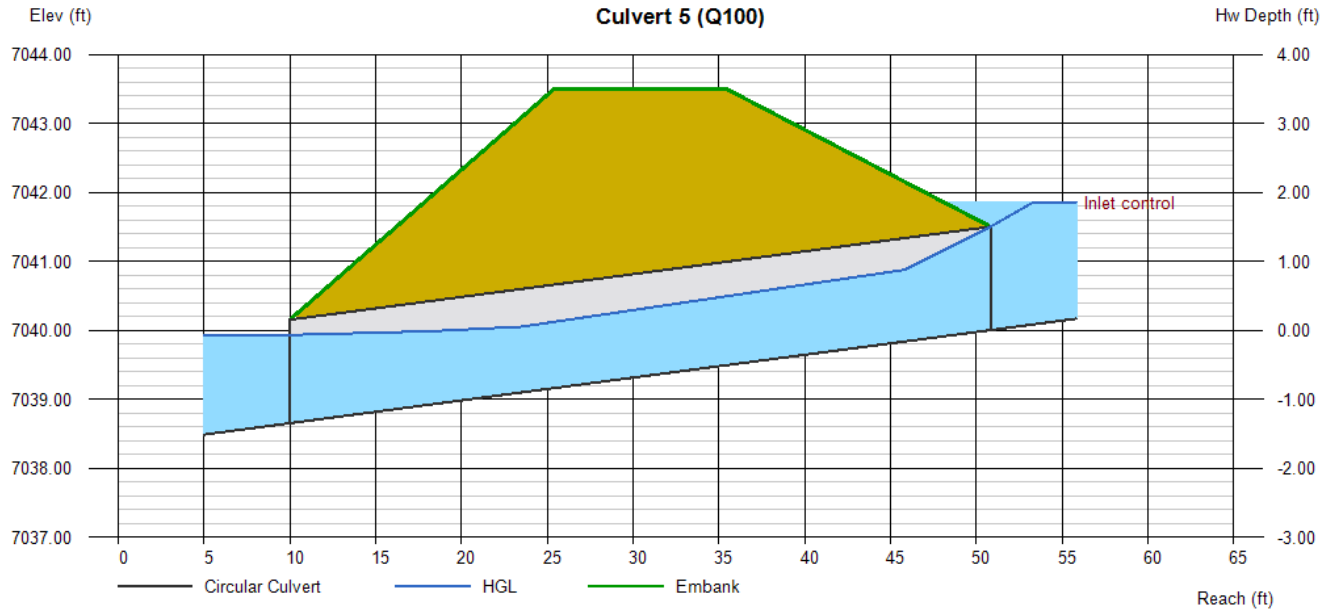
Top Elevation (ft)	=	7043.50
Top Width (ft)	=	10.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	11.00
Qmax (cfs)	=	15.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	15.00
Qpipe (cfs)	=	15.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.67
Veloc Up (ft/s)	=	5.62
HGL Dn (ft)	=	7039.93
HGL Up (ft)	=	7041.06
Hw Elev (ft)	=	7041.86
Hw/D (ft)	=	1.24
Flow Regime	=	Inlet Control



Culvert Report

Culvert 6 (Q25)

Invert Elev Dn (ft)	=	7020.50
Pipe Length (ft)	=	83.06
Slope (%)	=	16.39
Invert Elev Up (ft)	=	7034.11
Rise (in)	=	18.0
Shape	=	Circular
Span (in)	=	18.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

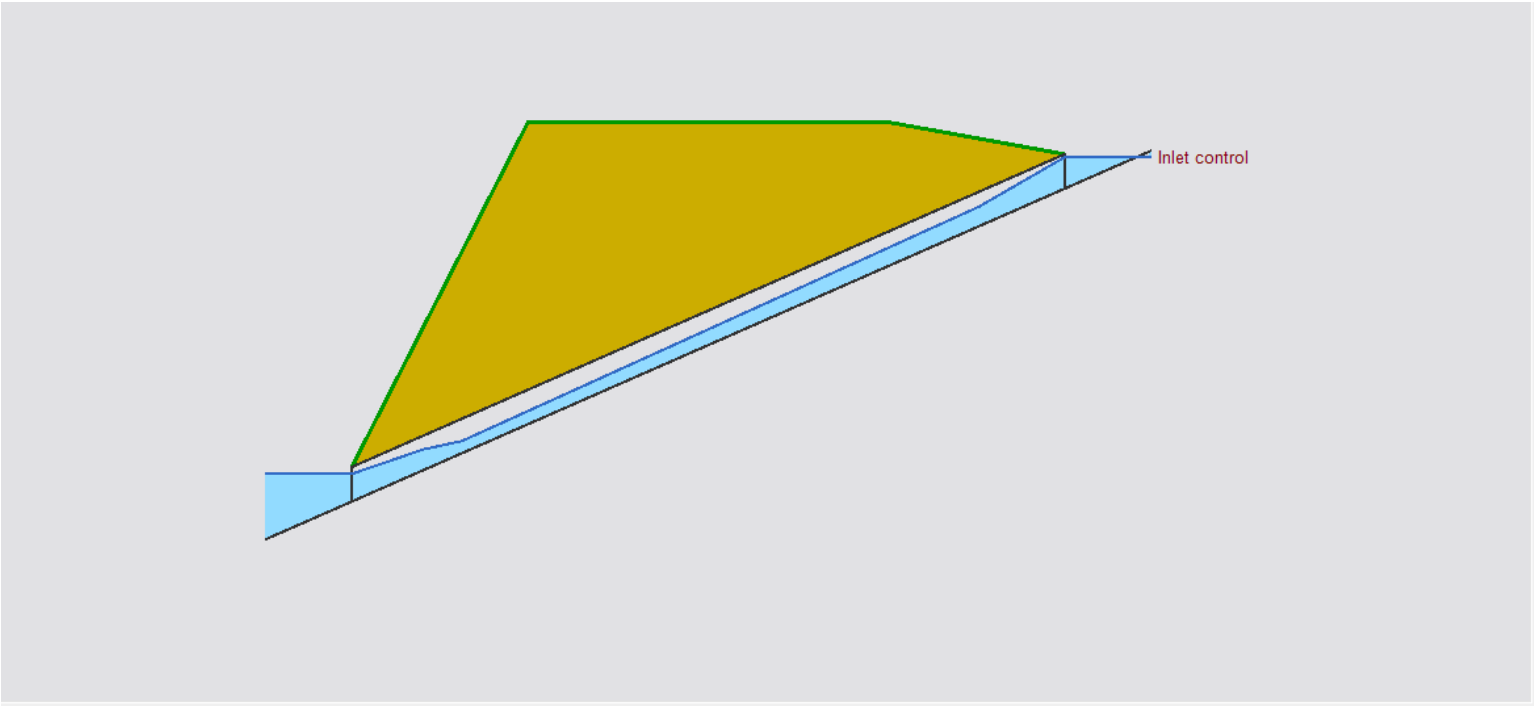
Top Elevation (ft)	=	7037.00
Top Width (ft)	=	42.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	11.00
Qmax (cfs)	=	15.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	11.00
Qpipe (cfs)	=	11.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	3.62
Veloc Up (ft/s)	=	4.94
HGL Dn (ft)	=	7021.70
HGL Up (ft)	=	7035.01
Hw Elev (ft)	=	7035.48
Hw/D (ft)	=	0.91
Flow Regime	=	Inlet Control



Culvert Report

Culvert 6 (Q100)

Invert Elev Dn (ft)	=	7020.50
Pipe Length (ft)	=	83.06
Slope (%)	=	16.39
Invert Elev Up (ft)	=	7034.11
Rise (in)	=	18.0
Shape	=	Circular
Span (in)	=	18.0
No. Barrels	=	2
n-Value	=	0.024
Culvert Type	=	Circular Corrugate Metal Pipe
Culvert Entrance	=	Projecting
Coeff. K,M,c,Y,k	=	0.034, 1.5, 0.0553, 0.54, 0.9

Embankment

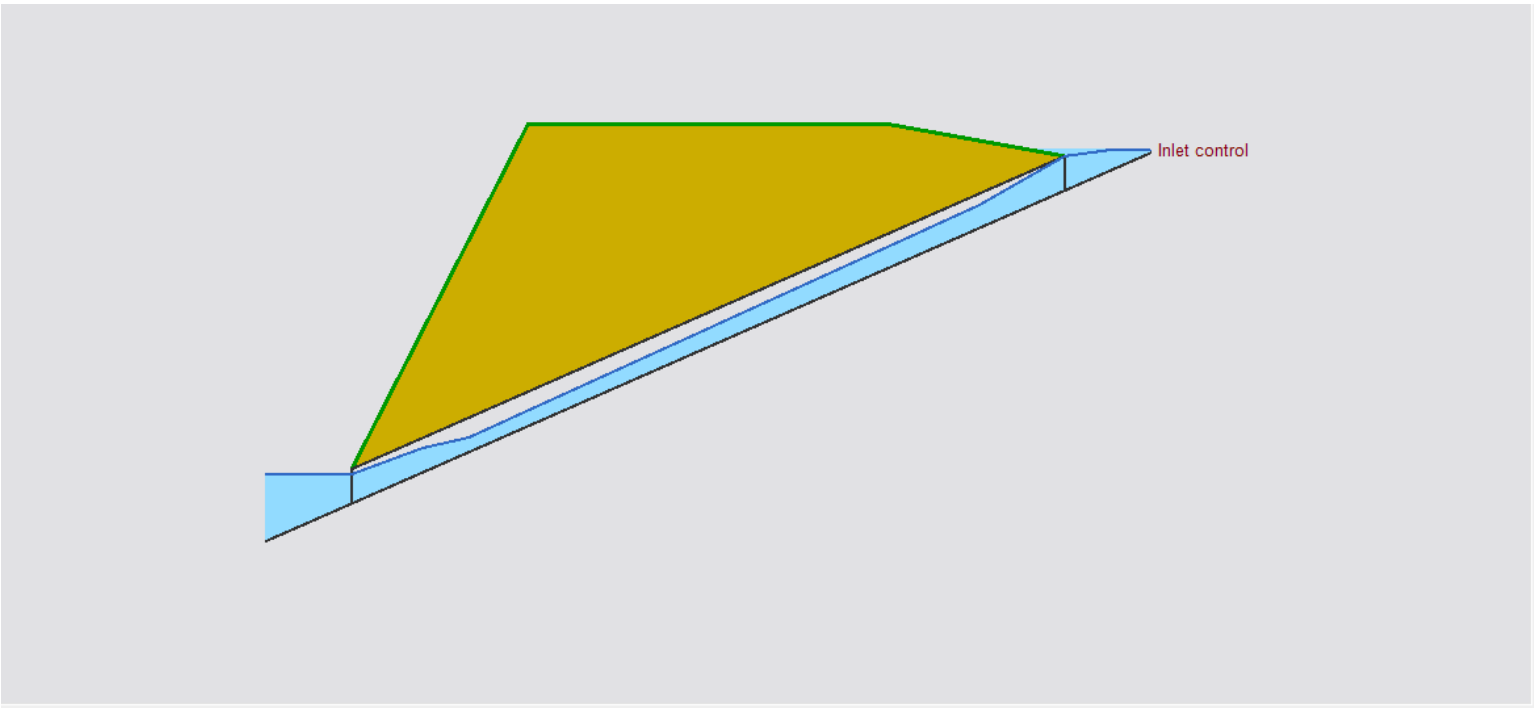
Top Elevation (ft)	=	7037.00
Top Width (ft)	=	42.00
Crest Width (ft)	=	100.00

Calculations

Qmin (cfs)	=	7.00
Qmax (cfs)	=	15.00
Tailwater Elev (ft)	=	(dc+D)/2

Highlighted

Qtotal (cfs)	=	15.00
Qpipe (cfs)	=	15.00
Qovertop (cfs)	=	0.00
Veloc Dn (ft/s)	=	4.67
Veloc Up (ft/s)	=	5.62
HGL Dn (ft)	=	7021.78
HGL Up (ft)	=	7035.17
Hw Elev (ft)	=	7035.87
Hw/D (ft)	=	1.17
Flow Regime	=	Inlet Control



Weir Report

Detention Basin Emergency Spillway Weir-1 (Q100)

Trapezoidal Weir

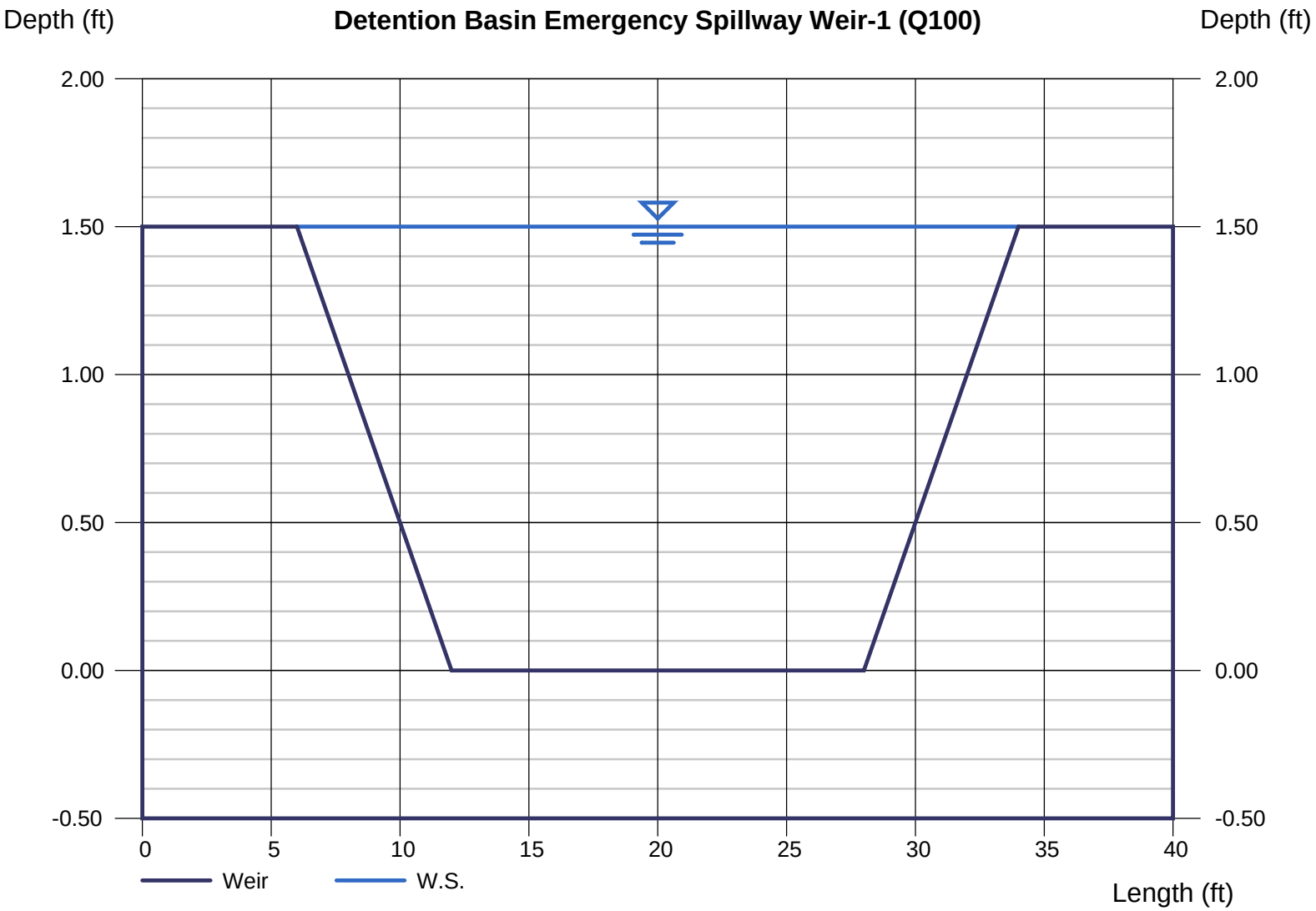
Crest	= Sharp
Bottom Length (ft)	= 16.00
Total Depth (ft)	= 1.50
Side Slope (z:1)	= 4.00

Calculations

Weir Coeff. Cw	= 3.10
Compute by:	Known Q
Known Q (cfs)	= 118.00

Highlighted

Depth (ft)	= 1.50
Q (cfs)	= 118.00
Area (sqft)	= 33.00
Velocity (ft/s)	= 3.58
Top Width (ft)	= 28.00



Weir Report

Detention Basin Emergency Spillway Weir-2 (Q100)

Trapezoidal Weir

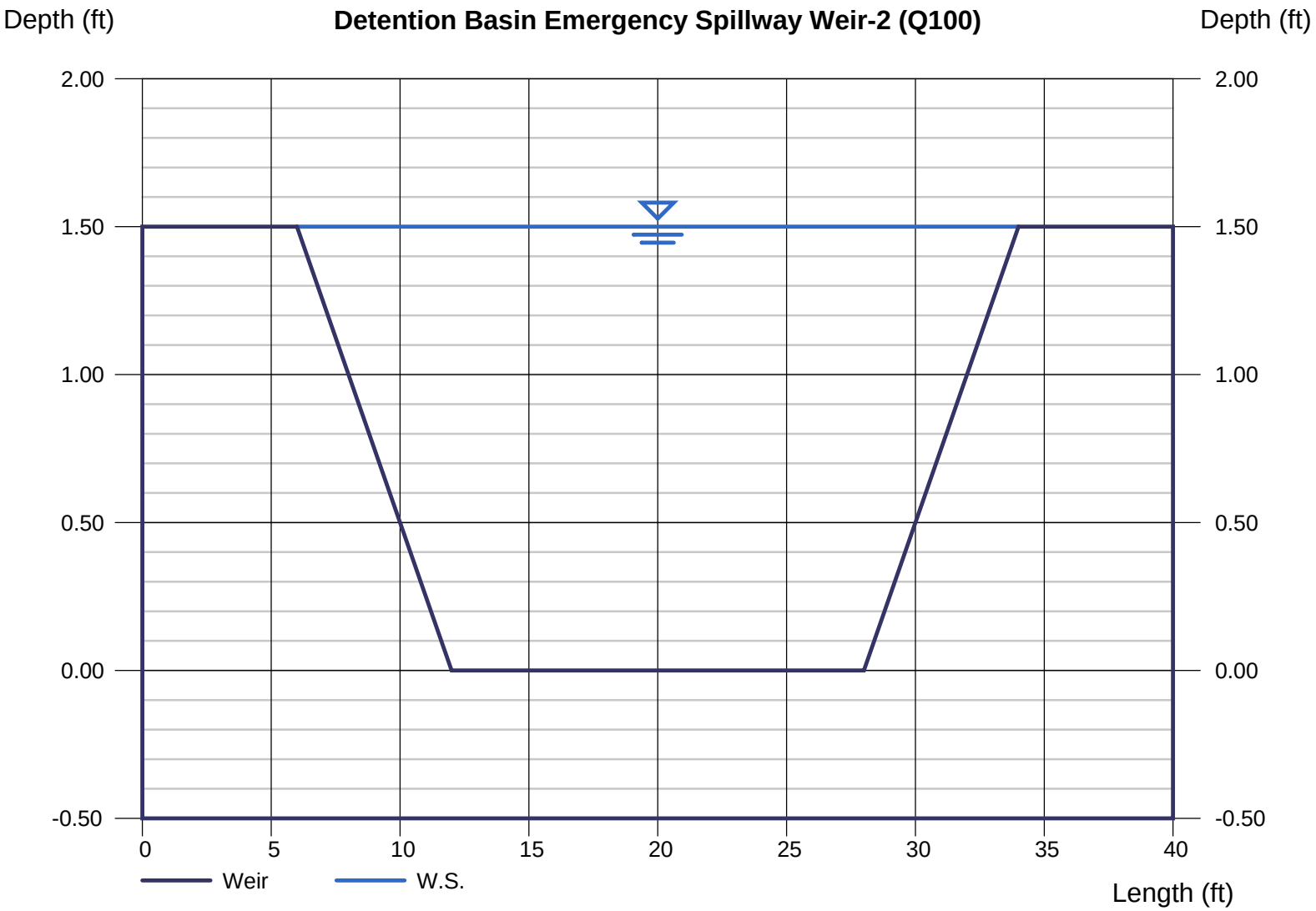
Crest	= Sharp
Bottom Length (ft)	= 16.00
Total Depth (ft)	= 1.50
Side Slope (z:1)	= 4.00

Calculations

Weir Coeff. Cw	= 3.10
Compute by:	Known Q
Known Q (cfs)	= 118.00

Highlighted

Depth (ft)	= 1.50
Q (cfs)	= 118.00
Area (sqft)	= 33.00
Velocity (ft/s)	= 3.58
Top Width (ft)	= 28.00



Channel Report

Emergency Spillway Outlet Channel-2 (Q100)

Rectangular

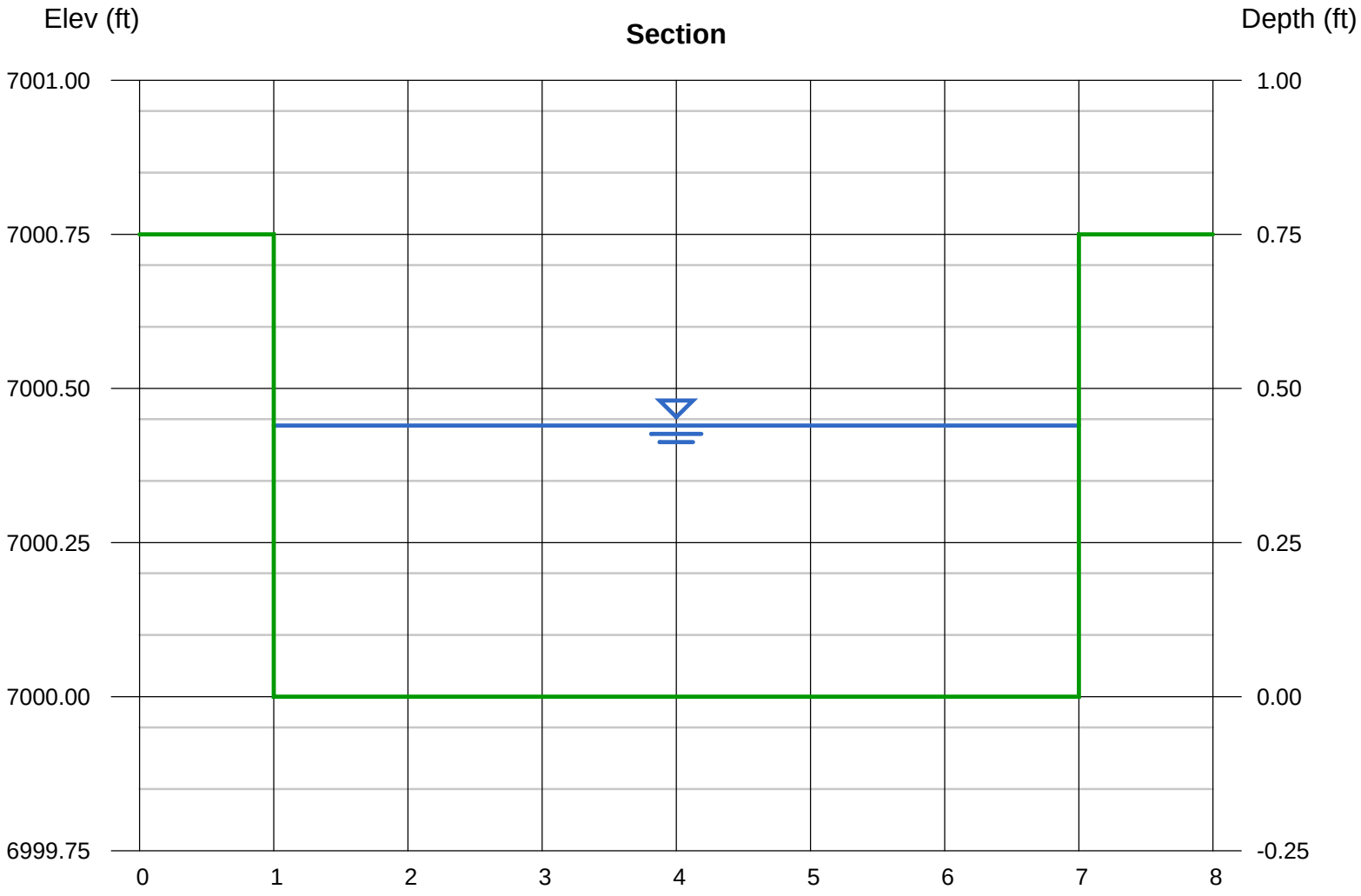
Bottom Width (ft)	= 6.00
Total Depth (ft)	= 0.75
Invert Elev (ft)	= 7000.00
Slope (%)	= 50.00
N-Value	= 0.012

Calculations

Compute by:	Known Q
Known Q (cfs)	= 118.00

Highlighted

Depth (ft)	= 0.44
Q (cfs)	= 118.00
Area (sqft)	= 2.64
Velocity (ft/s)	= 44.70
Wetted Perim (ft)	= 6.88
Crit Depth, Yc (ft)	= 0.75
Top Width (ft)	= 6.00
EGL (ft)	= 31.50



Channel Report

Emergency Spillway Outlet Channel-1 (Q100)

Rectangular

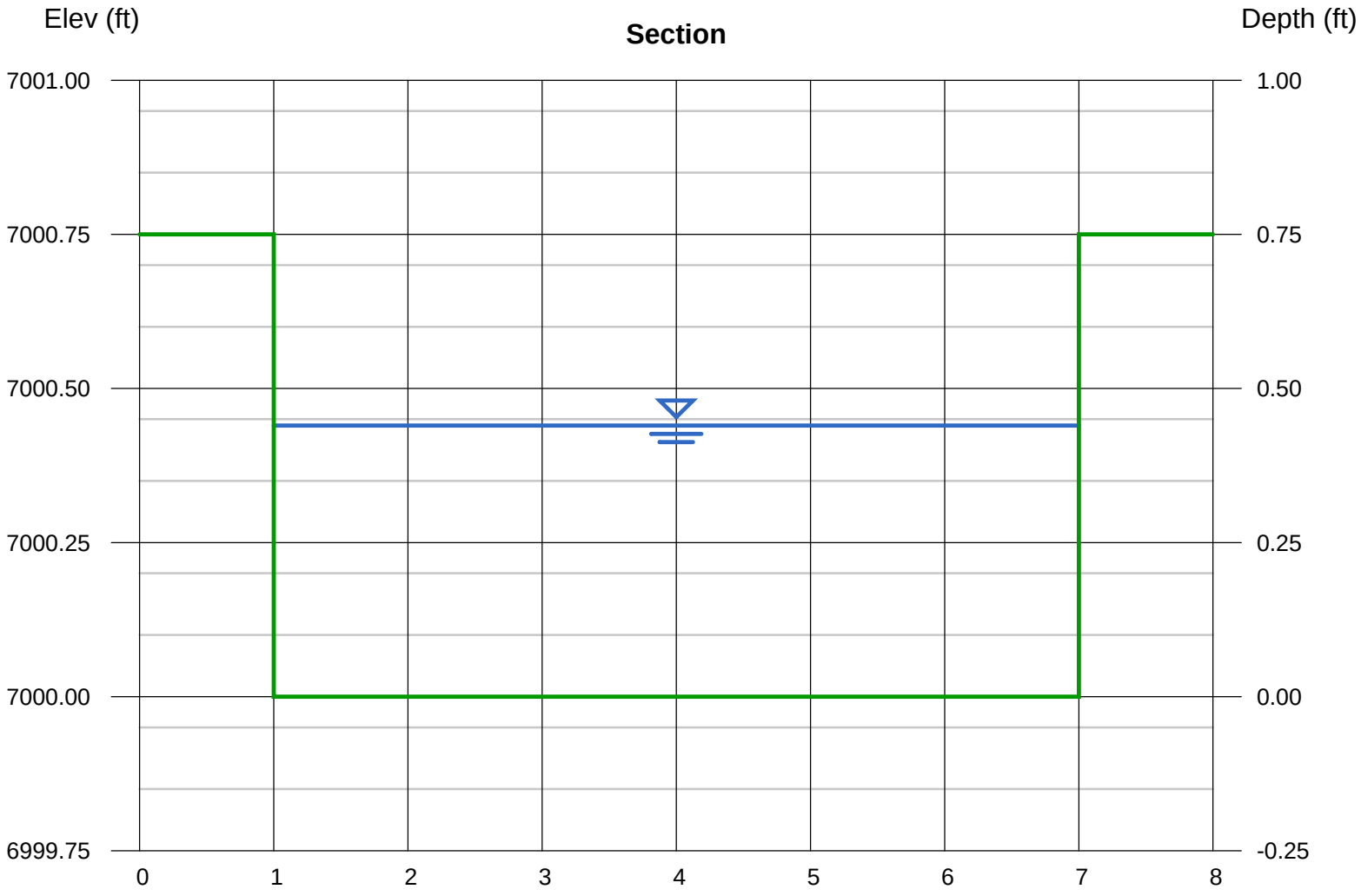
Bottom Width (ft)	= 6.00
Total Depth (ft)	= 0.75
Invert Elev (ft)	= 7000.00
Slope (%)	= 50.00
N-Value	= 0.012

Calculations

Compute by:	Known Q
Known Q (cfs)	= 118.00

Highlighted

Depth (ft)	= 0.44
Q (cfs)	= 118.00
Area (sqft)	= 2.64
Velocity (ft/s)	= 44.70
Wetted Perim (ft)	= 6.88
Crit Depth, Yc (ft)	= 0.75
Top Width (ft)	= 6.00
EGL (ft)	= 31.50



Weir Report

Weir LID-1 (Q100)

Trapezoidal Weir

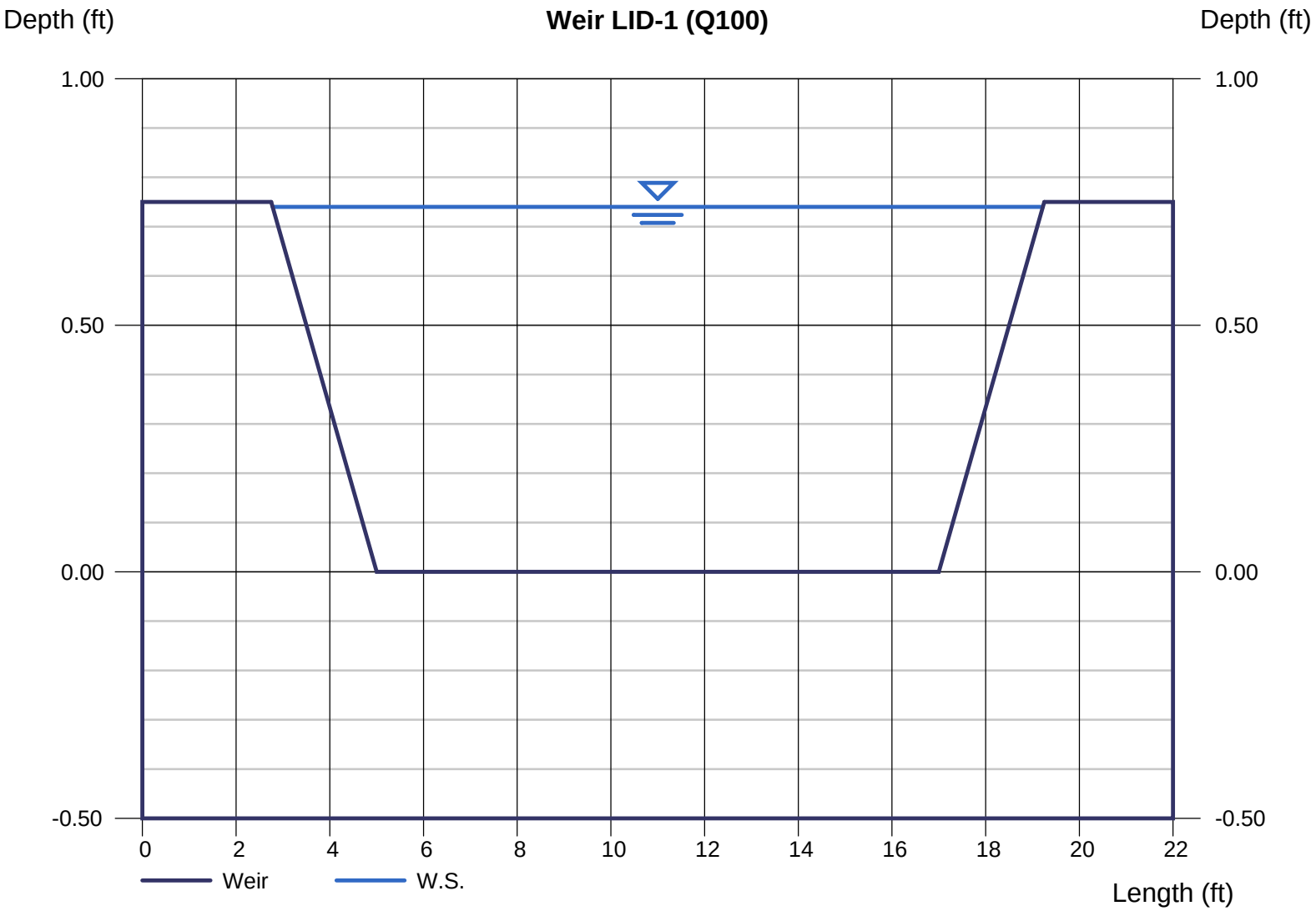
Crest	= Sharp
Bottom Length (ft)	= 12.00
Total Depth (ft)	= 0.75
Side Slope (z:1)	= 3.00

Calculations

Weir Coeff. Cw	= 3.10
Compute by:	Known Q
Known Q (cfs)	= 27.00

Highlighted

Depth (ft)	= 0.74
Q (cfs)	= 27.00
Area (sqft)	= 10.52
Velocity (ft/s)	= 2.57
Top Width (ft)	= 16.44



Weir Report

Weir LID-2 (Q100)

Trapezoidal Weir

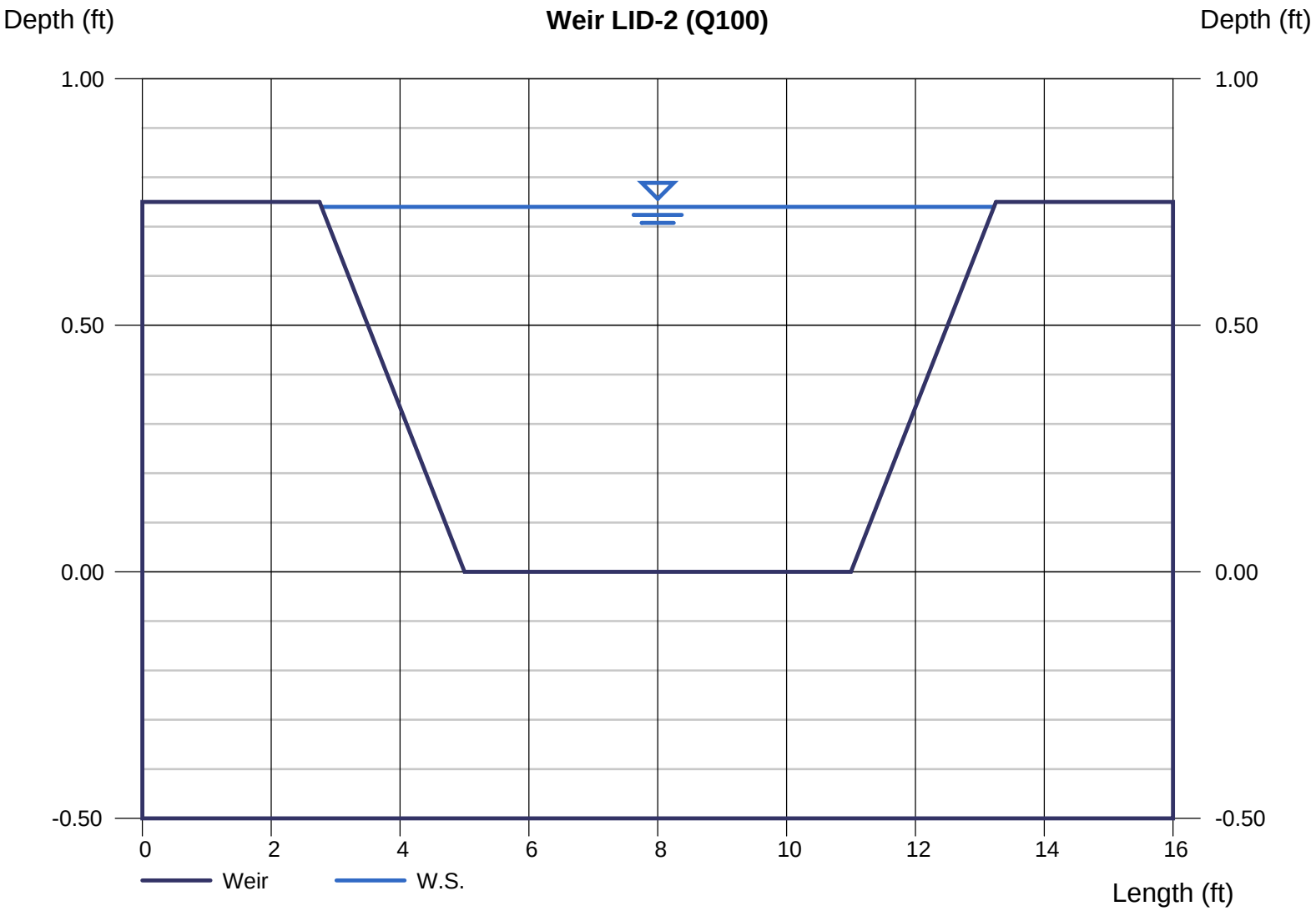
Crest	= Sharp
Bottom Length (ft)	= 6.00
Total Depth (ft)	= 0.75
Side Slope (z:1)	= 3.00

Calculations

Weir Coeff. Cw	= 3.10
Compute by:	Known Q
Known Q (cfs)	= 15.00

Highlighted

Depth (ft)	= 0.74
Q (cfs)	= 15.00
Area (sqft)	= 6.08
Velocity (ft/s)	= 2.47
Top Width (ft)	= 10.44



Weir Report

Weir LID-3 (Q100)

Trapezoidal Weir

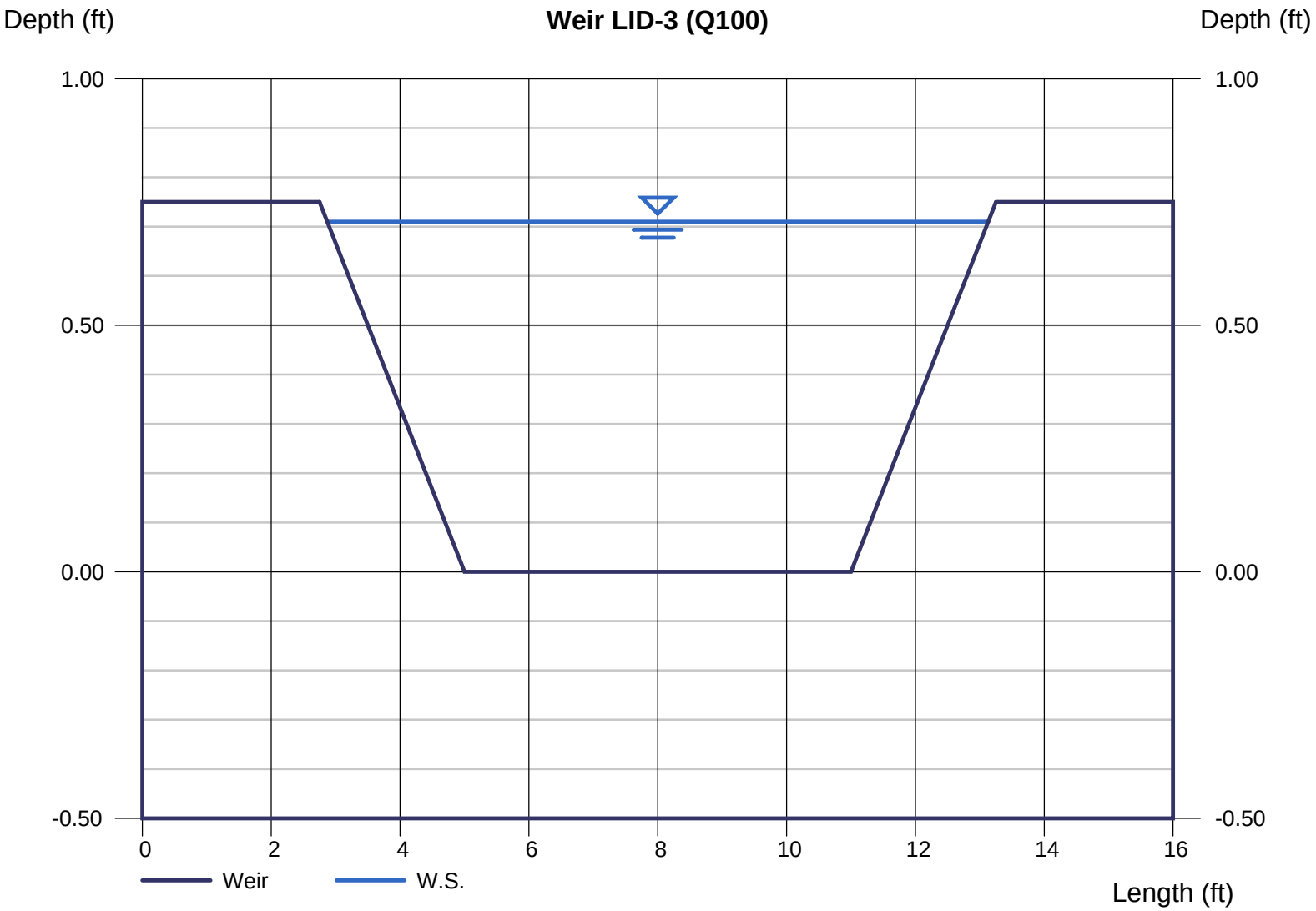
Crest	= Sharp
Bottom Length (ft)	= 6.00
Total Depth (ft)	= 0.75
Side Slope (z:1)	= 3.00

Calculations

Weir Coeff. Cw	= 3.10
Compute by:	Known Q
Known Q (cfs)	= 14.00

Highlighted

Depth (ft)	= 0.71
Q (cfs)	= 14.00
Area (sqft)	= 5.77
Velocity (ft/s)	= 2.43
Top Width (ft)	= 10.26



Channel Report

CHANNEL A (Q100)-Earthen

Trapezoidal

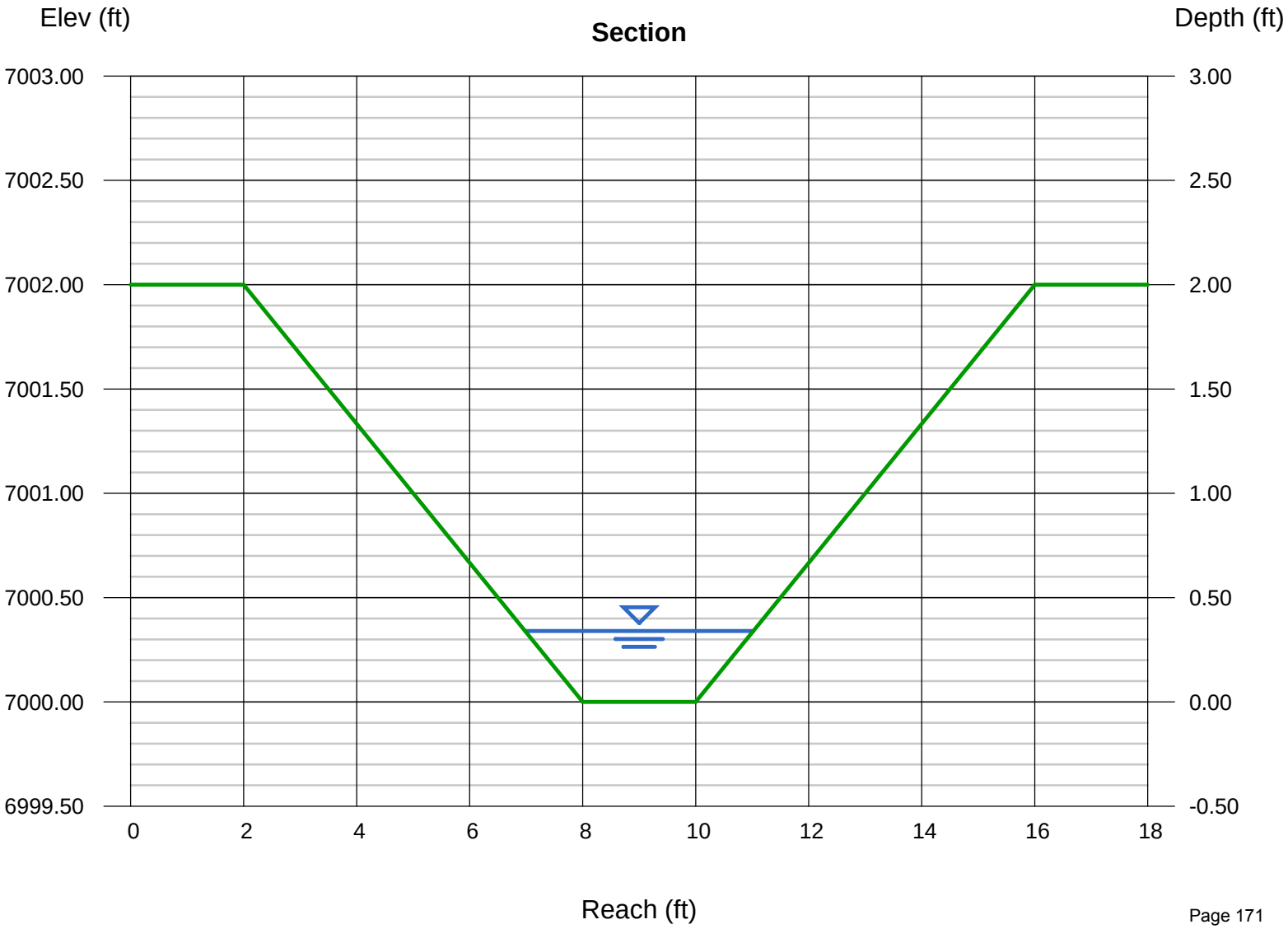
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 16.67
N-Value	= 0.020

Calculations

Compute by:	Known Q
Known Q (cfs)	= 12.00

Highlighted

Depth (ft)	= 0.34
Q (cfs)	= 12.00
Area (sqft)	= 1.03
Velocity (ft/s)	= 11.69
Wetted Perim (ft)	= 4.15
Crit Depth, Yc (ft)	= 0.73
Top Width (ft)	= 4.04
EGL (ft)	= 2.46



Channel Report

CHANNEL A (Q100)-Rock Lined

Trapezoidal

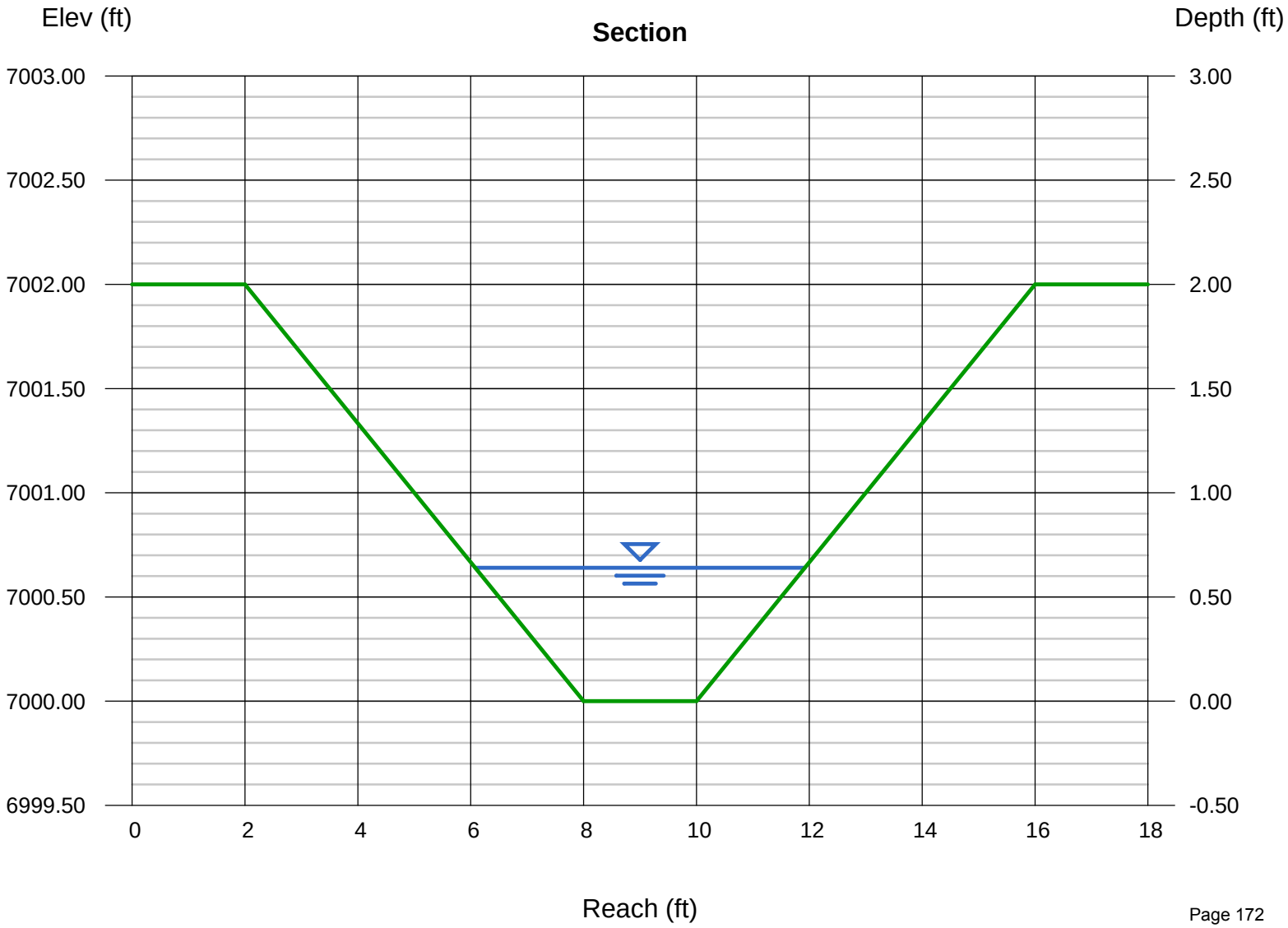
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 16.67
N-Value	= 0.069

Calculations

Compute by:	Known Q
Known Q (cfs)	= 12.00

Highlighted

Depth (ft)	= 0.64
Q (cfs)	= 12.00
Area (sqft)	= 2.51
Velocity (ft/s)	= 4.78
Wetted Perim (ft)	= 6.05
Crit Depth, Yc (ft)	= 0.73
Top Width (ft)	= 5.84
EGL (ft)	= 1.00



Channel Report

CHANNEL B (Q100)-Earthen

Trapezoidal

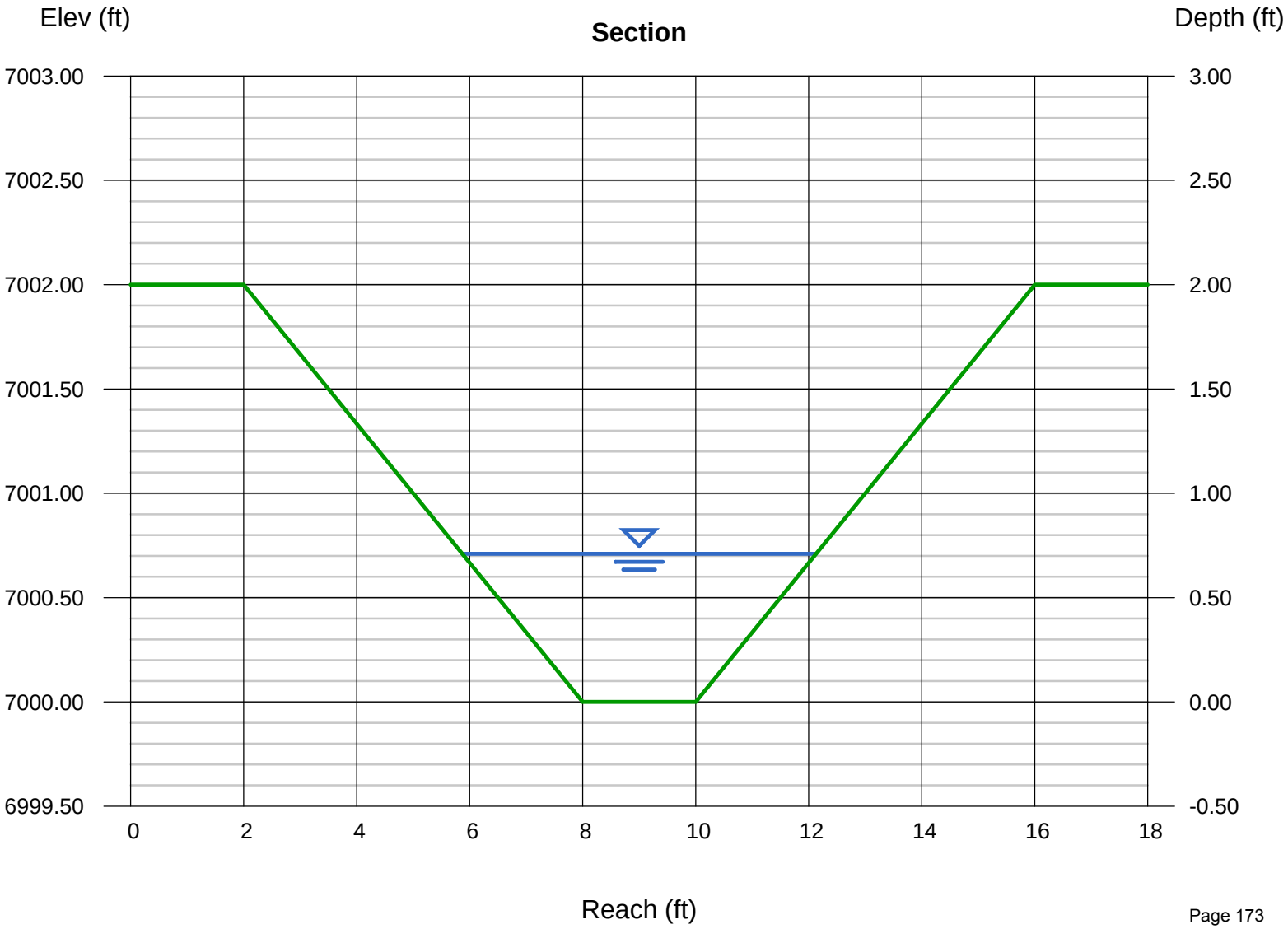
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 14.20
N-Value	= 0.020

Calculations

Compute by:	Known Q
Known Q (cfs)	= 48.00

Highlighted

Depth (ft)	= 0.71
Q (cfs)	= 48.00
Area (sqft)	= 2.93
Velocity (ft/s)	= 16.37
Wetted Perim (ft)	= 6.49
Crit Depth, Yc (ft)	= 1.45
Top Width (ft)	= 6.26
EGL (ft)	= 4.88



Channel Report

CHANNEL B (Q100)-Rock Lined

Trapezoidal

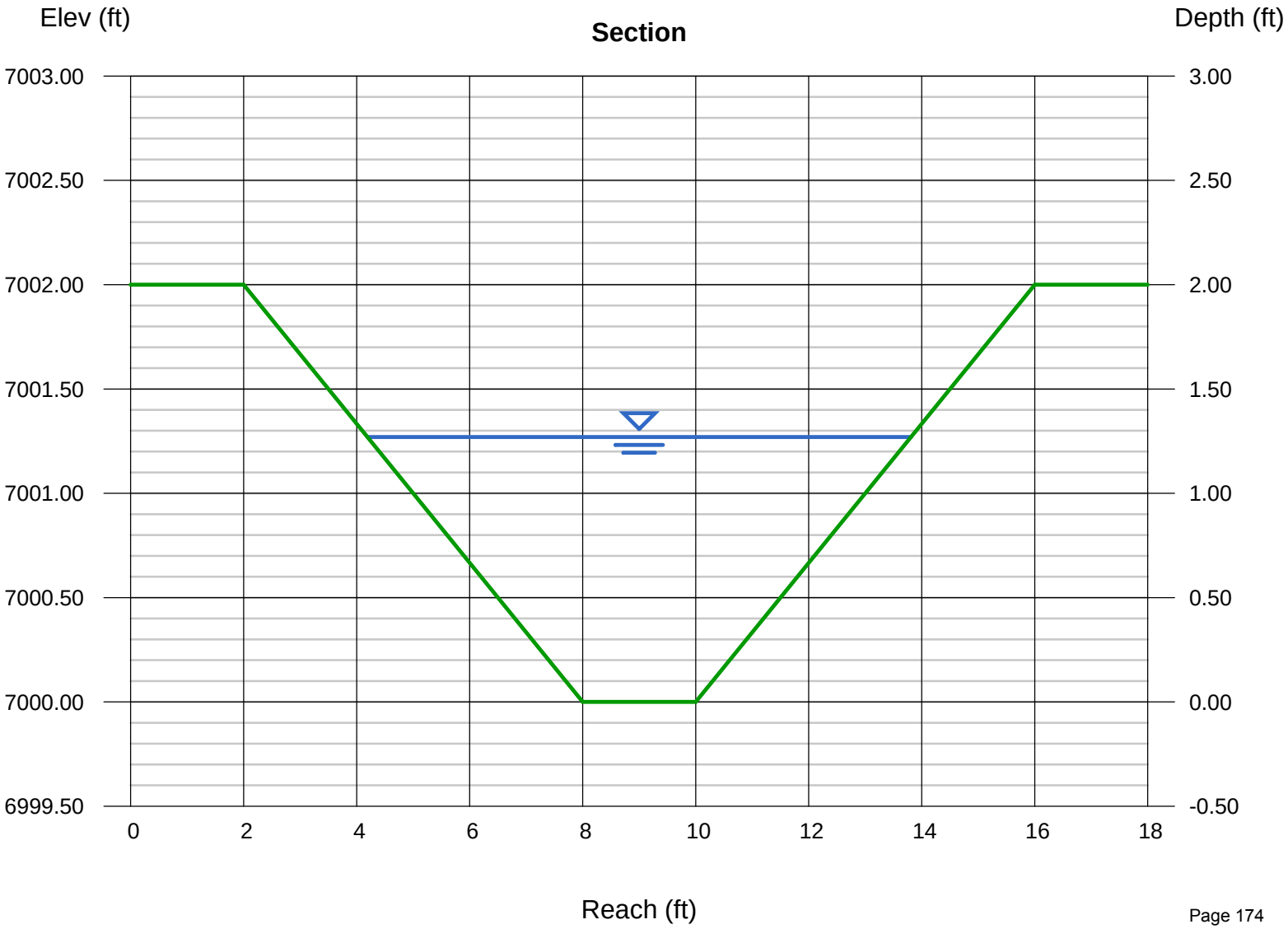
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 14.20
N-Value	= 0.069

Calculations

Compute by:	Known Q
Known Q (cfs)	= 48.00

Highlighted

Depth (ft)	= 1.27
Q (cfs)	= 48.00
Area (sqft)	= 7.38
Velocity (ft/s)	= 6.51
Wetted Perim (ft)	= 10.03
Crit Depth, Yc (ft)	= 1.45
Top Width (ft)	= 9.62
EGL (ft)	= 1.93



Channel Report

CHANNEL C (Q100)-Earthen

Trapezoidal

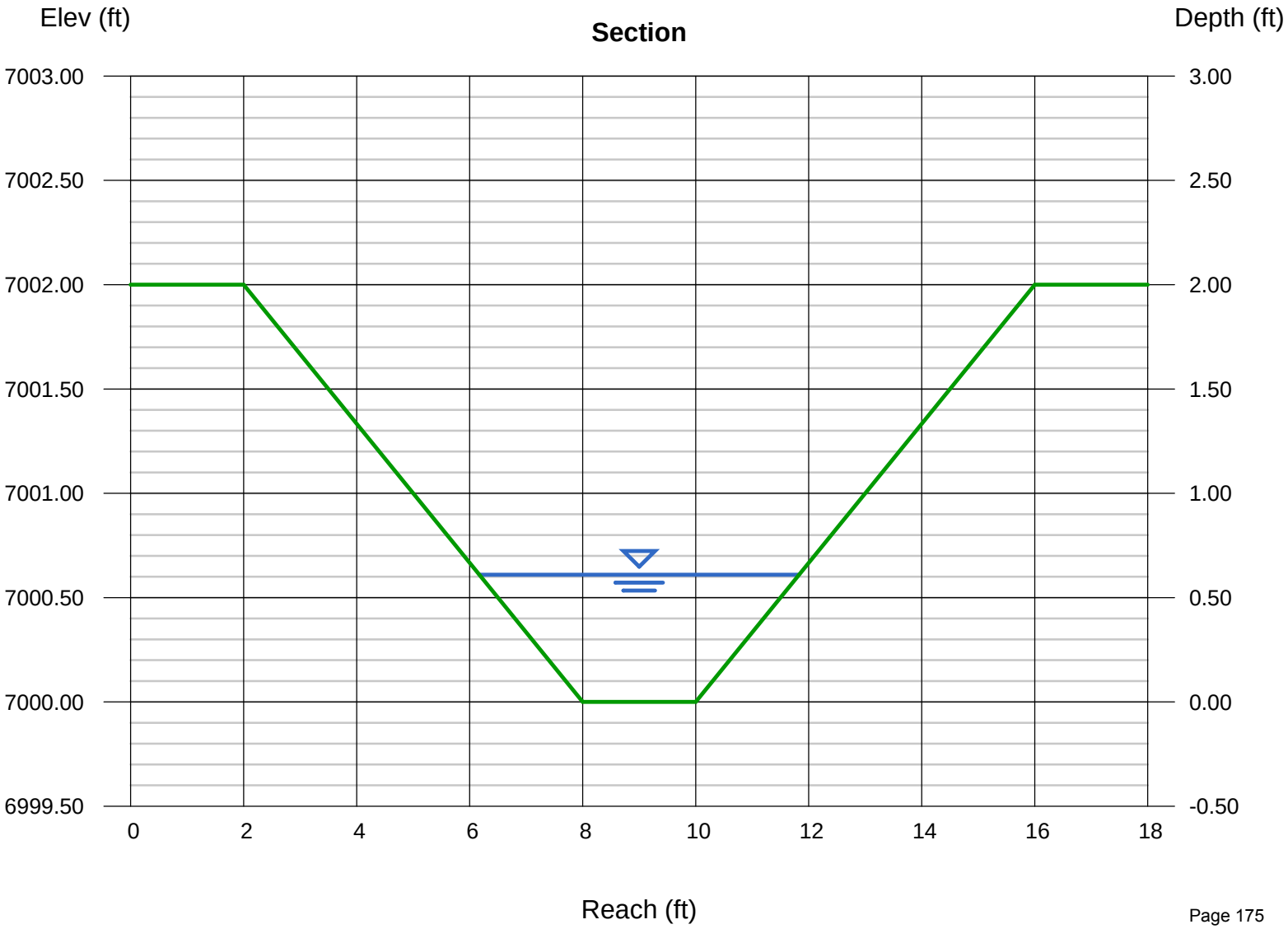
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 20.00
N-Value	= 0.020

Calculations

Compute by:	Known Q
Known Q (cfs)	= 42.00

Highlighted

Depth (ft)	= 0.61
Q (cfs)	= 42.00
Area (sqft)	= 2.34
Velocity (ft/s)	= 17.98
Wetted Perim (ft)	= 5.86
Crit Depth, Yc (ft)	= 1.36
Top Width (ft)	= 5.66
EGL (ft)	= 5.63



Channel Report

CHANNEL C (Q100)-Rock Lined

Trapezoidal

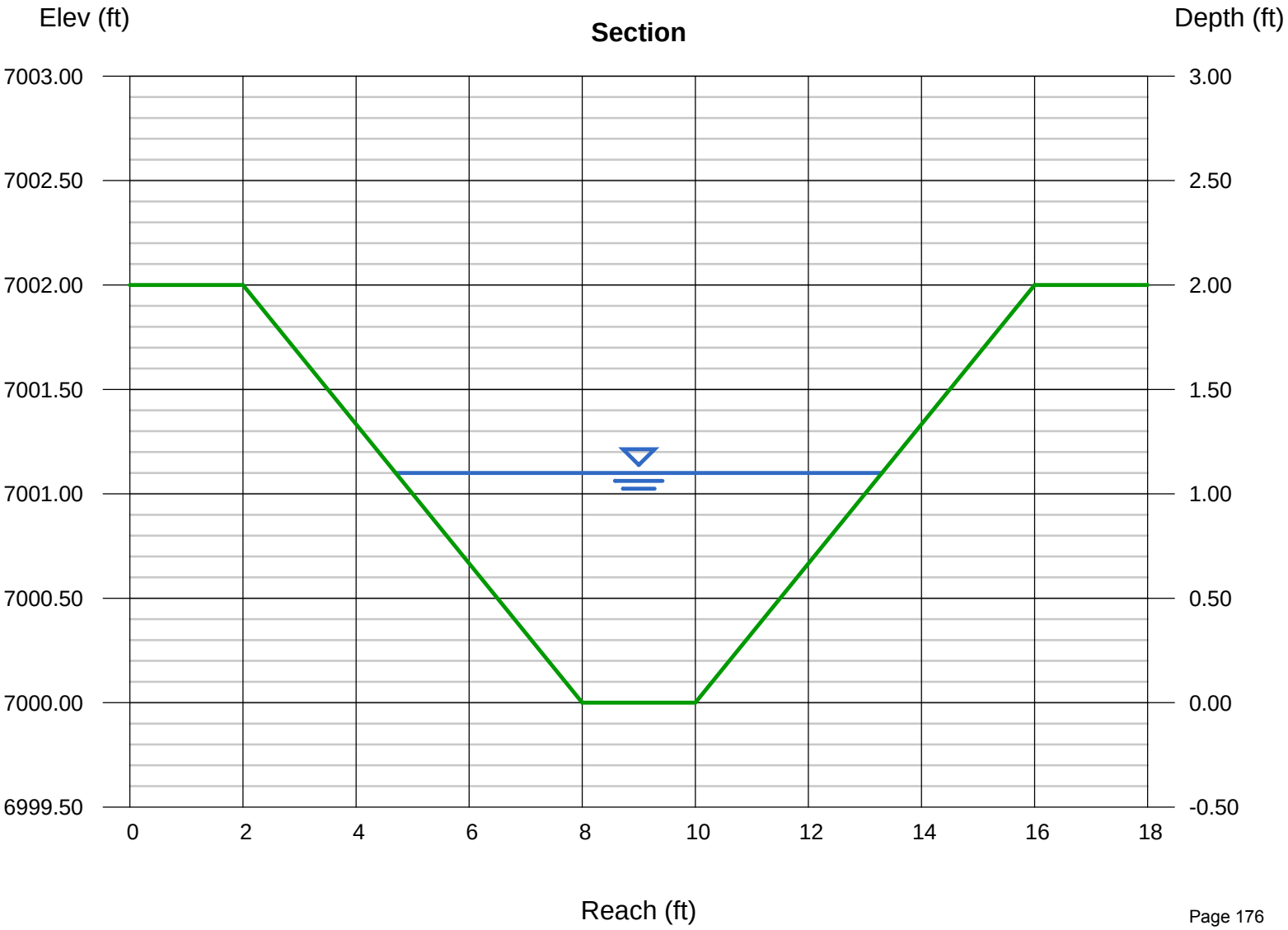
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 20.00
N-Value	= 0.069

Calculations

Compute by:	Known Q
Known Q (cfs)	= 42.00

Highlighted

Depth (ft)	= 1.10
Q (cfs)	= 42.00
Area (sqft)	= 5.83
Velocity (ft/s)	= 7.20
Wetted Perim (ft)	= 8.96
Crit Depth, Yc (ft)	= 1.36
Top Width (ft)	= 8.60
EGL (ft)	= 1.91



Channel Report

CHANNEL D (Q100)-Earthen

Trapezoidal

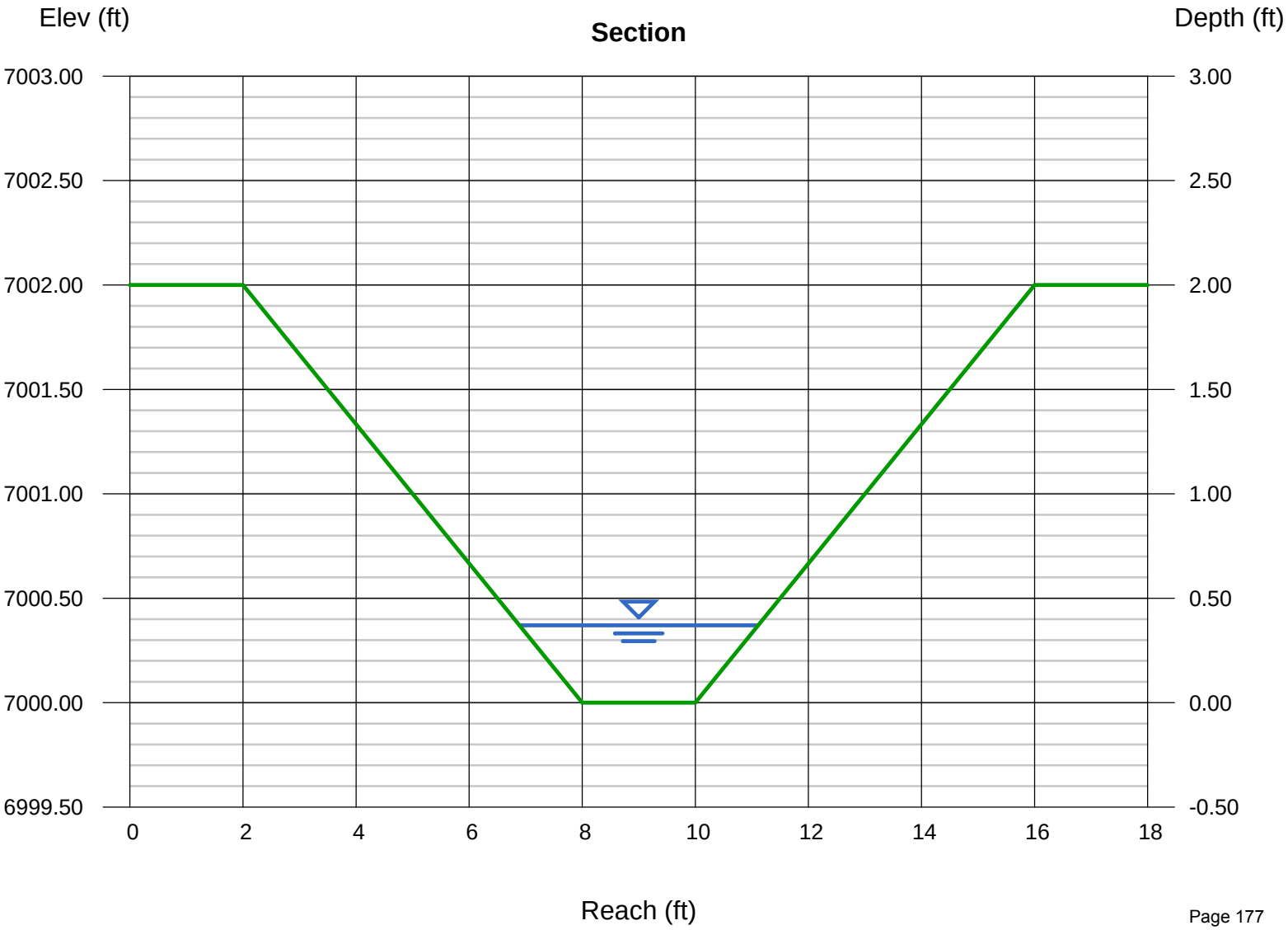
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 20.00
N-Value	= 0.020

Calculations

Compute by:	Known Q
Known Q (cfs)	= 15.00

Highlighted

Depth (ft)	= 0.37
Q (cfs)	= 15.00
Area (sqft)	= 1.15
Velocity (ft/s)	= 13.04
Wetted Perim (ft)	= 4.34
Crit Depth, Yc (ft)	= 0.82
Top Width (ft)	= 4.22
EGL (ft)	= 3.01



Channel Report

CHANNEL D (Q100)-Rock Lined

Trapezoidal

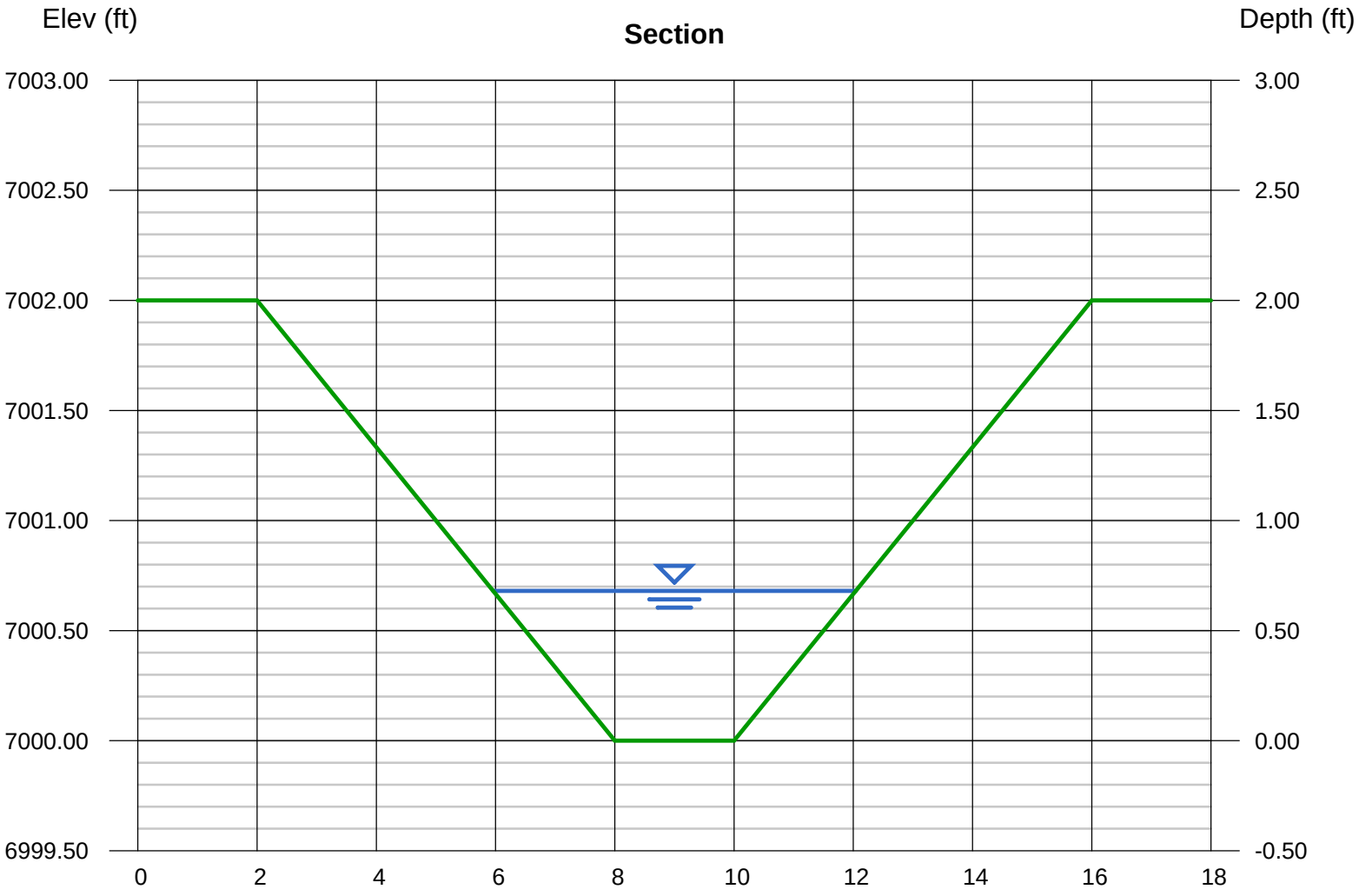
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 20.00
N-Value	= 0.069

Calculations

Compute by:	Known Q
Known Q (cfs)	= 15.00

Highlighted

Depth (ft)	= 0.68
Q (cfs)	= 15.00
Area (sqft)	= 2.75
Velocity (ft/s)	= 5.46
Wetted Perim (ft)	= 6.30
Crit Depth, Yc (ft)	= 0.82
Top Width (ft)	= 6.08
EGL (ft)	= 1.14



Channel Report

CHANNEL E (Q100)-Earthen

Trapezoidal

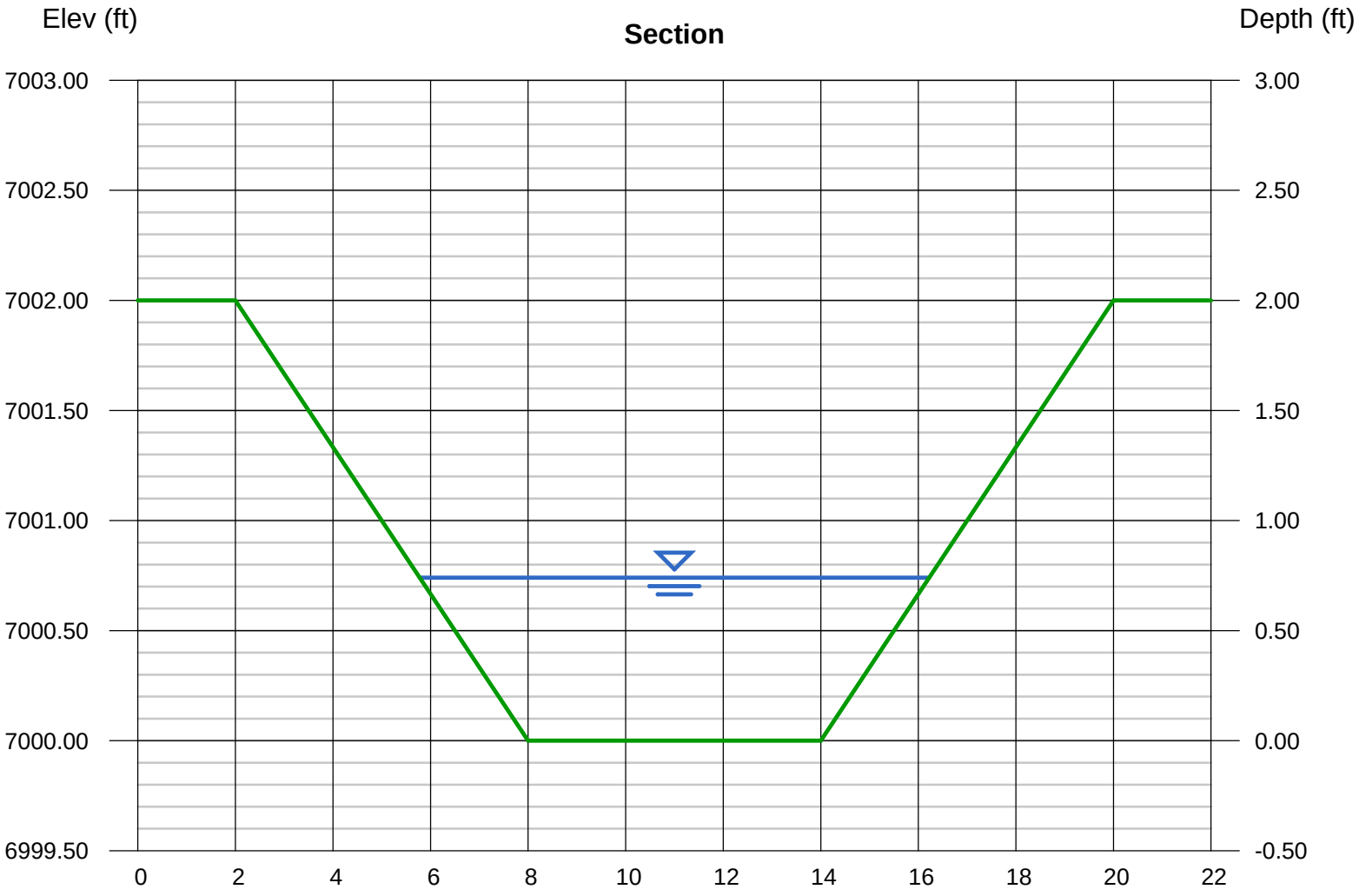
Bottom Width (ft)	= 6.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 20.00
N-Value	= 0.020

Calculations

Compute by:	Known Q
Known Q (cfs)	= 137.00

Highlighted

Depth (ft)	= 0.74
Q (cfs)	= 137.00
Area (sqft)	= 6.08
Velocity (ft/s)	= 22.52
Wetted Perim (ft)	= 10.68
Crit Depth, Yc (ft)	= 1.87
Top Width (ft)	= 10.44
EGL (ft)	= 8.63



Channel Report

CHANNEL E (Q100)-Rock Lined

Trapezoidal

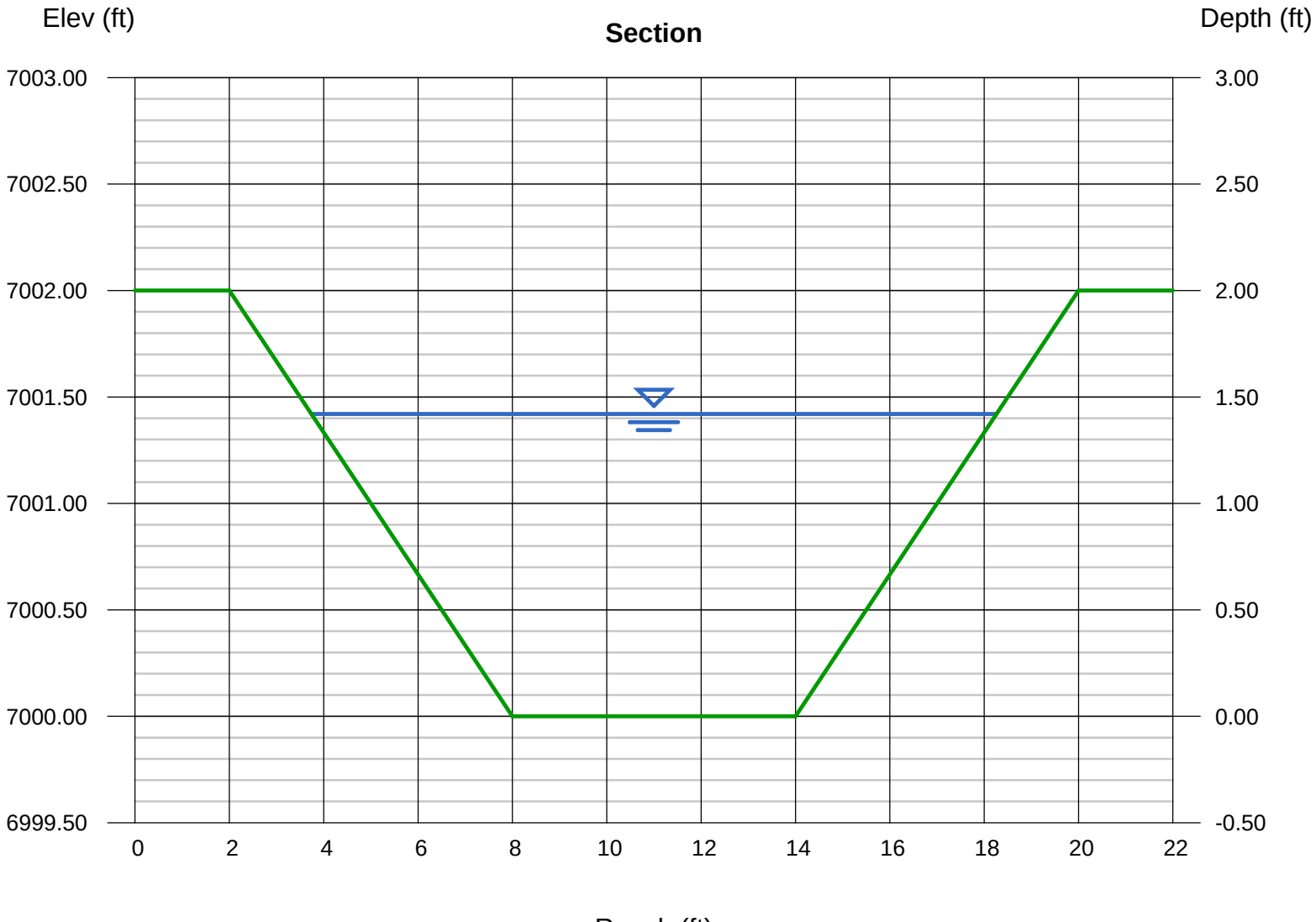
Bottom Width (ft)	= 6.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 2.00
Invert Elev (ft)	= 7000.00
Slope (%)	= 20.00
N-Value	= 0.069

Calculations

Compute by:	Known Q
Known Q (cfs)	= 137.00

Highlighted

Depth (ft)	= 1.42
Q (cfs)	= 137.00
Area (sqft)	= 14.57
Velocity (ft/s)	= 9.40
Wetted Perim (ft)	= 14.98
Crit Depth, Yc (ft)	= 1.87
Top Width (ft)	= 14.52
EGL (ft)	= 2.79



Channel Report

CHANNEL F (Q100)-Earthen

Trapezoidal

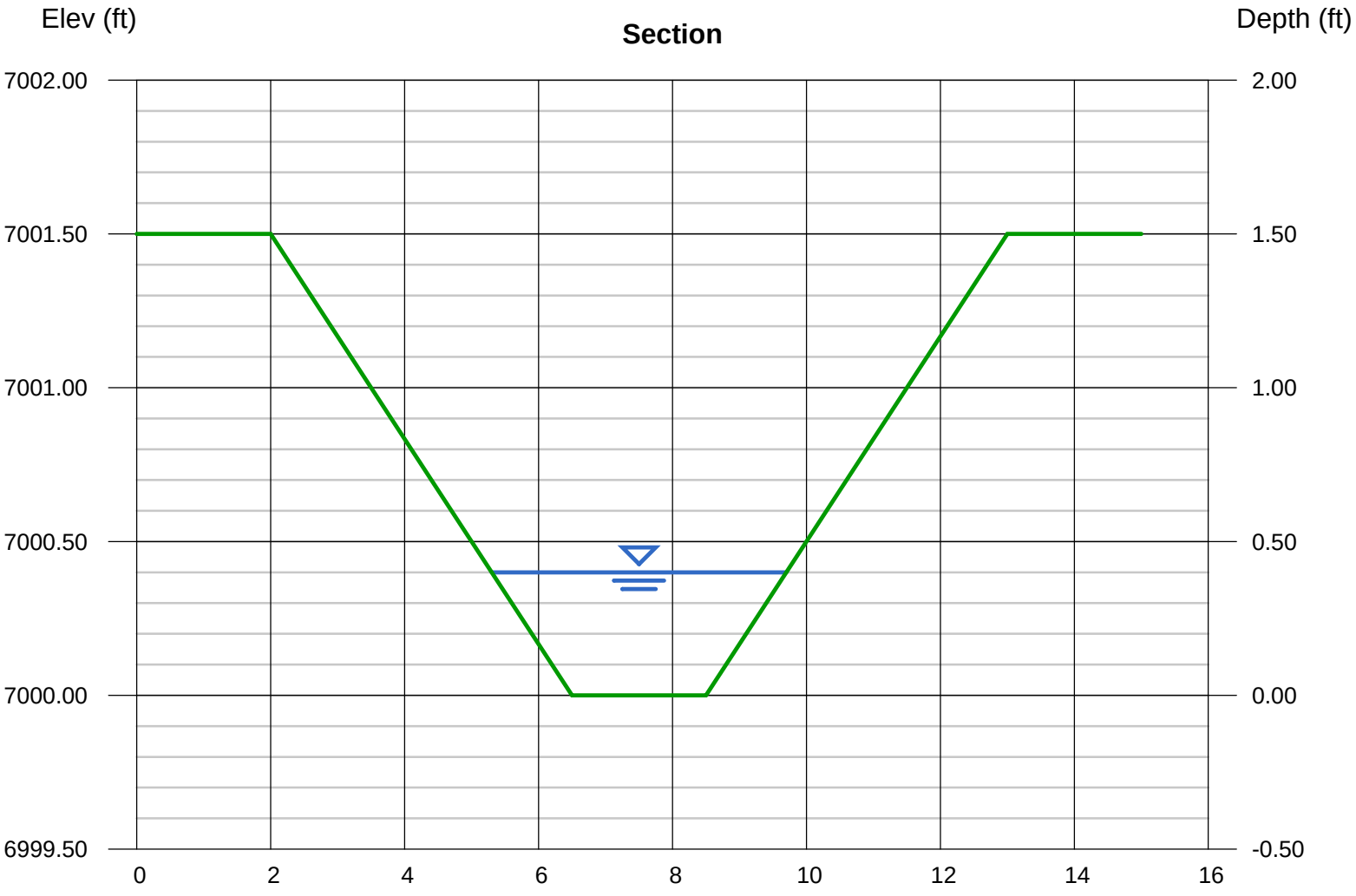
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 1.50
Invert Elev (ft)	= 7000.00
Slope (%)	= 12.50
N-Value	= 0.020

Calculations

Compute by:	Known Q
Known Q (cfs)	= 14.00

Highlighted

Depth (ft)	= 0.40
Q (cfs)	= 14.00
Area (sqft)	= 1.28
Velocity (ft/s)	= 10.94
Wetted Perim (ft)	= 4.53
Crit Depth, Yc (ft)	= 0.79
Top Width (ft)	= 4.40
EGL (ft)	= 2.26



Channel Report

CHANNEL F (Q100)-Rock Lined

Trapezoidal

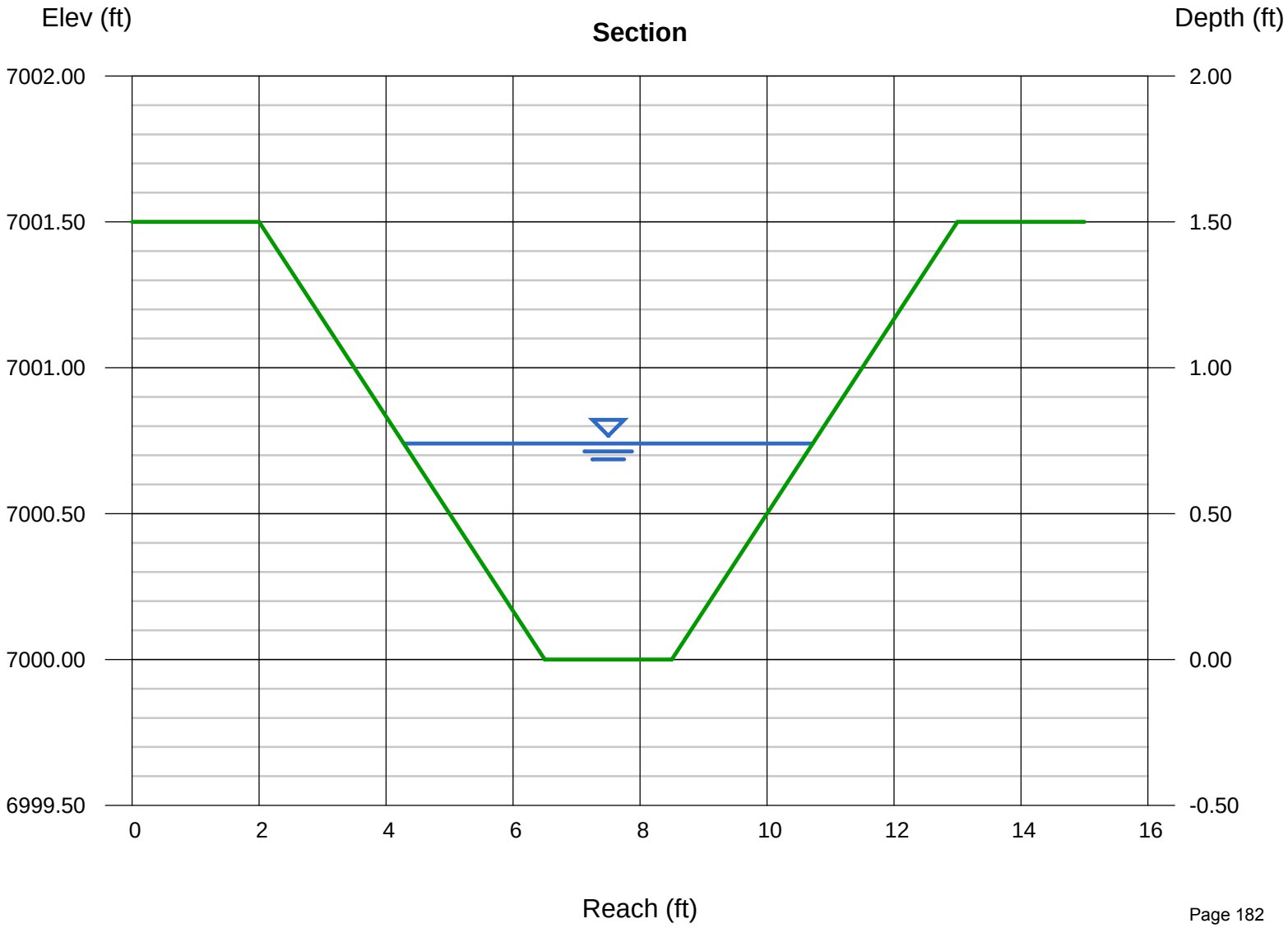
Bottom Width (ft)	= 2.00
Side Slopes (z:1)	= 3.00, 3.00
Total Depth (ft)	= 1.50
Invert Elev (ft)	= 7000.00
Slope (%)	= 12.50
N-Value	= 0.069

Calculations

Compute by:	Known Q
Known Q (cfs)	= 14.00

Highlighted

Depth (ft)	= 0.74
Q (cfs)	= 14.00
Area (sqft)	= 3.12
Velocity (ft/s)	= 4.48
Wetted Perim (ft)	= 6.68
Crit Depth, Yc (ft)	= 0.79
Top Width (ft)	= 6.44
EGL (ft)	= 1.05



APPENDIX D

Geotechnical Report by Western Technologies
Excerpts from Presidio in Pines Drainage Report

Western Technologies Inc.
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-8700 • fax 774-6469

September 26, 2018

Woodson Engineering
124 North Elden Street, Suite 100
Flagstaff, Arizona 86001

Attn: Ms. Sirisha Kalluri, PE, CFM

Re: COF WWH Detention Basin
West Route 66 and Northwestern Street
Flagstaff, Arizona

Job No. 2528JW053

In accordance with our Proposal No. 2527PW137 dated August 9, 2017, we have completed some field exploration, laboratory testing, and field infiltration testing services for the above referenced project. Attached are the test pit location diagram, test pit logs and laboratory test results. Field infiltration testing was performed in each test pit. The following results were obtained:

Test Location	Test Depth (ft.)	Infiltration Rate (minutes/inch)
Test Pit 1	4.0	20
Test Pit 2	4.0	15

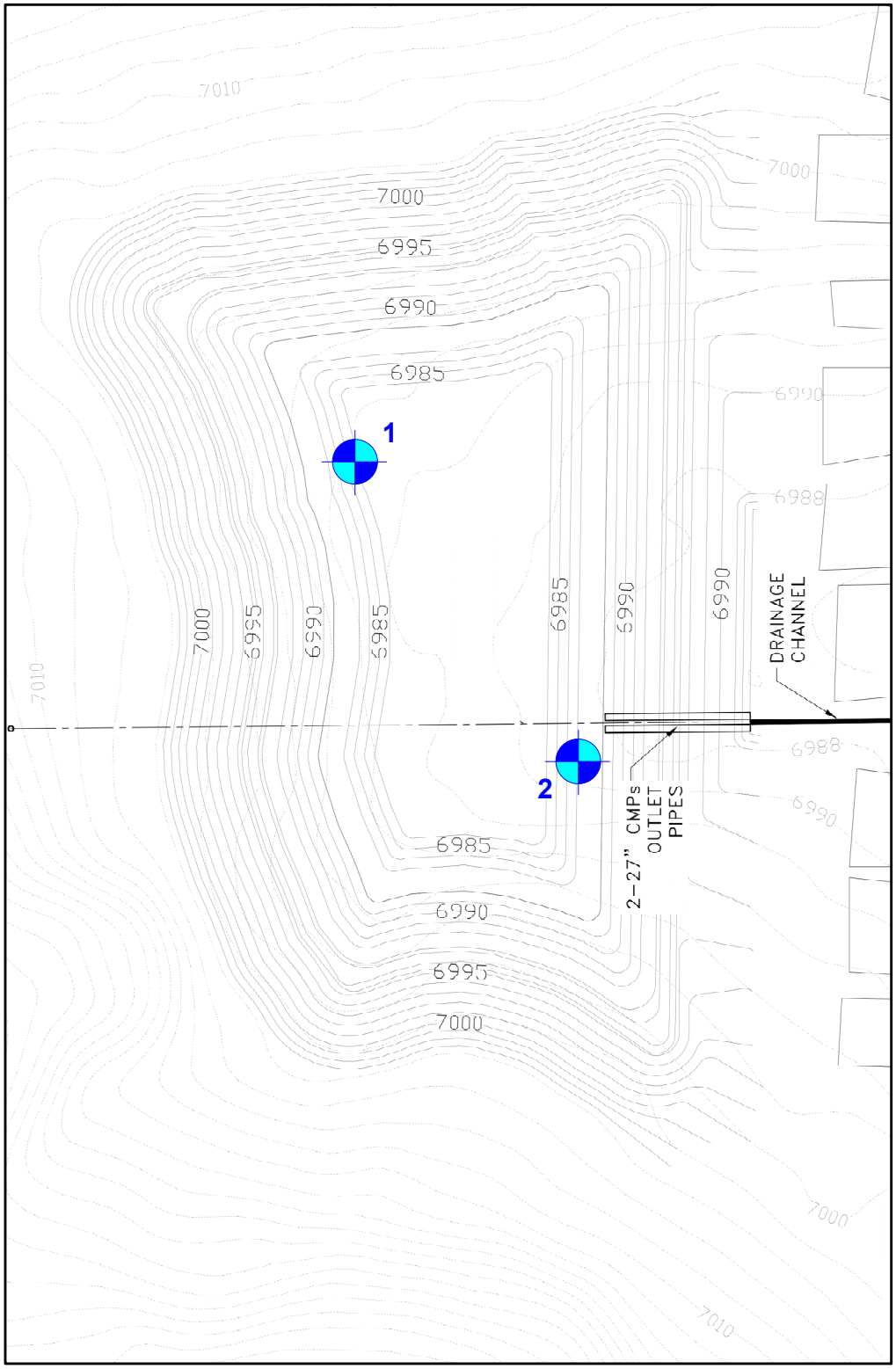
This completes our current services on this project. If you have any questions concerning this information, or require additional consultation, design, observation, or testing services, please contact us. We look forward to working with you on future projects.

Sincerely,
WESTERN TECHNOLOGIES INC.
Geotechnical Engineering Services



Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

Copies to: Addressee (emailed)



Not to Scale

Approximate Test Pit Location

COF WWH DETENTION BASIN

Test Pit Location Diagram

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

Western Technologies Inc.

Job No.: 2528JW053

Plate: 1

COARSE-GRAINED SOILS

LESS THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
GW	WELL-GRADED GRAVEL OR WELL-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE
GP	POORLY-GRADED GRAVEL OR POORLY-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES	
GM	SILTY GRAVEL OR SILTY GRAVEL WITH SAND, MORE THAN 12% FINES	
GC	CLAYEY GRAVEL OR CLAYEY GRAVEL WITH SAND, MORE THAN 12% FINES	
SW	WELL-GRADED SAND OR WELL-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE
SP	POORLY-GRADED SAND OR POORLY-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES	
SM	SILTY SAND OR SILTY SAND WITH GRAVEL, MORE THAN 12% FINES	
SC	CLAYEY SAND OR CLAYEY SAND WITH GRAVEL, MORE THAN 12% FINES	

NOTE: Coarse-grained soils receive dual symbols if they contain 5% to 12% fines (e.g., SW-SM, GP-GC).

FINE-GRAINED SOILS

MORE THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
ML	SILT, SILT WITH SAND OR GRAVEL, SANDY SILT, OR GRAVELLY SILT	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50
CL	LEAN CLAY OF LOW TO MEDIUM PLASTICITY, SANDY CLAY, OR GRAVELLY CLAY	
OL	ORGANIC SILT OR ORGANIC CLAY OF LOW TO MEDIUM PLASTICITY	
MH	ELASTIC SILT, SANDY ELASTIC SILT, OR GRAVELLY ELASTIC SILT	SILTS AND CLAYS LIQUID LIMIT MORE THAN 50
CH	FAT CLAY OF HIGH PLASTICITY, SANDY FAT CLAY, OR GRAVELLY FAT CLAY	
OH	ORGANIC SILT OR ORGANIC CLAY OF HIGH PLASTICITY	
PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	HIGHLY ORGANIC SOILS

NOTE: Fine-grained soils may receive dual classification based upon plasticity characteristics (e.g. CL-ML).

SOIL SIZES

COMPONENT	SIZE RANGE
BOULDERS	Above 12 in.
COBBLES	3 in. – 12 in.
GRAVEL	No. 4 – 3 in.
Coarse	¾ in. – 3 in.
Fine	No. 4 – ¾ in.
SAND	No. 200 – No. 4
Coarse	No. 10 – No. 4
Medium	No. 40 – No. 10
Fine	No. 200 – No. 40
Fines (Silt or Clay)	Below No. 200

NOTE: Only sizes smaller than three inches are used to classify soils

CONSISTENCY

CLAYS & SILTS	BLOWS PER FOOT
VERY SOFT	0 – 2
SOFT	3 – 4
FIRM	5 – 8
STIFF	9 – 15
VERY STIFF	16 – 30
HARD	OVER 30

RELATIVE DENSITY

SANDS & GRAVELS	BLOWS PER FOOT
VERY LOOSE	0 – 4
LOOSE	5 – 10
MEDIUM DENSE	11 – 30
DENSE	31 – 50
VERY DENSE	OVER 50

NOTE: Number of blows using 140-pound hammer falling 30 inches to drive a 2-inch-OD (1⅜-inch ID) split-barrel sampler (ASTM D1586).

PLASTICITY OF FINE GRAINED SOILS

PLASTICITY INDEX	TERM
0	NON-PLASTIC
1 – 7	LOW
8 – 20	MEDIUM
Over 20	HIGH

DEFINITION OF WATER CONTENT

DRY
SLIGHTLY DAMP
DAMP
MOIST
WET
SATURATED

©81 WTI 090414

The number shown in **"TEST PIT"** refers to the approximate location of the same number indicated on the "Test Pit Location Diagram" as positioned in the field by pacing or measurement from property lines and/or existing features.

"EQUIPMENT TYPE" refers to the equipment used in the excavation of the test pit, and may include the width of the bucket on the excavator and the use of “rock” teeth or attachments.

"SAMPLE TYPE" refers to the form of sample recovery, in which **R** = Ring sample and **G** = Grab Sample.

"DRY DENSITY (LBS/CU FT)" refers to the laboratory-determined dry density in pounds per cubic foot.

"WATER (MOISTURE) CONTENT” (% of Dry Wt.) refers to the laboratory-determined water content in percent using the standard test method ASTM D2216.

"USCS" refers to the “Unified Soil Classification System” Group Symbol for the soil type as defined by ASTM D2487 and D2488. The soils were classified visually in the field, and where appropriate, classifications were modified by visual examination of samples in the laboratory and/or by appropriate tests.

These notes and test pit logs are intended for use in conjunction with the purposes of our services defined in the text. Test pit log data should not be construed as part of the construction plans nor as defining construction conditions.

The test pit logs depict our interpretations of subsurface conditions at the locations and on the date(s) noted. Variations in subsurface conditions and characteristics may occur between test pits. Groundwater levels may fluctuate due to seasonal variations and other factors.

The stratification lines shown on the test pit logs represent our interpretation of the approximate boundary between soil or rock types based upon visual field classification at the test pit location. The transition between materials is approximate and may be more or less gradual than indicated.

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091614

DATE EXCAVATED: **8-29-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 1

EQUIPMENT: **DEERE 310K**
EXCAVATION TYPE: **24'' bucket**
FIELD ENGINEER: **G. Burr**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				CH		Fat CLAY; with sand, trace gravel, brown/red, wet
34.1	84	R		push				
					5			color change to light brown at 8 feet
					10			**Backhoe Refusal at 10 Feet on Severly Weathered Limestone**
					15			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **COF WWH DETENTION BASIN**
PROJECT NO.: **2528JW053**

PLATE **A-3**

TEST PIT LOG

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

DATE EXCAVATED: **8-29-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 2

EQUIPMENT: **DEERE 310K**
EXCAVATION TYPE: **24'' bucket**
FIELD ENGINEER: **G. Burr**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC		Clayey GRAVEL; with cobbles and boulders, some sand, brown, moist
21.2		R	○	push				
					5			color change to light brown at 6 feet
					10			
					15			**Backhoe Stopped at 12 Feet**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **COF WWH DETENTION BASIN**
PROJECT NO.: **2528JW053**

PLATE **A-4**

TEST PIT LOG

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

Test Pit No.	Depth (ft)	USCS Class.	Particle Size Distribution (%) Passing by Weight							Atterberg Limits		Laboratory Compaction Characteristics			Remarks
			3"	¾"	#4	#10	#40	#200	2µ	LL	PI	Dry Density (pcf)	Optimum Moisture (%)	Method	
1	0-5	CH	100	98	98	95	91	81.7		51	26				2
2	0-5	GC	82	61	56	55	50	44.9		52	35				2

NOTE: NP = Non-plastic
µ = microns (2µ = 0.002mm)

REMARKS

Classification / Particle Size / Moisture-Density Relationship

1. Visual
2. Laboratory Tested
3. Minus #200 Only
4. Test Method ASTM D698/AASHTO T99
5. Test Method ASTM D1557/AASHTO T180
6. From the ADOT Family of Curves

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PROJECT: COF WWH DETENTION BASIN

JOB NO.: 2528JW053

SOIL PROPERTIES

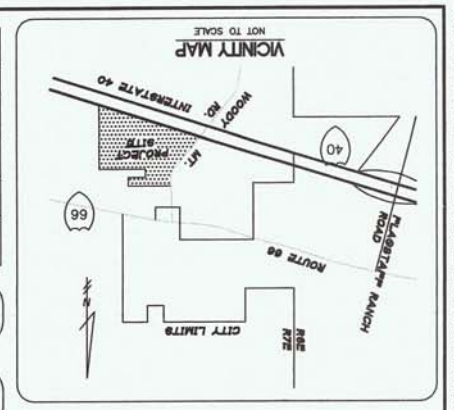
PLATE

B-1

G:\601-001N Presidio In the Pines\Tech\Drainage\Dwg\Addgf\Hydrology Plot Submittal\OFF-SITE BASINS DEVELOPED_11-30-04.dwg dwhitehead Tue, 21 Dec 2004 - 11:17am



VICINITY MAP
NOT TO SCALE



LEGEND

(XX)	BASIN
XX	DETENTION BASIN 1
XX	WASH 1
XX	AMPHITHEATER 1
	WATERS OF THE US

NOTE: THIS INDEX IS PROVIDED ONLY TO SHOW FLOW PATTERNS AND FLOW VALUES

NOTE: SEE FIGURE 11 FOR DETAILED ON-SITE FLOW PATTERNS

NOTE
FLOWS SHOWN DO NOT REFLECT STORM DRAIN DEDUCTIONS

DEVELOPED CONDITION BASINS

HEC-1 STORM FLOW SUMMARY			HEC-1 STORM FLOW SUMMARY		
BASIN	ACRES	Q100 (CFS)	BASIN	ACRES	Q100 (CFS)
B1	0.97	4	CP1	----	16
B1A	0.65	4	CP2	----	28
B2	2.63	12	CP28	----	37
B3	1.31	6	CP2D	----	36
B4	1.48	4	CP3	----	39
B4A	1.08	4	CP4	----	53
B4B	1.41	5	CP5	----	68
B4C	1.38	4	CP6	----	68
B5	0.93	3	CP7	----	69
B6	1.67	9	CP8	----	7
B7	2.91	12	CP9	----	NOT USED
B8	1.75	8	CP10	----	82
B9	1.71	9	CP11	----	399
B10	2.63	11	CP12	----	11
B11	2.94	15	CP13	----	19
B12	NOT USED		CP14	----	28
B13	1.14	6	CP15	----	NOT USED
B14	0.83	3	CP16	----	39
B15	0.56	3	CP17	----	47
B16	1.62	9	CP18	----	60
B17	0.90	4	CP19	----	56
B17A	0.49	4	CP20	----	347
B18	1.29	7	CP21	----	125
B18A	0.52	3	CP22	----	17
B19	2.53	12	CP23	----	366
B20	1.27	6	CP24	----	370
B21	1.67	9	CP25	----	15
B22	1.12	6	CP26	----	NOT USED
B23	0.65	3	CP27	----	9
B24	0.54	4	CP28	----	11
B25	1.26	5	CP29	----	18
B25A	0.32	3	CP30	----	93
B26	1.26	6	CP31	----	127
B27	2.29	10	CP32	----	4
B28	0.69	3	CP33	----	318
B28A	0.31	4			
B29	0.43	4			
B30	2.82	14			
B31	0.59	4			
B32	2.66	13			
B33	3.87	21			
B34	3.28	16			
B35	2.87	9			
B36	7.59	34			
B37	2.10	6			
B38	3.15	8			
B39	0.27	4			
B40	1.02	7			
B41	3.34	9			
WI	0.65	2			
W2	3.02	8			
W3	0.71	2			
A1	2.75	7			
ROFF1	270.88	300			
ROFF2A	13.90	32			
ROFF2B	0.94	31			
ROFF2C	3.04	9			
ROFF2D	3.78	13			
ROFF2E	13.30	28			
ROFF2F	8.12	22			
ROFF2G	4.36	12			
ROFF3	37.43	85			

GRAPHIC SCALE
1"=300'
(IN FEET)
1 inch = 300 ft.

NORTH

PROJECT ID	601.006N
SHEET	FIG 12
	1 OF 1 SHTS

PREMIERE ACQUISITIONS LLC

PRESIDIO IN THE PINES

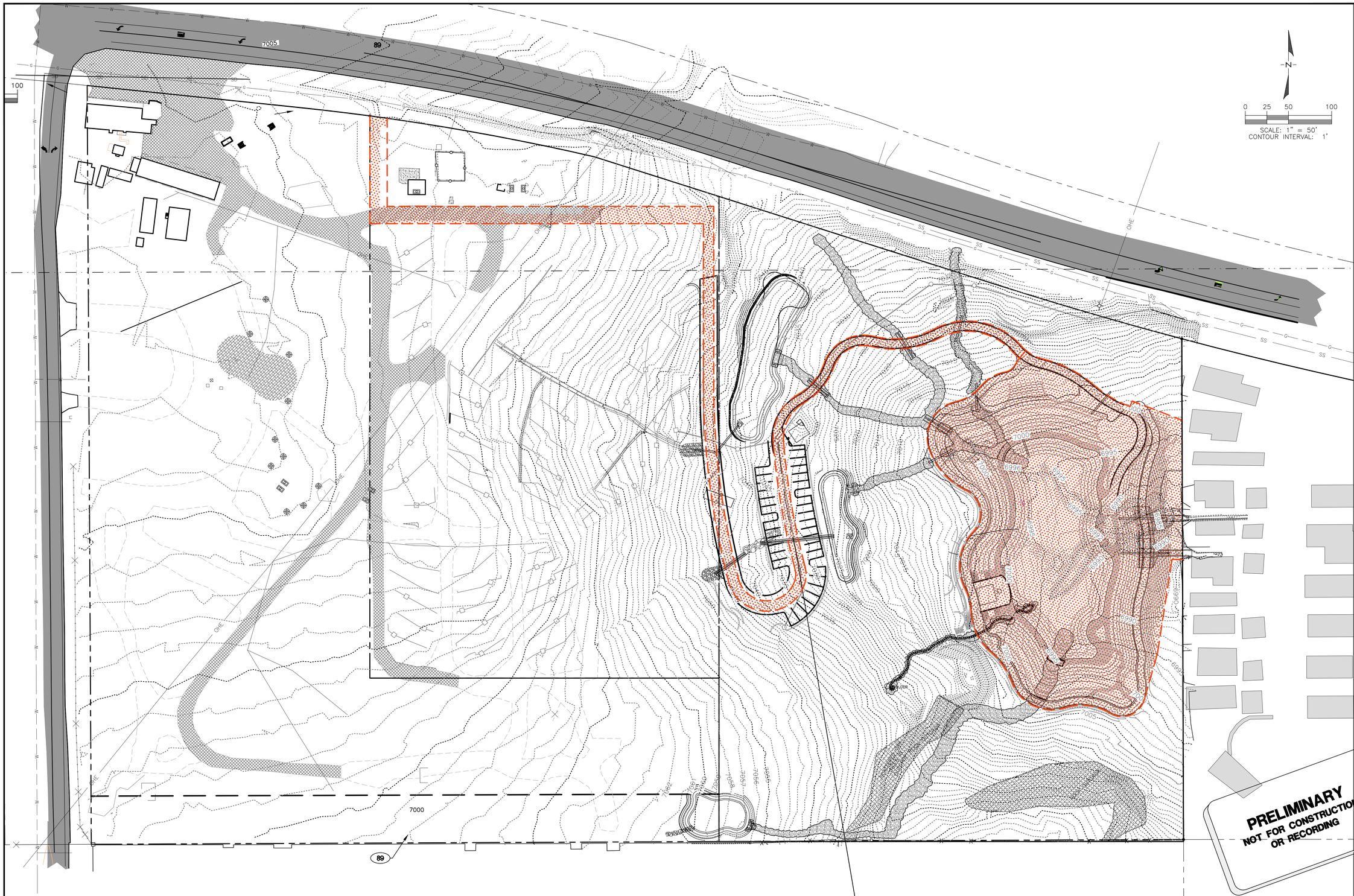
DEVELOPED CONDITION BASIN MAP (OVERALL)

TRC
Customer-Focused Solutions
BV Engineering Nevada

8360 W. SUNSET ROAD
Suite 190
Las Vegas, NV 89113
Tel: 702-650-0572
Fax: 702-307-4222
Web: trcsolutions.com

STAMP DATE	
DR. DATE	
CADFILE	BASINS.dwg
SCALE	AS SHOWN
DATE	12/21/04
DESIGN	RCW
PROJ. NO.	

REV	DESCRIPTION	BY	DATE	APPR.	APP.	DATE



PRELIMINARY
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EASEMENT OVERLAY
DETENTION BASIN

HOR SCALE: 1"=20'
VERT SCALE: NA
DATE: 7/12/19
PROJECT NO.: 118044
AGENCY NO.: PZ18-00210
SHEET NO.: C14 OF 22

DESIGNED BY: AAS
DRAFTED BY: AAS
CHECKED BY: RLS

PRELIMINARY DRAINAGE REPORT

FOR

WOODY MOUNTAIN CAMPGROUND

February 5, 2019

COF No. PZ-18-00210

Project Location:

2727 W Route 66
Flagstaff, AZ 86001

Prepared For:

Wanderland Flagstaff LLC
2502 E Camelback Rd No 214
Phoenix, Arizona 85016

Prepared By:



EXPIRES 06-30-2020

Sirisha Kalluri, P.E, **CFM**

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WE Project No. 118044

Preliminary Drainage Report for Woody Mountain Campground



EXPIRES 06-30-2020

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Preliminary Drainage Report

for
Woody Mountain Campground

1. INTRODUCTION

This is the preliminary drainage report for the proposed Woody Mountain Campground (Campground) development on parcels 112-01-007, 102-01-008 and 102-01-701, with an area of 20.53 acres. The current zoning is Rural Residential (RR). The site is located in Section 19, Township 21 N, and Range 07E, located south of Route 66 and east of Woody Mountain Road in the City of Flagstaff. Please note that the northwest corner of the site (the portion of the site in County's jurisdiction) has no proposed improvements. However, it is included in the drainage area (Sub-3B) in the existing condition to account for the flow generated by it.

The site is currently used as a campground with RV sites in the western half of the site. The proposed layout calls for 80 RV sites, 41 park model houses and 42 tent sites with other amenities which include ramadas, bath houses and trash enclosures. Figure 1 shows the parcel map for the subject site. The site will be accessed via a driveway on Route 66 and an emergency access driveway from Woody Mountain Road. Following is the parcel map of the subject site.

Wildwood Hills (WWH) Mobile Home Park (MHP) located east of the subject site is a senior living community and has a history of frequent flooding. The original design and construction of the MHP made little or no allowance for the conveyance of off-site stormwater entering the property from the west. The historic flow pattern of the stormwater enters the MHP around the location of Unit 9 and travels in an east-southeast direction toward Unit 47 and discharging into the Kit Carson RV Park. The flow discharged into the WWH flows through the development with no positive drainage consideration except for some make-shift rock channels built later as an effort to mitigate flooding. Flood walls and flood proofing measures have been attempted by the WWH residents with little success. There are no underground piping facilities to take even a portion of the flow.

Rainfall events are clearly subjecting the WWH residents with unsafe conditions. Flows ripping through and between homes and streets in this nature create massive, forceful momentum that can pick up objects, knock down people and cause significant property damages. It also poses hazardous conditions for not only vehicles but also for pedestrian accessibility.

Woody Mountain Campground project includes a detention basin that mitigates the increased flow due to proposed Campground improvements. The project would like to accommodate some of the offsite flow in the proposed detention basin to provide relief to the flooding on the neighboring development. Since the detention basin is proposed at a natural concentration point, it is a great opportunity to detain and mitigate the flow released into the WWH MHP thereby assisting the senior living community and the City of Flagstaff.



Figure 1: Parcel Map

2. OBJECTIVES AND PROCEDURES

The purpose of this Preliminary Drainage Report is to support the Site Plan submittal and to provide calculations and a description of the proposed stormwater management facilities and disposal outlets.

OBJECTIVES

- To provide Low Impact Development ("LID") Integrated Management Practices ("IMP's") based on the City of Flagstaff (COF or City) Ordinance No. 2009-07. The Runoff Control Volume ("ROCV") is incorporated within the LID basins.
- To provide stormwater detention facilities to mitigate the increase in flowrate from existing to proposed conditions.
- In addition, stormwater mitigation is provided for the increase in flowrate from the future half street improvements of the adjacent Right-of-Way (ROW) off Rte 66 and Woody Mountain Road.
- In addition, the proposed detention basin mitigates about 70% of the offsite flow rate to alleviate the flooding problems of the WWH MHP. The pond serves as a multi- purpose facility by providing detention for onsite and offsite flows and also functions as an amenity to the Campground.

METHODOLOGY

- The proposed improvements include three (3) Bio-Retention Basins (BRB) to address ROCV from the proposed onsite improvements.
- The flow is then directed to the stormwater detention basin to address the flow rate control requirements.

PROCEDURES

- Hydrologic calculations are performed per the of Flagstaff Stormwater Design Manual (SWDM) Chapter 3. United States Army Corps Engineer's (USACE) Hydrologic Engineering Center software (HEC-1), Version 4.1 is used for the runoff computation. Subject site references hydrology from previous drainage studies for Presidio in Pines which used HEC-1 analysis for runoff computation. To reference hydrology from previous studies and to continue with the same hydrologic parameters, subject study also uses HEC-1 analysis.

- Time of Concentration (Tc) calculations are performed per SWDM section 3.1.6.

- Rainfall depths are referenced from the COF SWDM Table 3-2 for a 6-hour storm duration since the watershed area is less than 1 square mile.

- Per SWDM Section 3.2, Curve Numbers for undeveloped forest are referenced from Arizona Department of Water Resources' (ADWR) "Oak Creek Flood Warning System Hydrology Report, TR 90-4, September 1990" (will be referred as Oak Creek Hydrology

Report hereafter). Curve Numbers for other land cover types are referenced from Natural Resources Conservation Services' (NRCS) National Engineering Handbook (NEH) Part 630 Hydrology, Chapter 9 Hydrologic Soil Cover Complexes Tables 9-2 (runoff curve numbers for arid and semiarid rangelands) and Table 9-5 (runoff curve numbers for urban areas). Please note the runoff curve number tables from NEH are same as the runoff curve number tables from the NRCS Technical Release-55 (TR-55).

- The project site lies within Zone X per FEMA FIRM 04005C6804G, 04005C6808G, 04005C6816G and 04005C6812G dated September 3, 2010.

- Federal Emergency Management Agency (FEMA) defines Zone X as areas of moderate flood hazard which are areas outside the Special flood Hazard Area (SFHA) and higher than the elevation of the 0.2% annual-chance flood. Following Figure shows the FEMA's flood zones.



Figure 2: Floodzone Map

3. RUNOFF CONTROL VOLUME (ROCV)

This project proposes three (3) Bio-Retention basins and one (1) detention basin to address the LID and detention needs.

i) Impervious Area Summary

There is an existing building with some paved areas in the northwest corner of the site. The existing impervious area on the site is 2150 SF (excluding the parcel in the County's jurisdiction).

The total impervious area in the proposed condition is 130,101 SF. Thus, the total increase in the impervious area of the site is 127,952 SF. Please see Appendix B for the breakdown of the impervious areas in the proposed condition.

ii) ROCV Calculations

ROCV required $= ((1" \, Rain)/12) \times Area$
$= ((1" \, Rain)/12) \times 127952 \, sq.ft = 10{,}663 \, cu.ft = 0.24 \, ac\text{-}ft$

Where: Area = increase in the impervious area (Roofs, streets, and paved parking areas)

ROCV provided $= 0.29 \, ac.ft$ (Sum of ROCV in LID ponds 1 thru 3)
ROCV provided (0.29 ac.ft) >ROCV required (0.24ac.ft).

iii) LID Basins Summary

There is an existing Following table summarizes the volume of the proposed Bio-Retention basin volumes. Please see Appendix B for elevation volume calculations of the LID basins.

Table 1-Summary of Bio-Retention Basin Volumes

ID	Vol. (CF)
LID-1	5952
LID-2	2962
LID-3	3704
Total	**12618**

Geotechnical exploration was performed for the detention pond and it was found that the soils on the site generally have good infiltration rates (more than 1 inch/hr) due to which no under drain system is proposed to drain the ROCV. Please see Appendix D for the geotechnical report.

4. REFERENCE DRAINAGE STUDIES

The subject site and the contributing offsite watershed areas were included in previous drainage study for Presidio in Pines (Presidio). The hydrologic analysis from the Presidio drainage study has been referenced into the HEC-1 analysis of the current study. Excerpts from the Presidio drainage study are included in Appendix D for reference.

5. HYDROLOGY

City's Stormwater Design Manual (SWDM) guidelines are followed to analyze the runoff generated by the site. Pre-developed and Post developed runoff is computed to design the detention facilities to control the discharge/flow rate.

i) Rainfall

Rainfall depths are referenced from COF SWDM Table 3-2 for 6-hour storm duration since the watershed area is less than 1 square mile.

Table 2-Rainfall Depths

Storm Event	Intensity (inches/hour)	Depth (inches)
10	0.36	2.16
100	0.53	3.18

ii) Time of Concentration (Tc)

Tc calculations were performed per SWDM's section 3.1.6 and are included in Appendix B. Some of the calculated Tc were too low. Thus, a minimum Tc of 15 mins and 10 mins are used for the pre and post developed conditions.

As a guidance to the minimum Tc, ADOT Hydrologic Drainage Design Manual, HDDM Section 2.2.4 has been referenced, the minimum Tc per HDDM is 10 minutes which is more realistic for Improved/Impervious areas. With the ADOT improvements which mostly include paved/impervious areas, the minimum Tc of 10 minutes is used for post developed condition. With this approach, the minimum Tc for pre-developed condition uses a slightly higher Tc of 15 minutes. While the minimum Tc for pre-developed condition could use 10 minutes, it would underestimate the increase in flow rate from pre to post developed condition. Please note that the standard TR-55 Tc calculations do not include a component to account for the time the rain drop takes to traverse from roof top, pass thru roof gutters and then join the surface/overland flow. Thus, it is believed that the Tc of 15 minutes and 10 minutes is apt for the pre and the post developed condition.

iii) Hydrologic Soil Group (HSG)

The soils information is referenced from Natural Resources Conservation Services' (NRCS) Web Soil Survey (WSS). WSS references soil map for Oak Creek-San Francisco Peaks Area which shows the soils on site to be composed of cobbly clay loam and stony clay loam with Hydrologic Soil Group "C" and "D" (HSG C and HSG D). Curve numbers area referenced from Oak Creek Hydrology Report and NRCS curve numbers tables. Composite curve number calculations are performed to account for the landcover/land use and different hydrologic soil groups. (Please see Appendix B for Soils Information and Curve Number tables).

iv) Existing Condition

The offsite watershed area includes both developed and undeveloped areas. The contributing offsite watershed area is comprised of the Vintage 37-acre parcel located west of Woody Mountain

Road, northwest portion of Presidio in Pines and southern tip of Hidden Hollow Manufactured Homes and a portion of Rail Road Springs located north of Rte 66.

The Vintage 37-acre parcel located west of Woody Mountain Road was a part of the 2006 Woody burn area. To reflect the existing condition, current analysis uses curve numbers for the post burn condition.

The Campground site receives offsite flows from the following three locations:

- South perimeter: Offsite flow is released at a point source on southern boundary from the Presidio subdivision via a 30-inch cmp. Majority of Vintage 37-acre parcel (drainage area SUB-1A), most of the Woody Mountain Road (SUB-1B) and portion of Presidio subdivision discharge flow to the 30-inch cmp. The flow from the Vintage parcel and the flow generated by the Woody Mountain Road discharge into a 4'x3' RCBC under Woody Mountain Road that connects into a storm drain system in Presidio. The storm drain system conveys Presidio's onsite flows and eventually discharges into a 30-inch cmp that drains flow into the Campground site. Please note that there is some portion of Timber Sky development Blocks 1 and 2 that historically drains east towards the WWH MHP. Per City's request to Timber Sky development, this area is diverted to flow west to provide relief to the flooding issues on WWH-MHP.
- North perimeter: An existing 24-inch cmp under Rte 66 discharges flow from Hidden Hollow north of Rte 66 (SUB-2) and a portion of Rte 66 (SUB-2A) that discharges into the 24-inch cmp via an existing catch basin in Rte 66. Also flow from Rte 66 flows along the roadside ditch on south side of the road which eventually terminates and discharges into the Campground site.
- West perimeter: An existing 24"x36" arch cmp under Woody Mountain Road discharges flow from minor portion of Vintage 37-acre parcel (SUB-1) and Rte 66 (SUB-2A) which flows in the roadside ditch which eventually terminates and discharges into the Campground site.

Onsite watershed area is divided into two drainage areas Sub-3A and Sub-3B. Drainage area Sub-3A which includes southwest quadrant of the site, flows in southeasterly direction, along the south perimeter wall. This flow eventually combines with the offsite flow released from the Presidio subdivision, the combined flow then continues northeasterly towards the existing pond in the campground site.

Drainage area SUB-3B comprises majority of the site. It traverses through existing swales and eventually continues as ditches at steeper westerly portion of the site.

All the onsite and offsite flow ultimately discharges into a makeshift pond that was roughly excavated to pond flows before the flow continues east into the WWH MHP. Based on the existing pond size, it appears that the pond may detain flows generated by smaller storms only. Once the pond fills up, the flow enters the MHP at the west perimeter of the MHP via two (2) rock/grouted channels located on north and south sides of WWH MHP unit 9. This is the single outlet for the stormwater discharged from the Campground site into the WWH MHP. Following table

summarizes the 10-year and the 100-year storm events flows discharged at the Outlet in existing condition. Please see Exhibit 1 and Exhibit-2 for offsite drainage map and existing condition onsite drainage map included in Appendix A.

Table 3-Existing Condition-Outlet Flow Summary

Storm Event	Flow Rate (cfs)
10-year	96
100-year	197

v) Proposed Condition-Unattenuated

The offsite flow patterns remain same as in proposed condition. However, per COF, the runoff generated by the additional impervious area for future half street improvements of the adjacent ROWs has been included in the post developed hydrologic calculations and in the detention facility design. Curve numbers are revised for the drainage areas SUB-1B and SUB-2A to account for the future street improvements.

The campground intends to maintain the existing grades to the maximum possible extent except for the pond grading and grading for RV pads and roads. For the onsite drainage areas SUB-3A and SUB-3B, the curve numbers area revised to account for the newly added impervious areas. Please refer to the composite curve number calculations included in Appendix B. Post developed runoff calculations are performed to account for the newly added impervious areas and the future half street improvements of adjacent ROWs. Following table summarizes the 10-year and the 100-year storm events flows discharged at the Outlet in post developed unattenuated condition.

Table 4-Proposed Condition Unattenuated-Outlet Flow Summary

Storm Event	Flow Rate (cfs)
10-year	112
100-year	224

vi) Post-Developed Condition-Attenuated

The detention basin is proposed at the downstream end of the site, along the east perimeter of the site. The proposed detention basin serves as a campground amenity by maintaining a body of water year-round and maintain a water level, as the property may need for the activity. The pond does not only provide mitigation to the increased flows due to the proposed Campground improvements, but also mitigates the offsite flows discharged into the WWH MHP by almost 70%. Please see Section 6 of the report for detention basin design description. Following table summarizes the 10-year and the 100-year storm events flows discharged at the Outlet in post developed attenuated condition.

Table 5-Proposed Condition Attenuated-Outlet Flow Summary

Storm Event	Flow Rate (cfs)
10-year	35
100-year	52

6. DETENTION BASIN

The pond will have a 4' of dead storage at the bottom, with 8' live storage above the permanent pool. Due to the existing steep terrain, the pond will have walls (2-3 tiers) on all sides. Safety railing will be proposed around the pond. Please see Appendix B for the detention volume calculations.

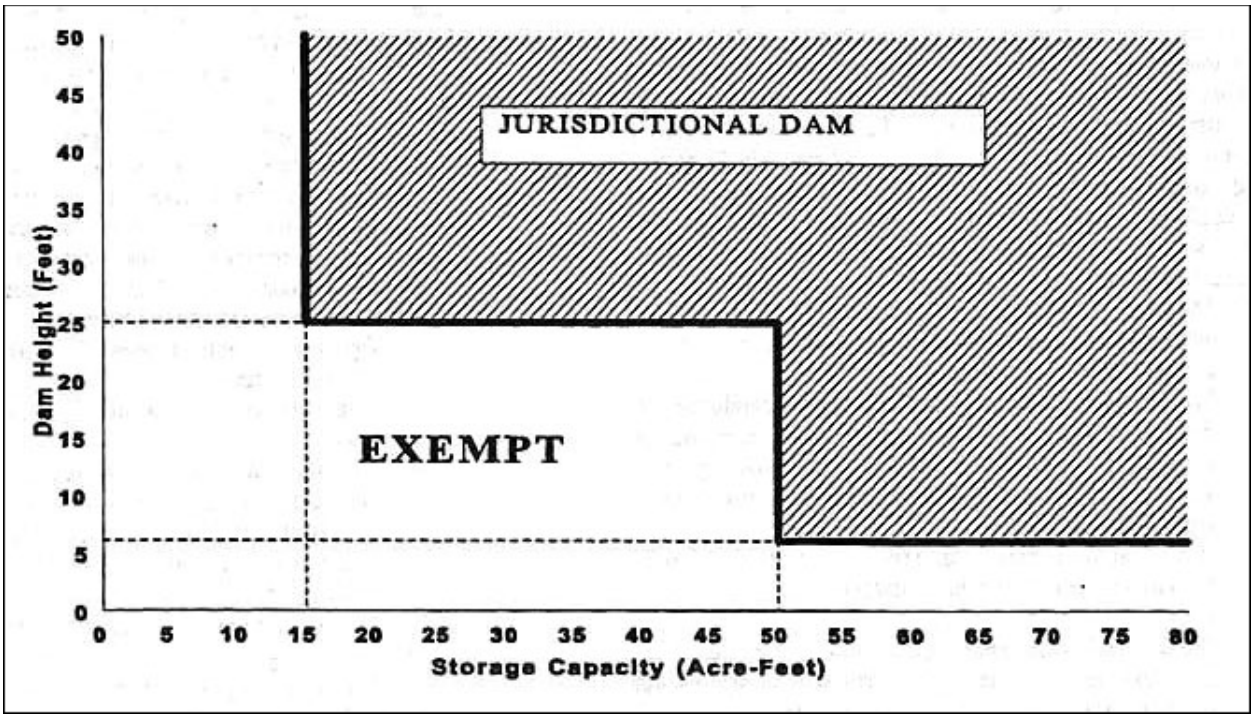
The flow from the proposed improvements will be routed to the LID basins first and then directed to the detention basin. Rock swales/channels are proposed to bring the flow to the detention basin along the existing drainage paths. *Detailed rock channel design will be performed at construction plans phase and will be included in the final drainage report.*

Following table provides a brief summary of pond elevations and volume.

Table 6-Detention Basin Elevation and Volume Summary

Permanent Pool		Detention				Emergency Spillway	Freeboard min. (1 ft)
Bottom	Top	Bottom	Top	Vol. (ac-ft)	100-yr WSE	Elev.	Elev.
6984	6988	6988	6996	8.87	6993.9	6995	1.1

Arizona Department of Water Resources (ADWR) defines "jurisdictional dam" is defined as an artificial barrier for the impounding or diversion of water either 25 feet or more in height or having a storage capacity of more than 50 ac-ft. From the above table, the total height is 12' and the embankment height is 8' and the storage capacity is 8.87 ac-ft. Thus, the proposed detention basin is not categorized as a "jurisdictional dam". Following chart from ADWR's "Jurisdictional dam" criteria shows the height and the volume limits.



i) Outlet Facilities

Two (2) outlet pipes are proposed to discharge the detained volume. Both the outlet pipes, the southern 24-inch pipe or outlet pipe-1 and the northern 18-inch pipe or outlet pipe-2 will have an invert elevation of 6988, above the permanent pool elevation.

Outlet pipe-1 discharges flow into the existing south channel east of the basin. The 100-year discharge from outlet pipe-1 is about 33 cfs. Outlet pipe-2 discharges into the existing north channel east of the basin. The 100-year discharge from outlet pipe-2 is about 19 cfs. Trash racks will be proposed at the inlet and the outlet ends of the pipes to capture debris and also to limit access through the pipes. Please see Appendix C for the outlet flow calculations.

ii) Emergency Spillway

Per COF SWDM Section 8.4.6.1, emergency overflow facilities/spillways are required for instances where the primary outlet structure fails or storm events greater than the design capacity occur. The emergency overflow shall be designed to pass the 100-year peak discharge at a minimum. The design of the emergency overflow/spillway to pass the 100-year flow rate is not feasible due to the limited width of the existing downstream channels. Thus, spillway width will be designed to limit it to the width of the existing rock channel in the WWH MHP. *Detailed spillway design will be performed at construction plans phase.*

iii) Maintenance Road

A 10’ access drive is proposed to provide access into the pond for maintenance.

7. SUMMARY AND CONCLUSIONS

- The proposed Stormwater management facilities satisfies the rate control and the LID/ROCV requirement. Rate control is provided for the increased flows due to proposed improvements. In addition, mitigation is provided for offsite flows to alleviate flooding on WWH MHP.
- Though the proposed flow attenuation facilities do not completely reduce the flows to the capacity of existing drainage/conveyance facilities in WWH MHP, the flows are significantly lower than the existing condition flows (70% reduction).
- All the impervious areas are directed to the proposed LID basins to address the ROCV requirements to the maximum possible extent
- The outlet location and the flow pattern in post developed condition is same as pre-developed condition.
- Post developed flow rate released at the outlets is less than or equal to pre-developed flow rate.
- The drainage areas from the 2006 burn area use an existing burn condition for the curve numbers for the hydrologic analysis. This a conservative approach as the vegetation will eventually be re-established and the curve number will drop significantly.
- To reduce flows from the west of Woody Mountain Road to Wildwood Hills MHP, some areas of Timber Sky that naturally drain east would be routed west as recommended by the City with the Timber Sky improvements.
- The proposed detention based is at the same location as the existing small pond which is a natural concentration point with more than one inflow points. The proposed detention basin maintains the same flow pattern as in existing condition. The permanent pool provides an additional site amenity.
- *Detailed design of the detention basin outlets, spillways and rock channels will be performed at the Construction Plans phase.*

8. REFERENCES

City of Flagstaff Stormwater Management Design Manual, City of Flagstaff Engineering Division, 2000

City of Flagstaff Low Impact Development Manual (January 2009)

Natural Resources Conservation Services' (NRCS) Web Soil Survey

Natural Resources Conservation Services' (NRCS) National Engineering Handbook.

Arizona Department of Water Resources (ADWR) Oak Creek Flood Warning System Hydrology Report, TR 90-4, September 1990

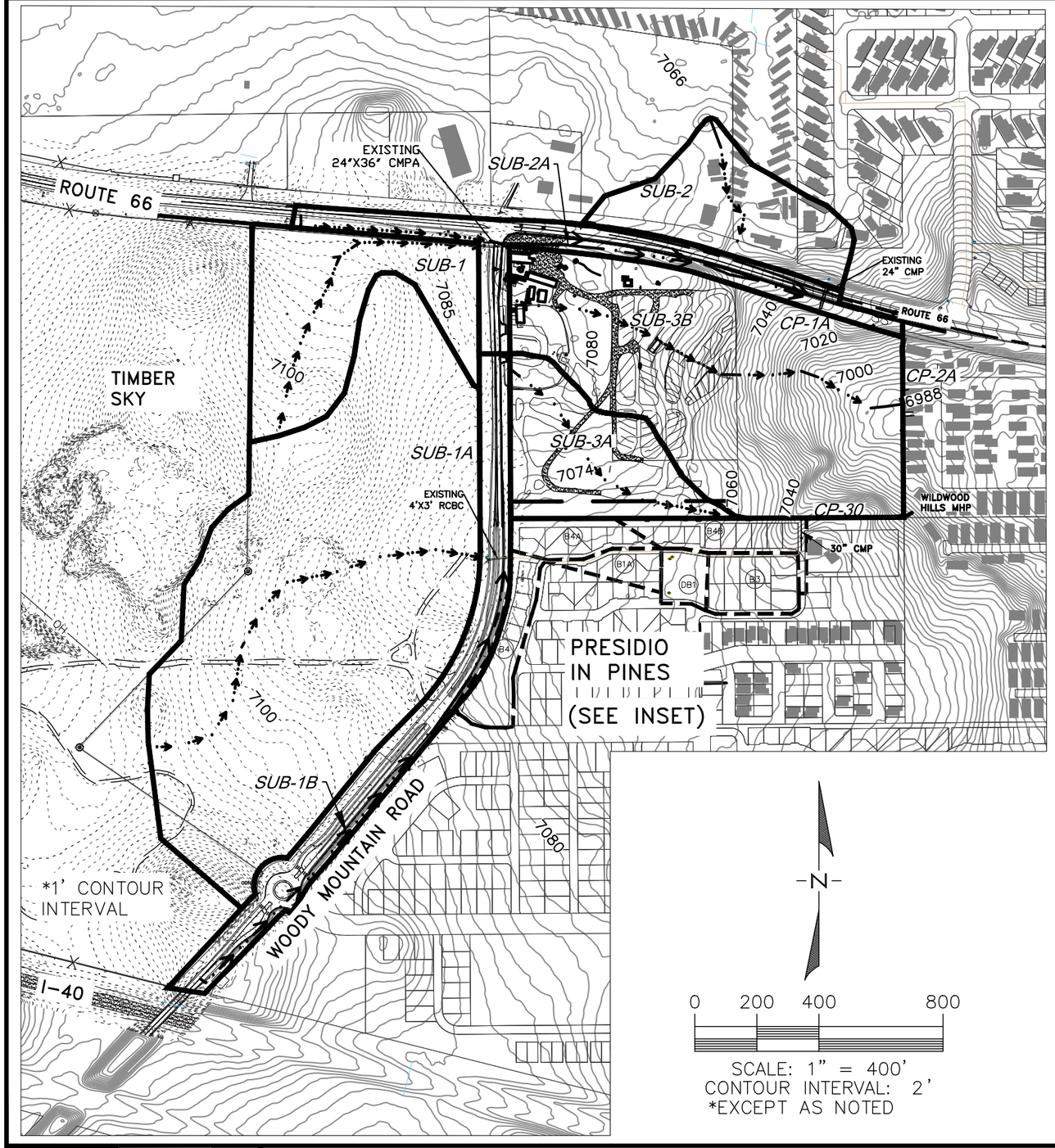
United States Army Corps Engineer's (USACE) Hydrologic Engineering Center software

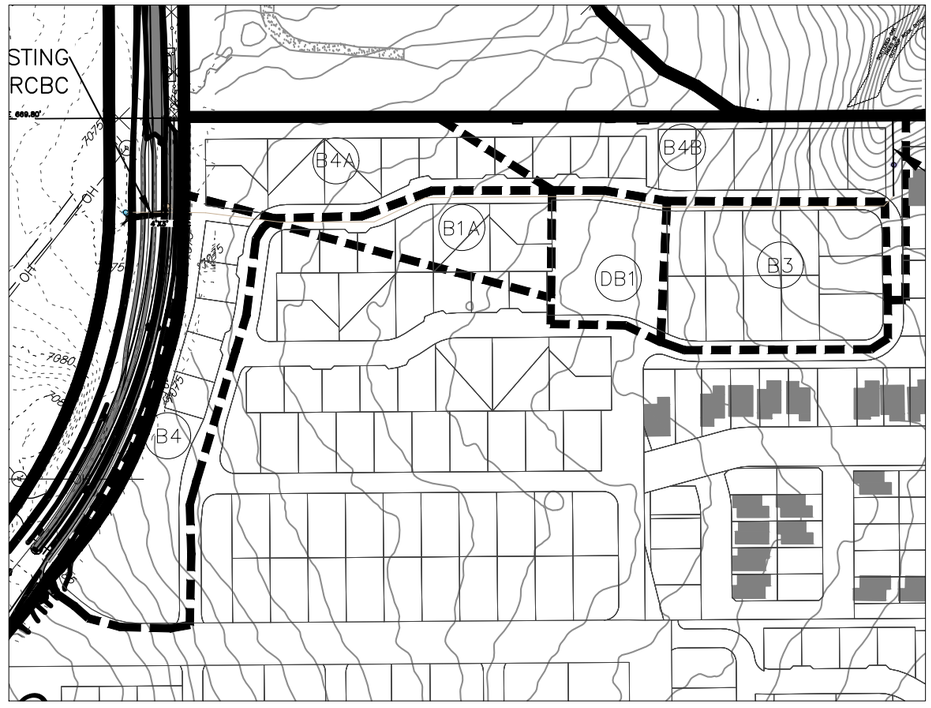
(HEC-1), Version 4.1

Presidio in Pines Drainage Report excerpts (December 2004)

APPENDIX A

Drainage Area Map-Offsite Drainage Areas
Drainage Area Map -Existing Conditions
Drainage Area Map -Proposed Conditions





PRESIDIO IN THE PINES
DRAINAGE AREAS

-N-

0 200 400 800

SCALE: 1" = 400'
CONTOUR INTERVAL: 2'
*EXCEPT AS NOTED

LEGEND

SUB-1	DRAINAGE AREA ID
———	DRAINAGE AREA LIMITS
· · → · · → ·	TRAVEL TIME PATH

DRAFTED BY:	SK
DATE:	2/4/19
PROJ. NO.:	118044
FN:	118044-Drainage

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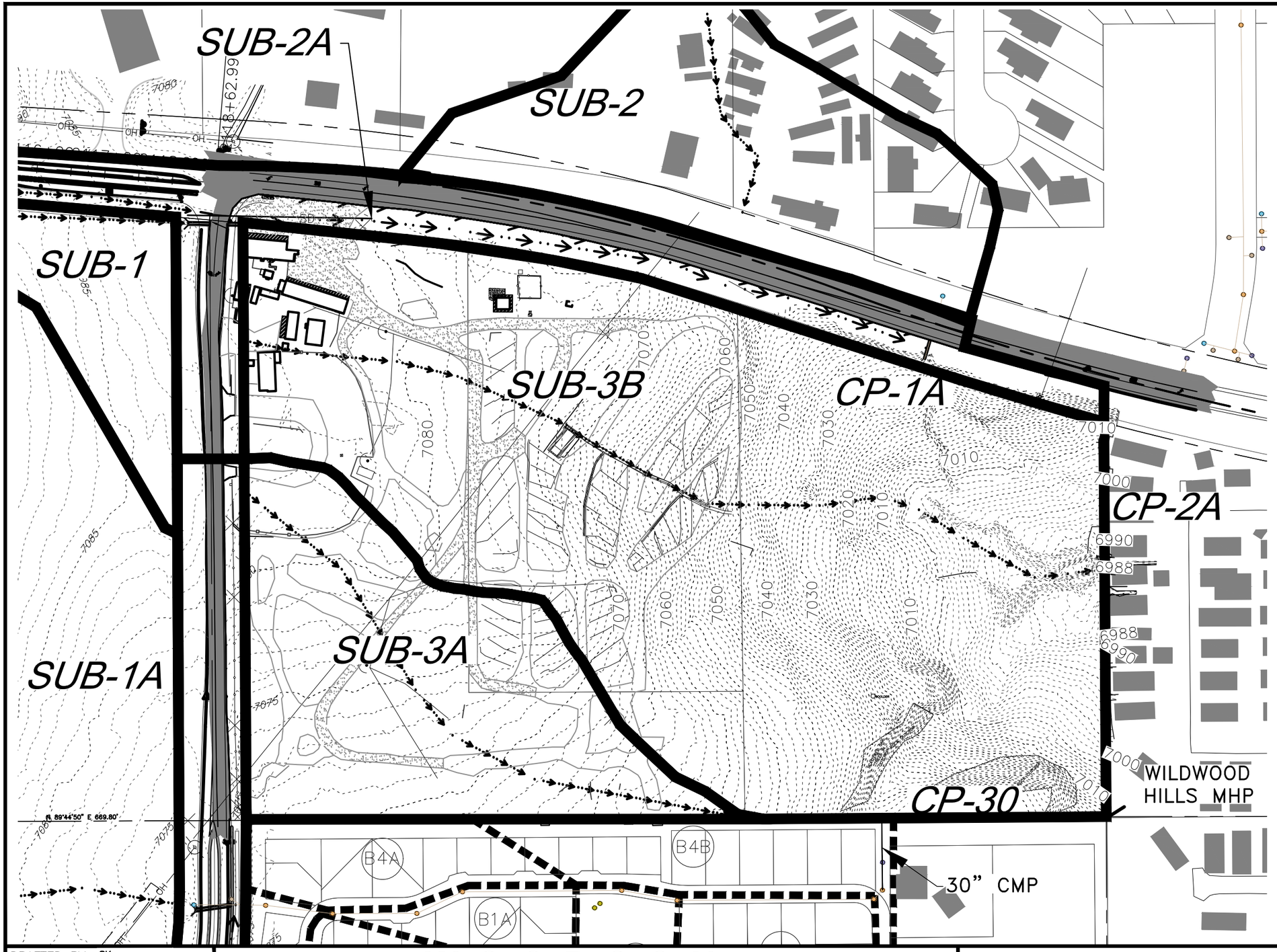
WOODY MOUNTAIN CAMPGROUND
OFFSITE DRAINAGE AREA MAP



LEGEND

SUB1 DRAINAGE AREA ID

DRAINAGE AREA LIMITS

TRAVEL TIME PATH

PLEASE SEE OFFSITE DRAINAGE AREA MAP FOR THE COMPLETE EXTENTS OF THE OFFSITE DRAINAGE AREAS.

N

0 75 150 300

SCALE: 1" = 150'
CONTOUR INTERVAL: 1'

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DATE:	01/24/2019
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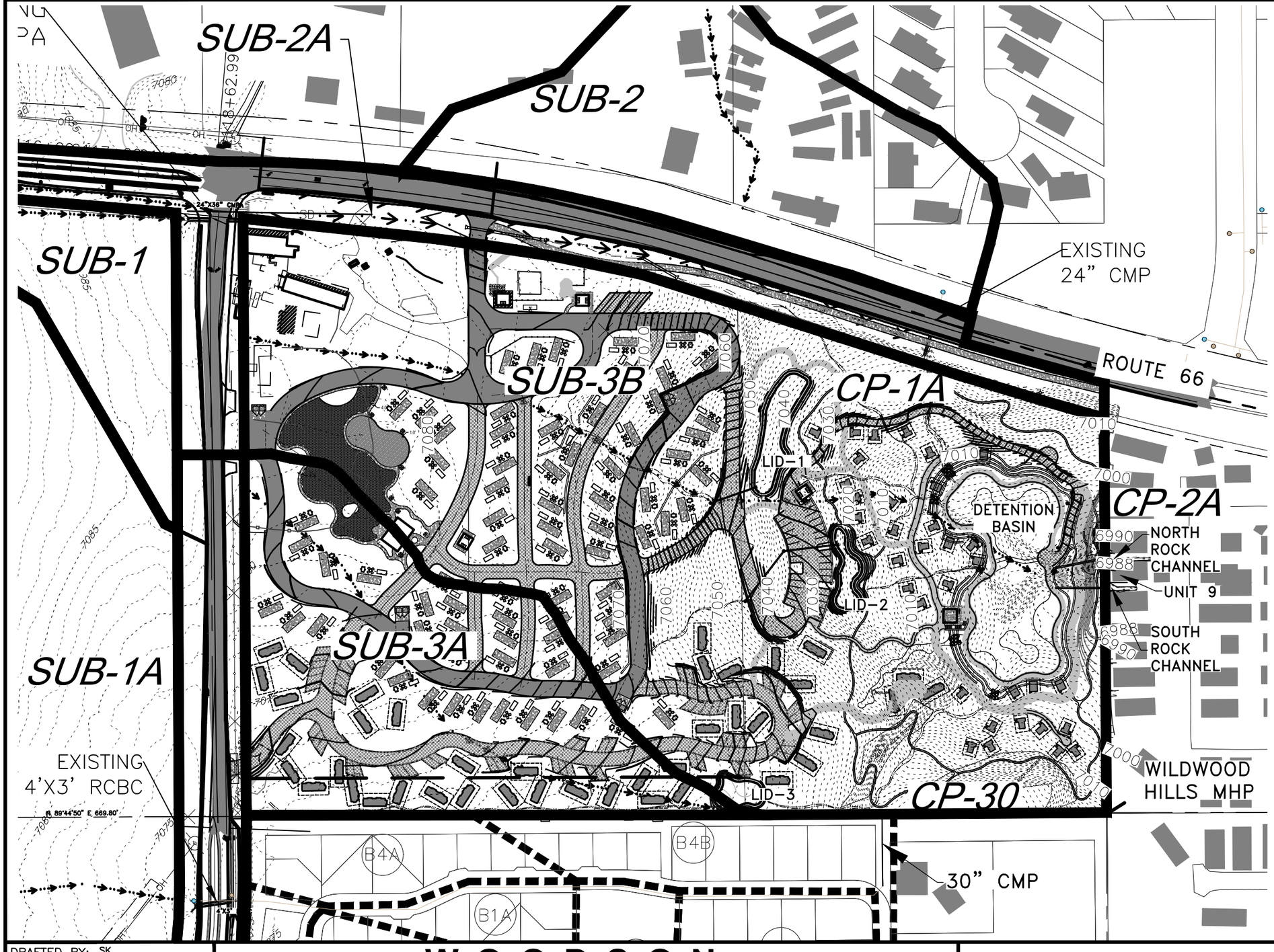
WOODY MOUNTAIN CAMPGROUND
DRAINAGE AREA MAP EXISTING CONDITION



LEGEND

SUB 1 DRAINAGE AREA ID

DRAINAGE AREA LIMITS

TRAVEL TIME PATH

PLEASE SEE OFFSITE DRAINAGE AREA MAP FOR THE COMPLETE EXTENTS OF THE OFFSITE DRAINAGE AREAS.

N

0 75 150 300

SCALE: 1" = 150'
CONTOUR INTERVAL: 1'

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DATE:	12/11/18
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WOODY MOUNTAIN CAMPGROUND
DRAINAGE AREA MAP PROPOSED CONDITION

APPENDIX B

Soils Information
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Time of Concentration Calculations
Drainage Areas Summary Table
HEC-1 Output-Existing Condition 10-year Storm Event
HEC-1 Output-Existing Condition 100-year Storm Event
HEC-1 Output-Proposed Condition Unattenuated 10-year Storm Event
HEC-1 Output-Proposed Condition Unattenuated 100-year Storm Event
HEC-1 Output-Proposed Condition Attenuated 10-year Storm Event
HEC-1 Output-Proposed Condition Attenuated 100-year Storm Event
Summary of Impervious Area and ROCV Calculations

Search

Map Unit Legend

HSG C

HSG D

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County (AZ693)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Jacques clay loam, 0 to 2 percent slopes	31.7	4.5%
2	Brolliar stony clay loam, 0 to 2 percent slopes	159.2	22.9%
2A	Brolliar stony clay loam, 2 to 8 percent slopes	193.2	27.7%
2B	Brolliar stony clay loam, 8 to 30 percent slopes	16.2	2.3%
12	Brolliar cobbly clay loam, deep variant, 0 to 5 percent slopes	270.0	38.8%
15A	Tortugas-Daze complex, 0 to 15 percent slopes	25.9	3.7%
Totals for Area of Interest		**696.2**	**100.0%**

HSG D

HSG D

HSG C

HSG D

Soil Map

Scale (not to scale)



Warning: Soil Map may not be valid at this scale.

You have zoomed in beyond the scale at which the soil map for this area is intended to be used. Mapping of soils is done at a particular scale. The soil your AOI were mapped at 1:24,000. The design of map units and the level of detail shown in the resulting soil map are dependent on that map scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps areas of contrasting soils that could have been shown at a more detailed scale.

Soil Data Available

Name	Area Symbol	Data Availability	Version
Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County	AZ693	Tabular and Spatial, incomplete	Survey Area: Version 5, Sep 14, 2014 Tabular: Version 4, Sep 14, 2014 Spatial: Version 2, Dec 17, 2013

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Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

1—Jacques clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vhjq
Elevation: 6,580 to 7,080 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Jacques and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Jacques

Setting

Landform: Drainageways, valleys
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed alluvium

Typical profile

H1 - 0 to 16 inches: clay loam
H2 - 16 to 60 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water storage in profile: High (about 9.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

2—Brolliar stony clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 1vhjr
Elevation: 6,790 to 7,420 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar

Setting

Landform: Plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: stony clay loam
H2 - 3 to 30 inches: clay
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 0 to 2 percent
Percent of area covered with surface fragments: 15.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: D

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

2A—Brolliar stony clay loam, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 1vhjs
Elevation: 6,620 to 7,540 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar

Setting

Landform: Plains
Landform position (two-dimensional): Shoulder, summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: stony clay loam
H2 - 3 to 30 inches: clay
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 8 percent
Percent of area covered with surface fragments: 15.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: D

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

2B—Brolliar stony clay loam, 8 to 30 percent slopes

Map Unit Setting

National map unit symbol: 1vhjt
Elevation: 6,760 to 7,550 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: stony clay loam
H2 - 3 to 30 inches: clay
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 8 to 30 percent
Percent of area covered with surface fragments: 20.0 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: D

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

12—Brolliar cobbly clay loam, deep variant, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vhk4
Elevation: 6,870 to 7,560 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Brolliar, deep, and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brolliar, Deep

Setting

Landform: Plains
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from basalt

Typical profile

H1 - 0 to 3 inches: cobbly clay loam
H2 - 3 to 60 inches: clay

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 1 percent
Available water storage in profile: Moderate (about 8.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5c
Hydrologic Soil Group: C

Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County

15A—Tortugas-Daze complex, 0 to 15 percent slopes

Map Unit Setting

National map unit symbol: 1vhkb
Elevation: 6,670 to 7,090 feet
Mean annual precipitation: 18 to 24 inches
Mean annual air temperature: 43 to 49 degrees F
Frost-free period: 90 to 115 days
Farmland classification: Not prime farmland

Map Unit Composition

Tortugas and similar soils: 55 percent
Daze and similar soils: 45 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tortugas

Setting

Landform: Hills
Landform position (two-dimensional): Backslope, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Alluvium and/or residuum weathered from limestone

Typical profile

H1 - 0 to 3 inches: cobbly loam
H2 - 3 to 14 inches: very cobbly loam
R - 14 to 24 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 6 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 50 percent
Available water storage in profile: Very low (about 1.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D

Hydric soil rating: No

Description of Daze

Setting

Landform: Hills
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone and sandstone

Typical profile

H1 - 0 to 3 inches: fine sandy loam
H2 - 3 to 7 inches: clay loam
H3 - 7 to 18 inches: clay
R - 18 to 28 inches: bedrock

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: D
Hydric soil rating: No

Data Source Information

Soil Survey Area: Oak Creek-San Francisco Peaks Area, Arizona, Part of Coconino County
Survey Area Data: Version 5, Sep 14, 2014

OAK CREEK FLOOD WARNING SYSTEM

HYDROLOGY REPORT

ARIZONA DEPARTMENT OF WATER RESOURCES

ENGINEERING DIVISION

FLOOD MANAGEMENT SECTION

TR 90 - 4
SEPTEMBER 1990

Table 2

RUNOFF CURVE NUMBERS

Cover Type	Cover Condition	Hydrologic Soil Group	Curve Number
BARE ROCK	NO CONDITION		94
RIVERWASH	NO CONDITION		53
CINDERS/LAVA	POOR 0 - 30%		53
SPRUCE - FIR	GOOD 70 - 100%	B	41
MIXED CONIFER	GOOD 70 - 100%	B	41
MIXED CONIFER	GOOD 70 - 100%	C	51
MIXED CONIFER	FAIR 30 - 70%	A	48
MIXED CONIFER	FAIR 30 - 70%	B	53
MIXED CONIFER	FAIR 30 - 70%	C	65
MIXED CONIFER	FAIR 30 - 70%	D	75
MIXED CONIFER	POOR 0 - 30%	A	60
MIXED CONIFER	POOR 0 - 30%	B	71
MIXED CONIFER	POOR 0 - 30%	C	80
MIXED CONIFER	POOR 0 - 30%	D	87
PONDEROSA PINE	GOOD 70 - 100%	B	41
PONDEROSA PINE	GOOD 70 - 100%	C	51
PONDEROSA PINE	FAIR 30 - 70%	A	48
PONDEROSA PINE	FAIR 30 - 70%	B	53
PONDEROSA PINE	FAIR 30 - 70%	C	65
PONDEROSA PINE	FAIR 30 - 70%	D	75
PONDEROSA PINE	POOR 0 - 30%	B	71
PONDEROSA PINE	POOR 0 - 30%	C	80
PINON - JUNIPER	GOOD 70 - 100%	B	41
PINON - JUNIPER	GOOD 70 - 100%	C	61
PINON - JUNIPER	GOOD 70 - 100%	D	71
PINON - JUNIPER	FAIR 30 - 70%	A	40
PINON - JUNIPER	FAIR 30 - 70%	B	58
PINON - JUNIPER	FAIR 30 - 70%	C	73
PINON - JUNIPER	FAIR 30 - 70%	D	80
PINON - JUNIPER	POOR 0 - 30%	A	62
PINON - JUNIPER	POOR 0 - 30%	B	75
PINON - JUNIPER	POOR 0 - 30%	C	85
PINON - JUNIPER	POOR 0 - 30%	D	89
CHAPARRAL	GOOD 70 - 100%	B	52
CHAPARRAL	GOOD 70 - 100%	C	68
CHAPARRAL	GOOD 70 - 100%	D	78
CHAPARRAL	FAIR 30 - 70%	B	65
CHAPARRAL	FAIR 30 - 70%	C	77
CHAPARRAL	FAIR 30 - 70%	D	85
CHAPARRAL	POOR 0 - 30%	B	78
CHAPARRAL	POOR 0 - 30%	C	86
CHAPARRAL	POOR 0 - 30%	D	91
GRASSLAND	GOOD 70 - 100%	B	48
GRASSLAND	GOOD 70 - 100%	C	60
GRASSLAND	GOOD 70 - 100%	D	70
GRASSLAND	FAIR 30 - 70%	B	61
GRASSLAND	FAIR 30 - 70%	C	72
GRASSLAND	FAIR 30 - 70%	D	80
GRASSLAND	POOR 0 - 30%	B	74
GRASSLAND	POOR 0 - 30%	C	82
GRASSLAND	POOR 0 - 30%	D	89
FOREST PARK	FAIR 30 - 70%	A	55
FOREST PARK	FAIR 30 - 70%	C	69
FOREST PARK	POOR 0 - 30%	B	74
FOREST PARK	POOR 0 - 30%	D	89
DESERT GRASSLAND	GOOD 70 - 100%	B	62
DESERT GRASSLAND	GOOD 70 - 100%	C	74
DESERT GRASSLAND	GOOD 70 - 100%	D	85
DESERT GRASSLAND	FAIR 30 - 70%	B	71
DESERT GRASSLAND	FAIR 30 - 70%	C	81
DESERT GRASSLAND	FAIR 30 - 70%	D	89
DESERT GRASSLAND	POOR 0 - 30%	B	80
DESERT GRASSLAND	POOR 0 - 30%	C	87
DESERT GRASSLAND	POOR 0 - 30%	D	93
SONORA DESERT	GOOD 70 - 100%	A	49
SONORA DESERT	GOOD 70 - 100%	B	68
SONORA DESERT	GOOD 70 - 100%	C	79
SONORA DESERT	GOOD 70 - 100%	D	84
SONORA DESERT	FAIR 30 - 70%	A	55
SONORA DESERT	FAIR 30 - 70%	B	72
SONORA DESERT	FAIR 30 - 70%	C	81
SONORA DESERT	FAIR 30 - 70%	D	86
SONORA DESERT	POOR 0 - 30%	A	63
SONORA DESERT	POOR 0 - 30%	B	77
SONORA DESERT	POOR 0 - 30%	C	85
SONORA DESERT	POOR 0 - 30%	D	88
RIPARIAN	GOOD 70 - 100%	B	57
RIPARIAN	GOOD 70 - 100%	C	63
RIPARIAN	FAIR 30 - 70%	A	55
RIPARIAN	FAIR 30 - 70%	C	68
RIPARIAN SCRUB	FAIR 30 - 70%	A	53
MEADOW	GOOD 70 - 100%	D	70

Table 9–5 Runoff curve numbers for urban areas [1/]

Cover description cover type and hydrologic condition	Average percent impervious area [2/]	-- CN for hydrologic soil group -- A	B	C	D
Fully developed urban areas (vegetation established)					
Open space (lawns, parks, golf courses, cemeteries, etc.) [3/]					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) [4/]		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
Developing urban areas					
Newly graded areas (pervious areas only, no vegetation)		77	86	91	94

1/ Average runoff condition, and $I_a = 0.2S$.

2/ The average percent impervious area shown was used to develop the composite CNs. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition.

3/ CNs shown are equivalent to those of pasture. Composite CNs may be computed for other combinations of open space type.

4/ Composite CNs for natural desert landscaping should be computed using figures 9–3 or 9–4 based on the impervious area percentage (CN=98) and the pervious area CN. The pervious area CNs are assumed equivalent to desert shrub in poor hydrologic condition.

Composite Curve Number (CN) Calculations-Existing Condition

Drainage Area ID	Total Area (ac)	Soil Map Symbol	Hydrologic Soil Group	Cover Type	SCS Curve Number	Area for Individual CN	Composite SCS CN
*1	7.01	2A	D	Open Space (<50% grass cover)	89	1.29	86.55
		12	C	Open Space (<50% grass cover)	86	5.72	
*1A	28.94	2	D	Open Space (<50% grass cover)	89	13.20	87.37
		12	C	Open Space (<50% grass cover)	86	15.74	
Sub-1B	5.84	2	D	Paved Street	98	1.90	93.23
			D	Paved Street w/ Open Ditches	93	1.90	
			D	Dirt (including ROW)	89	2.04	
Sub-2	4.97	2	D	Residential - 1/8 Acre	92	0.85	79.72
		2A	D	Residential - 1/8 Acre	92	1.07	
		12	C	Ponderosa Pine (Fair)	65	1.53	
				Open Space (50% -70% cover)	79	1.53	
Sub-2A	4.53	2A	D	Dirt (including ROW)	89	2.101	91.15
				Paved Street w/ Open Ditches	93	2.43	
Sub-3A	5.14	12	C	Ponderosa Pine (Fair)	65	2.57	72.00
				Open Space (Fair)	79	2.57	
Sub-3B	16.94	2A	D	Ponderosa Pine (Fair)	75	8.97	75.18
		12	C	Ponderosa Pine (Fair)	65	3.88	
				Open Space (Fair)	79	3.88	
		12	C	Roofs	98	0.22	

* Drainage Areas 1 and 1A use the post burn curve numbers - Open Sapce with less than 50% grass cover

Composite Curve Number (CN) Calculations-Proposed Condition

Drainage Area ID	Total Area (ac)	Soil Map Symbol	Hydrologic Soil Group	Cover Type	SCS Curve Number	Area for Individual CN	Composite SCS CN
*1	7.01	2A	D	Open Space (<50% grass cover)	89	1.29	86.55
		12	C	Open Space (<50% grass cover)	86	5.72	
*1A	28.94	2	D	Open Space (<50% grass cover)	89	13.20	87.37
		12	C	Open Space (<50% grass cover)	86	15.74	
Sub-1B	5.84	2	D	Paved Street	98	2.05	93.46
				Paved Street w/ Open Ditches	93	1.90	
				Dirt (including ROW)	89	1.89	
Sub-2	4.97	2	D	Residential - 1/8 Acre	92	0.85	79.72
		2A	D	Residential - 1/8 Acre	92	1.07	
		12	C	Ponderosa Pine (Fair)	65	1.53	
				Open Space (<50% grass cover)	79	1.53	
Sub-2A	4.53	2A	D	Dirt (including ROW)	89	1.387	95.25
				Paved Street	98	3.15	
Sub-3A	5.14	12	C	Ponderosa Pine (Fair)	65	1.75	78.72
				Open space (Fair)	79	1.75	
				Gravel	85	0.62	
				Rooftops/impervious areas	98	1.02	
Sub-3B	16.94	2A	D	Ponderosa Pine (Fair)	75	3.97	82.70
				Open Space (Fair)	84	3.97	
				Permanent Pond	98	1.03	
		12	C	Ponderosa Pine (Fair)	65	2.36	
				Open space (Fair)	79	2.36	
				Gravel	85	1.36	
		12		Rooftops/impervious areas	98	2.19	

* Drainage Areas 1 and 1A use the post burn curve numbers - Open Sapce with less than 50% grass cover

Woody Mountain Campground Drainage Area Summary-Existing Conditions

Drainage Area ID	Area	Area		CN	Tc	Tlag=0.6*Tc
	sq.ft	Acres	sq.miles		min	(hr)
Offsite						
Sub-1	305345	7.01	0.011	86.55	15.5	0.155
Sub-1A	1260517	28.94	0.045	87.37	18.9	0.189
Sub-1B	254229	5.84	0.009	93.23	10.0	0.100
Sub-2	216434	4.97	0.008	79.72	18.1	0.181
Sub-2A	197411	4.53	0.007	91.15	10.0	0.100
Onsite						
Sub-3A	223971	5.14	0.008	72.00	15.0	0.150
Sub-3B	737806	16.94	0.026	75.18	31.7	0.32

Woody Mountain Campground Drainage Area Summary-Proposed Conditions

Drainage Area ID	Area			CN	Tc	Tlag=0.6*Tc
	sq.ft	Acres	sq.miles		min	(hr)
Offsite						
Sub-1	305345	7.01	0.011	86.55	15.5	0.155
Sub-1A	1260517	28.94	0.045	87.37	18.9	0.189
Sub-1B	254229	5.84	0.009	93.46	10.0	0.100
Sub-2	216434	4.97	0.008	79.72	18.1	0.181
Sub-2A	197411	4.53	0.007	95.25	10.0	0.100
Onsite						
Sub-3A	223971	5.14	0.008	78.72	10.0	0.100
Sub-3B	737806	16.94	0.026	82.70	24.2	0.242

Sub-1

Sheet Flow

Input Data		
	Elev Start [ft]	7106
	Elev End [ft]	7105
	Length [ft]	70
	n (Short Grass)	0.15
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.178

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7105
	Elev End [ft]	7095
	Length [ft]	335
OUTPUT		
	S [ft/ft]	0.0299
	V [ft/s]	2.79
	Tt [min]	2.00
	Tt [hr]	0.033

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7095
	Elev End [ft]	7077
	Length [ft]	695
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0259
OUTPUT		
	Area [sf]	23.50
	Wetted Perimeter [ft]	41.06
	Hydraulic Radius	0.57
	Velocity [fps]	4.12
	Tt [min]	2.81
	Tt [hr]	0.047

Tc [hr]	0.258
Tc [min]	15.47
SCS Lag [hr]	0.155

Sub-1A

Sheet Flow

Input Data		
	Elev Start [ft]	7113
	Elev End [ft]	7111
	Length [ft]	98
	n (short grass)	0.15
OUTPUT		
	S [ft/ft]	0.02
	Tt [hr]	0.202

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7111
	Elev End [ft]	7098
	Length [ft]	561
	Output	
	S [ft/ft]	0.0232
	V [ft/s]	2.46
	Tt [min]	3.81
	Tt [hr]	0.063

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7098
	Elev End [ft]	7070
	Length [ft]	904
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0310
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	27.50
	Wetted Perimeter [ft]	40.08
	Hydraulic Radius	0.69
	Velocity [fps]	5.09
	Tt [min]	2.96
	Tt [hr]	0.049

Tc [hr]	0.314
Tc [min]	18.87
SCS Lag [hr]	0.189

Sub-1B

Sheet Flow

Input Data		
	Elev Start [ft]	7131
	Elev End [ft]	7130
	Length [ft]	36
	n (Asphalt)	0.011
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.010

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7130
	Elev End [ft]	7115
	Length [ft]	490
	Output	
	S [ft/ft]	0.0306
	V [ft/s]	2.82
	Tt [min]	2.89
	Tt [hr]	0.048

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7115
	Elev End [ft]	7076
	Length [ft]	1219
	Channel Slope [ft/ft]	0.0320
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	2.25
	Wetted Perimeter [ft]	4.03
	Hydraulic Radius	0.56
	Velocity [fps]	9.01
	Tt [min]	2.26
	Tt [hr]	0.038

Tc [hr]	0.096	
Tc [min]	10.00	(Min. 10 min)
SCS Lag [hr]	0.100	

Sub-2A

Sheet Flow

Input Data		
	Elev Start [ft]	7088
	Elev End [ft]	7087
	Length [ft]	35
	n (Asphalt)	0.011
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.010

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7087
	Elev End [ft]	7080
	Length [ft]	674
	Output	
	S [ft/ft]	0.0104
	V [ft/s]	1.64
	Tt [min]	6.83
	Tt [hr]	0.114

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7080
	Elev End [ft]	7040
	Length [ft]	945
	Manning's n	0.020
	Channel Slope [ft/ft]	0.0423
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	16.00
	Wetted Perimeter [ft]	27.09
	Hydraulic Radius	0.59
	Velocity [fps]	10.76
	Tt [min]	1.46
	Tt [hr]	0.024

Tc [hr]	0.148	
Tc [min]	10.00	(Min. 10 min)
SCS Lag [hr]	0.100	

Sub-2

Sheet Flow

Input Data		
	Elev Start [ft]	7072
	Elev End [ft]	7069
	Length [ft]	97
	n (dense grasses)	0.24
OUTPUT		
	S [ft/ft]	0.03
	Tt [hr]	0.247

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7069
	Elev End [ft]	7068
	Length [ft]	203
	Output	
	S [ft/ft]	0.0049
	V [ft/s]	1.13
	Tt [min]	2.99
	Tt [hr]	0.050

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7068
	Elev End [ft]	7060
	Length [ft]	125
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0640
	Depth [ft]	1.00
OUTPUT DATA:		
	Area [sf]	7.00
	Wetted Perimeter [ft]	12.20
	Hydraulic Radius	0.57
	Velocity [fps]	6.49
	Tt [min]	0.32
	Tt [hr]	0.005

Tc [hr]	0.302
Tc [min]	18.11
SCS Lag [hr]	0.181

Sub-3A Existing Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7083
	Elev End [ft]	7081
	Length [ft]	42
	n (dense grasses)	0.24
OUTPUT		
	S [ft/ft]	0.05
	Tt [hr]	0.106

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081
	Elev End [ft]	7050
	Length [ft]	1056
	Output	
	S [ft/ft]	0.0294
	V [ft/s]	2.76
	Tt [min]	6.37
	Tt [hr]	0.106

Tc [hr]	0.212
Tc [min]	12.74
Tc [min] used	15.00
Tc [hr] used	0.25
SCS Lag [hr]	0.150

Sub-3B Existing Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7081
	Elev End [ft]	7080
	Length [ft]	95
	n (Dense Grasses)	0.24
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.458

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7080.4
	Elev End [ft]	7072
	Length [ft]	400
	Output	
	S [ft/ft]	0.0210
	V [ft/s]	2.34
	Tt [min]	2.85
	Tt [hr]	0.048

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7072
	Elev End [ft]	6988
	Length [ft]	912
	Manning's n	0.040
	Channel Slope [ft/ft]	0.0921
	Depth [ft]	2.00
OUTPUT DATA:		
	Area [sf]	90.00
	Wetted Perimeter [ft]	85.10
	Hydraulic Radius	1.06
	Velocity [fps]	11.70
	Tt [min]	1.30
	Tt [hr]	0.022

Tc [hr]	0.527
Tc [min]	31.62
SCS Lag [hr]	0.32

Sub-3A Proposed Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7083
	Elev End [ft]	7081
	Length [ft]	42
	n (short grasses)	0.15
OUTPUT		
	S [ft/ft]	0.05
	Tt [hr]	0.073

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7081
	Elev End [ft]	7050
	Length [ft]	1056
	Output	
	S [ft/ft]	0.0294
	V [ft/s]	2.76
	Tt [min]	6.37
	Tt [hr]	0.106

Tc [hr]	0.179
Tc [min]	10.74
Tc [min] used	10.00
Tc [hr] used	0.17
SCS Lag [hr]	0.100

Sub-3B Proposed Condition

Sheet Flow

Input Data		
	Elev Start [ft]	7081
	Elev End [ft]	7080
	Length [ft]	75
	n (dense grasses)	0.25
OUTPUT		
	S [ft/ft]	0.01
	Tt [hr]	0.345

Shallow Concentrated Flow

Unpaved		
	Elev Start [ft]	7080.35
	Elev End [ft]	7072
	Length [ft]	400
	Output	
	S [ft/ft]	0.0209
	V [ft/s]	2.33
	Tt [min]	2.86
	Tt [hr]	0.048

Open Channel Flow

INPUT DATA:		
	Elev Start [ft]	7072
	Elev End [ft]	7000
	Length [ft]	548
	Manning's n	0.040
	Channel Slope [ft/ft]	0.1314
	Depth [ft]	2.00
OUTPUT DATA:		
	Top Width [ft]	85.00
	Area [sf]	90.00
	Wetted Perimeter [ft]	85.10
	Hydraulic Radius	1.06
	Velocity [fps]	13.98
	Tt [min]	0.65
	Tt [hr]	0.011

Tc [hr]	0.404
Tc [min]	24.21
SCS Lag [hr]	0.24

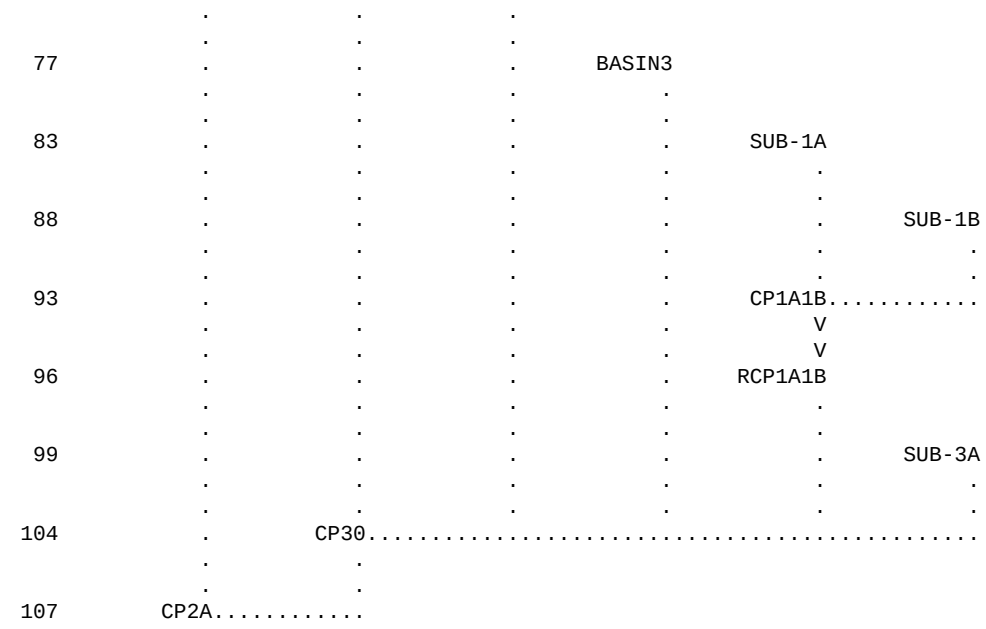
```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   02FEB19  TIME  12:30:54  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                PAGE  1

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                       *DIAGRAM
            1          ID        Woody Mountain Campground
            2          ID        Existing-Conditions HEC-1 Model
            3          ID        10-year, 6-hour Model
            4          ID        Woodson Engineering and Surveying
            5          ID        FEB 2019
            6          ID        EXISTING CONDITION
            7          IT       3       0       0     125
            8          IO       5       0       0
            9          IN       5       0       0
                       *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   91.51
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .026
   29          LS       0   75.18
   30          UD    0.32
               *

   31          KK     CP2
   32          KM     COMBINE HYDROGRAPHS FROM CP1A & SUB-3B
   33          HC       2
               *

   34          KK  BASIN4
   35          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   36          KM    RUNOFF FROM BASIN 4
   37          BA    .002
   38          LS       0   83.56
   39          UD    .086
               *
1                                    HEC-1 INPUT                                    PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   40          KK   RCP26
   41          KM    ROUTE CP26 TO CP27
   42          RK     400    0.01   0.016       0      21      10      10
```

```
            *
43          KK BASIN4A
44          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
45          KM    RUNOFF FROM BASIN 4A
46          BA    .002
47          LS       0    86.0
48          UD    .136
            *
49          KK    CP27
50          KM    COMBINE BASINS RCP26 & BASIN4A
51          HC       2
            *
52          KK BASIN1A
53          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
54          KM    RUNOFF FROM BASIN 1A
55          BA    .001
56          LS       0    90.4
57          UD    .054
            *
58          KK    CP28
59          KM    COMBINE BASINS BASIN1A & CP27
60          HC       2
            *
61          KK     DB1
62          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
63          KM    DETENTION BASIN 1
64          RS       1    STOR       0
65          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39     0.40
66          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
67          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61     5.63
            *
68          KK    RDB1
69          KM    ROUTE DB1 TO CP30
70          RK     320    0.01   0.013       0    CIRC     0.5
            *
71          KK BASIN4B
72          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
73          KM    RUNOFF FROM BASIN 4B
74          BA    .002
75          LS       0   87.81
76          UD    .071
            *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  77          KK  BASIN3
  78          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  79          KM    RUNOFF FROM BASIN 3
  80          BA    .002
  81          LS       0   90.80
  82          UD    .071
              *

  83          KK  SUB-1A
  84          KM    RUNOFF FROM SUB-1A
  85          BA    .045
  86          LS       0   87.37
  87          UD    .189
              *

  88          KK  SUB-1B
  89          KM    RUNOFF FROM SUB-1B
  90          BA    .009
  91          LS       0   93.23
  92          UD     .10
              *

  93          KK  CP1A1B
  94          KM    COMBINE HYDROGRAPHS FROM SUB-1A & SUB-1B
  95          HC       2
              *

  96          KK RCP1A1B
  97          KM    ROUTE CP1A1B TO CP30
  98          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  99          KK  SUB-3A
 100          KM    RUNOFF FROM SUB-3A
 101          BA    .008
 102          LS       0   72.00
 103          UD     .15
              *

 104          KK    CP30
 105          KM    COMBINE BASINS 3, 4B, DB1, & RCP1A1B
 106          HC       5
              *

 107          KK    CP2A
 108          KM     COMBINE HYDROGRAPHS FROM CP30 & CP2
 109          HC       2
              *
```

```
           110          ZZ
1
               SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31         CP2............
                .
                .
    34          .      BASIN4
                .           V
                .           V
    40          .       RCP26
                .           .
                .           .
    43          .           .     BASIN4A
                .           .           .
                .           .           .
    49          .        CP27............
                .           .
                .           .
    52          .           .     BASIN1A
                .           .           .
                .           .           .
    58          .        CP28............
                .           V
                .           V
    61          .         DB1
                .           V
                .           V
    68          .        RDB1
                .           .
                .           .
    71          .           .     BASIN4B
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *            VERSION 4.1                *
 *                                       *
 *  RUN DATE   02FEB19  TIME  12:30:54   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Existing-Conditions HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
FEB 2019
EXISTING CONDITION

```
   8 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
```

```
 IT          HYDROGRAPH TIME DATA
                   NMIN           3  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1    0  STARTING DATE
                  ITIME        0000  STARTING TIME
                     NQ         125  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      1    0  ENDING DATE
                 NDTIME        0612  ENDING TIME
                 ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .05 HOURS
                    TOTAL TIME BASE    6.20 HOURS

      ENGLISH UNITS
           DRAINAGE AREA         SQUARE MILES
           PRECIPITATION DEPTH   INCHES
           LENGTH, ELEVATION     FEET
           FLOW                  CUBIC FEET PER SECOND
           STORAGE VOLUME        ACRE-FEET
           SURFACE AREA          ACRES
           TEMPERATURE           DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                            FLOW IN CUBIC FEET PER SECOND
                                          TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
      OPERATION       STATION       FLOW     PEAK                                           AREA      STAGE     MAX STAGE
+                                                      6-HOUR     24-HOUR     72-HOUR

      HYDROGRAPH AT
+                       SUB-1        12.    3.20          1.          1.          1.        .01

      HYDROGRAPH AT
+                       SUB-2         5.    3.25          1.          1.          1.        .01

      HYDROGRAPH AT
+                      SUB-2A        12.    3.15          1.          1.          1.        .01

      3 COMBINED AT
+                        CP1A        27.    3.15          3.          3.          3.        .03

      HYDROGRAPH AT
+                      SUB-3B         8.    3.45          1.          1.          1.        .03

      2 COMBINED AT
+                         CP2        30.    3.20          4.          4.          4.        .05

      HYDROGRAPH AT
+                      BASIN4         2.    3.10          0.          0.          0.        .00
```

	ROUTED TO								
+		RCP26	2.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	2.	3.20	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	4.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN1A	2.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	6.	3.15	1.	0.	0.	.01	
	ROUTED TO								
+		DB1	2.	3.45	0.	0.	0.	.01	
+									7053.69 3.45
	ROUTED TO								
+		RDB1	2.	3.45	0.	0.	0.	.01	
	HYDROGRAPH AT								
+		BASIN4B	3.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	4.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	47.	3.25	5.	5.	5.	.05	
	HYDROGRAPH AT								
+		SUB-1B	17.	3.10	1.	1.	1.	.01	
	2 COMBINED AT								
+		CP1A1B	60.	3.20	6.	6.	6.	.05	
	ROUTED TO								
+		RCP1A1B	58.	3.20	6.	6.	6.	.05	
	HYDROGRAPH AT								
+		SUB-3A	2.	3.25	0.	0.	0.	.01	
	5 COMBINED AT								
+		CP30	66.	3.20	8.	7.	7.	.07	
	2 COMBINED AT								
+		CP2A	96.	3.20	12.	11.	11.	.12	

1

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RCP26	MANE	.79	2.18	187.57	.82	3.00	2.17	189.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR= -.1

RDB1	MANE	.40	1.99	207.20	.86	3.00	1.99	207.00	.86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR= .0

RCP1A1B	MANE	.64	59.35	193.37	1.10	3.00	58.41	192.00	1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3177E+01 EXCESS= .0000E+00 OUTFLOW= .3173E+01 BASIN STORAGE= .4051E-02 PERCENT ERROR= .0

*** NORMAL END OF HEC-1 ***

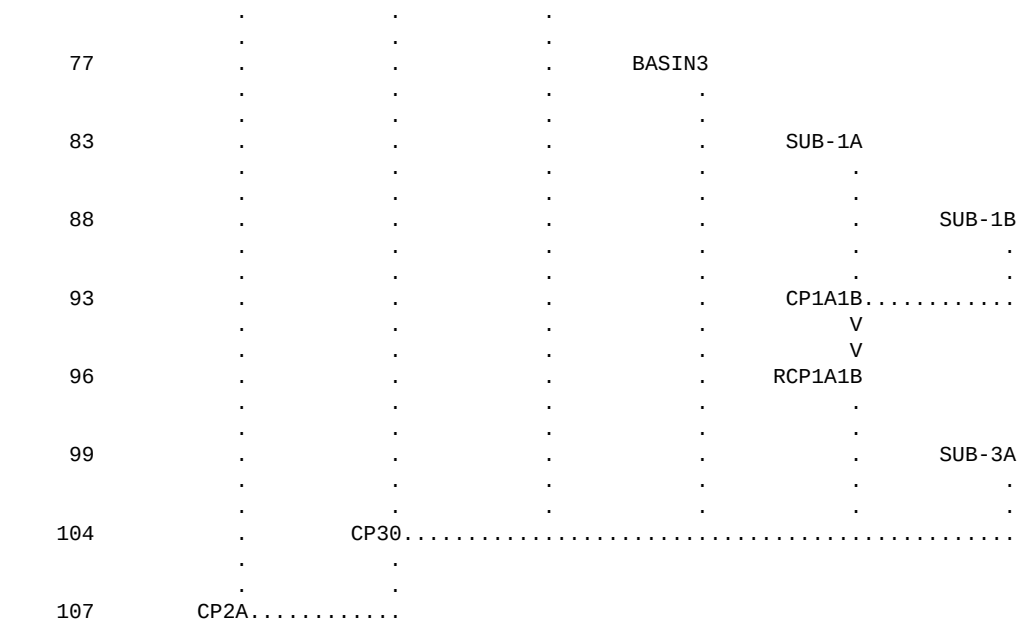
```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   02FEB19  TIME  12:39:04  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Existing-Conditions HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        FEB 2019
             6          ID        EXISTING CONDITION
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
  10          KK   SUB-1
  11          BA   0.011
  12          PH       1    0.19    0.71    1.37    2.21    2.56    2.76    3.18
  13          LS       0   86.55
  14          UD   0.155
              *

  15          KK   SUB-2
  16          BA   0.008
  17          LS       0   79.72
  18          UD   0.181
              *

  19          KK  SUB-2A
  20          BA   0.007
  21          LS       0   91.51
  22          UD     0.1
              *

  23          KK    CP1A
  24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
  25          HC       3
              *

  26          KK  SUB-3B
  27          KM    RUNOFF FROM SUB-3B
  28          BA    .026
  29          LS       0   75.18
  30          UD    0.32
              *

  31          KK     CP2
  32          KM     COMBINE HYDROGRAPHS FROM CP1A & SUB-3B
  33          HC       2
              *

  34          KK  BASIN4
  35          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  36          KM    RUNOFF FROM BASIN 4
  37          BA    .002
  38          LS       0   83.56
  39          UD    .086
              *
1                                     HEC-1 INPUT                                          PAGE  2

 LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  40          KK   RCP26
  41          KM    ROUTE CP26 TO CP27
  42          RK     400    0.01   0.016       0      21      10      10
```

```
            *
43          KK BASIN4A
44          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
45          KM    RUNOFF FROM BASIN 4A
46          BA    .002
47          LS       0    86.0
48          UD    .136
            *
49          KK    CP27
50          KM    COMBINE BASINS RCP26 & BASIN4A
51          HC       2
            *
52          KK BASIN1A
53          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
54          KM    RUNOFF FROM BASIN 1A
55          BA    .001
56          LS       0    90.4
57          UD    .054
            *
58          KK    CP28
59          KM    COMBINE BASINS BASIN1A & CP27
60          HC       2
            *
61          KK     DB1
62          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
63          KM    DETENTION BASIN 1
64          RS       1    STOR       0
65          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
66          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
67          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
            *
68          KK    RDB1
69          KM    ROUTE DB1 TO CP30
70          RK     320    0.01   0.013       0    CIRC     0.5
            *
71          KK BASIN4B
72          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
73          KM    RUNOFF FROM BASIN 4B
74          BA    .002
75          LS       0   87.81
76          UD    .071
            *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  77          KK  BASIN3
  78          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  79          KM    RUNOFF FROM BASIN 3
  80          BA    .002
  81          LS       0   90.80
  82          UD    .071
              *

  83          KK  SUB-1A
  84          KM    RUNOFF FROM SUB-1A
  85          BA    .045
  86          LS       0   87.37
  87          UD    .189
              *

  88          KK  SUB-1B
  89          KM    RUNOFF FROM SUB-1B
  90          BA    .009
  91          LS       0   93.23
  92          UD     .10
              *

  93          KK  CP1A1B
  94          KM    COMBINE HYDROGRAPHS FROM SUB-1A & SUB-1B
  95          HC       2
              *

  96          KK RCP1A1B
  97          KM    ROUTE CP1A1B TO CP30
  98          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  99          KK  SUB-3A
 100          KM    RUNOFF FROM SUB-3A
 101          BA    .008
 102          LS       0   72.00
 103          UD     .15
              *

 104          KK    CP30
 105          KM    COMBINE BASINS 3, 4B, DB1, & RCP1A1B
 106          HC       5
              *

 107          KK    CP2A
 108          KM     COMBINE HYDROGRAPHS FROM CP30 & CP2
 109          HC       2
              *
```

```
           110          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31         CP2............
                .
                .
    34          .      BASIN4
                .           V
                .           V
    40          .       RCP26
                .           .
                .           .
    43          .           .     BASIN4A
                .           .           .
                .           .           .
    49          .        CP27............
                .           .
                .           .
    52          .           .     BASIN1A
                .           .           .
                .           .           .
    58          .        CP28............
                .           V
                .           V
    61          .         DB1
                .           V
                .           V
    68          .        RDB1
                .           .
                .           .
    71          .           .     BASIN4B
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *            VERSION 4.1                *
 *                                       *
 *  RUN DATE   02FEB19  TIME  12:39:04   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Existing-Conditions HEC-1 Model
100-year, 6-hour Model
Woodson Engineering and Surveying
FEB 2019
EXISTING CONDITION

```
   8 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
```

```
 IT          HYDROGRAPH TIME DATA
                   NMIN           3  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1    0  STARTING DATE
                  ITIME        0000  STARTING TIME
                     NQ         125  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      1    0  ENDING DATE
                 NDTIME        0612  ENDING TIME
                 ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .05 HOURS
                    TOTAL TIME BASE    6.20 HOURS

      ENGLISH UNITS
           DRAINAGE AREA         SQUARE MILES
           PRECIPITATION DEPTH   INCHES
           LENGTH, ELEVATION     FEET
           FLOW                  CUBIC FEET PER SECOND
           STORAGE VOLUME        ACRE-FEET
           SURFACE AREA          ACRES
           TEMPERATURE           DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                            FLOW IN CUBIC FEET PER SECOND
                                          TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
      OPERATION       STATION       FLOW     PEAK                                           AREA      STAGE     MAX STAGE
+                                                      6-HOUR     24-HOUR     72-HOUR

      HYDROGRAPH AT
+                       SUB-1        24.    3.20          2.          2.          2.        .01

      HYDROGRAPH AT
+                       SUB-2        12.    3.25          1.          1.          1.        .01

      HYDROGRAPH AT
+                     SUB-2A         22.    3.15          2.          2.          2.        .01

      3 COMBINED AT
+                       CP1A         54.    3.15          5.          5.          5.        .03

      HYDROGRAPH AT
+                     SUB-3B         21.    3.40          3.          3.          3.        .03

      2 COMBINED AT
+                        CP2         65.    3.20          8.          8.          8.        .05

      HYDROGRAPH AT
+                     BASIN4          5.    3.10          0.          0.          0.        .00
```

	ROUTED TO								
+		RCP26	5.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	4.	3.15	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	9.	3.15	1.	1.	1.	.00	
	HYDROGRAPH AT								
+		BASIN1A	3.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	12.	3.15	1.	1.	1.	.01	
	ROUTED TO								
+		DB1	4.	3.40	1.	1.	1.	.01	
+									7054.42 3.40
	ROUTED TO								
+		RDB1	4.	3.40	1.	1.	1.	.01	
	HYDROGRAPH AT								
+		BASIN4B	6.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	7.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	92.	3.25	9.	9.	9.	.05	
	HYDROGRAPH AT								
+		SUB-1B	29.	3.15	2.	2.	2.	.01	
	2 COMBINED AT								
+		CP1A1B	115.	3.20	12.	11.	11.	.05	
	ROUTED TO								
+		RCP1A1B	113.	3.20	12.	11.	11.	.05	
	HYDROGRAPH AT								
+		SUB-3A	8.	3.20	1.	1.	1.	.01	
	5 COMBINED AT								
+		CP30	132.	3.20	14.	14.	14.	.07	
	2 COMBINED AT								
+		CP2A	197.	3.20	22.	22.	22.	.12	

1

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	DT	INTERPOLATED TO COMPUTATION INTERVAL PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RCP26	MANE	.60	4.66	187.74	1.63	3.00	4.62	189.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+00 EXCESS= .0000E+00 OUTFLOW= .1741E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR= -.2

RDB1	MANE	.44	3.98	204.47	1.68	3.00	3.98	204.00	1.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4494E+00 EXCESS= .0000E+00 OUTFLOW= .4489E+00 BASIN STORAGE= .5692E-03 PERCENT ERROR= .0

RCP1A1B	MANE	.43	114.50	192.75	2.00	3.00	112.68	192.00	2.00

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5777E+01 EXCESS= .0000E+00 OUTFLOW= .5773E+01 BASIN STORAGE= .5669E-02 PERCENT ERROR= .0

*** NORMAL END OF HEC-1 ***

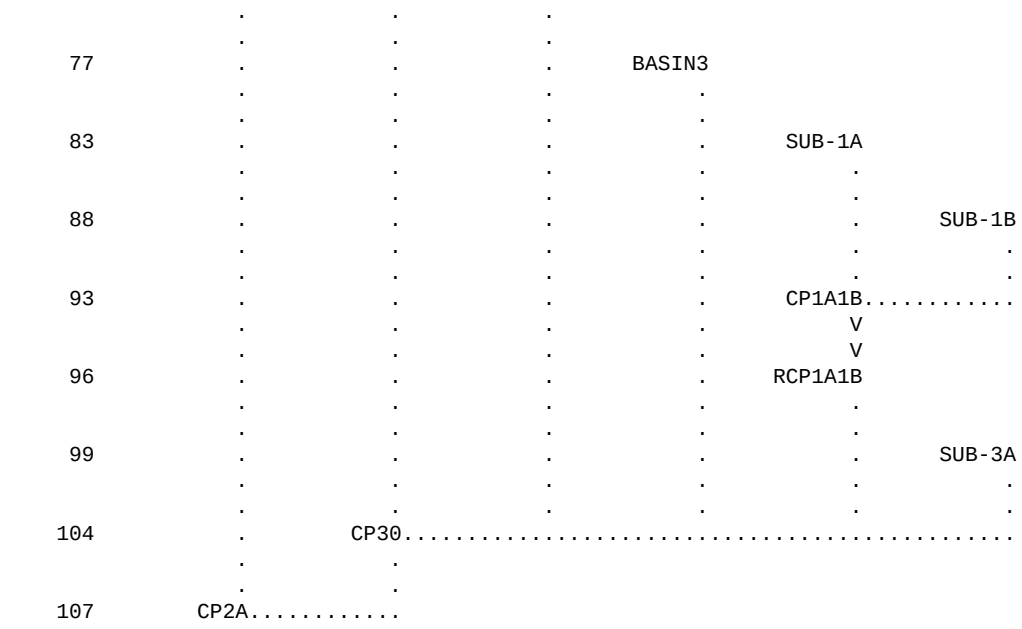
```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   02FEB19  TIME  12:46:40  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

         LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                       *DIAGRAM
            1          ID        Woody Mountain Campground
            2          ID        Proposed-Conditions without Detention Basin HEC-1 Model
            3          ID        10-year, 6-hour Model
            4          ID        Woodson Engineering and Surveying
            5          ID        Feb 2019
            6          ID        PROPOSED CONDITION (WITHOUT DETENTION BASIN)
            7          IT       3       0       0     125
            8          IO       5       0       0
            9          IN       5       0       0
                       *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .026
   29          LS       0   82.70
   30          UD     .24
               *

   31          KK     CP2
   32          KM     COMBINE HYDROGRAPHS FROM CP1A & SUB-3B
   33          HC       2
               *

   34          KK  BASIN4
   35          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   36          KM    RUNOFF FROM BASIN 4
   37          BA    .002
   38          LS       0   83.56
   39          UD    .086
               *
1                                    HEC-1 INPUT                                    PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   40          KK   RCP26
   41          KM    ROUTE CP26 TO CP27
   42          RK     400    0.01   0.016       0      21      10      10
```

```
            *
43          KK BASIN4A
44          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
45          KM    RUNOFF FROM BASIN 4A
46          BA    .002
47          LS       0    86.0
48          UD    .136
            *
49          KK    CP27
50          KM    COMBINE BASINS RCP26 & BASIN4A
51          HC       2
            *
52          KK BASIN1A
53          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
54          KM    RUNOFF FROM BASIN 1A
55          BA    .001
56          LS       0    90.4
57          UD    .054
            *
58          KK    CP28
59          KM    COMBINE BASINS BASIN1A & CP27
60          HC       2
            *
61          KK     DB1
62          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
63          KM    DETENTION BASIN 1
64          RS       1    STOR       0
65          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39     0.40
66          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
67          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61     5.63
            *
68          KK    RDB1
69          KM    ROUTE DB1 TO CP30
70          RK     320    0.01   0.013       0    CIRC     0.5
            *
71          KK BASIN4B
72          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
73          KM    RUNOFF FROM BASIN 4B
74          BA    .002
75          LS       0   87.81
76          UD    .071
            *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  77          KK  BASIN3
  78          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  79          KM    RUNOFF FROM BASIN 3
  80          BA    .002
  81          LS       0   90.80
  82          UD    .071
              *

  83          KK  SUB-1A
  84          KM    RUNOFF FROM SUB-1A
  85          BA    .045
  86          LS       0   87.37
  87          UD    .189
              *

  88          KK  SUB-1B
  89          KM    RUNOFF FROM SUB-1B
  90          BA    .009
  91          LS       0   93.46
  92          UD     .10
              *

  93          KK  CP1A1B
  94          KM    COMBINE SUB-1A & SUB-1B
  95          HC       2
              *

  96          KK RCP1A1B
  97          KM    ROUTE CP1A1B TO CP30
  98          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  99          KK  SUB-3A
 100          KM    RUNOFF FROM SUB-3A
 101          BA    .008
 102          LS       0   78.72
 103          UD     .10
              *

 104          KK    CP30
 105          KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
 106          HC       5
              *

 107          KK    CP2A
 108          KM     COMBINE HYDROGRAPHS FROM CP30 & CP-2
 109          HC       2
              *
```

```
           110          ZZ
1
                SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31         CP2............
                .
                .
    34          .      BASIN4
                .           V
                .           V
    40          .       RCP26
                .           .
                .           .
    43          .           .     BASIN4A
                .           .           .
                .           .           .
    49          .        CP27............
                .           .
                .           .
    52          .           .     BASIN1A
                .           .           .
                .           .           .
    58          .        CP28............
                .           V
                .           V
    61          .         DB1
                .           V
                .           V
    68          .        RDB1
                .           .
                .           .
    71          .           .     BASIN4B
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *            VERSION 4.1                *
 *                                       *
 *  RUN DATE   02FEB19  TIME  12:46:40   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Proposed-Conditions without Detention Basin HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
Feb 2019
PROPOSED CONDITION (WITHOUT DETENTION BASIN)

```
   8 IO          OUTPUT CONTROL VARIABLES
                       IPRNT           5  PRINT CONTROL
                       IPLOT           0  PLOT CONTROL
                       QSCAL          0.  HYDROGRAPH PLOT SCALE
```

```
 IT          HYDROGRAPH TIME DATA
                   NMIN           3  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1    0  STARTING DATE
                  ITIME        0000  STARTING TIME
                     NQ         125  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      1    0  ENDING DATE
                 NDTIME        0612  ENDING TIME
                 ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .05 HOURS
                    TOTAL TIME BASE    6.20 HOURS

      ENGLISH UNITS
           DRAINAGE AREA         SQUARE MILES
           PRECIPITATION DEPTH   INCHES
           LENGTH, ELEVATION     FEET
           FLOW                  CUBIC FEET PER SECOND
           STORAGE VOLUME        ACRE-FEET
           SURFACE AREA          ACRES
           TEMPERATURE           DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                            FLOW IN CUBIC FEET PER SECOND
                                          TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
      OPERATION       STATION       FLOW     PEAK                                           AREA      STAGE     MAX STAGE
+                                                      6-HOUR     24-HOUR     72-HOUR

      HYDROGRAPH AT
+                       SUB-1        12.    3.20          1.          1.          1.        .01

      HYDROGRAPH AT
+                       SUB-2         5.    3.25          1.          1.          1.        .01

      HYDROGRAPH AT
+                      SUB-2A        15.    3.10          1.          1.          1.        .01

      3 COMBINED AT
+                        CP1A        29.    3.15          3.          3.          3.        .03

      HYDROGRAPH AT
+                      SUB-3B        17.    3.30          2.          2.          2.        .03

      2 COMBINED AT
+                         CP2        42.    3.20          5.          5.          5.        .05

      HYDROGRAPH AT
+                      BASIN4         2.    3.10          0.          0.          0.        .00
```

	ROUTED TO								
+		RCP26	2.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	2.	3.20	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	4.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN1A	2.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	6.	3.15	1.	0.	0.	.01	
	ROUTED TO								
+		DB1	2.	3.45	0.	0.	0.	.01	
+									7053.69 3.45
	ROUTED TO								
+		RDB1	2.	3.45	0.	0.	0.	.01	
	HYDROGRAPH AT								
+		BASIN4B	3.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	4.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	47.	3.25	5.	5.	5.	.05	
	HYDROGRAPH AT								
+		SUB-1B	17.	3.10	1.	1.	1.	.01	
	2 COMBINED AT								
+		CP1A1B	60.	3.20	6.	6.	6.	.05	
	ROUTED TO								
+		RCP1A1B	59.	3.20	6.	6.	6.	.05	
	HYDROGRAPH AT								
+		SUB-3A	6.	3.15	1.	0.	0.	.01	
	5 COMBINED AT								
+		CP30	69.	3.20	8.	8.	8.	.07	
	2 COMBINED AT								
+		CP2A	112.	3.20	13.	13.	13.	.12	

1

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RCP26	MANE	.79	2.18	187.57	.82	3.00	2.17	189.00	.82

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR= -.1

RDB1	MANE	.40	1.99	207.20	.86	3.00	1.99	207.00	.86

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR= .0

RCP1A1B	MANE	.52	59.64	192.98	1.11	3.00	58.58	192.00	1.11

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3186E+01 EXCESS= .0000E+00 OUTFLOW= .3184E+01 BASIN STORAGE= .3936E-02 PERCENT ERROR= -.1

*** NORMAL END OF HEC-1 ***

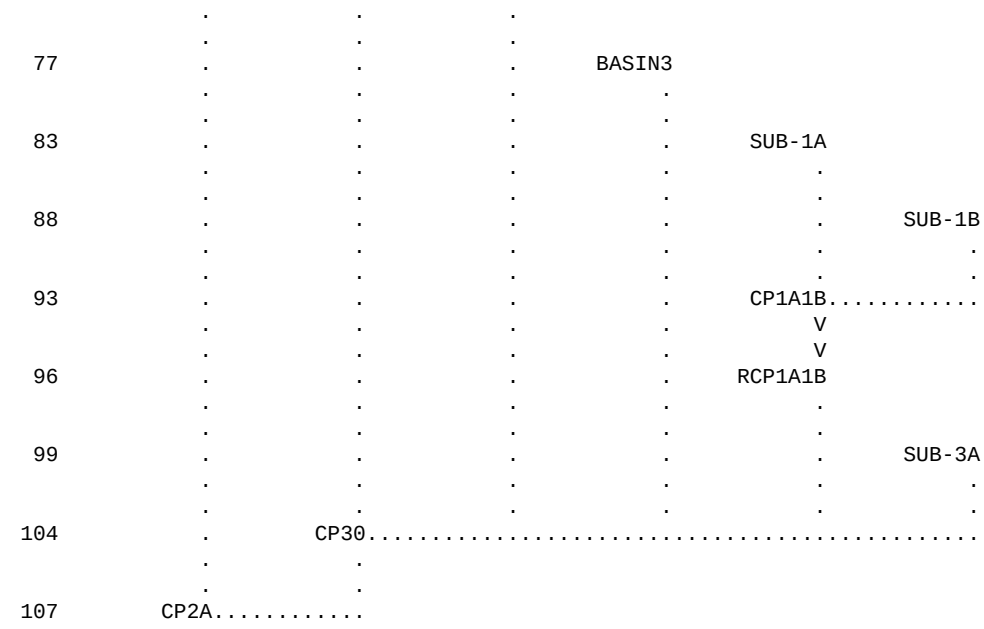
```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   02FEB19  TIME  12:46:56  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions without Detention Basin HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        Feb 2019
             6          ID        PROPOSED CONDITION (WITHOUT DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH       1    0.19    0.71    1.37    2.21    2.56    2.76    3.18
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .026
   29          LS       0   82.70
   30          UD     .24
               *

   31          KK     CP2
   32          KM     COMBINE HYDROGRAPHS FROM CP1A & SUB-3B
   33          HC       2
               *

   34          KK  BASIN4
   35          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   36          KM    RUNOFF FROM BASIN 4
   37          BA    .002
   38          LS       0   83.56
   39          UD    .086
               *
1                                    HEC-1 INPUT                                    PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   40          KK   RCP26
   41          KM    ROUTE CP26 TO CP27
   42          RK     400    0.01   0.016       0      21      10      10
```

```
*
KK BASIN4A
KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
KM    RUNOFF FROM BASIN 4A
BA    .002
LS       0    86.0
UD    .136
*

KK    CP27
KM    COMBINE BASINS RCP26 & BASIN4A
HC       2
*

KK BASIN1A
KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
KM    RUNOFF FROM BASIN 1A
BA    .001
LS       0    90.4
UD    .054
*

KK    CP28
KM    COMBINE BASINS BASIN1A & CP27
HC       2
*

KK     DB1
KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
KM    DETENTION BASIN 1
RS       1    STOR       0
SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39     0.40
SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61     5.63
*

KK    RDB1
KM    ROUTE DB1 TO CP30
RK     320    0.01   0.013       0    CIRC     0.5
*

KK BASIN4B
KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
KM    RUNOFF FROM BASIN 4B
BA    .002
LS       0   87.81
UD    .071
*
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  77          KK  BASIN3
  78          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  79          KM    RUNOFF FROM BASIN 3
  80          BA    .002
  81          LS       0   90.80
  82          UD    .071
              *

  83          KK  SUB-1A
  84          KM    RUNOFF FROM SUB-1A
  85          BA    .045
  86          LS       0   87.37
  87          UD    .189
              *

  88          KK  SUB-1B
  89          KM    RUNOFF FROM SUB-1B
  90          BA    .009
  91          LS       0   93.46
  92          UD     .10
              *

  93          KK  CP1A1B
  94          KM    COMBINE SUB-1A & SUB-1B
  95          HC       2
              *

  96          KK RCP1A1B
  97          KM    ROUTE CP1A1B TO CP30
  98          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  99          KK  SUB-3A
 100          KM    RUNOFF FROM SUB-3A
 101          BA    .008
 102          LS       0   78.72
 103          UD     .10
              *

 104          KK    CP30
 105          KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
 106          HC       5
              *

 107          KK    CP2A
 108          KM     COMBINE HYDROGRAPHS FROM CP30 & CP-2
 109          HC       2
              *
```

```
           110          ZZ
1
               SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31         CP2............
                .
                .
    34          .      BASIN4
                .           V
                .           V
    40          .       RCP26
                .           .
                .           .
    43          .           .     BASIN4A
                .           .           .
                .           .           .
    49          .        CP27............
                .           .
                .           .
    52          .           .     BASIN1A
                .           .           .
                .           .           .
    58          .        CP28............
                .           V
                .           V
    61          .         DB1
                .           V
                .           V
    68          .        RDB1
                .           .
                .           .
    71          .           .     BASIN4B
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *               JAN   1997              *
 *            VERSION 4.1                *
 *                                       *
 *  RUN DATE   02FEB19  TIME  12:46:56   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Proposed-Conditions without Detention Basin HEC-1 Model
100-year, 6-hour Model
Woodson Engineering and Surveying
Feb 2019
PROPOSED CONDITION (WITHOUT DETENTION BASIN)

```
   8 IO          OUTPUT CONTROL VARIABLES
                       IPRNT          5  PRINT CONTROL
                       IPLOT          0  PLOT CONTROL
                       QSCAL         0.  HYDROGRAPH PLOT SCALE
```

```
 IT          HYDROGRAPH TIME DATA
                   NMIN           3  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1    0  STARTING DATE
                  ITIME        0000  STARTING TIME
                     NQ         125  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      1    0  ENDING DATE
                 NDTIME        0612  ENDING TIME
                 ICENT          19  CENTURY MARK

               COMPUTATION INTERVAL     .05 HOURS
                    TOTAL TIME BASE    6.20 HOURS

      ENGLISH UNITS
           DRAINAGE AREA         SQUARE MILES
           PRECIPITATION DEPTH   INCHES
           LENGTH, ELEVATION     FEET
           FLOW                  CUBIC FEET PER SECOND
           STORAGE VOLUME        ACRE-FEET
           SURFACE AREA          ACRES
           TEMPERATURE           DEGREES FAHRENHEIT
1
                                                RUNOFF SUMMARY
                                            FLOW IN CUBIC FEET PER SECOND
                                          TIME IN HOURS,  AREA IN SQUARE MILES

                                    PEAK   TIME OF     AVERAGE FLOW FOR MAXIMUM PERIOD      BASIN     MAXIMUM     TIME OF
      OPERATION       STATION       FLOW     PEAK                                           AREA      STAGE     MAX STAGE
+                                                      6-HOUR     24-HOUR     72-HOUR

      HYDROGRAPH AT
+                       SUB-1        24.    3.20          2.          2.          2.        .01

      HYDROGRAPH AT
+                       SUB-2        12.    3.25          1.          1.          1.        .01

      HYDROGRAPH AT
+                      SUB-2A        24.    3.10          2.          2.          2.        .01

      3 COMBINED AT
+                        CP1A        56.    3.15          5.          5.          5.        .03

      HYDROGRAPH AT
+                      SUB-3B        38.    3.30          4.          4.          4.        .03

      2 COMBINED AT
+                         CP2        87.    3.20         10.          9.          9.        .05

      HYDROGRAPH AT
+                      BASIN4         5.    3.10          0.          0.          0.        .00
```

	ROUTED TO								
+		RCP26	5.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	4.	3.15	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	9.	3.15	1.	1.	1.	.00	
	HYDROGRAPH AT								
+		BASIN1A	3.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	12.	3.15	1.	1.	1.	.01	
	ROUTED TO								
+		DB1	4.	3.40	1.	1.	1.	.01	
+									7054.42 3.40
	ROUTED TO								
+		RDB1	4.	3.40	1.	1.	1.	.01	
	HYDROGRAPH AT								
+		BASIN4B	6.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	7.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	92.	3.25	9.	9.	9.	.05	
	HYDROGRAPH AT								
+		SUB-1B	29.	3.15	2.	2.	2.	.01	
	2 COMBINED AT								
+		CP1A1B	115.	3.20	12.	11.	11.	.05	
	ROUTED TO								
+		RCP1A1B	113.	3.20	12.	11.	11.	.05	
	HYDROGRAPH AT								
+		SUB-3A	14.	3.15	1.	1.	1.	.01	
	5 COMBINED AT								
+		CP30	137.	3.20	15.	14.	14.	.07	
	2 COMBINED AT								
+		CP2A	224.	3.20	24.	24.	24.	.12	

1

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

						INTERPOLATED TO COMPUTATION INTERVAL			
ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RCP26	MANE	.60	4.66	187.74	1.63	3.00	4.62	189.00	1.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+00 EXCESS= .0000E+00 OUTFLOW= .1741E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR= -.2

RDB1	MANE	.44	3.98	204.47	1.68	3.00	3.98	204.00	1.68

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4494E+00 EXCESS= .0000E+00 OUTFLOW= .4489E+00 BASIN STORAGE= .5692E-03 PERCENT ERROR= .0

RCP1A1B	MANE	.46	114.50	193.12	2.01	3.00	112.83	192.00	2.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5788E+01 EXCESS= .0000E+00 OUTFLOW= .5784E+01 BASIN STORAGE= .5657E-02 PERCENT ERROR= .0

*** NORMAL END OF HEC-1 ***

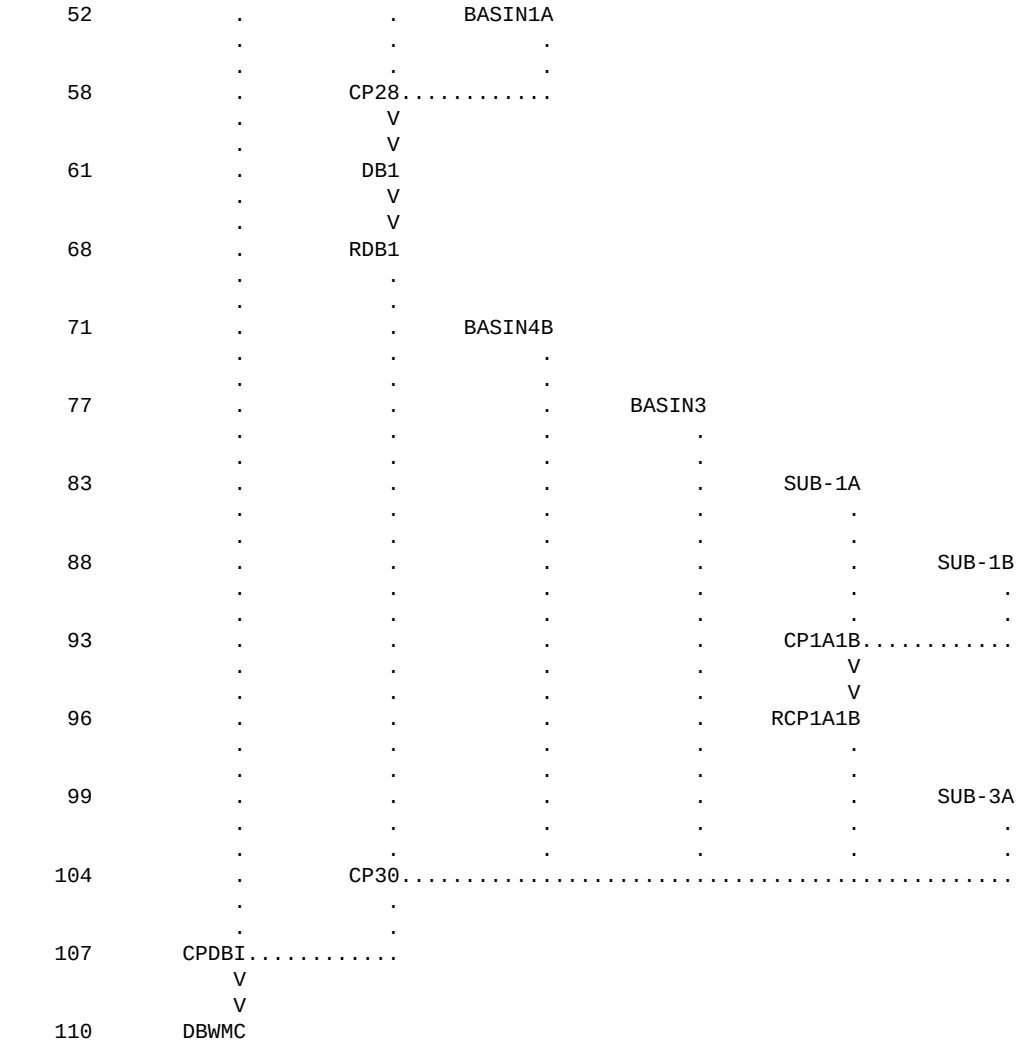
```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   02FEB19  TIME  12:51:47  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions with Detention Basin HEC-1 Model
             3          ID        10-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        Feb 2019
             6          ID        PROPOSED CONDITION (WITH DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH      10    0.19    0.48    0.87    1.46    1.70    1.86    2.16
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .026
   29          LS       0   82.70
   30          UD     .24
               *

   31          KK     CP2
   32          KM     COMBINE HYDROGRAPHS FROM CP1A & SUB-3B
   33          HC       2
               *

   34          KK  BASIN4
   35          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   36          KM    RUNOFF FROM BASIN 4
   37          BA    .002
   38          LS       0   83.56
   39          UD    .086
               *
1                                    HEC-1 INPUT                                    PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   40          KK   RCP26
   41          KM    ROUTE CP26 TO CP27
   42          RK     400    0.01   0.016       0      21      10      10
```

```
            *
43          KK BASIN4A
44          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
45          KM    RUNOFF FROM BASIN 4A
46          BA    .002
47          LS       0    86.0
48          UD    .136
            *
49          KK    CP27
50          KM    COMBINE BASINS RCP26 & BASIN4A
51          HC       2
            *
52          KK BASIN1A
53          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
54          KM    RUNOFF FROM BASIN 1A
55          BA    .001
56          LS       0    90.4
57          UD    .054
            *
58          KK    CP28
59          KM    COMBINE BASINS BASIN1A & CP27
60          HC       2
            *
61          KK     DB1
62          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
63          KM    DETENTION BASIN 1
64          RS       1    STOR       0
65          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
66          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
67          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
            *
68          KK    RDB1
69          KM    ROUTE DB1 TO CP30
70          RK     320    0.01   0.013       0    CIRC     0.5
            *
71          KK BASIN4B
72          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
73          KM    RUNOFF FROM BASIN 4B
74          BA    .002
75          LS       0   87.81
76          UD    .071
            *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  77          KK  BASIN3
  78          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  79          KM    RUNOFF FROM BASIN 3
  80          BA    .002
  81          LS       0   90.80
  82          UD    .071
              *

  83          KK  SUB-1A
  84          KM    RUNOFF FROM SUB-1A
  85          BA    .045
  86          LS       0   87.37
  87          UD    .189
              *

  88          KK  SUB-1B
  89          KM    RUNOFF FROM SUB-1B
  90          BA    .009
  91          LS       0   93.46
  92          UD     .10
              *

  93          KK  CP1A1B
  94          KM    COMBINE SUB-1A & SUB-1B
  95          HC       2
              *

  96          KK RCP1A1B
  97          KM    ROUTE CP1A1B TO CP30
  98          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  99          KK  SUB-3A
 100          KM    RUNOFF FROM SUB-3A
 101          BA    .008
 102          LS       0   78.72
 103          UD     .10
              *

 104          KK    CP30
 105          KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
 106          HC       5
              *

 107          KK   CPDBI
 108          KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
 109          HC       2
              *
```

```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

           110          KK   DBWMC
           111          KM    DETENTION BASIN WEST OF WILDWOOD HILLS MOBILE HOME PARK
           112          RS       1    STOR       0
           113          SV     0.0    1.03    2.06    3.09    4.12    5.23    6.41    7.60    8.78
           114          SE  6988.0  6989.0  6990.0  6991.0  6992.0  6993.0  6994.0  6995.0  6996.0
           115          SQ     0.0    35.7    24.6    34.1    41.5    47.7    53.2    58.3    62.9
                        *
           116          ZZ
1
               SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31         CP2............
                .
                .
    34          .      BASIN4
                .           V
                .           V
    40          .       RCP26
                .           .
                .           .
    43          .           .     BASIN4A
                .           .           .
                .           .           .
    49          .        CP27............
                .           .
                .           .
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *               JAN   1997              *
 *            VERSION 4.1                *
 *                                   *
 *  RUN DATE   02FEB19  TIME  12:51:47   *
 *                                   *
 *************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS     *
*    HYDROLOGIC ENGINEERING CENTER    *
*          609 SECOND STREET          *
*       DAVIS, CALIFORNIA 95616       *
*           (916) 756-1104            *
*                                   *
*************************************
```

Woody Mountain Campground
Proposed-Conditions with Detention Basin HEC-1 Model
10-year, 6-hour Model
Woodson Engineering and Surveying
Feb 2019
PROPOSED CONDITION (WITH DETENTION BASIN)

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	SUB-1	12.	3.20	1.	1.	1.	.01		
+	HYDROGRAPH AT	SUB-2	5.	3.25	1.	1.	1.	.01		

```
         HYDROGRAPH AT
+                      SUB-2A        15.    3.10          1.          1.          1.        .01
         3 COMBINED AT
+                        CP1A        29.    3.15          3.          3.          3.        .03
         HYDROGRAPH AT
+                      SUB-3B        17.    3.30          2.          2.          2.        .03
         2 COMBINED AT
+                         CP2        42.    3.20          5.          5.          5.        .05
         HYDROGRAPH AT
+                      BASIN4         2.    3.10          0.          0.          0.        .00
         ROUTED TO
+                       RCP26         2.    3.15          0.          0.          0.        .00
         HYDROGRAPH AT
+                     BASIN4A         2.    3.20          0.          0.          0.        .00
         2 COMBINED AT
+                        CP27         4.    3.15          0.          0.          0.        .00
         HYDROGRAPH AT
+                     BASIN1A         2.    3.10          0.          0.          0.        .00
         2 COMBINED AT
+                        CP28         6.    3.15          1.          0.          0.        .01
         ROUTED TO
+                         DB1         2.    3.45          0.          0.          0.        .01
+                                                                                      7053.69        3.45
         ROUTED TO
+                        RDB1         2.    3.45          0.          0.          0.        .01
         HYDROGRAPH AT
+                     BASIN4B         3.    3.10          0.          0.          0.        .00
         HYDROGRAPH AT
+                      BASIN3         4.    3.10          0.          0.          0.        .00
         HYDROGRAPH AT
+                      SUB-1A        47.    3.25          5.          5.          5.        .05
         HYDROGRAPH AT
+                      SUB-1B        17.    3.10          1.          1.          1.        .01
         2 COMBINED AT
```

```
+                        CP1A1B        60.    3.20           6.          6.          6.        .05

         ROUTED TO
+                       RCP1A1B        59.    3.20           6.          6.          6.        .05

         HYDROGRAPH AT
+                        SUB-3A         6.    3.15           1.          0.          0.        .01

         5 COMBINED AT
+                          CP30        69.    3.20           8.          8.          8.        .07

         2 COMBINED AT
+                        CPDBI       112.    3.20          13.         13.         13.        .12

         ROUTED TO
+                        DBWMC        35.    5.00          13.         12.         12.        .12
+                                                                                          6990.71        3.70
1
                                    SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                        (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                 INTERPOLATED TO
                                                                              COMPUTATION INTERVAL
           ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                    PEAK

                                (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

             RCP26  MANE          .79      2.18    187.57       .82      3.00      2.17    189.00         .82

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .8735E-01 EXCESS= .0000E+00 OUTFLOW= .8723E-01 BASIN STORAGE= .1745E-03 PERCENT ERROR=   -.1

              RDB1  MANE          .40      1.99    207.20       .86      3.00      1.99    207.00         .86

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .2303E+00 EXCESS= .0000E+00 OUTFLOW= .2300E+00 BASIN STORAGE= .3864E-03 PERCENT ERROR=    .0

           RCP1A1B  MANE          .52     59.64    192.98      1.11      3.00     58.58    192.00        1.11

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .3186E+01 EXCESS= .0000E+00 OUTFLOW= .3184E+01 BASIN STORAGE= .3936E-02 PERCENT ERROR=   -.1



 *** NORMAL END OF HEC-1 ***
```

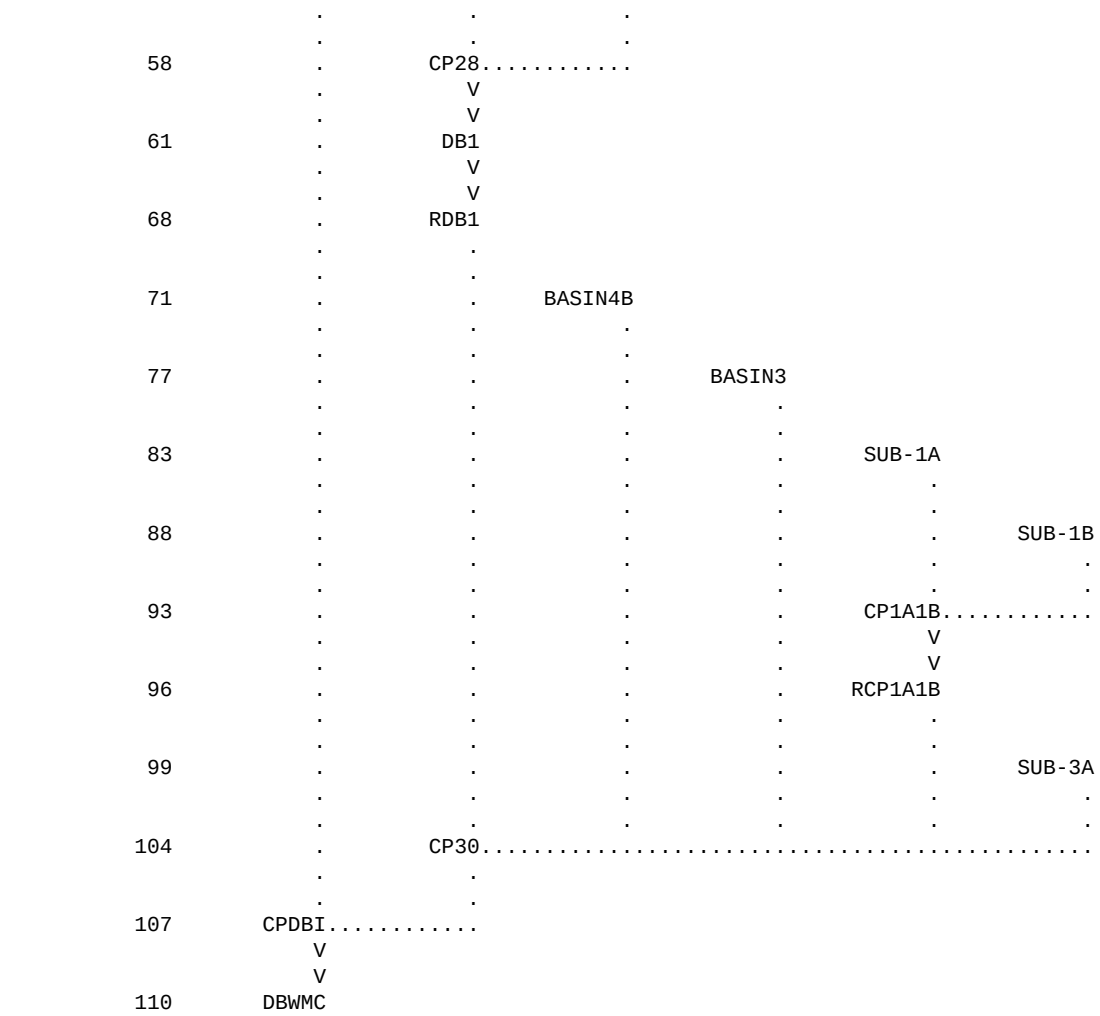
```
1****************************************                                                  ****************************************
 *                                      *                                                  *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *    U.S. ARMY CORPS OF ENGINEERS      *
 *              JAN   1997              *                                                  *    HYDROLOGIC ENGINEERING CENTER     *
 *           VERSION 4.1                *                                                  *          609 SECOND STREET           *
 *                                      *                                                  *       DAVIS, CALIFORNIA 95616        *
 *  RUN DATE   02FEB19  TIME  12:52:25  *                                                  *           (916) 756-1104             *
 *                                      *                                                  *                                      *
 ****************************************                                                  ****************************************


                                                X     X  XXXXXXX   XXXXX          X
                                                X     X  X        X     X         XX
                                                X     X  X        X               X
                                                XXXXXXX  XXXX     X        XXXXX   X
                                                X     X  X        X               X
                                                X     X  X        X     X          X
                                                X     X  XXXXXXX   XXXXX         XXX


          THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

          THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.
          THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION
          NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,
          DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL   LOSS RATE:GREEN AND AMPT INFILTRATION
          KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM


1                                                  HEC-1 INPUT                                                  PAGE  1

          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 *** FREE ***
                        *DIAGRAM
             1          ID        Woody Mountain Campground
             2          ID        Proposed-Conditions with Detention Basin HEC-1 Model
             3          ID        100-year, 6-hour Model
             4          ID        Woodson Engineering and Surveying
             5          ID        Feb 2019
             6          ID        PROPOSED CONDITION (WITH DETENTION BASIN)
             7          IT       3       0       0     125
             8          IO       5       0       0
             9          IN       5       0       0
                        *
```

```
   10          KK   SUB-1
   11          BA   0.011
   12          PH       1    0.19    0.71    1.37    2.21    2.56    2.76    3.18
   13          LS       0   86.55
   14          UD   0.155
               *

   15          KK   SUB-2
   16          BA   0.008
   17          LS       0   79.72
   18          UD   0.181
               *

   19          KK  SUB-2A
   20          BA   0.007
   21          LS       0   95.25
   22          UD     0.1
               *

   23          KK    CP1A
   24          KM     COMBINE HYDROGRAPHS FROM SUB-1,SUB-2 & SUB-2A
   25          HC       3
               *

   26          KK  SUB-3B
   27          KM    RUNOFF FROM SUB-3B
   28          BA    .026
   29          LS       0   82.70
   30          UD     .24
               *

   31          KK     CP2
   32          KM     COMBINE HYDROGRAPHS FROM CP1A & SUB-3B
   33          HC       2
               *

   34          KK  BASIN4
   35          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
   36          KM    RUNOFF FROM BASIN 4
   37          BA    .002
   38          LS       0   83.56
   39          UD    .086
               *
1                                    HEC-1 INPUT                                    PAGE  2

 LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


   40          KK   RCP26
   41          KM    ROUTE CP26 TO CP27
   42          RK     400    0.01   0.016       0      21      10      10
```

```
            *
43          KK BASIN4A
44          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
45          KM    RUNOFF FROM BASIN 4A
46          BA    .002
47          LS       0    86.0
48          UD    .136
            *
49          KK    CP27
50          KM    COMBINE BASINS RCP26 & BASIN4A
51          HC       2
            *
52          KK BASIN1A
53          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
54          KM    RUNOFF FROM BASIN 1A
55          BA    .001
56          LS       0    90.4
57          UD    .054
            *
58          KK    CP28
59          KM    COMBINE BASINS BASIN1A & CP27
60          HC       2
            *
61          KK     DB1
62          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
63          KM    DETENTION BASIN 1
64          RS       1    STOR       0
65          SV     0.0    0.02    0.09    0.15    0.23   0.31          0.39    0.40
66          SE  7052.8  7053.0  7053.5  7054.0  7054.5  7055.0  7055.5      7055.52
67          SQ     0.0    0.21    1.30    3.16    4.14   4.93          5.61    5.63
            *
68          KK    RDB1
69          KM    ROUTE DB1 TO CP30
70          RK     320    0.01   0.013       0    CIRC     0.5
            *
71          KK BASIN4B
72          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
73          KM    RUNOFF FROM BASIN 4B
74          BA    .002
75          LS       0   87.81
76          UD    .071
            *
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  77          KK  BASIN3
  78          KM    BASIN REFERENCED FROM PRESIDIO IN PINES STUDY
  79          KM    RUNOFF FROM BASIN 3
  80          BA    .002
  81          LS       0   90.80
  82          UD    .071
              *

  83          KK  SUB-1A
  84          KM    RUNOFF FROM SUB-1A
  85          BA    .045
  86          LS       0   87.37
  87          UD    .189
              *

  88          KK  SUB-1B
  89          KM    RUNOFF FROM SUB-1B
  90          BA    .009
  91          LS       0   93.46
  92          UD     .10
              *

  93          KK  CP1A1B
  94          KM    COMBINE SUB-1A & SUB-1B
  95          HC       2
              *

  96          KK RCP1A1B
  97          KM    ROUTE CP1A1B TO CP30
  98          RK    1200    0.01   0.013       0    CIRC     2.5
              *

  99          KK  SUB-3A
 100          KM    RUNOFF FROM SUB-3A
 101          BA    .008
 102          LS       0   78.72
 103          UD     .10
              *

 104          KK    CP30
 105          KM    COMBINE HYDROGRAPHS FROM BASINS 3, 4B, DB1, SUB-3A& CP1A1B
 106          HC       5
              *

 107          KK   CPDBI
 108          KM     COMBINE ROUTED HYDROGRAPHS FROM CP30 &,CP1A WITH SUB-3B
 109          HC       2
              *
```

```
          LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


           110          KK   DBWMC
           111          KM    DETENTION BASIN WEST OF WILDWOOD HILLS MOBILE HOME PARK
           112          RS       1    STOR       0
           113          SV     0.0    1.03    2.06    3.09    4.12    5.23    6.41    7.60    8.78
           114          SE  6988.0  6989.0  6990.0  6991.0  6992.0  6993.0  6994.0  6995.0  6996.0
           115          SQ     0.0    35.7    24.6    34.1    41.5    47.7    53.2    58.3    62.9
                        *
           116          ZZ
1
               SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

   NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

    10       SUB-1
                .
                .
    15          .       SUB-2
                .           .
                .           .
    19          .           .      SUB-2A
                .           .           .
                .           .           .
    23        CP1A.......................
                .
                .
    26          .      SUB-3B
                .           .
                .           .
    31         CP2............
                .
                .
    34          .      BASIN4
                .           V
                .           V
    40          .       RCP26
                .           .
                .           .
    43          .           .     BASIN4A
                .           .           .
                .           .           .
    49          .        CP27............
                .           .
                .           .
    52          .           .     BASIN1A
```



(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

```
1*****************************************
 *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JAN   1997               *
 *           VERSION 4.1                 *
 *                                       *
 *  RUN DATE   02FEB19  TIME  12:52:25   *
 *                                       *
 *****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*    HYDROLOGIC ENGINEERING CENTER      *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*           (916) 756-1104              *
*                                       *
*****************************************
```

Woody Mountain Campground
Proposed-Conditions with Detention Basin HEC-1 Model
100-year, 6-hour Model
Woodson Engineering and Surveying
Feb 2019
PROPOSED CONDITION (WITH DETENTION BASIN)

8 IO OUTPUT CONTROL VARIABLES
IPRNT 5 PRINT CONTROL
IPLOT 0 PLOT CONTROL
QSCAL 0. HYDROGRAPH PLOT SCALE

IT HYDROGRAPH TIME DATA
NMIN 3 MINUTES IN COMPUTATION INTERVAL
IDATE 1 0 STARTING DATE
ITIME 0000 STARTING TIME
NQ 125 NUMBER OF HYDROGRAPH ORDINATES
NDDATE 1 0 ENDING DATE
NDTIME 0612 ENDING TIME
ICENT 19 CENTURY MARK

COMPUTATION INTERVAL .05 HOURS
TOTAL TIME BASE 6.20 HOURS

ENGLISH UNITS
DRAINAGE AREA SQUARE MILES
PRECIPITATION DEPTH INCHES
LENGTH, ELEVATION FEET
FLOW CUBIC FEET PER SECOND
STORAGE VOLUME ACRE-FEET
SURFACE AREA ACRES
TEMPERATURE DEGREES FAHRENHEIT

1

RUNOFF SUMMARY
FLOW IN CUBIC FEET PER SECOND
TIME IN HOURS, AREA IN SQUARE MILES

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	SUB-1	24.	3.20	2.	2.	2.	.01		
+	HYDROGRAPH AT	SUB-2	12.	3.25	1.	1.	1.	.01		

	HYDROGRAPH AT								
+		SUB-2A	24.	3.10	2.	2.	2.	.01	
	3 COMBINED AT								
+		CP1A	56.	3.15	5.	5.	5.	.03	
	HYDROGRAPH AT								
+		SUB-3B	38.	3.30	4.	4.	4.	.03	
	2 COMBINED AT								
+		CP2	87.	3.20	10.	9.	9.	.05	
	HYDROGRAPH AT								
+		BASIN4	5.	3.10	0.	0.	0.	.00	
	ROUTED TO								
+		RCP26	5.	3.15	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN4A	4.	3.15	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP27	9.	3.15	1.	1.	1.	.00	
	HYDROGRAPH AT								
+		BASIN1A	3.	3.10	0.	0.	0.	.00	
	2 COMBINED AT								
+		CP28	12.	3.15	1.	1.	1.	.01	
	ROUTED TO								
+		DB1	4.	3.40	1.	1.	1.	.01	
+									7054.42 3.40
	ROUTED TO								
+		RDB1	4.	3.40	1.	1.	1.	.01	
	HYDROGRAPH AT								
+		BASIN4B	6.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		BASIN3	7.	3.10	0.	0.	0.	.00	
	HYDROGRAPH AT								
+		SUB-1A	92.	3.25	9.	9.	9.	.05	
	HYDROGRAPH AT								
+		SUB-1B	29.	3.15	2.	2.	2.	.01	
	2 COMBINED AT								
+		CP1A1B	115.	3.20	12.	11.	11.	.05	

```
          ROUTED TO
+                        RCP1A1B       113.    3.20          12.         11.         11.        .05

          HYDROGRAPH AT
+                         SUB-3A        14.    3.15           1.          1.          1.        .01

          5 COMBINED AT
+                           CP30       137.    3.20          15.         14.         14.        .07

          2 COMBINED AT
+                          CPDBI       224.    3.20          24.         24.         24.        .12

          ROUTED TO
+                          DBWMC        52.    3.70          21.         21.         21.        .12
+                                                                                          6993.79        3.70
1
                                      SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
                                          (FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)
                                                                                  INTERPOLATED TO
                                                                                COMPUTATION INTERVAL
            ISTAQ    ELEMENT      DT       PEAK    TIME TO     VOLUME      DT       PEAK    TIME TO     VOLUME
                                                      PEAK                                    PEAK

                                 (MIN)     (CFS)      (MIN)     (IN)     (MIN)     (CFS)     (MIN)       (IN)

              RCP26  MANE          .60      4.66    187.74      1.63      3.00      4.62    189.00        1.63

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .1740E+00 EXCESS= .0000E+00 OUTFLOW= .1741E+00 BASIN STORAGE= .2036E-03 PERCENT ERROR=   -.2

               RDB1  MANE          .44      3.98    204.47      1.68      3.00      3.98    204.00        1.68

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .4494E+00 EXCESS= .0000E+00 OUTFLOW= .4489E+00 BASIN STORAGE= .5692E-03 PERCENT ERROR=    .0

            RCP1A1B  MANE          .46    114.50    193.12      2.01      3.00    112.83    192.00        2.01

 CONTINUITY SUMMARY (AC-FT) - INFLOW= .5788E+01 EXCESS= .0000E+00 OUTFLOW= .5784E+01 BASIN STORAGE= .5657E-02 PERCENT ERROR=    .0



 *** NORMAL END OF HEC-1 ***
```

Summary of Impervious Areas

Description	Area (sf)
RV Sites	33600
Park Model	16154
Tent Sites	6132
Asphalt	63389
Site Amenities	4188
Ramada	1200
Trash Enclosures	1708
Bath House	1842
Impervious Road	1888
Total	**130101**

Summary of ROCV Calculations

Total ROCV (for 1")= 10842 CF

Impervious area in Drainage area Sub-3A (SF)= 44300
ROCV required (Sub-3A) (CF)= 3692

ROCV provided in LID basin 3 (CF)= 3704

Thus, ROCV provided for SUB-3A (3704 CF) > ROCV required for SUB-3A (3692 CF)

Impervious area in Drainage area Sub-3B (SF)= 85801
ROCV required (Sub-3B) (CF)= 7150

ROCV provided in LID basins 1 & 2 (CF)= 8914

Thus, ROCV provided for SUB-3B (8914 CF) > ROCV required for SUB-3A (7150 CF)

LID Basin -1: Elevation Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume		
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)	
7036.5	5324	0.12	0	0	0	0	0.00	
7037	5947	0.14	0.5	5636	2818	2818	0.06	
7037.5	6591	0.15	0.5	6269	3135	*5952*	0.14	ROCV
7038	7235	0.17	0.5	6913	3457	9409	0.22	

LID Basin -2: Elevation Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume		
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)	
7020.5	1866	0.04	0	0	0	0	0.00	
7021	2291	0.05	0.5	2079	1039	1039	0.02	
7021.5	2738	0.06	0.5	2515	1257	*2297*	0.05	ROCV
7022	3185	0.07	1	2962	2962	4001	0.09	

LID Basin -3: Elevation Volume Summary

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume		
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)	
7055.5	2033	0.05	0	0	0	0	0.00	
7056	2314	0.05	0.5	2174	1087	1087	0.02	
7056.5	2617	0.06	0.5	2466	1233	*2320*	0.05	
7057	2920	0.07	0.5	2769	1384	3704	0.09	ROCV

APPENDIX C

Detention Basin Stage Volume Calculations
Detention Basin Outlet Pipes Calculations

Elev.	Area		Increase in Depth	Incremental Area	Incremental Volume	Cumulative Volume	
	(sq.ft)	(ac)	(ft)	(sq.ft)	(cu.ft)	(cu.ft)	(ac-ft)
6988	44896.34	1.03	0	0	0	0	0.00
6989	44896.34	1.03	1	44896	44896	44896	1.03
6990	44896.34	1.03	1	44896	44896	89793	2.06
6991	44896.34	1.03	1	44896	44896	134689	3.09
6992	44896.34	1.03	1	44896	44896	179585	4.12
6993	51560.53	1.18	1	48228	48228	227814	5.23
6994	51560.53	1.18	1	51561	51561	279374	6.41
6995	51560.53	1.18	1	51561	51561	330935	7.60
6996	51560.53	1.18	1	51561	51561	382495	8.78

Detention Basin Outlet-Flow Calculations

Outlet-1

Orifice Dia.	24	in
Orifice Dia.	2	ft
Orifice area	3.14	sq.ft
No. of openings	1	
Elev-Inv. In	6988.00	
Elev-Inv. Out	6985.5	
Length=	65	
Slope=	0.0385	
Centroid	6989	
Orifice-top	6990	
Orifice Co-eff	0.6	
G (gravity)	32.2	ft/s
Outlet-1 Flow		
Elev.	**Flow (cfs)**	**Flow Type**
6988	0	Pipe Flow
6989	22	Pipe Flow
6990	15.1	Orifice
6991	21.38	Orifice
6992	26.19	Orifice
6993	30.24	Orifice
6994	33.81	Orifice
6995	37.03	Orifice
6996	40.00	Orifice

Outlet-2

Orifice Dia.	18	in
Orifice Dia.	1.5	ft
Orifice area	1.76625	sq.ft
No. of openings	1	
Elev-Inv. In	6988	
Elev-Inv. Out	6987.5	
Length=	51	
Slope=	0.0098	
Centroid	6988.75	
Orifice-top	6989.5	
Orifice Co-eff	0.6	
G (gravity)	32.2	ft/s
Outlet-2 Flow		
Elev.	**Flow (cfs)**	**Flow Type**
6988	0	Pipe Flow
6989	13.7	Pipe Flow
6990	9.51	Orifice
6991	12.76	Orifice
6992	15.33	Orifice
6993	17.53	Orifice
6994	19.49	Orifice
6995	21.26	Orifice
6996	22.90	Orifice

Total outflow=Outlet-1+Outlet-2

Elev.	**Flow (cfs)**
6988	0.00
6989	35.70
6990	24.61
6991	34.14
6992	41.52
6993	47.77
6994	53.29
6995	58.30
6996	62.90

APPENDIX D

Geotechnical Report by Western Technologies
Excerpts from Presidio in Pines Drainage Report

Western Technologies Inc.
The Quality People
Since 1955

2400 East Huntington Drive
Flagstaff, Arizona 86004-8934
(928) 774-8700 • fax 774-6469

September 26, 2018

Woodson Engineering
124 North Elden Street, Suite 100
Flagstaff, Arizona 86001

Attn: Ms. Sirisha Kalluri, PE, CFM

Re: COF WWH Detention Basin
West Route 66 and Northwestern Street
Flagstaff, Arizona

Job No. 2528JW053

In accordance with our Proposal No. 2527PW137 dated August 9, 2017, we have completed some field exploration, laboratory testing, and field infiltration testing services for the above referenced project. Attached are the test pit location diagram, test pit logs and laboratory test results. Field infiltration testing was performed in each test pit. The following results were obtained:

Test Location	Test Depth (ft.)	Infiltration Rate (minutes/inch)
Test Pit 1	4.0	20
Test Pit 2	4.0	15

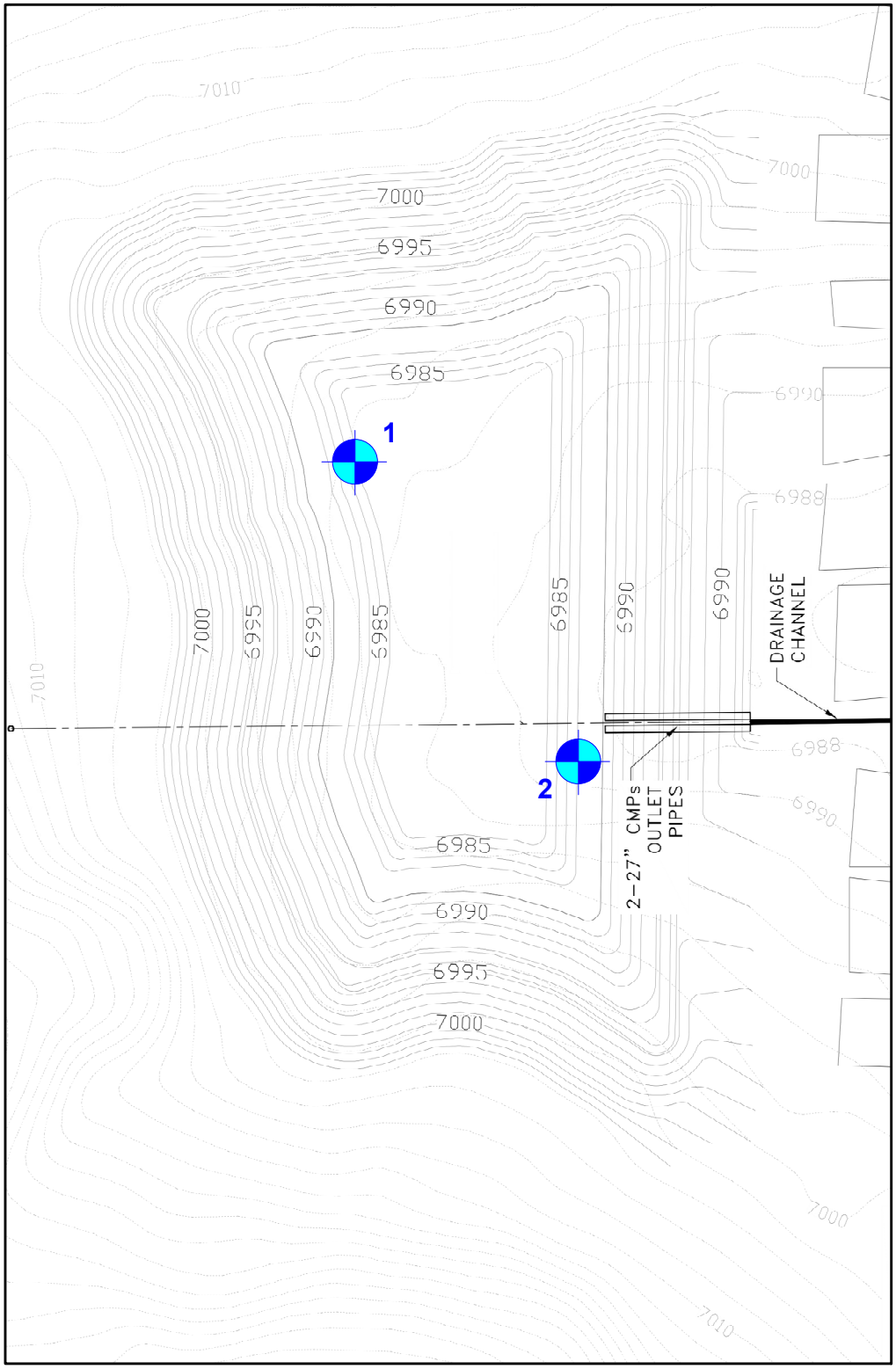
This completes our current services on this project. If you have any questions concerning this information, or require additional consultation, design, observation, or testing services, please contact us. We look forward to working with you on future projects.

Sincerely,
WESTERN TECHNOLOGIES INC.
Geotechnical Engineering Services



Craig P. Wiedeman, P.E.
Senior Geotechnical Engineer

Copies to: Addressee (emailed)



Not to Scale

Approximate Test Pit Location

COF WWH DETENTION BASIN

Test Pit Location Diagram

Geotechnical Environmental Inspections Materials

Western Technologies Inc. The Quality People Since 1955

Western Technologies Inc.

Job No.: 2528JW053

Plate: 1

COARSE-GRAINED SOILS

LESS THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
GW	WELL-GRADED GRAVEL OR WELL-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE
GP	POORLY-GRADED GRAVEL OR POORLY-GRADED GRAVEL WITH SAND, LESS THAN 5% FINES	
GM	SILTY GRAVEL OR SILTY GRAVEL WITH SAND, MORE THAN 12% FINES	
GC	CLAYEY GRAVEL OR CLAYEY GRAVEL WITH SAND, MORE THAN 12% FINES	
SW	WELL-GRADED SAND OR WELL-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE
SP	POORLY-GRADED SAND OR POORLY-GRADED SAND WITH GRAVEL, LESS THAN 5% FINES	
SM	SILTY SAND OR SILTY SAND WITH GRAVEL, MORE THAN 12% FINES	
SC	CLAYEY SAND OR CLAYEY SAND WITH GRAVEL, MORE THAN 12% FINES	

NOTE: Coarse-grained soils receive dual symbols if they contain 5% to 12% fines (e.g., SW-SM, GP-GC).

FINE-GRAINED SOILS

MORE THAN 50% FINES

GROUP SYMBOLS	DESCRIPTION	MAJOR DIVISIONS
ML	SILT, SILT WITH SAND OR GRAVEL, SANDY SILT, OR GRAVELLY SILT	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50
CL	LEAN CLAY OF LOW TO MEDIUM PLASTICITY, SANDY CLAY, OR GRAVELLY CLAY	
OL	ORGANIC SILT OR ORGANIC CLAY OF LOW TO MEDIUM PLASTICITY	
MH	ELASTIC SILT, SANDY ELASTIC SILT, OR GRAVELLY ELASTIC SILT	SILTS AND CLAYS LIQUID LIMIT MORE THAN 50
CH	FAT CLAY OF HIGH PLASTICITY, SANDY FAT CLAY, OR GRAVELLY FAT CLAY	
OH	ORGANIC SILT OR ORGANIC CLAY OF HIGH PLASTICITY	
PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	HIGHLY ORGANIC SOILS

NOTE: Fine-grained soils may receive dual classification based upon plasticity characteristics (e.g. CL-ML).

SOIL SIZES

COMPONENT	SIZE RANGE
BOULDERS	Above 12 in.
COBBLES	3 in. – 12 in.
GRAVEL	No. 4 – 3 in.
Coarse	¾ in. – 3 in.
Fine	No. 4 – ¾ in.
SAND	No. 200 – No. 4
Coarse	No. 10 – No. 4
Medium	No. 40 – No. 10
Fine	No. 200 – No. 40
Fines (Silt or Clay)	Below No. 200

NOTE: Only sizes smaller than three inches are used to classify soils

CONSISTENCY

CLAYS & SILTS	BLOWS PER FOOT
VERY SOFT	0 – 2
SOFT	3 – 4
FIRM	5 – 8
STIFF	9 – 15
VERY STIFF	16 – 30
HARD	OVER 30

RELATIVE DENSITY

SANDS & GRAVELS	BLOWS PER FOOT
VERY LOOSE	0 – 4
LOOSE	5 – 10
MEDIUM DENSE	11 – 30
DENSE	31 – 50
VERY DENSE	OVER 50

NOTE: Number of blows using 140-pound hammer falling 30 inches to drive a 2-inch-OD (1⅜-inch ID) split-barrel sampler (ASTM D1586).

PLASTICITY OF FINE GRAINED SOILS

PLASTICITY INDEX	TERM
0	NON-PLASTIC
1 – 7	LOW
8 – 20	MEDIUM
Over 20	HIGH

DEFINITION OF WATER CONTENT

DRY
SLIGHTLY DAMP
DAMP
MOIST
WET
SATURATED

©81 WTI 090414

The number shown in **"TEST PIT"** refers to the approximate location of the same number indicated on the "Test Pit Location Diagram" as positioned in the field by pacing or measurement from property lines and/or existing features.

"EQUIPMENT TYPE" refers to the equipment used in the excavation of the test pit, and may include the width of the bucket on the excavator and the use of “rock” teeth or attachments.

"SAMPLE TYPE" refers to the form of sample recovery, in which **R** = Ring sample and **G** = Grab Sample.

"DRY DENSITY (LBS/CU FT)" refers to the laboratory-determined dry density in pounds per cubic foot.

"WATER (MOISTURE) CONTENT” (% of Dry Wt.) refers to the laboratory-determined water content in percent using the standard test method ASTM D2216.

"USCS" refers to the “Unified Soil Classification System” Group Symbol for the soil type as defined by ASTM D2487 and D2488. The soils were classified visually in the field, and where appropriate, classifications were modified by visual examination of samples in the laboratory and/or by appropriate tests.

These notes and test pit logs are intended for use in conjunction with the purposes of our services defined in the text. Test pit log data should not be construed as part of the construction plans nor as defining construction conditions.

The test pit logs depict our interpretations of subsurface conditions at the locations and on the date(s) noted. Variations in subsurface conditions and characteristics may occur between test pits. Groundwater levels may fluctuate due to seasonal variations and other factors.

The stratification lines shown on the test pit logs represent our interpretation of the approximate boundary between soil or rock types based upon visual field classification at the test pit location. The transition between materials is approximate and may be more or less gradual than indicated.

©81WTI 091614

DATE EXCAVATED: **8-29-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 1

EQUIPMENT: **DEERE 310K**
EXCAVATION TYPE: **24'' bucket**
FIELD ENGINEER: **G. Burr**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				CH		Fat CLAY; with sand, trace gravel, brown/red, wet
34.1	84	R		push				
					5			color change to light brown at 8 feet
					10			**Backhoe Refusal at 10 Feet on Severly Weathered Limestone**
					15			

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **COF WWH DETENTION BASIN**
PROJECT NO.: **2528JW053**

PLATE **A-3**

TEST PIT LOG

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

DATE EXCAVATED: **8-29-18**
LOCATION: **See Location Diagram**
ELEVATION: **Not Determined**

TEST PIT NO. 2

EQUIPMENT: **DEERE 310K**
EXCAVATION TYPE: **24'' bucket**
FIELD ENGINEER: **G. Burr**

MOISTURE CONTENT (% OF DRY WT.)	DRY DENSITY (LBS/CU FT)	SAMPLE TYPE	SAMPLE	BLOWS/FT.	DEPTH (FEET)	USCS	GRAPHIC	SOIL DESCRIPTION
		G				GC		Clayey GRAVEL; with cobbles and boulders, some sand, brown, moist
21.2		R	○	push				
					5			color change to light brown at 6 feet
					10			
					15			**Backhoe Stopped at 12 Feet**

N- **STANDARD PENETRATION TEST**
R- **RING SAMPLE**
C- **CORE: %RECOVERY/RQD**
G- **GRAB SAMPLE**
B- **BUCKET SAMPLE**

NOTES: **Groundwater Not Encountered**

WESTERN TECHNOLOGIES INC.
2400 Huntington Drive
Flagstaff, AZ 86004-8934

PROJECT: **COF WWH DETENTION BASIN**
PROJECT NO.: **2528JW053**

PLATE **A-4**

TEST PIT LOG

THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

Test Pit No.	Depth (ft)	USCS Class.	Particle Size Distribution (%) Passing by Weight							Atterberg Limits		Laboratory Compaction Characteristics			Remarks
			3"	¾"	#4	#10	#40	#200	2µ	LL	PI	Dry Density (pcf)	Optimum Moisture (%)	Method	
1	0-5	CH	100	98	98	95	91	81.7		51	26				2
2	0-5	GC	82	61	56	55	50	44.9		52	35				2

NOTE: NP = Non-plastic
µ = microns (2µ = 0.002mm)

REMARKS

Classification / Particle Size / Moisture-Density Relationship
1. Visual
2. Laboratory Tested
3. Minus #200 Only
4. Test Method ASTM D698/AASHTO T99
5. Test Method ASTM D1557/AASHTO T180
6. From the ADOT Family of Curves

Geotechnical Environmental Inspections Materials
Western Technologies Inc. The Quality People Since 1955
wt-us.com

PROJECT: COF WWH DETENTION BASIN
JOB NO.: 2528JW053

PLATE
B-1

SOIL PROPERTIES

NORTH

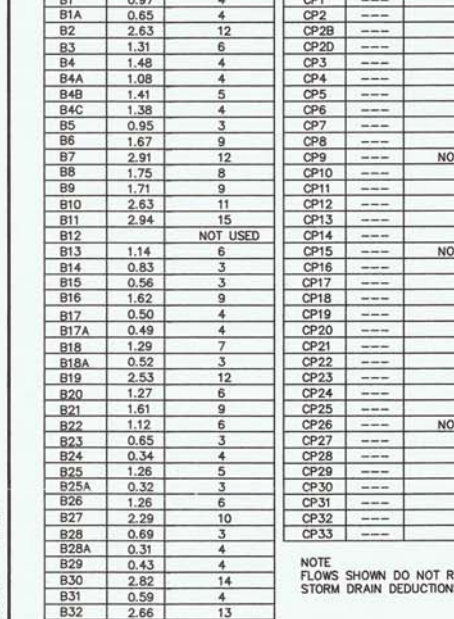
1"=300'
GRAPHIC SCALE

-300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

DEVELOPED CONDITION BASINS					
HEC-1 STORM FLOW SUMMARY			HEC-1 STORM FLOW SUMMARY		
BASIN	ACRES	Q100 (CFS)	BASIN	ACRES	Q100 (CFS)
B1	0.97	4	CP1	---	16
B1A	0.65	4	CP2	---	28
B2	2.63	12	CP2B	---	37
B3	1.31	6	CP2D	---	36
B4	1.48	4	CP3	---	39
B4A	1.08	4	CP4	---	53
B4B	1.41	5	CP5	---	68
B4C	1.38	4	CP6	---	68
B5	0.95	3	CP7	---	69
B6	1.67	9	CP8	---	7
B7	2.91	12	CP9	---	NOT USED
B8	1.75	8	CP10	---	82
B9	1.71	9	CP11	---	399
B10	2.63	11	CP12	---	11
B11	2.94	15	CP13	---	19
B12		NOT USED	CP14	---	28
B13	1.14	6	CP15	---	NOT USED
B14	0.83	3	CP16	---	39
B15	0.56	3	CP17	---	47
B16	1.62	9	CP18	---	60
B17	0.50	4	CP19	---	56
B17A	0.49	4	CP20	---	347
B18	1.29	7	CP21	---	125
B18A	0.52	3	CP22	---	17
B19	2.53	12	CP23	---	366
B20	1.27	6	CP24	---	370
B21	1.61	9	CP25	---	15
B22	1.12	6	CP26	---	NOT USED
B23	0.65	3	CP27	---	9
B24	0.34	4	CP28	---	11
B25	1.26	5	CP29	---	18
B25A	0.32	3	CP30	---	93
B26	1.26	6	CP31	---	127
B27	2.29	10	CP32	---	4
B28	0.69	3	CP33	---	318
B28A	0.31	4			
B29	0.43	4			
B30	2.82	14			
B31	0.59	4			
B32	2.66	13			
B33	3.87	21			
B34	3.28	16			
B35	2.87	9			
B36	7.59	34			
B37	2.10	6			
B38	3.15	8			
B39	0.27	4			
B40	1.02	7			
B41	3.34	9			
W1	0.65	2			
W2	3.02	8			
W3	0.71	2			
A1	2.75	7			
ROFF1	270.88	300			
ROFF2A	13.90	32			
ROFF2B	0.94	31			
ROFF2C	3.04	9			
ROFF2D	3.78	13			
ROFF2E	13.30	28			
ROFF2F	6.12	22			
ROFF2G	4.36	12			
ROFF3	37.43	85			

NOTE
FLOWS SHOWN DO NOT REFLECT STORM DRAIN DEDUCTIONS

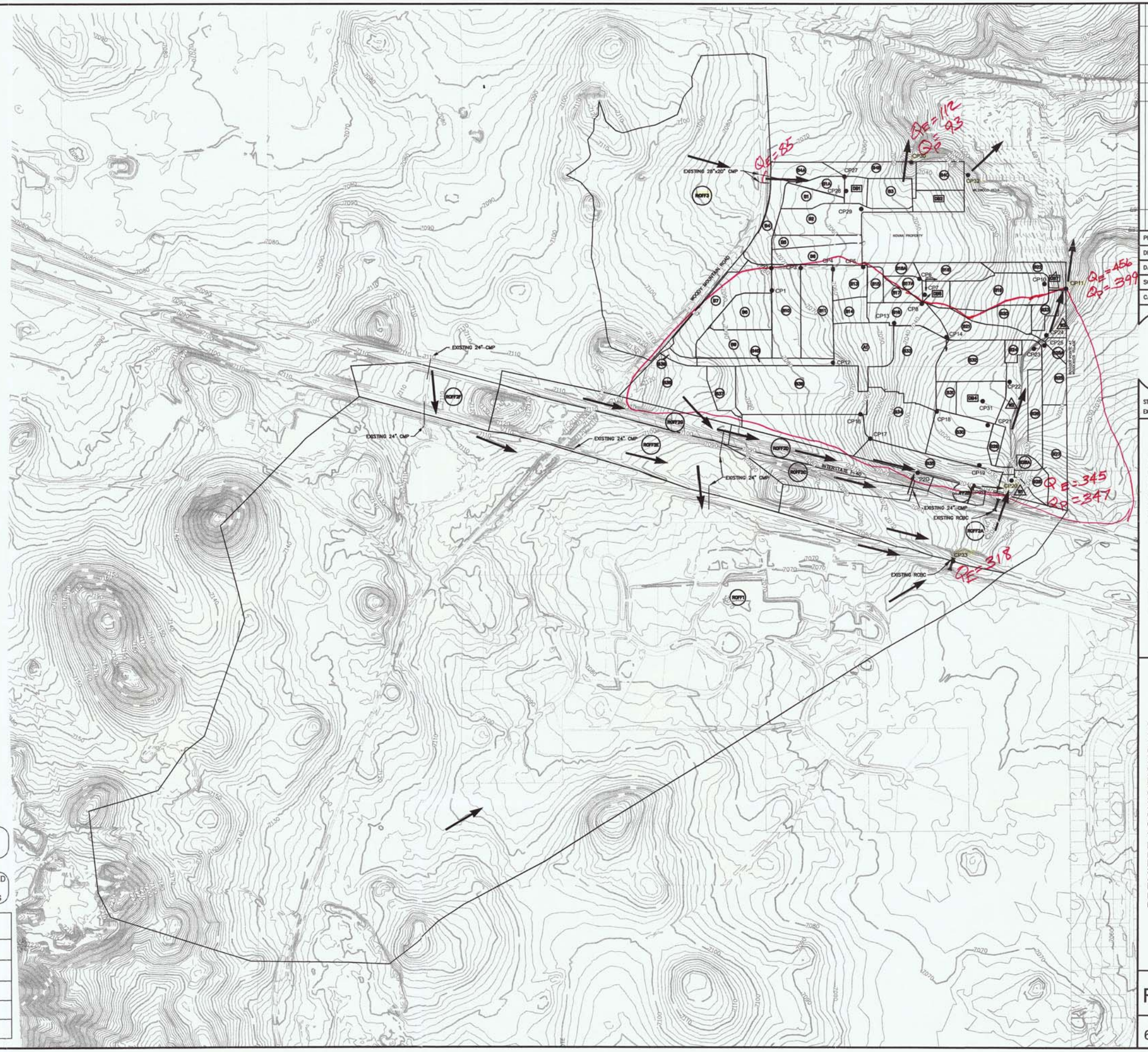


VICINITY MAP
NOT TO SCALE

NOTE: SEE FIGURE 11 FOR DETAILED ON-SITE FLOW PATTERNS

NOTE: THIS INDEX IS PROVIDED ONLY TO SHOW FLOW PATTERNS AND FLOW VALUES

LEGEND	
(XX)	BASIN
XX	DETENTION BASIN 1
XX	WASH 1
XX	AMPHITHEATER 1
	WATERS OF THE US


EXISTING 24" CMP
EXISTING 24" CMP
EXISTING 24" CMP

7. A.

CITY OF FLAGSTAFF
STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Brad Hill, Water Services Director

Co-Submitter: Chris Kirkendall

Date: 06/14/2017

Meeting Date: 06/20/2017

TITLE:

Wildwood Hills Flooding: A collaborative approach to a solution.

RECOMMENDED ACTION:

None. Staff seeking direction from City Council.

Executive Summary:

Wildwood Hills Mobile Home Park (Wildwood Hills) is located on the south-side of west Route 66 before Woody Mountain Road. Wildwood Hills has experienced flooding within its mobile home park for the past several decades since it receives stormwater flows from several different upstream areas and their on-site drainage infrastructure is undersized to handle high flows. On August 3, 2016, the general area around Wildwood Hills experienced a 100-year storm event with an estimated rainfall amount of 2 inches in 45 minutes. This storm event produced a high flow rate of approximately 200 cubic feet per second (CFS) resulting in serious flooding.

The goal of this collaborative effort between the City and Vintage Partners is to help mitigate upstream flows entering Wildwood Hills. The City is recommending to construct a new 4.97 acre foot detention basin upstream of the mobile home park on property soon to be owned by Vintage Partners in order to reduce the 100-year flow rate. This proposal will reduce flows entering Wildwood Hills by approximately 60% (i.e., ~200 CFS to 78 CFS). The proposed detention basin will provide 10 feet of water storage capacity and a permanent pool depth of 4 feet.

Vintage Partners is proposing to either donate to the City or provide an easement over a portion of their property where the detention basin is to be constructed. This will allow for the public to access the detention basin pond as a public amenity.

Financial Impact:

City staff is currently putting together a funding plan for Council's consideration at a future date. The Engineer's Estimate to complete final design and construct the detention basin is $306,000.

Policy Impact:

None.

Connection to Council Goal, Regional Plan and/or TeampFlatstaff Strategic Plan:

Goal WR.5. Stormwater and Watershed Management: Manage watersheds and stormwater to address flooding concerns, water quality, environmental protections, and rainwater harvesting.

Previous Council Decision on This:

none

Attachments: WildwoodHills_Solution

Wildwood Hills Flooding

a collaborative approach to finding a solution



VINTAGE PARTNERS

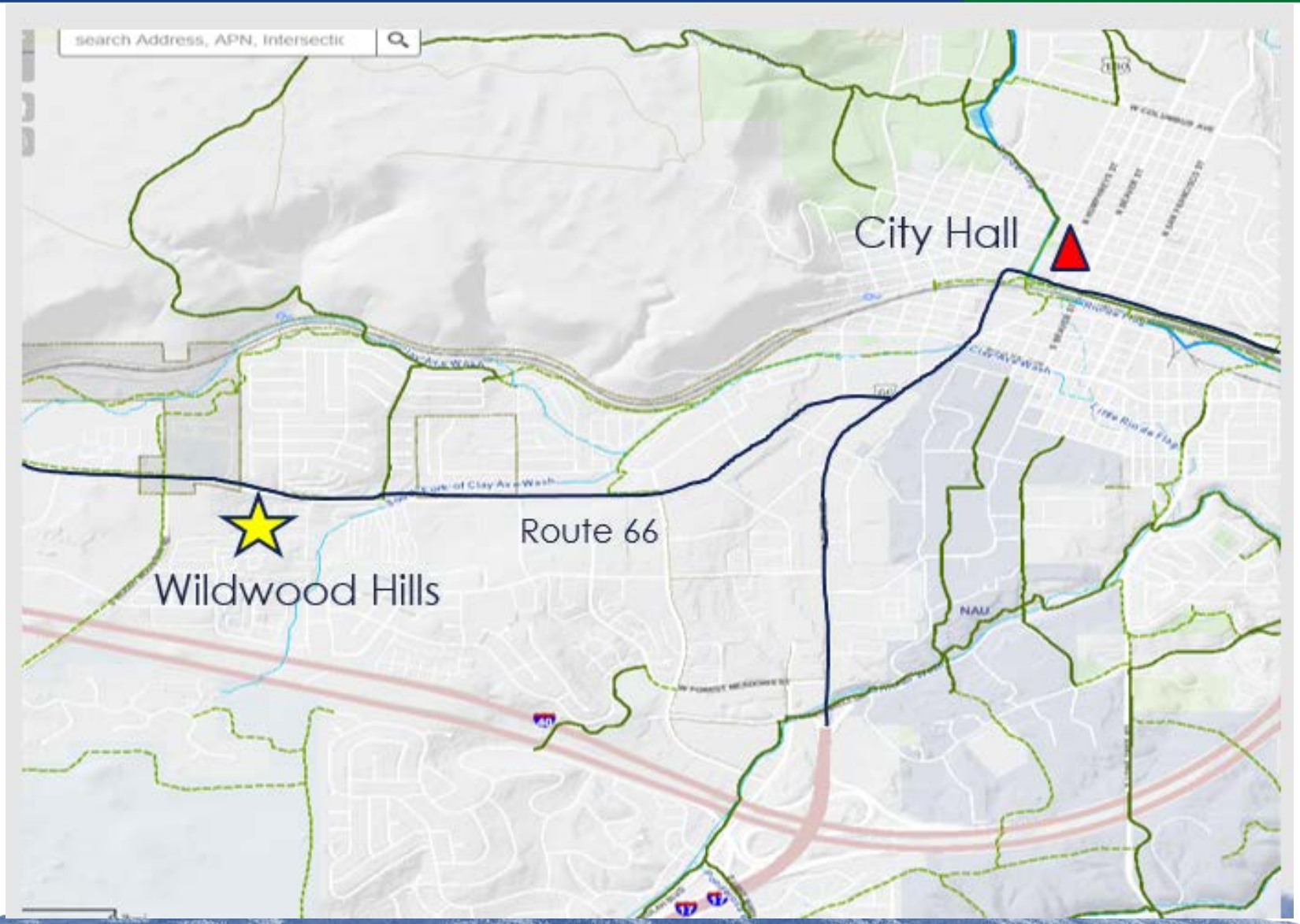
Wildwood Hills Flooding

- Location: south of west Route 66, before Woody Mtn Road
- Historically experienced periodic flooding for the past several decades. Many trailers are constructed within low areas
  1 significant storm event in 2016
- Public – Private partnership solution (City & Vintage Partners)
- Creation of a Detention Pond upstream of the subdivision - Reduce flows by ~60% / Public amenity w/FUTS access, etc.
- 2-part Presentation tonight: Utilities/Stormwater and Vintage Partners

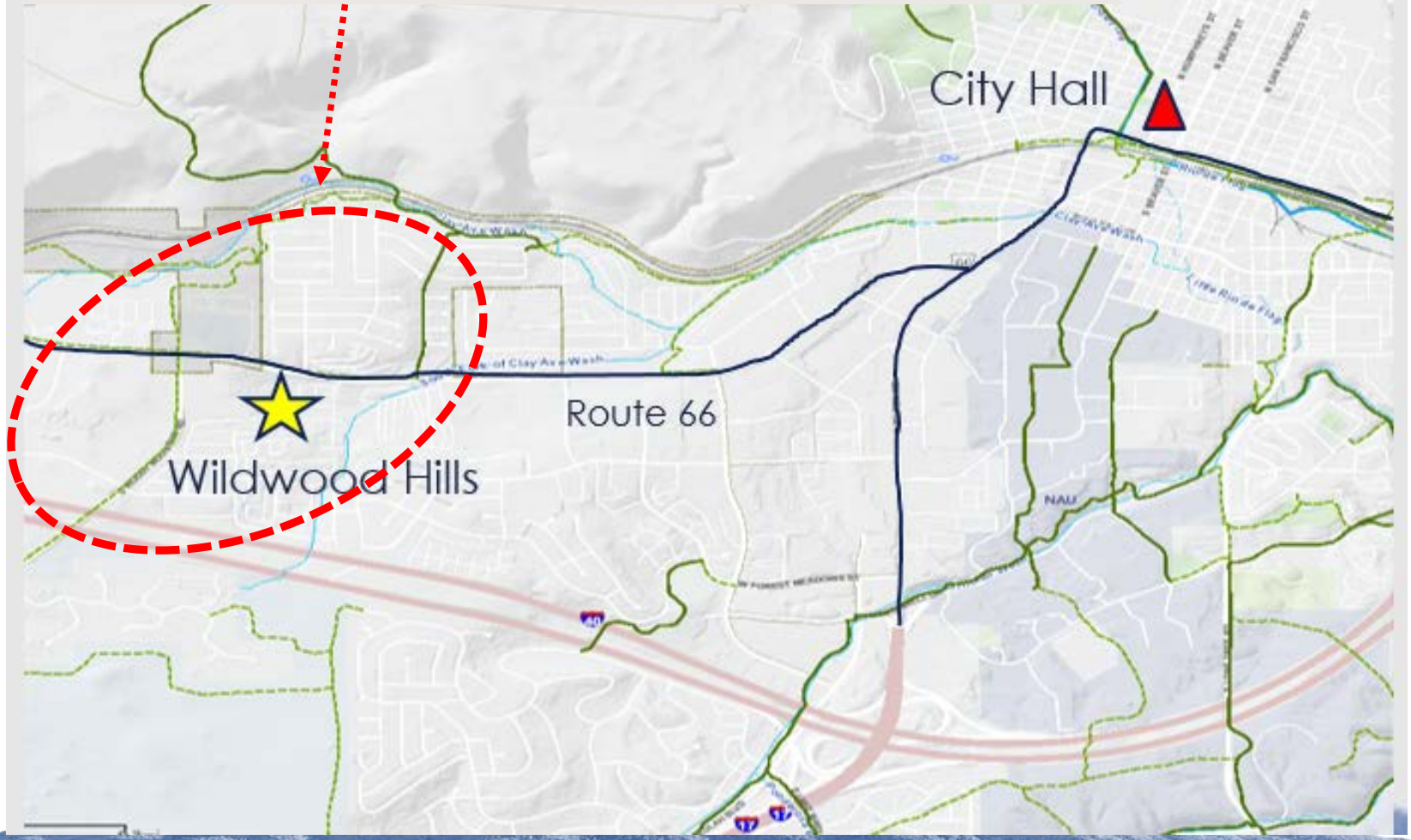
VINTAGE PARTNERS

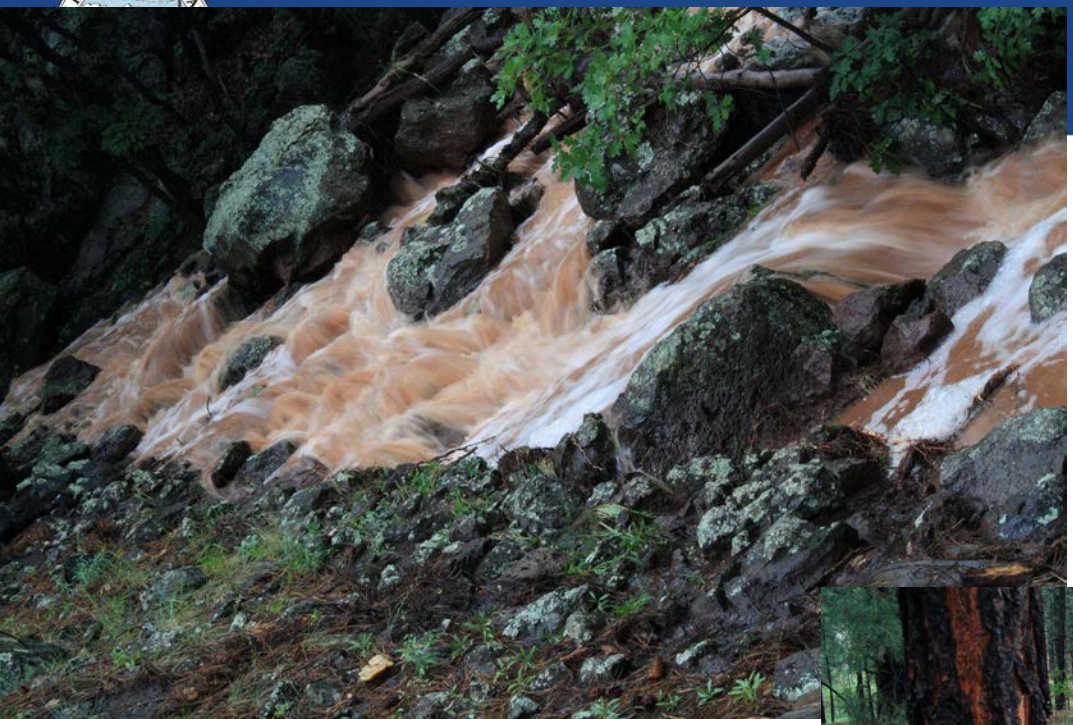
TEAM FLAGSTAFF

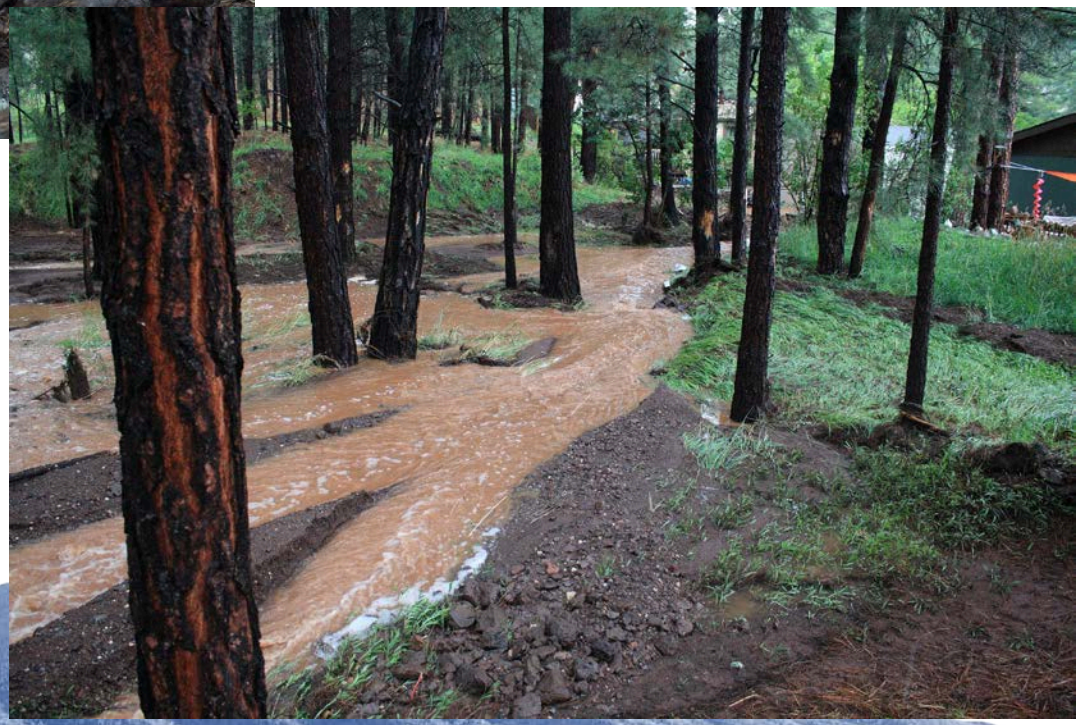
WE MAKE THE CITY BETTER



NOAA Bellemont : 2” in 45 minutes
100 Year Storm Event August 3rd 2016



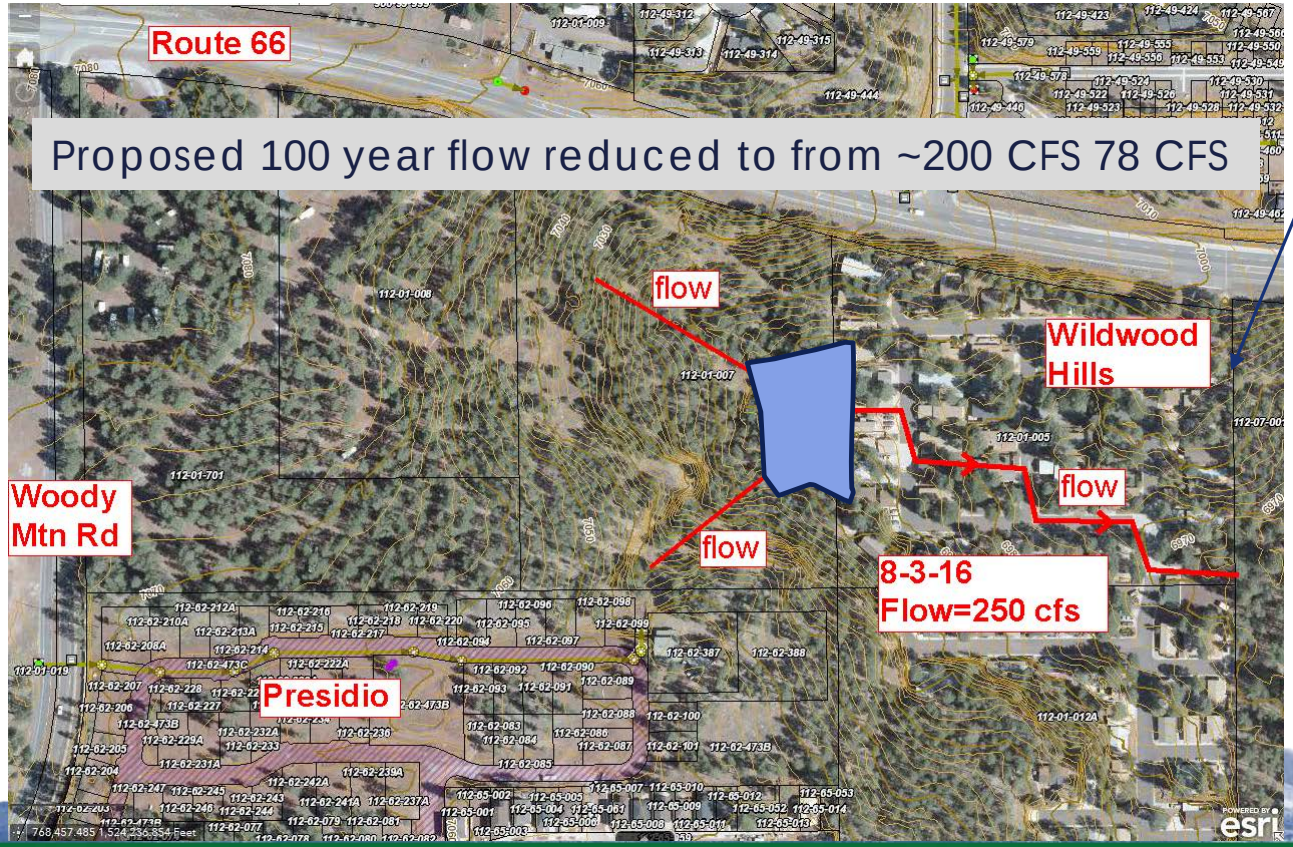




Proposed Drainage Detention Pond Structure

Vintage Property

Wildwood Hills Subdivision



~60% reduction in flow entering Wildwood Hills

Proposed Funding

- Project is a Stormwater Fund expenditure
- Appropriation will be transferred if needed
  - Water Fund Contingency ($1M)
- Stormwater Sources
  - Fund Balance capacity
  - FY 2019 CIP program plan
- In order to maintain a Minimum Fund Balance
  - Possible Revenue Transfer in FY 2018 from Water Fund
  - Stormwater Fund transfers back in FY 2019

Walter's part of the presentation

VINTAGE

PARTNERS

RESOLUTION NO. 2019-30

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL APPROVING A POND AGREEMENT WITH WANDERLAND FLAGSTAFF, LLC, TO PROVIDE FOR ACQUISITION OF A STORM WATER DETENTION EASEMENT ON CERTAIN REAL PROPERTY LOCATED ALONG WEST ROUTE 66, CONSTRUCTION OF A POND FOR RECREATIONAL AND STORM WATER DETENTION USE, AND MAINTENANCE OF THE POND; PROVIDING FOR RECORDING, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff and Wanderland Flagstaff, LLC desire to enter into the Pond Agreement attached hereto;

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

The Pond Agreement, attached hereto and including any revisions directed by Council and reflected in the minutes of the Council Meeting dated below is approved, and the Mayor is hereby authorized and directed to execute the agreement.

SECTION 2. Recording.

The City Clerk will record a copy of this resolution along with an executed copy of the Pond Agreement, with the Coconino County Recorder within ten (10) days after the effective date of the agreement.

SECTION 3. Effective Date.

This resolution shall become effective thirty (30) days after adoption.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 2nd day of July, 2019.

_____

MAYOR

ATTEST:

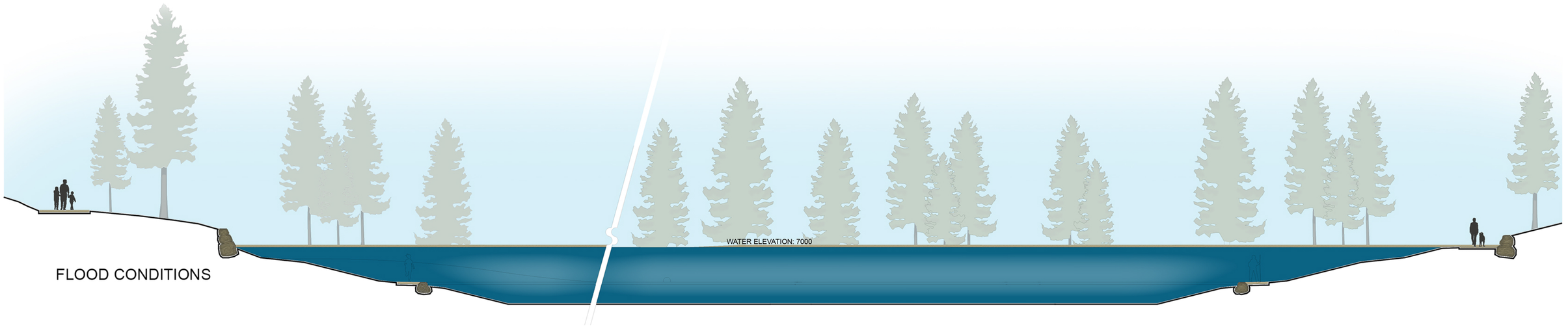
_____
CITY CLERK

APPROVED AS TO FORM:

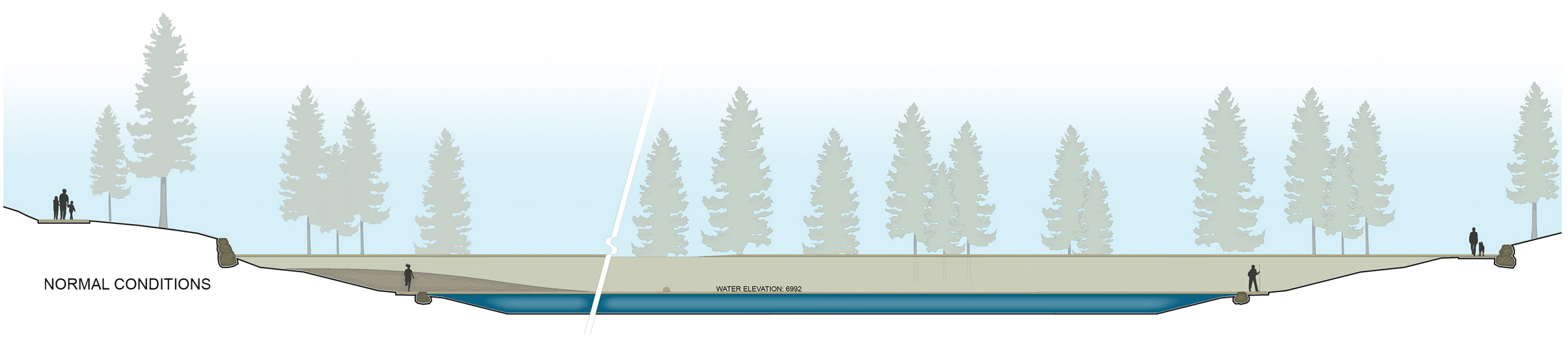
_____
CITY ATTORNEY

Attachment: Pond Agreement

S:\Legal\Civil Matters\2016\2016-606 Wildwood Flooding Issues\Res 2019-30 Pond Agreement 6-5-19.docx



FLOOD CONDITIONS



NORMAL CONDITIONS

0 5' 10' 20'

SCALE: 1"-10'

TIMBER SKY CAMPGROUND

WOODSON ENGINEERING & SURVEYING

VINTAGE PARTNERS

NORRIS DESIGN
Planning | Landscape Architecture | Branding





TIMBER SKY CAMPGROUND

WOODSON ENGINEERING & SURVEYING

VINTAGE PARTNERS

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WOODY MOUNTAIN CAMPGROUND
CONCEPT PLAN

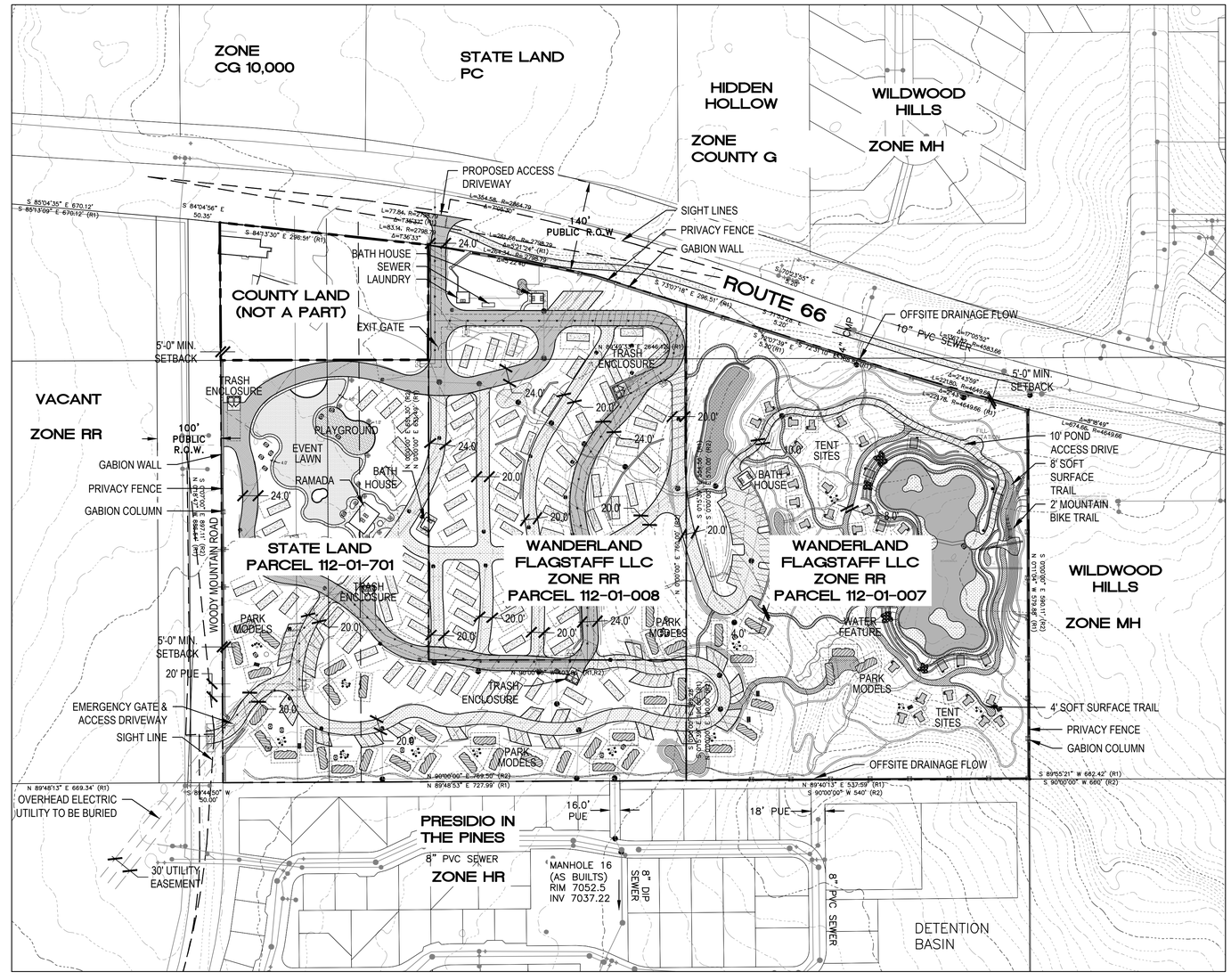
A PROPOSED IMPROVEMENT IN M&B IN SWSESWNE SWSWNWNESE NENWSE (STATE LAND).

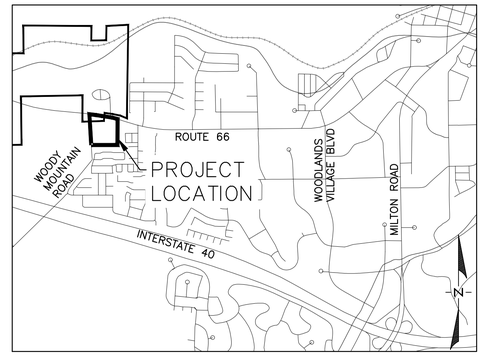
A PROPOSED IMPROVEMENT IN THE NE Quarter: SE Section: 19 Township: 21N Range: 07E PT OF E2 E2 BEG AT SE COR OF N2 NE4 SE4 TH W ALNG S LINE OF N2 NE4 SE4 660' TO SE COR OF NW4 NE4 SE4BEING TRUE POB T H CONT ALNG S LINE OFN2 NE4 SE4 540' TO PT ON LINE PAR TO & 1200 ' W OF E LINE OF SEC 19 TH N ALNGSD PAR LINE 760' TO PT ON S R/W LINE OF HWY66 TH SELY ALNG R/W LINE 559.1' TO PT OF INTERSEC W ITH E LINE OF NW4NE4 SE4 TH S ALNG E LINE OF NW4 NE4 SE4 591' TO TRUE POB Sixteenth: SE Quarter: NE Section: 19 Township: 21N Range: 07E.

A PROPOSED IMPROVEMENT IN THE SE Section: 19 Township: 21N Range: 07E PT OF E2 BEG AT SE COR OF N2 N2 SE4 TH W ALNG S LINE OF N2 N2 SE4 1200' TH N PAR TO E LINE OF SEC 19 190' TO TRUE POB TH W 403.86' TH N 651.30' TO S R/W LINE OF HWY 66 TH SELY A LNG R/W LINE 413.83' TO PT OF INTERSEC WITH LINE PAR TO & 1200 ' W FROME E LINE SEC 19 TH S ALNG SD PAR LINE 570' TO TRUE POB Sixteenth: NE Quarter: SE Section: 19 Township: 21N Range: 07E Sixteenth: SW Quarter: NE Section: 19 Township: 21N Range: 07E Sixteenth: SE Quarter: NE Section: 19 Township: 21N Range: 07E.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING ROAD CENTERLINE
- EXISTING EASEMENT
- EXISTING GIS MAJOR CONTOUR
- EXISTING GIS MINOR CONTOUR
- EXISTING FLOWLINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING CABLE TV LINE
- EXISTING TELEPHONE LINE
- EXISTING FIBER OPTIC LINE
- EXISTING CHAIN LINK FENCE
- PROPOSED PROPERTY LINE
- PROPOSED FLOWLINE
- PROPOSED WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED STORM DRAIN
- PROPOSED ASPHALT
- PROPOSED PERVIOUS ROAD
- PROPOSED SYNTHETIC TURF
- PROPOSED PLAYGROUND SURFACING
- PROPOSED SOFT SURFACE TRAIL
- PROPOSED SINGLE TRACK MOUNTAIN BIKE TRAIL
- PROPOSED SWALE
- PROPOSED WATER METER
- PROPOSED FIRE HYDRANT





VICINITY MAP
NOT TO SCALE

NOTES

PROJECT NAME:	WOODY MOUNTAIN CAMPGROUND (WANDERLAND)
PROJECT NUMBER:	PZ-18-00210
SITE ADDRESS:	2727 W ROUTE 66
APN	112-01-701 (STATE LAND) 112-01-008 112-01-007
PROPERTY SIZE:	20.53 ACRES (DOES NOT INCLUDE COUNTY LAND)
EXISTING ZONING:	RURAL RESIDENTIAL
EXISTING LAND USE:	CAMPGROUND
PROPOSED LAND USE:	CAMPGROUND

FLOOD ZONE NOTE

THIS PARCEL LIES WITHIN FLOOD ZONE X (AREAS OF MINIMAL FLOODING).

FOR FLOOD ZONE DESIGNATIONS OF THIS PROJECT SITE, SEE CITY OF FLAGSTAFF FLOOD INSURANCE RATE MAP, COMMUNITY-PANEL NUMBER 4005C-6804G, 4005C-6808G, 4005C-6812G, AND 4005C-6816G DATED SEPTEMBER 3, 2010, PANEL 6828 OF 8475 OF COCONINO COUNTY, ARIZONA BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

CONCEPT APPROVAL

THE CITY OF FLAGSTAFF APPROVES THESE PLANS FOR CONCEPT ONLY. ALL LIABILITY FOR ERRORS OR OMISSIONS IS THE RESPONSIBILITY OF THE DESIGN ENGINEER.

DEVELOPER
WANDERLAND FLAGSTAFF LLC
2502 E. CAMELBACK RD NO 214
PHOENIX, AZ 85016

ENGINEER
WOODSON ENGINEERING AND SURVEYING.
124 N. ELDEN ST.
FLAGSTAFF, AZ 86001
(928) 774-4636

LANDSCAPE ARCHITECT
NORRIS DESIGN
6 E. ASPEN AVENUE
FLAGSTAFF, AZ 86001
(928) 233-3021

PREPARED BY:
NORRIS DESIGN
6 E. ASPEN AVENUE
FLAGSTAFF, AZ 86001
(928) 233-3021

NORTH

0 50' 100' 200'
SCALE: 1"=100'
CONTOUR INTERVAL: 2'
CITY OF FLAGSTAFF GIS CONTOURS

SHEET INDEX

1 OVERALL PLAN
2 EXISTING CONDITIONS PLAN
3 SITE PLAN
4 PHASE 1 PLAN
5 CALCULATIONS & DETAILS
6 DETAILS
7 DETAILS
8 PRELIMINARY UTILITY PLAN
9 DRAINAGE PLAN
10 GRADING PLAN
11 GRADING PLAN

CHECKED BY: AH
DRAWN BY: JT

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Suite 260
Flagstaff, AZ 86001
P 928.233.3021
www.norris-design.com

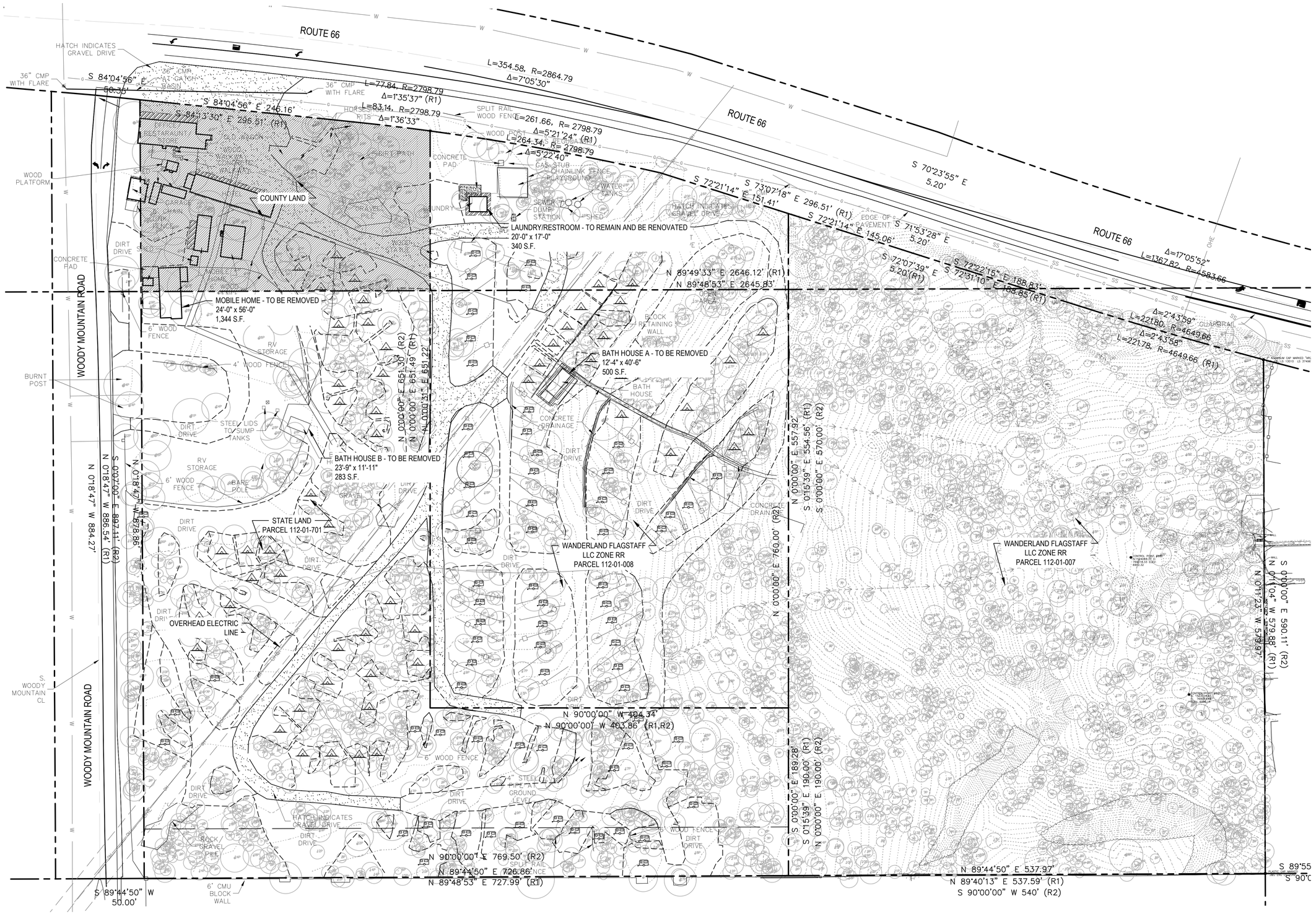
WOODY MOUNTAIN CAMPGROUND
2727 W. HISTORIC RTE 66
FLAGSTAFF, AZ

OWNER:
VINTAGE PARTNERS
WALTER CRUTCHFIELD
2502 E. CAMELBACK RD SUITE 214
PHOENIX, AZ 85016
602.459.9929

NOT FOR CONSTRUCTION

DATE:
10/16/18 CONCEPT PLAN
12/13/18 CONCEPT PLAN
02/05/19 SITE PLAN

SHEET TITLE:
OVERALL PLAN



NORTH

0 25' 50' 100'

SCALE: 1"=50'

CHECKED BY: AH
DRAWN BY: JT

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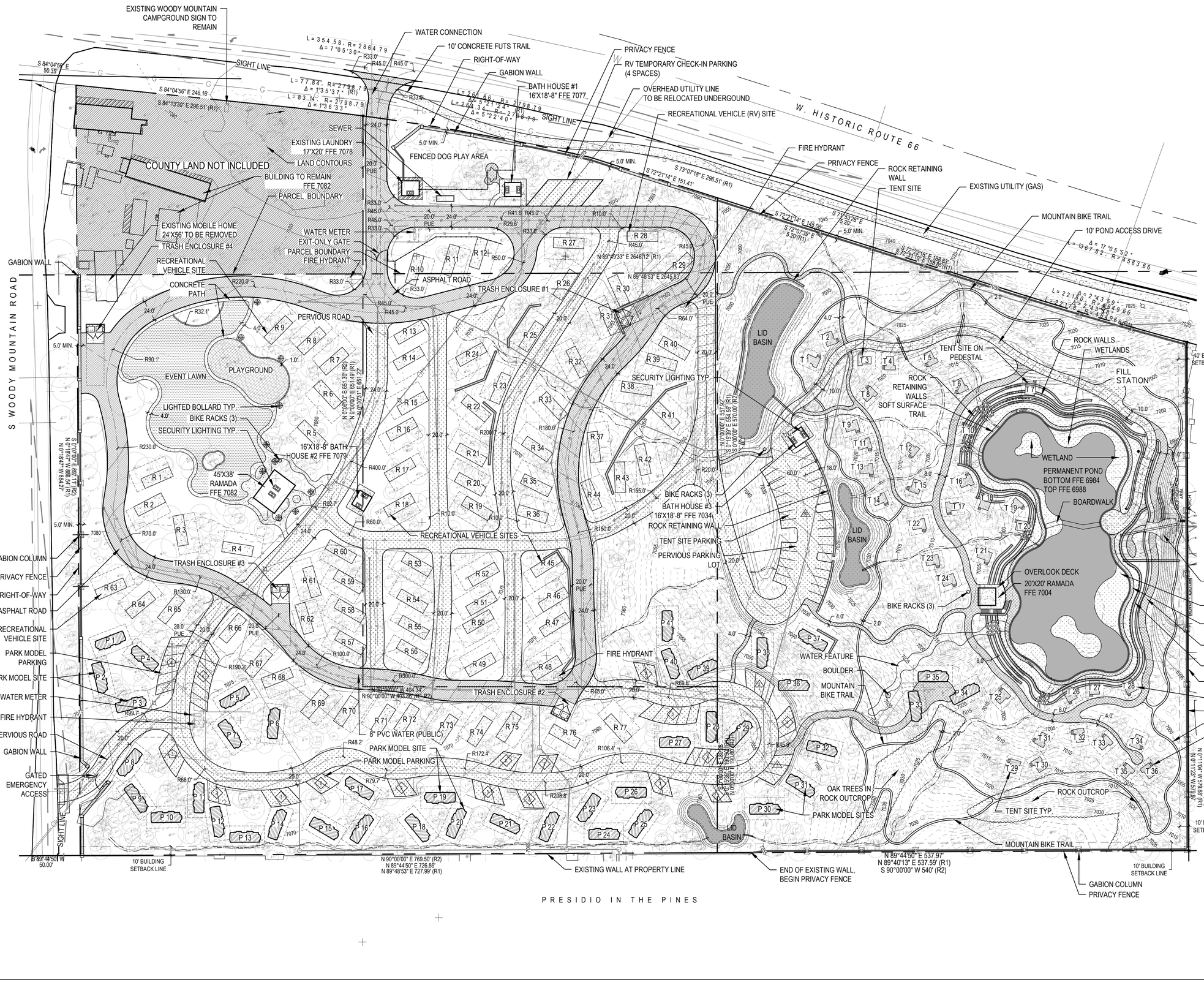
EXISTING CONDITIONS PLAN



LEGEND

- CONCRETE
- PERVIOUS ROAD - ABC/GRAVEL SURFACING
- SOFT SURFACE PAVING - DECOMPOSED GRANITE
- ASPHALT ROAD
- ARTIFICAL TURF
- PLAYGROUND NATURAL WOOD FIBER MULCH SURFACING
- PERMANENT POND
- LID BASIN SEEDED WITH NATIVE GRASS
- NATIVE SEED
- 6' PRIVACY FENCE W/ GABION COLLUMNS
- 6' GABION WALL
- MALAPAI ROCK RETAINING WALL
- STORMWATER CONVEYANCE SYSTEM ROCKED SWALE
- FLOOD STAGE LINE ELEVATION: 6996
- LIGHTED BOLLARD 1800 LUMENS
- SECURITY LIGHT 1800 LUMENS
- R 00 RECREATIONAL VEHICLE (RV) SITE
- P 00 PARK MODEL SITE
- T 00 TENT SITE
- PARK MODEL PARKING
- TENT SITE PARKING
- ADDITIONAL OVERFLOW PARKING

NOTE:
THIS PLAN IS PRELIMINARY ONLY. ALL ITEMS ARE SUBJECT TO CHANGE.

PRESIDIO IN THE PINES

CHECKED BY: AH
DRAWN BY: JT

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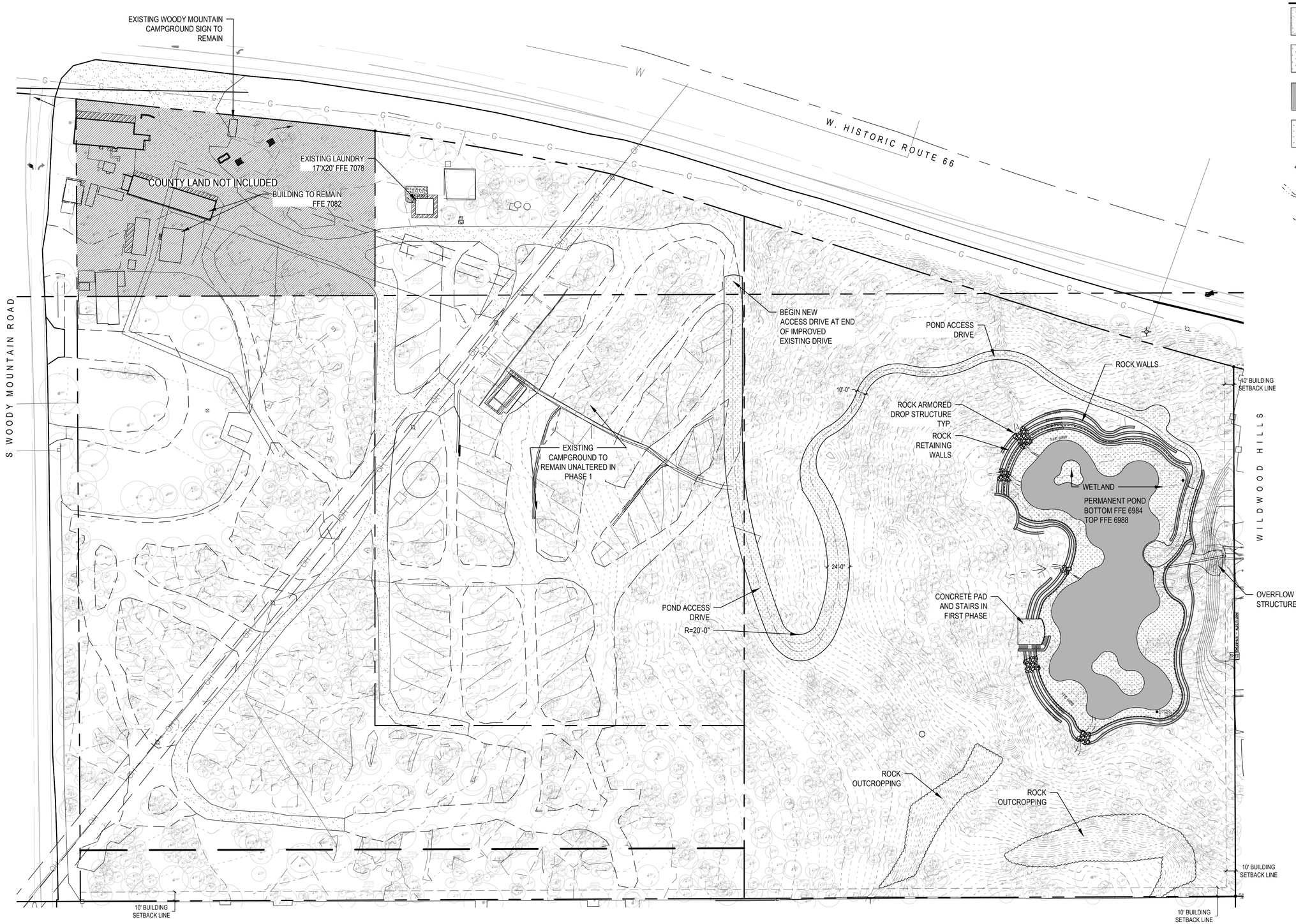

PRESIDIO IN THE PINES

CHECKED BY: AH
DRAWN BY: JT

LEGEND

- CONCRETE
- PERVIOUS ROAD - ABC/GRAVEL SURFACING
- PERMANENT POND
- NATIVE SEED
- MALAPAI ROCK RETAINING WALL
- STORMWATER CONVEYANCE SYSTEM ROCKED SWALE
- FLOOD STAGE LINE ELEVATION: 6996

NORTH

SCALE: 1"=50'

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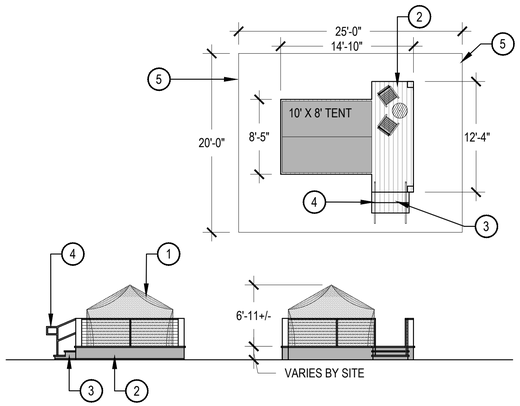
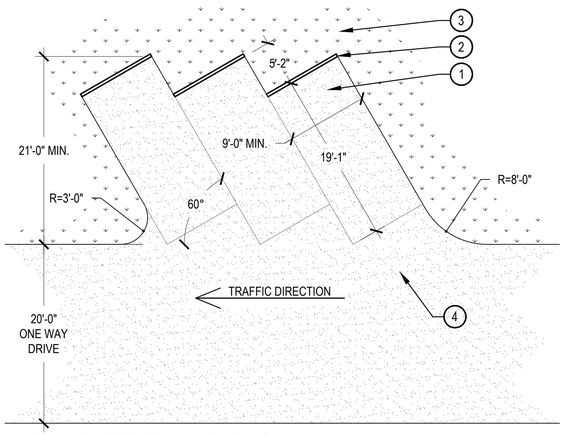
PHASE 1 PLAN



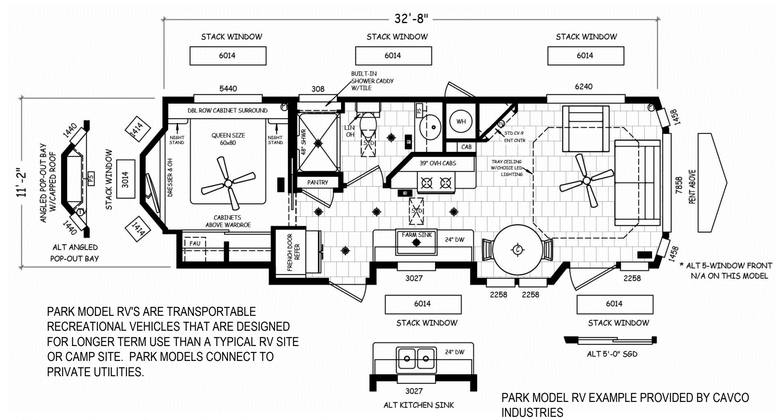
1 TENT SITE

SCALE: 1/8" = 1'-0"



DIAGONAL PARKING

SCALE: 1/8" = 1'-0"



PARK MODEL RV'S ARE TRANSPORTABLE RECREATIONAL VEHICLES THAT ARE DESIGNED FOR LONGER TERM USE THAN A TYPICAL RV SITE OR CAMP SITE. PARK MODELS CONNECT TO PRIVATE UTILITIES.

PARK MODEL RV EXAMPLE PROVIDED BY CAVCO INDUSTRIES
https://www.cavco.com/cavco

2 PARK MODEL RV EXAMPLE

N.T.S.

CHECKED BY: AH
DRAWN BY: JT

EXISTING BUILDINGS

UNIT TYPE	SIZE	
BATH HOUSE A	12'-4" x 40'-6" 500 S.F.	TO BE REMOVED
BATH HOUSE B	23'-9" x 11'-11" 283 S.F.	TO BE REMOVED
LAUNDRY/ RESTROOM	20'-0" x 17'-0" 340 S.F.	TO REMAIN AND BE RENOVATED
MOBILE HOME	24'-0" x 56'-0" 1,344 S.F.	TO BE REMOVED

PROPOSED AND RENOVATED BUILDINGS

UNIT TYPE	SIZE	
BATH HOUSE 1	18'-8" x 16'-0" 299 S.F.	SEE DETAIL
BATH HOUSE 2	18'-8" x 16'-0" 299 S.F.	SEE DETAIL
BATH HOUSE 3	18'-8" x 16'-0" 299 S.F.	SEE DETAIL
LAUNDRY/ RESTROOM	20'-0" x 17'-0" 340 S.F.	TO REMAIN AND BE RENOVATED

PROPOSED AMENITY STRUCTURES

UNIT TYPE	SIZE	
RAMADA 1	45'-0" x 38'-0" 1,710 S.F.	SIMPLE OPEN SHADE STRUCTURE
RAMADA 2	20'-0" x 20'-0" 400 S.F.	SIMPLE OPEN SHADE STRUCTURE

CAMPGROUND CALCULATIONS

CODE REQUIREMENT	SITE ALLOWANCE PER CODE	PROVIDED
CAMPGROUNDS AND FREESTANDING TENT SITES SHALL BE LIMITED TO 15% OF THE COMMERCIAL CAMPGROUND.	TOTAL SITE SQUARE FOOTAGE (WITHOUT THE COUNTY LAND PIECE) = 894,191 S.F. (20.53 ACRES) 15% OF TOTAL = 134,129 S.F. RV SITES: 45'x25' 1,125 S.F. MODEL PARK SITES: 45'x25' 1,125 S.F. TENT SITES: 500 S.F.	77 RV SITES = 86,625 S.F. 41 PARK MODEL RV SITES = 46,125 S.F. 36 TENT SITES = 18,000 S.F. TOTAL S.F. = 150,750 S.F. 16.9% OF TOTAL SITE

CODE REQUIREMENT	SITE ALLOWANCE PER CODE	PROVIDED
A MAXIMUM OF 15 UNITS PER ACRE IS ALLOWED	TOTAL SITE SQUARE FOOTAGE (WITHOUT THE COUNTY LAND PIECE) = 894,191 S.F. (20.53 ACRES) UNITS ALLOWED = 307	77 RV SITES 41 PARK MODEL RV SITES 36 TENT SITES 154 UNITS/SITES TOTAL

CODE REQUIREMENT	SITE ALLOWANCE PER CODE	PROVIDED
100 S.F. OF RECREATION AREA OR COMMON OPEN SPACE IS REQUIRED PER UNIT SITE	154 SITES 15,400 S.F. RECREATION AREA OR COMMON OPEN SPACE REQUIRED	GREAT LAWN: 18,684 S.F. PLAYGROUND 4,189 S.F. DOG PLAY AREA 6,700 S.F. OPEN FOREST W/ WALKING TRAILS, MOUNTAIN BIKE LOOP TRAIL AND POND: 190,000 S.F.+/-

PROPOSED PARKING CALCULATIONS

UNIT TYPE	CODE REQUIREMENT	SITE COUNT	PROVIDED
RV SITES	1 SPACE PER RECREATION VEHICLE AND REQUIRED SPACES FOR ACCESSORY USES	77 SITES	77 RV PARKING SPACES 77 AUXILLARY PARKING SPACES (1 PER RV SITE)
PARK MODEL RV SITES	1 SPACE PER RECREATION VEHICLE AND REQUIRED SPACES FOR ACCESSORY USES	41 SITES	41 PARK MODEL PARKING SPACES 41 AUXILLARY PARKING SPACES (1 PER RV SITE)
TENT SITES	NO REQUIREMENTS	36 SITES	36 SPACES
RV CHECK-IN TEMPORARY PARKING	NO REQUIREMENTS	N/A	4 SPACES
ADDITIONAL OVERFLOW PARKING	NO REQUIREMENTS	N/A	9 SPACES
			285 TOTAL SPACES

EXISTING PARKING

UNIT TYPE	SITE COUNT	PROVIDED
RV/ CAMP SITES	127 SITES	127 RV PARKING SPACES 127 AUXILLARY PARKING SPACES (1 PER RV/CAMP SITE)
STORAGE/ MOBILE HOME SITES	44 SITES	28 SPACES +/-
RV CHECK-IN TEMPORARY PARKING	N/A	3 SPACES
		285 TOTAL EXISTING SPACES

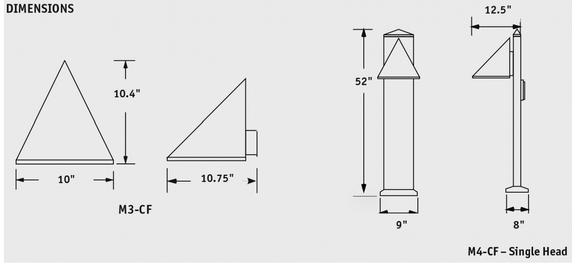
PROPOSED LIGHTING COMPLIANCE

LIGHT TYPE	SPECIFICATIONS	LUMEN OUTPUT	# PROPOSED	LUMEN OUTPUT TOTAL
WALL MOUNTED SECURITY LIGHT	ARCHITECTURAL AREA LIGHTING MODEL: M3-CF MITRE WALL SCONCE COLOR: DARK BRONZE 26 WATT	1800	8	14,400
LIGHTED BOLLARD	ARCHITECTURAL AREA LIGHTING MODEL: M4-CF MITRE BOLLARD COLOR: DARK BRONZE 26 WATT	1800	10	18,000
			TOTAL LUMENS PROVIDED	32,400

LUMENS PER NET ACRE ALLOWED	LUMENS PER NET ACRE ALLOWED	TOTAL LUMENS ALLOWED (20.53 ACRES)	TOTAL LUMENS PROVIDED
TOTAL (FULLY SHIELDED AND PARTIALLY SHIELDED)	50,000	1,026,500	32,400
PARTIALLY SHIELDED ONLY	5,500	112,915	0
NON-LPS AND NON-NARROW SPECTRUM AMBER LED	5,000	102,650	32,400

1. WOODY MOUNTAIN CAMPGROUND IS IN LIGHTING ZONE 2.
2. ONLY CLASS 2 LIGHTING IS ANTICIPATED FOR OUTDOOR SECURITY AND LIGHTING OF PEDESTRIAN AREAS AROUND THE PLAYGROUND AND GREAT LAWN.
3. RESTROOMS AND THE LARGE RAMADA SHALL HAVE SECURITY LIGHTING.
4. REFER TO THE SITE PLAN (SHEET 3) FOR LOCATIONS

DIMENSIONS



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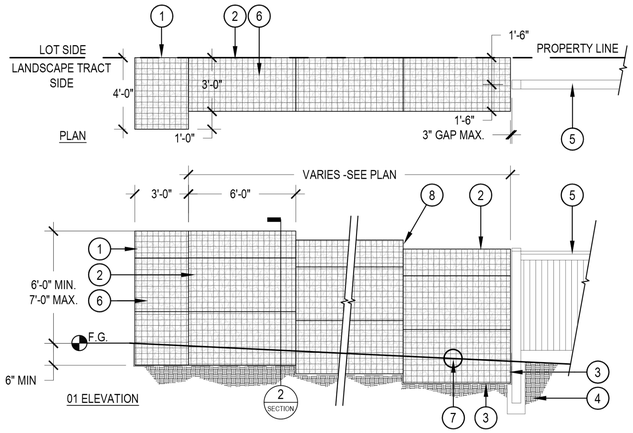
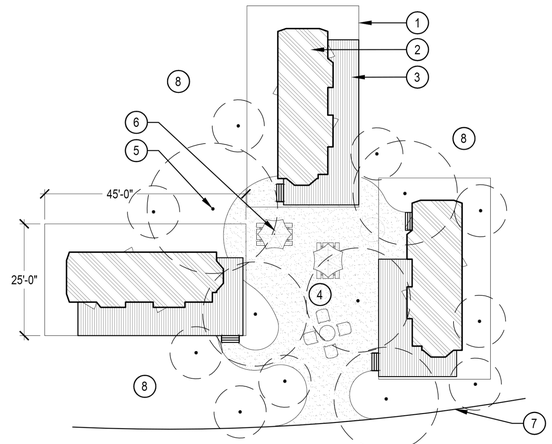
SHEET TITLE:
CALCULATIONS & DETAILS



1 GABION SCREEN WALL

SCALE: 1/4" = 1'-0"

1. GABION BASKETS FOR PIERS: 4'x3'x3' LOWER BASKETS, 4'x3'x1'-6" UPPER BASKET - ART WELD 9 GAUGE GABION, NON-GALVANIZED. MANUFACTURED BY: HILFIKER RETAINING WALLS OR APPROVED EQUAL http://www.hilfiker.com
2. GABION BASKETS FOR WALL: 3'x6'x3' LOWER BASKETS, 3'x6'x1'-6" UPPER BASKET - ART WELD 9 GAUGE GABION, NON-GALVANIZED. MANUFACTURED BY: HILFIKER RETAINING WALLS OR APPROVED EQUAL http://www.hilfiker.com
3. MIRIFI 140 N FILTER FABRIC TO WRAP GABION THAT IS BELOW GRADE
4. PREPARED COMPACTED SUBGRADE PER GEOTECH RECOMMENDATIONS
5. ADJACENT WALL/ FENCE
6. GABION BASKETS TO BE FILLED WITH INDIGENOUS STONE COLLECTED FROM ON-SITE CONSTRUCTION. CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR APPROVAL OF STONE PRIOR TO WALL CONSTRUCTION. THE VISIBLE PORTIONS OF THE WALL SHALL BE FACED WITH THE MOST AESTHETIC STONES AND PLACED AS TIGHT AS POSSIBLE AGAINST THE MESH. SIZE 4" MINIMUM DIAMETER
7. 12" DIA. CORRUGATED STEEL PIPE SET INSIDE THE BASKET WHERE INDICATED ON THE PLANS AND AS DIRECTED IN THE FIELD BY THE CIVIL ENGINEER. BURY HALF, NO SHARP EDGES SHALL BE EXPOSED
8. STEP WALL IN 6" INCREMENTS AS NECESSARY TO FOLLOW GRADE

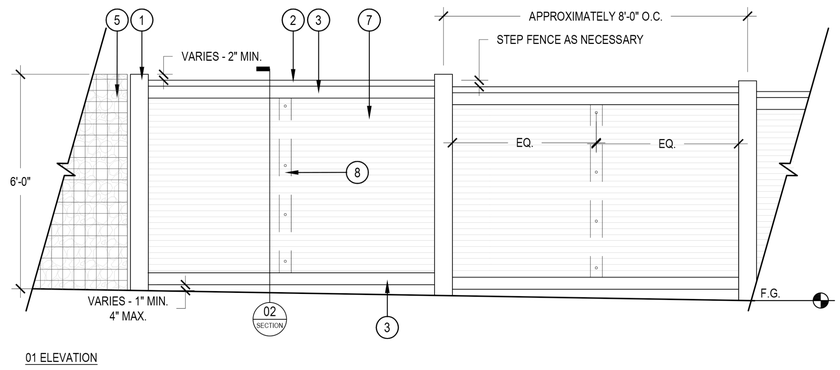


2 TYPICAL PARK MODEL RV CLUSTER

SCALE: 1/16" = 1'-0"

1. RV SITE 25'x45'
2. PARK MODEL RV
3. REMOVABLE WOOD DECKING APRON
4. DECOMPOSED GRANITE COMMON AREA
5. EXISTING PONDEROSA PINE TREES
6. VARIOUS SITE AMENITIES SUCH AS PICNIC TABLES, WOOD FIRED HOT TUBS, FIRE RINGS, CHAIRS
7. DRIVE EDGE
8. UNDISTURBED FOREST FLOOR

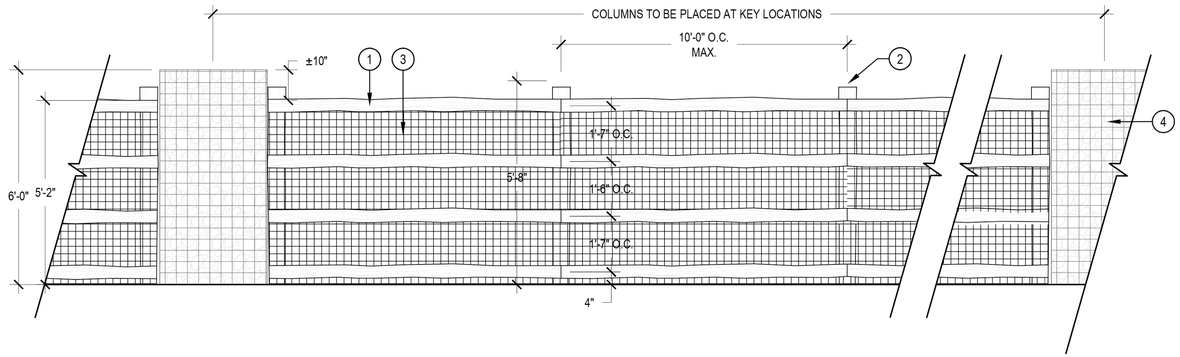
NOTE:
THIS DETAIL IS A GENERIC SAMPLE OF A PARK MODEL RV CLUSTER. EACH CLUSTER SHALL VARY.



3 6' CORRUGATED STEEL PRIVACY FENCE

SCALE: 1/2" = 1'-0"

1. ROUGH SAWN CEDAR 6"X6" POST
2. ROUGH SAWN CEDAR 2"X6" FENCE TOP
3. ROUGH SAWN CEDAR 2"X4" HORIZONTAL FENCE SUPPORTS, ATTACH TO POSTS w/ STEEL BRACKETS
4. GALVANIZED 2.5" WOOD SCREWS
5. ADJACENT GABION WALL OR PIER
6. GALVANIZED STEEL BOLTS AND NUTS
7. 22 GAUGE CORRUGATED STEEL PANELS - ONE PANEL EACH SIDE. TREAT PANELS PRIOR TO INSTALL TO CREATE AN IMMEDIATE RUSTY WEATHERED FINISH.
8. ROUGH SAWN CEDAR VERTICAL SUPPORTS
9. CONCRETE FOOTING AT POST

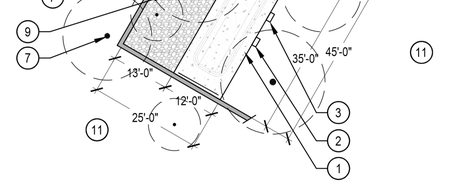


5 OPEN WIRE MESH FENCE

SCALE: 1/2" = 1'-0"

1. 35'x12' CONCRETE RV PARKING PAD
2. SEWER HOOKUP
3. WATER HOOKUP
4. DECOMPOSED GRANITE SURFACING RATED FOR VEHICLES
5. DECOMPOSED GRANITE SURFACING RATED FOR PEDESTRIAN USE
6. ADJACENT DRIVE
7. EXISTING PONDEROSA PINE TREES
8. AUXILIARY PARKING SPACE
9. VARIOUS SITE AMENITIES SUCH AS PICNIC TABLES, WOOD FIRED HOT TUBS, FIRE RINGS, CHAIRS
10. STONE OR GABION RETAINING WALL WHERE GRADE DICTATES
11. UNDISTURBED FOREST FLOOR

NOTE:
THIS DETAIL IS A GENERIC SAMPLE OF AN RV SITE. EACH SITE SHALL VARY.

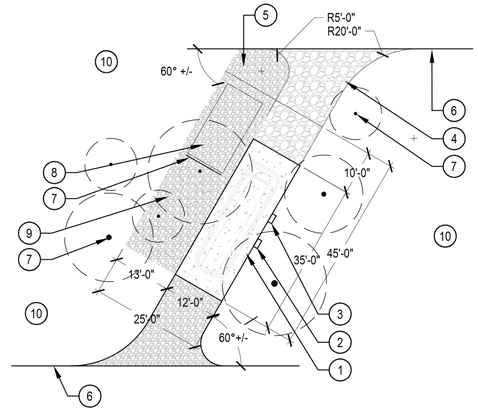


4 TYPICAL 25'x45' RV SITE

SCALE: 1/16" = 1'-0"

1. 35'x12' CONCRETE RV PARKING PAD
2. SEWER HOOKUP
3. WATER HOOKUP
4. DECOMPOSED GRANITE SURFACING RATED FOR VEHICLES
5. DECOMPOSED GRANITE SURFACING RATED FOR PEDESTRIAN USE
6. ADJACENT DRIVE
7. EXISTING PONDEROSA PINE TREES
8. AUXILIARY PARKING SPACE
9. VARIOUS SITE AMENITIES SUCH AS PICNIC TABLES, WOOD FIRED HOT TUBS, FIRE RINGS, CHAIRS
10. UNDISTURBED FOREST FLOOR

NOTE:
THIS DETAIL IS A GENERIC SAMPLE OF AN RV SITE. EACH SITE SHALL VARY.



6 TYPICAL 25'x45' PULL THRU RV SITE

SCALE: 1/16" = 1'-0"

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Planning | Landscape Architecture | Branding
6 East Aspen Avenue
Suite 260
Flagstaff, AZ 86001
P 928.233.3021
www.norris-design.com

WOODY MOUNTAIN CAMPGROUND

2727 W. HISTORIC RTE 66
FLAGSTAFF, AZ

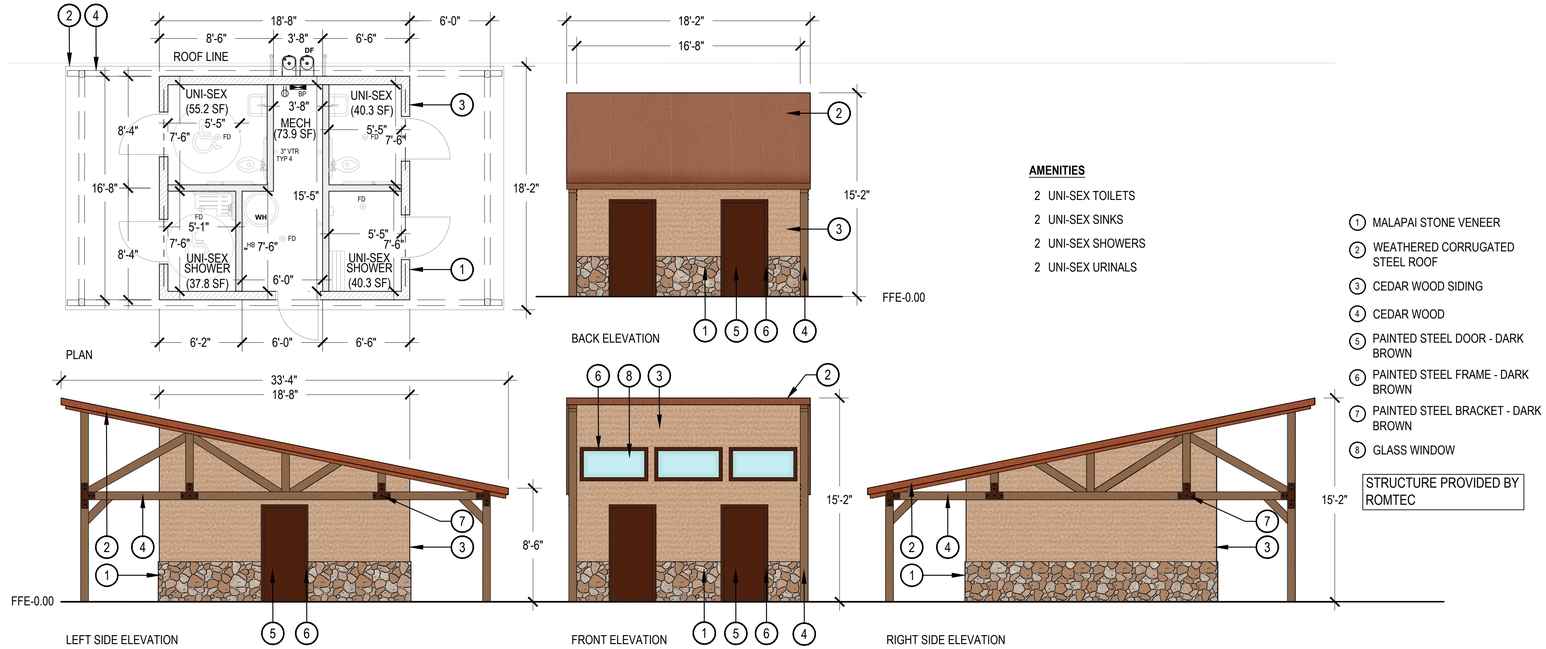
OWNER:
VINTAGE PARTNERS
WALTER CRUTCHFIELD
2502 E. CAMELBACK RD SUITE 214
PHOENIX, AZ 85016
602.459.9929

NOT FOR CONSTRUCTION

DATE:
10/16/18 CONCEPT PLAN
12/13/18 CONCEPT PLAN
02/05/19 SITE PLAN

SHEET TITLE:
DETAILS

CHECKED BY: AH
DRAWN BY: JT



AMENITIES

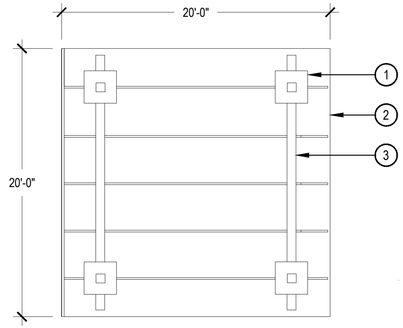
2 UNI-SEX TOILETS
2 UNI-SEX SINKS
2 UNI-SEX SHOWERS
2 UNI-SEX URINALS

1. MALAPAI STONE VENEER
2. WEATHERED CORRUGATED STEEL ROOF
3. CEDAR WOOD SIDING
4. CEDAR WOOD
5. PAINTED STEEL DOOR - DARK BROWN
6. PAINTED STEEL FRAME - DARK BROWN
7. PAINTED STEEL BRACKET - DARK BROWN
8. GLASS WINDOW

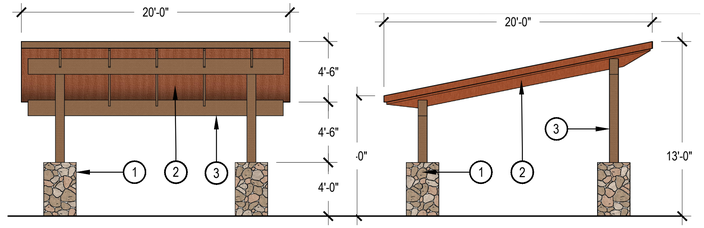
STRUCTURE PROVIDED BY ROMTEC

1 BATH HOUSE

SCALE: 3/16" = 1'-0"



PLAN



1. MALAPAI STONE VENEER
2. WEATHERED CORRUGATED STEEL ROOF
3. CEDAR WOOD

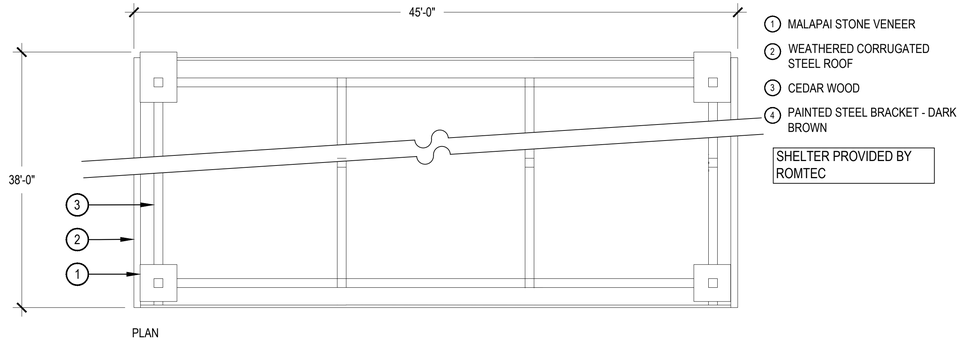
SHELTER PROVIDED BY ROMTEC

FRONT ELEVATION

SIDE ELEVATION

2 20' X 20' RAMADA

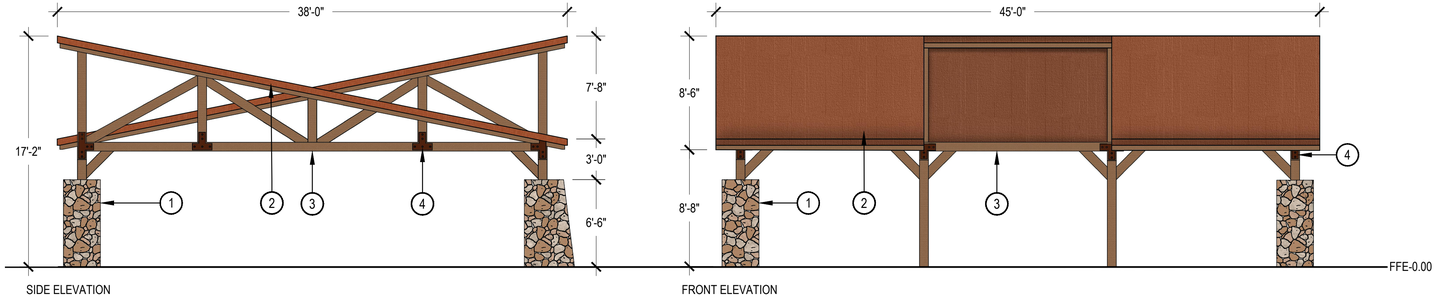
SCALE: 3/16" = 1'-0"



1. MALAPAI STONE VENEER
2. WEATHERED CORRUGATED STEEL ROOF
3. CEDAR WOOD
4. PAINTED STEEL BRACKET - DARK BROWN

SHELTER PROVIDED BY ROMTEC

PLAN



SIDE ELEVATION

FRONT ELEVATION

3 45' X 38' RAMADA

SCALE: 3/16" = 1'-0"

CHECKED BY: AH
DRAWN BY: JT

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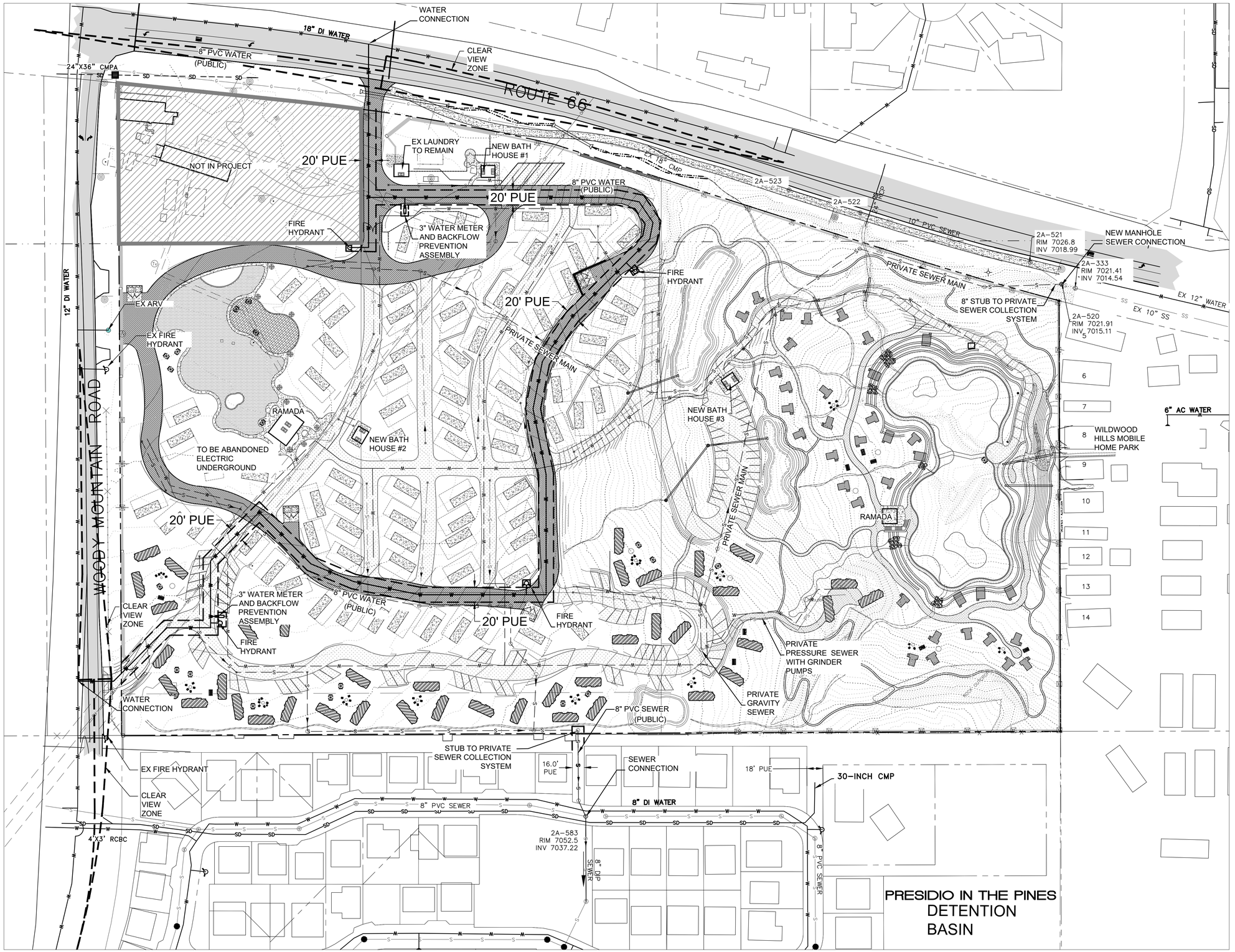
SHEET TITLE:

DETAILS



N

0 30 60 120

SCALE: 1" = 60'
CONTOUR INTERVAL: 1'

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

LEGEND

- PUBLIC WATER MAIN
- PRIVATE WATER SERVICE
- PUBLIC SEWER MAIN
- PRIVATE SEWER SERVICE
- PRIVATE PRESSURE SEWER SERVICE

CHECKED BY: AH
DRAWN BY: JT

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ENGINEERING & SURVEYING
114 E. BUTLER AVE, FLAGSTAFF, AZ 86001
(928) 774-4636 | WWW.WOODSONENG.COM

WOODY MOUNTAIN CAMPGROUND

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DATE:

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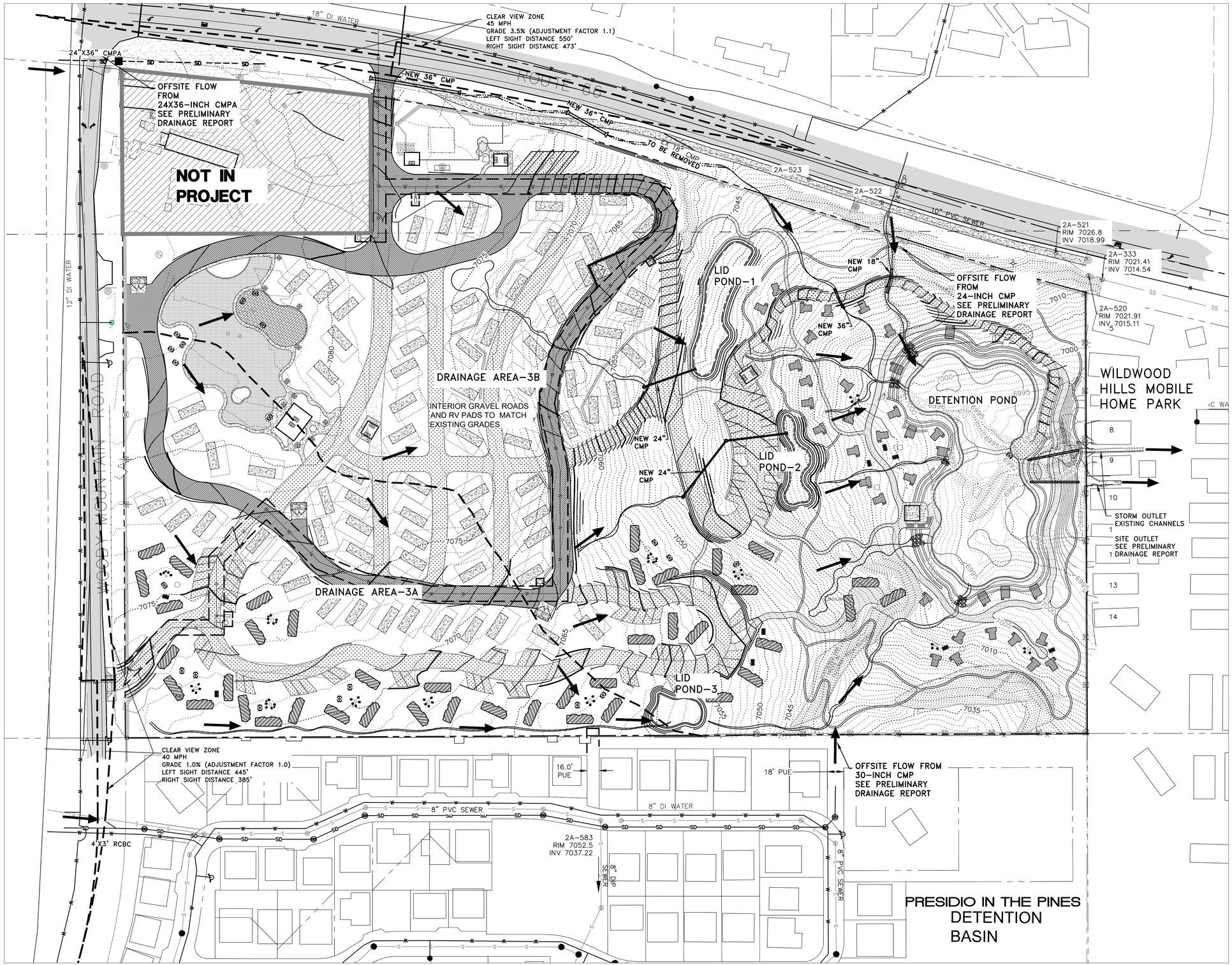
SHEET TITLE:
PRELIMINARY UTILITY PLAN



N

0 30 60 120

SCALE: 1" = 60'
CONTOUR INTERVAL: 1'

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

HYDOLOGY

A PRELIMINARY DRAINAGE REPORT HAS BEEN SUBMITTED WITH THE SITE PLAN FOR DETAILED CALCULATIONS.

THE PRELIMINARY Q100 FLOW IS BASED ON PRELIMINARY DRAINAGE CALCULATIONS FOR THE SUBJECT SITE.

PROPOSED CONDITION DRAINAGE AREAS TO MATCH THE EXISTING CONDITION TO THE BEST POSSIBLE EXTENT TO MINIMIZE GRADING AND TO PROTECT TREES.

DETENTION CALCULATIONS INCLUDE HALF OF THE ROADWAYS IN THEIR FUTURE WIDENED CONDITION.

- ROUTE 66 – ARTERIAL (COF SD 10-09-032)
- WOODY MOUNTAIN ROAD TO MATCH PRESIDIO IN THE PINES OFFSITE ROADWAY IMPROVEMENTS

DRAINAGE AREA-3B: ROCV IS PROVIDED BY LID PONDS-1 & 2. FLOW RATE IS ATTENUATED BY THE DETENTION POND.

DRAINAGE AREA-3A: ROCV IS PROVIDED BY LID POND-3. FLOW RATE IS ATTENUATED BY THE DETENTION POND.

IMPERVIOUS AREA

EXISTING CONDITION	2,150 SF
PROPOSED CONDITION	130,101 SF
INCREASE IN IMPERVIOUS AREA	127,952 SF
1" RUNOFF CONTROL VOLUME (ROCV)	10,663 CF
*ROCV PROVIDED	12,618 CF

DETENTION:

THE LARGER AND THE MOST DOWNSTREAM POND PROVIDES DETENTION.

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ENGINEERING & SURVEYING, LLC
1324 E. CLERIN ST. | FLAGSTAFF, AZ 86001
(928) 774-4836 | WWW.WOODSONENG.COM

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SHEET TITLE:
DRAINAGE PLAN

CHECKED BY: AH
DRAWN BY: JT

NOT IN PROJECT

ROUTE 66

EX 18" CMP

2A-523

EX LAUNDRY TO REMAIN

NEW BATH HOUSE #1

NEW BATH HOUSE #2

NEW BATH HOUSE #3

RAMADA

HIGH POINT

LOW POINT

INTERIOR GRAVEL ROADS AND RV PADS TO MATCH EXISTING GRADES

BOW 7039
TOW 7044

LID 1
TOP 7038
BOW 7036.5

BOW 7061
TOW 7063
H=2'

BOW 7034
TOW 7028
H=6'

BOW 7038
TOW 7034
H=4'

BOW 7025
TOW 7036
H=11'

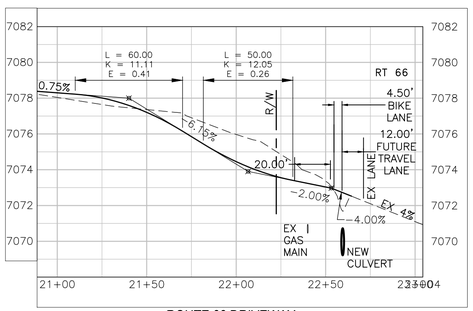
LID 2
TOP 7022
BOTTOM 7020.5

BOW 7030
TOW 7038
H=8'

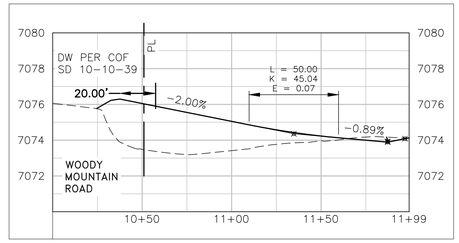
LID 3
TOP 7057
BOTTOM 7055.5

WOODY MOUNTAIN ROAD

0 20 40 80
SCALE: 1" = 40'
CONTOUR INTERVAL: 1'



ROUTE 66 DRIVEWAY
H:1"=40'
V:1"=4'



WOODY MOUNTAIN DRIVEWAY
H:1"=40'
V:1"=4'

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

CHECKED BY: AH
DRAWN BY: JT

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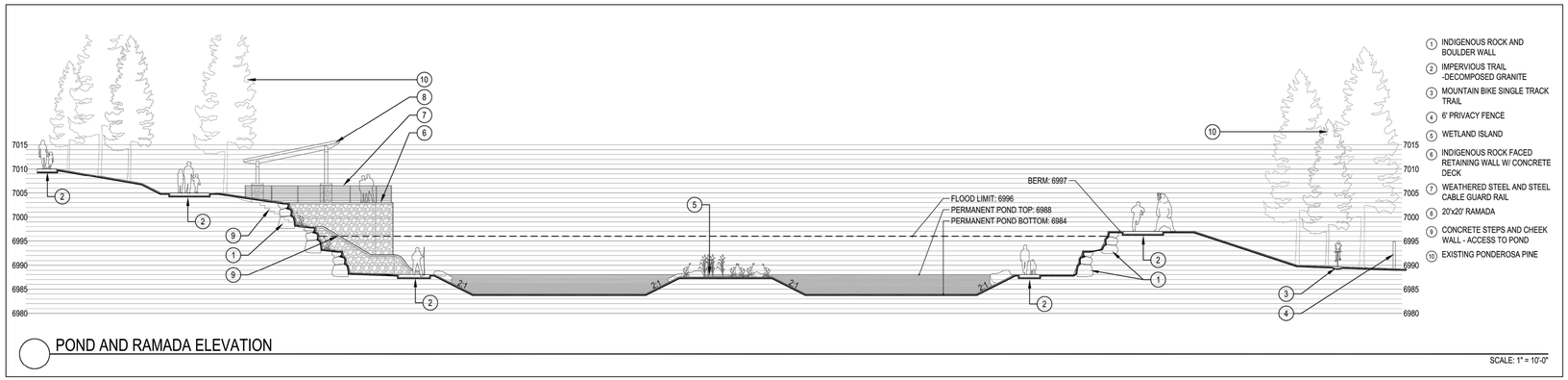
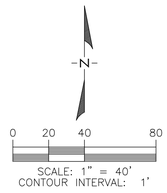
SHEET TITLE:
GRADING PLAN



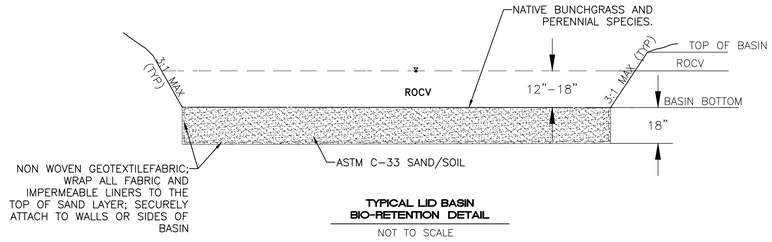


POND AND RAMADA ELEVATION

SCALE: 1" = 10'-0"



SCALE: 1" = 40'
CONTOUR INTERVAL: 1'



TYPICAL LID BASIN BIO-RETENTION DETAIL

NOT TO SCALE

PRELIMINARY
NOT FOR CONSTRUCTION OR RECORDING

CHECKED BY: AH
DRAWN BY: JT

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1124 E. ELDEN ST. FLAGSTAFF, AZ 86001
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SHEET TITLE:
GRADING PLAN

Wildwood Hills Flooding

Stormwater Pond Agreement

August 27, 2019

Brad Hill, R.G. – Director, Water Services

Anja Wendel, Sr. Asst. City Attorney

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

Background

Wildwood Hills Flooding

- Located on West Route 66 before Woody Mtn Road

- Mobile Home park has historically experienced periodic flooding since the 1980s. Constructed in a natural drainage with many trailers in low lying areas

- City obtained two engineering studies (2017 & 2019)
  - Best alternative construct detention pond upstream of Wildwood Hills

Background

Wanderland RV Proposed Development

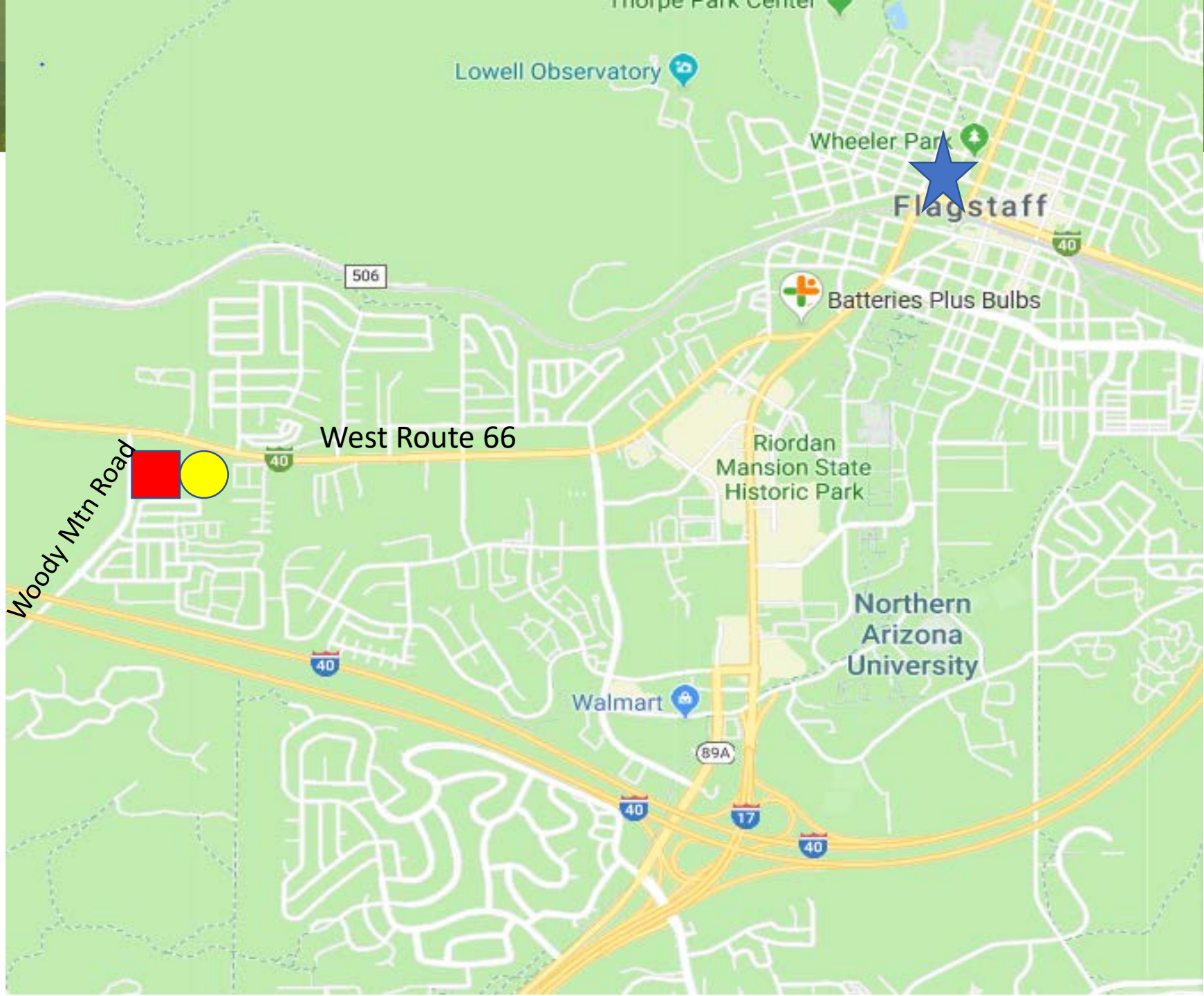
- Solution: public-private partnership (Vintage & City)
  - Detention Pond to be combined with a recreational amenity
  - Designed to reduce peak flood flows into Wildwood Hills by ~60%
    (100-Year Storm from ~200 cubic feet/second to ~78 CFS)
  - Pond Agreement: ownership, construction, maintenance, etc.

Location

Flagstaff City Hall

Wildwood Hills
Mobile Home Park

Wanderland RV
Vintage Partners



Wildwood Hills Flooding

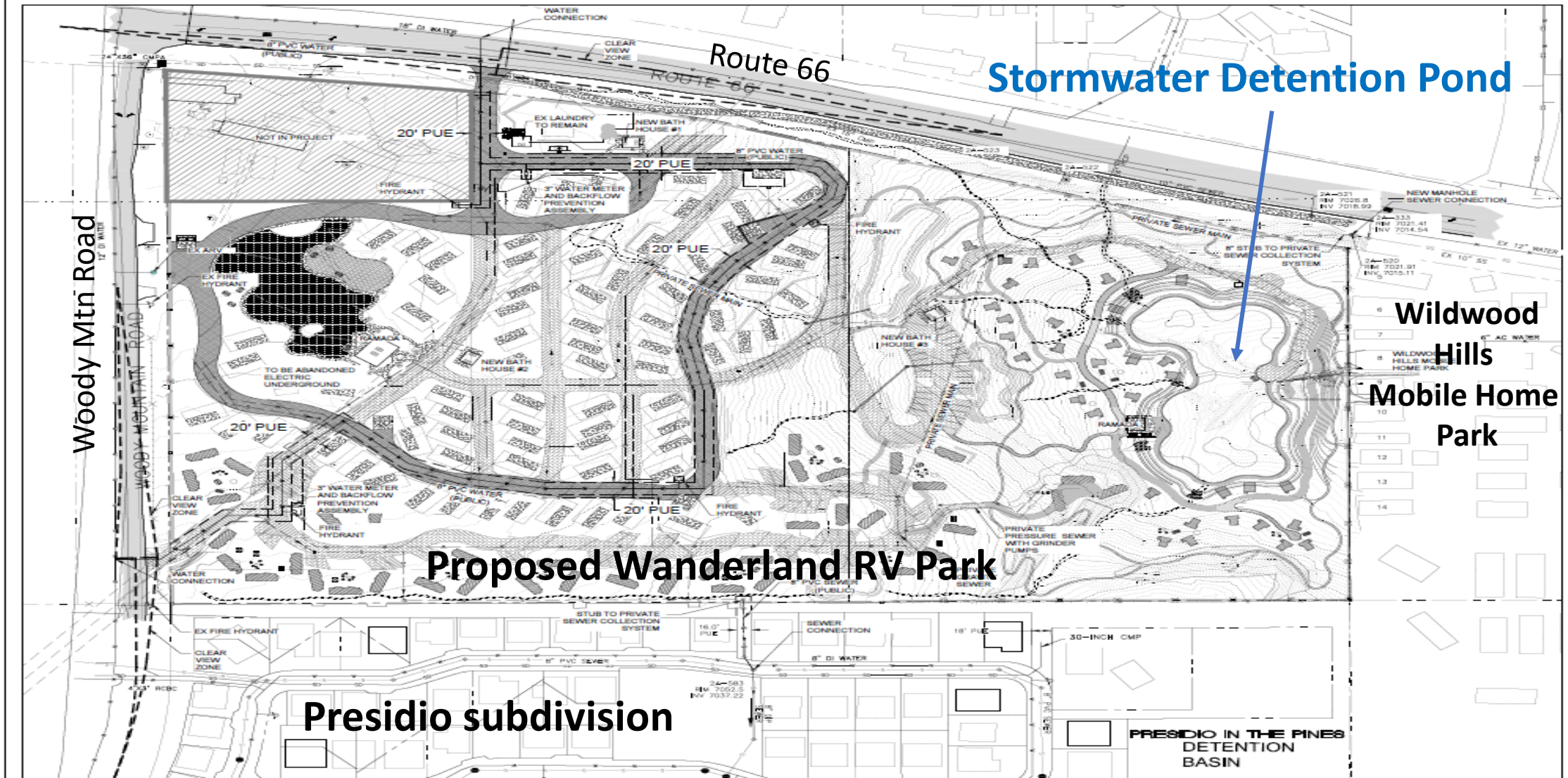






Wanderland / Wildwood Hills

Stormwater Detention Pond



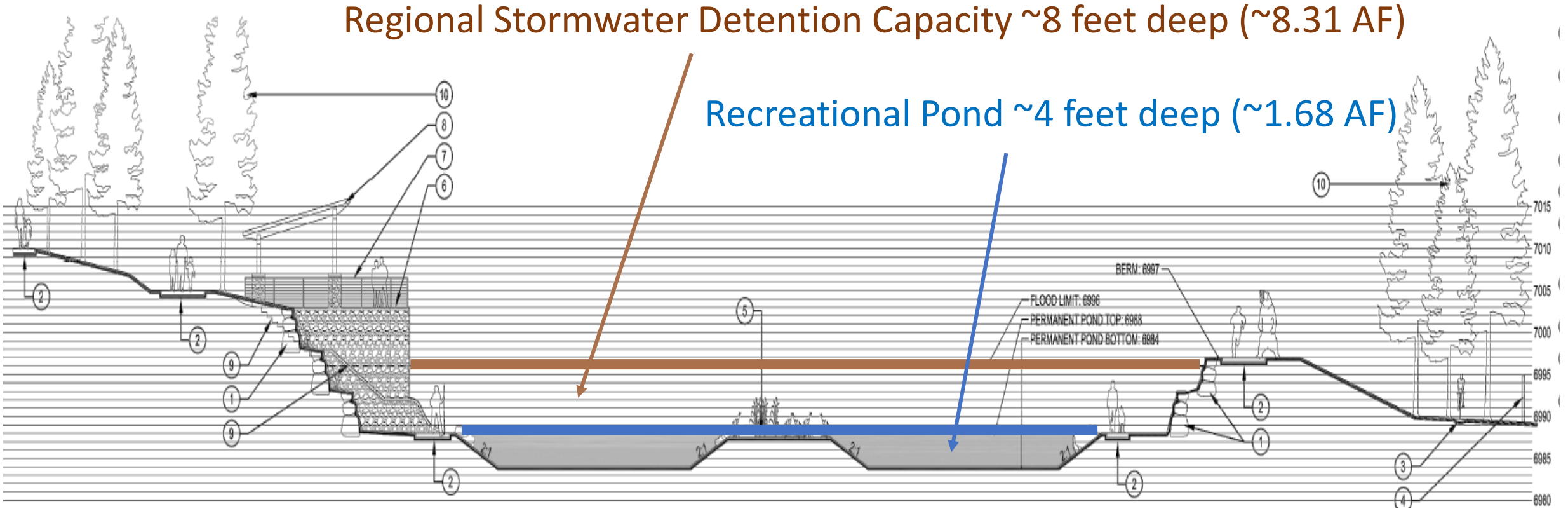
Stormwater Detention Pond



Concept Plan – Stormwater Detention

WEST EAST

Wildwood Hills



Pond Agreement

1. Term: commence on September 27, 2019 and continue in perpetuity

2. Detention Pond: ~12 feet deep and will hold ~10 acre-feet of water
   - Bottom 4 feet is for Wanderland Recreational Pond (1.68 AF) / top ~8 feet is for the Regional Stormwater Detention Capacity (8.31 AF)

3. Construction of Pond: Vintage to construct by July 1, 2020, City to expedite reviews

4. Easement: Vintage to grant City a perpetual, non-exclusive easement for Regional Stormwater Detention Capacity

5. Recreational: Use Recreational Pond for any use & not to interfere with Detention Capacity

6. Maintenance: Vintage agrees to maintain the Pond at its expense
   - Includes vector control (mosquitos) / maintain slopes & dredge pond for Regional Stormwater Detention Capacity / Outfall Structure / purchase potable or reclaimed water in accordance with City Code

Pond Agreement

7. City Inspection of Pond: Water Services - Stormwater Section will establish an annual inspection process.

8. City Rights to maintain Easement: if owner fails to maintain the Regional Stormwater Detention Capacity or Outflow Structure, City may at its sole discretion conduct necessary maintenance and charge Vintage to correct deficiencies.

9. Right of Entry for Inspection and Maintenance: Vintage grants City a perpetual right of entry for inspection and maintenance of Regional Stormwater Detention Capacity

10. Consideration: City will pay Vintage $405,000
    City's contribution is $345,000 from Stormwater Fund and Wildwood Hills property owner will contribute $60,000

Questions?


CITY OF FLAGSTAFF
ARIZONA
ESTABLISHED 1882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CITY BETTER

16. C.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Anja Wendel, Senior Assistant City Attorney AW

Date: 08/20/2019

Meeting Date: 08/27/2019

TITLE:

Consideration and Approval of Contract: A Contribution Agreement with the owners of the Wildwood Hills mobile home park related to the construction of a nearby stormwater detention basin to reduce regional flooding that impacts the owner's property.

STAFF RECOMMENDED ACTION:

Approve Contribution Agreement with the owners of the Wildwood Hills mobile home park.

Executive Summary:

Under the proposed Contribution Agreement, the owners of Wildwood Hills mobile home park will: (a) contribute $60,000 towards the costs of constructing and/or acquiring an upstream stormwater detention basin that will reduce seasonal flooding in the mobile home park; (b) grant access as needed for construction and/or maintenance of the basin; (c) indemnify the City against claims that the stormwater detention basin was not properly designed, constructed, and/or maintained; (d) require lessees to similarly indemnify the City, and notify lessees that the basin will reduce but not eliminate seasonal flooding (in both English and Spanish); (e) commit to continue operation of a mobile home park for at least 10 years, as the park provides affordable housing in Flagstaff.

Under a separate proposed Pond Agreement, the City will contribute funds to Wanderland Flagstaff, LLC (owners of the Woody Mountain Campground) for the acquisition of a stormwater detention basin easement, and to provide for construction and maintenance of the basin. This is a separate agenda item on the Council meeting and provides background information as to flooding in the area.

Financial Impact:

This Contribution Agreement will help reduce the costs for construction and/or acquisition of a stormwater detention basin, by at least $60,000.

Policy Impact:

None.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Team Flagstaff Strategic Plan (2017), Priority #4: Work in partnership to enhance a safe and livable community.

Council Goal (2017-2019): Affordable Housing: Support the development and increase the inventory of public and private affordable housing for renters and home-owners throughout the community. (Preserving mobile home park use for at least 10 more years).

Has There Been Previous Council Decision on This:

At the June 20, 2017, Council Meeting the Council supported the concept of constructing a stormwater detention basin on the Woody Mountain Campground that would help reduce seasonal flooding in the Wildwood Hills mobile home park.

Options and Alternatives:

1. Approve the Contribution Agreement;
2. Approve the Contribution Agreement with amendments;
3. Do not approve (not recommended).

Background/History:

The Wildwood Hills mobile home park is located in a natural drainage way and has been subject to seasonal flooding since the 1980s. In August 2016 an area west of Flagstaff experienced a 100-year storm event that caused significant flooding. The City, the owners of Woody Mountain Campground, and the owners of Wildwood Hills mobile home park are working together in an effort to construct and/or acquire a stormwater detention basin that will reduce regional flooding.

Key Considerations:

This Contribution Agreement will help facilitate the construction and/or acquisition of a regional stormwater detention basin.

Community Involvement:

The City has been in contact with several residents of the Wildwood Hills mobile home park over the last three (3) years, and who support efforts to reduce flooding in the area.

Attachments: Contribution Agreement
Pond Plan
Pond Elevation
Legal Description
Temporary Construction Easement

When Recorded Return To:

City Clerk
City of Flagstaff
211 West Aspen Avenue
Flagstaff, AZ 86001

CONTRIBUTION AGREEMENT
(Related to a Stormwater Detention Basin)

This Contribution Agreement is entered into this _____ day of _____, 2019 by and between _____, a _____ limited liability corporation ("Wildwood" or "Grantor") and the City of Flagstaff, Arizona, a municipal property corporation organized under the laws of the state of Arizona ("City" or "Grantee");

WHEREAS, Wildwood owns and operates a mobile home park located in a natural drainage way subject to flooding;

WHEREAS, the City is incurring considerable expense to help provide for the acquisition of a stormwater detention basin easement on adjacent property to help reduce peak flows entering the mobile home park (see conceptual map attached as Exhibit 1 for reference purposes);

WHEREAS, Wanderland Flagstaff, LLC, an Arizona limited liability company is proposing to construct a stormwater detention basin on the adjacent property, the Woody Mountain Campground, that will include capacity for a recreational pond as well as stormwater detention;

NOW, therefore, the parties agree as follows:

1. Financial Contribution. Grantor will contribute sixty-thousand dollars ($60,000) towards the costs of construction of a stormwater detention basin as conceptually depicted in the approved site plan for the Woody Mountain Campground dated April 2019 and kept on file with the Flagstaff Community Development Division ("the Stormwater Detention Basin"), subject to conditions set forth below. Grantor shall pay City three (3) equal monthly payments of $20,000, on or before the first of the month, commencing on the first day of the month after grading and excavation begins for the Stormwater Detention Basin. City will hold these funds in trust for Grantor, and upon final acceptance of the Stormwater Detention Basin, these funds will be remitted to Wanderland Flagstaff, LLC, as a contribution to the costs of construction. Grantor will not receive any ownership rights as to the facilities constructed. The requested completion date for the stormwater detention basin is July 1, 2020; however, this date is not guaranteed.

2. Conditions. Grantor's financial contribution is subject to the following conditions:

a. The completed Stormwater Detention Basin will reduce the peak flow in a 100 year flood event entering into the mobile home park from approximately 191 cubic feet per second ("CFS") to approximately 78 CFS;

b. All plans for the Stormwater Detention Basin shall be prepared by certified/registered engineers in the state of Arizona;

c. All grading and construction work for the Stormwater Detention Basin shall be pursuant to approved permits and approvals;

d. City shall perform inspections of the construction work to determine whether the Stormwater Detention Basin facilities are constructed per approved plans, per standard Community Development review procedures;

e. The Stormwater Detention Basin is completed.

3. Stormwater Conveyance System through the Mobile Home Park. At this point in time there are no plans for construction of stormwater facilities within the mobile home park. Grantor may be asked to provide a temporary construction easement for the Stormwater Detention Basin, which will not be unreasonably withheld. The Stormwater Detention Basin will have an outfall structure that allows stormwater to continue to flow into existing stormwater conveyance systems located within the mobile home park, but at reduced peak flow rates.

4. Use Restriction. Grantor hereby grants a use restriction on, across, under and through the property legally described in Exhibit 2 attached hereto ("the Property") for the benefit of the City of Flagstaff, as follows:

Grantor shall operate a mobile home park on the Property until at least September 1, 2030; and, during this time, the Grantor will maintain the mobile home park in good condition, offer mobile home park spaces for lease, and will make good faith efforts to maintain at least an 80% occupancy rate at the mobile home park at all times.

5. Notice. Grantor will include the following notice in any lease or lease renewal for use of the Property in English and in Spanish:

This Property is subject to seasonal flooding. A stormwater detention basin is being constructed and/or maintained immediately west of this Property. The stormwater detention basin may reduce the peak flow in a 100-year storm event by up to 60% (from approximately 191 cubic feet per second ("CFS") to approximately 78 CFS), but does not eliminate natural flooding on this Property. As a condition of your lease, you agree to indemnify and hold harmless the City of Flagstaff, its officers, agents, contractors, and employees (collectively "the City"), from and against any losses, claims, and actions resulting from personal injury to any person or damages to property, and arising out of

the alleged failure to properly design, construct or maintain the stormwater detention basin, except to the extent any such injury or damages is caused by the gross negligence or willful misconduct of the City.

City will obtain a satisfactory Spanish translation and provide it to Grantor.

6. Indemnification. Grantor shall indemnify and hold harmless the City of Flagstaff, its officers, agents, contractors or employees (collectively "the City"), from and against all losses, claims, and actions resulting from personal injury to any person or damages to any property, and arising out of the alleged failure to properly design, construct or maintain the stormwater detention basin, except to the extent any such injury or damages is caused by the gross negligence or willful misconduct of the City.

7. Amendment. This Agreement may be amended at any time by written amendment executed by both Parties; all amendments shall be recorded in the official records of Coconino County, Arizona, within ten (10) days following the execution thereof.

8. Authorization. Each party to this Agreement represents and warrants that the person executing this Agreement on its behalf have full authority to bind the respective party.

9. Cancellation. This Agreement is subject to the cancelation under A.R.S. § 38-511.

10. Compliance with all Laws. The parties will comply with all applicable Federal, State, County and City laws, regulations and policies in performance of this Agreement.

11. Default and Remedies. Failure of a party to perform a material obligation of this Agreement shall constitute a breach by that party of this Agreement and, if the breach is not cured within thirty (30) days after written notice thereof from the other party (the "Cure Period"), shall constitute a default under this Agreement. In the event a breach is not cured within the Cure Period, except as otherwise provided herein, the non-defaulting party shall have all the rights and remedies that may be available under law or equity, including the right to file an action for damages and/or termination for cause.

12. Waiver. No delay in exercising any right or remedy shall constitute a waiver thereof and no waiver by the parties of the breach of any provision of this Agreement shall be construed as a waiver of any preceding or succeeding breach of the same or any other provision of this Agreement.

13. Litigation and Attorneys' Fees. Except as otherwise agreed by the parties, any litigation brought by either party against the other to enforce the provisions of this Agreement must be filed in the Coconino County Superior Court. In the event any action at law or in equity is instituted between the parties in connection with this Agreement, the prevailing party in the action shall be entitled to its costs including reasonable attorneys' fees and court costs from the non-prevailing party.

14. Entire Agreement. This Agreement contains the entire understanding and agreement between the parties with respect to the subject matter hereof and supersedes any prior written or oral understandings or agreements between the parties. Each party has participated in negotiation of the Agreement and has engaged legal counsel in review.

15. Further Acts. Each of the parties hereto shall cooperate in good faith and execute and deliver such documents and perform such acts as are reasonably necessary to carry out the matters contemplated by this Agreement.

16. Governing Law. This Agreement shall be governed by and construed under the laws of the State of Arizona and shall be deemed made and entered into in Coconino County.

17. No Joint Venture. Neither party is acting as the agent of the other in any respect hereunder, and that each party is an independent contracting entity with respect to the terms, covenants, and conditions contained in this Agreement. None of the terms or provisions of this Agreement shall be deemed to create a joint venture or partnership.

18. Notices. All notices, demands, or other communications given hereunder shall be in writing and shall be deemed to have been duly delivered upon personal delivery or as of the third business day after mailing by the United States mail, postage prepaid, by registered or certified mail, return receipt requested, addressed as follows:

To City:	City of Flagstaff Attn: City Manager 211 West Aspen Avenue Flagstaff, AZ 86001
Copy To:	City of Flagstaff Attn: City Attorney 211 West Aspen Avenue Flagstaff, AZ 86001
To Wildwood:	Andrew and Marilyn Bowden Wildwood Hills MHC, LLC 15250 W. Avra Valley Road Marana, Arizona 85653

Either party shall give notice to the other party in writing of change of address.

19. Severability. In the event that any phrase, clause, sentence, paragraph, section, article, or other portion of this Agreement shall become illegal, null or void or against public policy, for any reason, or shall be held by any court of competent jurisdiction to be illegal, null or void or against public policy, the remaining portions of this Agreement shall not be affected thereby and shall remain in force and effect.

20. Successors and Assigns. All of the terms and conditions of this Agreement shall run with the land, and shall be binding upon, and burden and benefit the successors, successors in title and assigns of the parties.

21. Third Parties. Nothing contained in this Agreement shall be deemed to grant or confirm to any other person, other than the parties hereto, the right to assert or exercise a separate or independent right to enforce this Agreement, or a separate or independent right to enjoy any of the benefits or privileges granted, it being understood that such rights are forever expressly held, retained and shall be exercised solely by and through the parties hereto and their successors, successors in title, and assigns.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed on or as of the day and year first above written.

DATED this _____ day of _____, 2019.

WILDWOOD/GRANTOR

_____

By: _____

Its: _____

STATE OF ARIZONA)
) ss.
COUNTY OF _____)

This instrument was acknowledged before me this _____ day of _____, 2019, by _____, being duly authorized in his or her capacity to act on behalf of Grantor.

_____
Notary Public

My commission expires:

CITY OF FLAGSTAFF/GRANTEE

_____

Coral Evans, Mayor

Attest:_____

_____

City Clerk

Approved as to form:

_____

City Attorney

STATE OF ARIZONA)
) ss.
COUNTY OF COCONINO)

This instrument was acknowledged before me this _____ day of _____, 2019, by _____, being duly authorized in her capacity as the Mayor on behalf of the City of Flagstaff, a municipal corporation.

_____

Notary Public

My commission expires:

EXHIBIT 1
CONCEPTUAL MAP

EXHIBIT 2
LEGAL DESCRIPTION OF PROPERTY



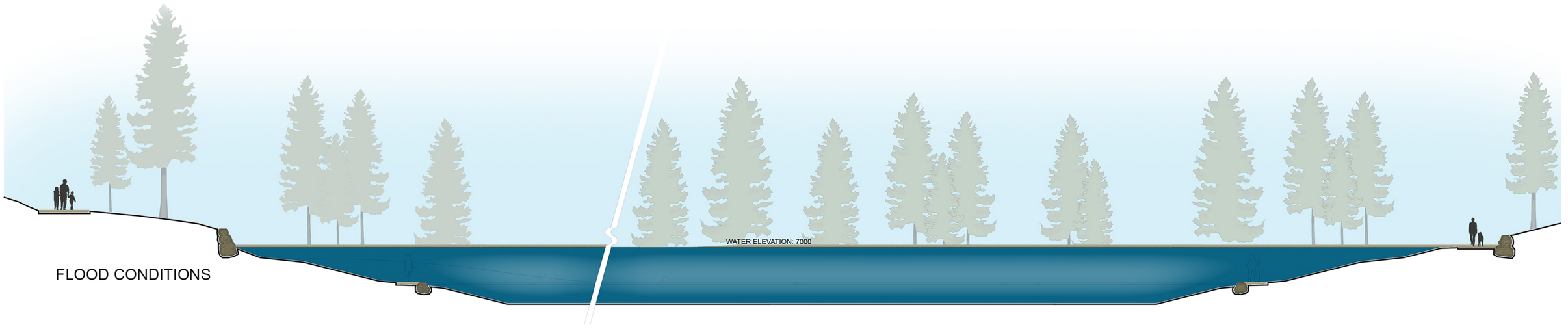


TIMBER SKY CAMPGROUND

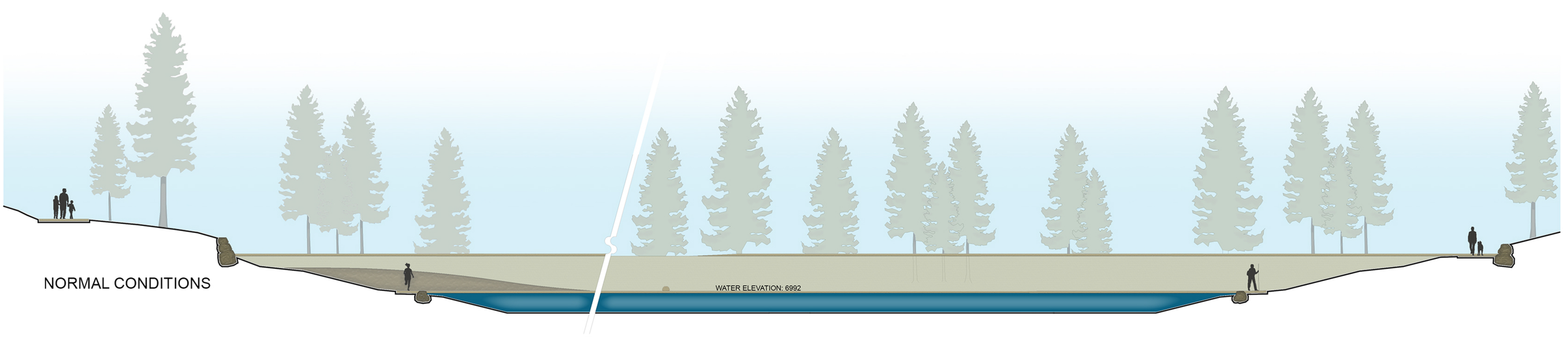
WOODSON ENGINEERING & SURVEYING

VINTAGE PARTNERS

NORRIS DESIGN
Planning | Landscape Architecture | Branding



FLOOD CONDITIONS



NORMAL CONDITIONS

0 5' 10' 20'

SCALE: 1"-10'

TIMBER SKY CAMPGROUND

WOODSON ENGINEERING & SURVEYING

VINTAGE PARTNERS

NORRIS DESIGN
Planning | Landscape Architecture | Branding

Official Records of Coconino County 3418698
Candace Owens - Recorder 12/29/2006 10:32 AM Pgs: 3
FIDELITY NATIONAL TITLE D $14.00

When recorded, mail to:
James M. Woodrow, Esq.
7440 N. Oracle Rd., Bldg. 5
Tucson, Arizona 85704

300 21477-MS
5100482 4/5100554 1

QUITCLAIM DEED

For valuable consideration, I or we,

Andrew Reece Bowden and Marilyn Ann Bowden, husband and wife, the Grantor,

do hereby release, remise and quitclaim to

Wildwood Hills MHC, LLC, an Arizona limited liability company, the Grantee,

all my right, title and interest in the following described property, situated in the County of Coconino, State of Arizona:

See Exhibit "One" attached hereto and made a part hereof.

SUBJECT TO ALL MATTERS OF RECORD

Affidavit of property value exemption: This Quitclaim Deed is exempt from affidavit requirements pursuant to A.R.S. Sec. 11-1134(B)(2)

Dated this 14 day of December, 2006.

Grantor:

Andrew Reece Bowden

Marilyn Ann Bowden

STATE OF ARIZONA)
) ss
County of Pima)

This Quitclaim Deed was acknowledg-ed before me this 14th day of December 2006 by Andrew Reece Bowden and

1/13

Unofficial Copy

Marilyn Ann Bowden.

Notary Public

My commission expires:

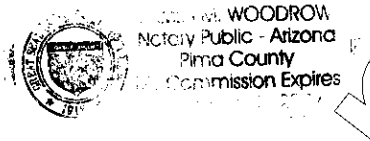


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EXHIBIT "ONE"

PARCEL NO. 1:

THAT PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER LYING SOUTH OF THE SOUTH RIGHT-OF-WAY LINE OF U.S. HIGHWAY 66 IN SECTION 19, TOWNSHIP 21 NORTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, COCONINO COUNTY, ARIZONA, WHICH IS ALSO DESCRIBED AS FOLLOWS:

BEGINNING AT THE EAST QUARTER CORNER OF SAID SECTION 19;

THENCE SOUTH ALONG THE EASTERLY LINE OF SAID SECTION 19, A DISTANCE OF 198.2 FEET TO A POINT ON SAID SOUTH RIGHT-OF-WAY LINE AND THE TRUE POINT OF BEGINNING;

THENCE CONTINUING SOUTH AND ALONG SAID EASTERLY SECTION LINE, A DISTANCE OF 461.8 FEET TO THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 19;

THENCE NORTH 89 DEGREES 55 MINUTES WEST ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER, A DISTANCE OF 660.0 FEET TO THE SOUTHWEST CORNER THEREOF;

THENCE NORTH, ALONG THE WEST LINE OF SAID NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER, A DISTANCE OF 591.0 FEET TO A POINT ON SAID SOUTH RIGHT-OF-WAY LINE;

THENCE SOUTHEAST AND ALONG SAID SOUTH RIGHT-OF-WAY LINE, ON A CURVE TO THE LEFT, A DISTANCE OF 685.00 FEET TO THE TRUE POINT OF BEGINNING,

EXCEPT 1/16TH OF ALL OIL, GASES, AND OTHER HYDROCARBON SUBSTANCES, COAL, STONE, METALS, MINERALS, FOSSILS AND FERTILIZERS OF EVERY NAME AND DESCRIPTION AND EXCEPT ALL MATERIALS WHICH MAY BE ESSENTIAL TO PRODUCTION OF FISSIONABLE MATERIAL AS RESERVED IN ARIZONA REVISED STATUTES.

PARCEL NO. 2:

THE EAST HALF OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 19, TOWNSHIP 21 NORTH, RANGE 7 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, COCONINO COUNTY, ARIZONA;

EXCEPT 1/16TH OF ALL OIL, GASES, AND OTHER HYDROCARBON SUBSTANCES, COAL, STONE, METALS, MINERALS, FOSSILS AND FERTILIZERS OF EVERY NAME AND DESCRIPTION AND EXCEPT ALL MATERIALS WHICH MAY BE ESSENTIAL TO PRODUCTION OF FISSIONABLE MATERIAL AS RESERVED IN ARIZONA REVISED STATUTES.

Unofficial Copy

EASEMENT DESCRIPTION

A portion of that parcel described in Instrument No. 3418698, Records of Coconino County, Arizona (RCC), situated in the east half of Section 19, Township 21 North, Range 7 East, Gila and Salt River Meridian, City of Flagstaff, Coconino County, Arizona, described as follows:

COMMENCING for reference at a 2" diameter aluminum cap marked "ARIZONA ENGINEERING CO. LS 13010 LS 37496" at the northwest corner of said parcel described in said Instrument No. 3418698, RCC, and the northwest corner of that parcel described in Instrument No. 3802843, RCC;

Thence South 00°11'23" East, 202.89 feet along the line common to said parcels to the POINT OF BEGINNING;

Thence North 89°47'27" East, 10.00 feet;

Thence South 00°11'23" East, 10.00 feet;

Thence South 89°47'27" West, 10.00 feet to a point on said common parcel line, herein after referred to as Point A;

Thence North 00°11'23" West, 10.00 feet along said common parcel line to the POINT OF BEGINNING.

TOGETHER WITH the following described parcel:

BEGINNING at the herein before referenced Point A;

Thence South 00°11'23" East, 27.70 feet along said common property line to the POINT OF BEGINNING;

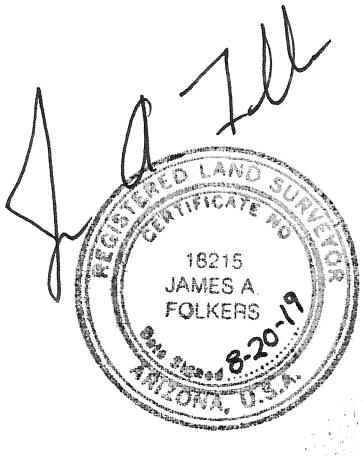
Thence North 89°47'27" East, 15.00 feet;

Thence South 00°11'23" East, 15.00;

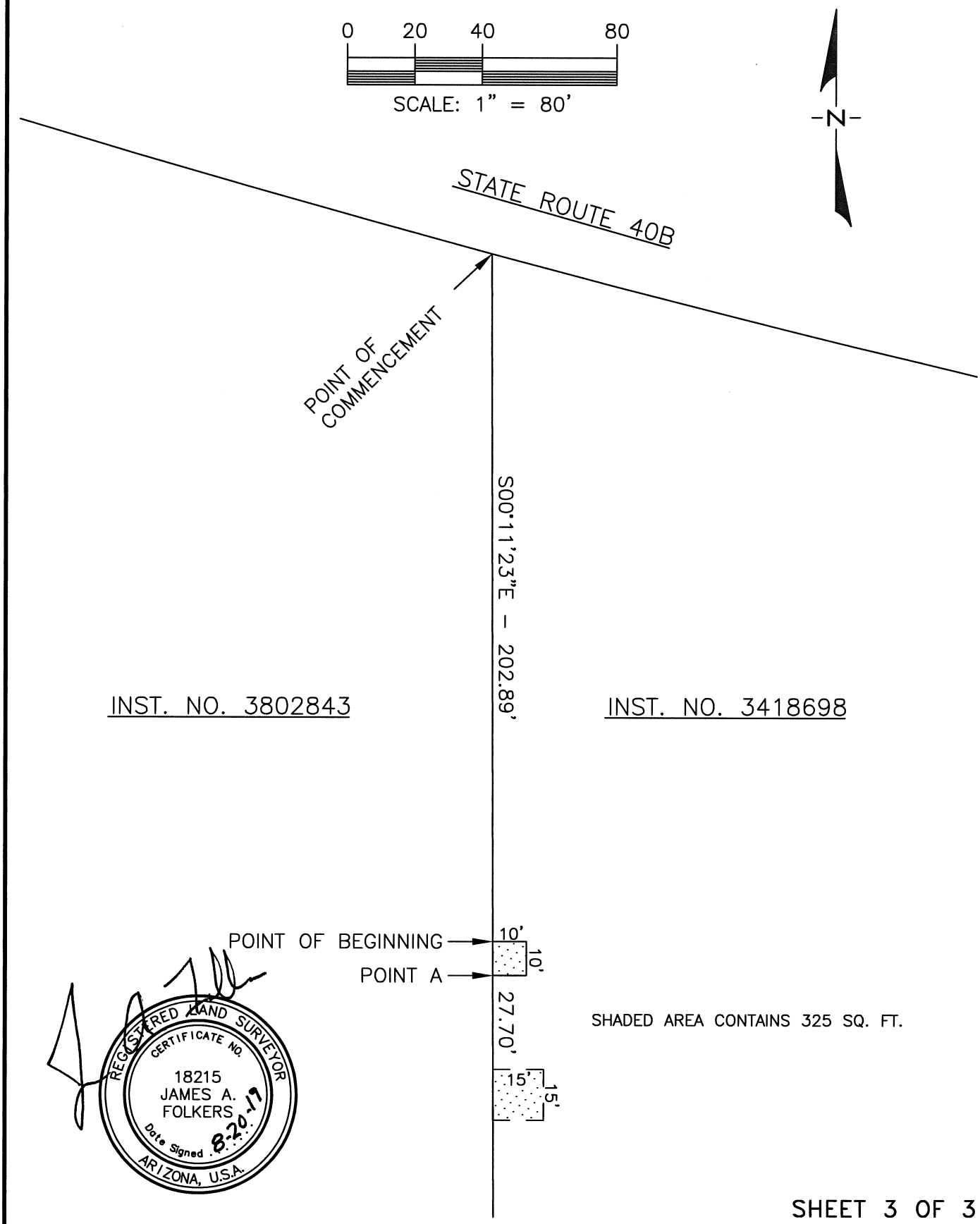
Thence South 89°47'27" West, 15.00 feet to a point on said common property line;

Thence North 00°11'23" West, 15.00 feet along said common property line to the POINT OF BEGINNING.

CONTAINING 225 square feet, as shown on the attached Exhibit drawing, which is made a part hereof by this reference.



Prepared by:
James A. Folkers, RLS
Woodson Engineering & Surveying, Inc.
124 N. Elden Street
Flagstaff, Arizona 86001
Project No. 118044



SHEET 3 OF 3

DRAWN BY:	**WOODSON**	EXHIBIT DRAWING
DATE:	ENGINEERING AND SURVEYING, INC.	
FN:	124 N. ELDEN ST.	
PROJECT NO.:	FLAGSTAFF, AZ 86001	
	PHONE:(928)774-4636 FAX:(928)774-4646	

16. D.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
:	
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Adoption of Resolution No. 2019-39: A resolution of the Flagstaff City Council, approving an Intergovernmental Agreement between Arizona State Parks and Trails and the City of Flagstaff for the implementation of the Site Steward Program on Flagstaff open space.

STAFF RECOMMENDED ACTION:

1) Read Resolution No. 2019-39 by title only
2) City Clerk reads Resolution No. 2019-39 by title only (if approved above)
3) Adopt Resolution No. 2019-39

Executive Summary:

The Arizona Site Steward Program increases informal surveillance of the Picture Canyon Preserve through the use of volunteers trained to inventory archeological sites and report vandalism. Participating in the Site Steward Program will assist with cultural resources protection and helps fulfill the requirements for the State Parks Conservation easement. Volunteers report graffiti/damage to cultural sites and may otherwise go unreported. As a result, the Flagstaff Open Space program is able to mitigate damage to preserve the quality of petroglyph sites and discourage continued damage.

Financial Impact:

Approval of the Intergovernmental Agreement results in no cost to the City of Flagstaff and has the potential to reduce maintenance and security costs due to the presence of additional volunteer surveillance through the Arizona Site Steward Program .

Policy Impact:

Approval of the Intergovernmental Agreement is necessary to continue the Arizona Site Steward Program at Picture Canyon.

Connection to Council Goal, Regional Plan:

Council Goals:
Enhance public transparency and accessibility
Actively manage and protect all environmental and natural resources

Regional Plan:
Goal OS.1. The region has a system of open lands, such as undeveloped natural areas, wildlife corridors

and habitat areas, trails, access to public lands, and greenways to support the natural environment that sustains our quality of life, cultural heritage, and ecosystem health.
Goal LU.3. Continue to enhance the region's unique sense of place within the urban, suburban, and rural context (Policy LU.3.3).
Goal CC.2. Preserve, restore, and rehabilitate heritage resources to better appreciate our culture.
Goal ED.7. Continue to promote and enhance Flagstaff's unique sense of place as an economic driver.
Goal REC.1. Maintain and grow the region's healthy system of convenient and accessible parks, recreation facilities, and trails.

Has There Been Previous Council Decision on This:

In 2013, Council approved the Intergovernmental agreement with Arizona State Parks to outline mutual responsibilities for the Arizona Site Steward Program at Picture Canyon.

Attachments: Res. 2019-39
IGA
Presentation

RESOLUTION NO. 2019-39

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL, APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN ARIZONA STATE PARKS AND THE CITY OF FLAGSTAFF FOR THE IMPLEMENTATION OF THE SITE STEWARD PROGRAM ON FLAGSTAFF OPEN SPACE.

RECITALS:

WHEREAS, Arizona State Parks and the City of Flagstaff ("City") desire to enter into an intergovernmental agreement for the implementation of the Site Steward program on Flagstaff Open Space to outline the mutual responsibilities in applying the Arizona Site Steward program at Picture Canyon Natural and Cultural Preserve (the "Preserve"); and

WHEREAS, the City purchased 478 acres of State Trust lands at the Preserve on October 30th, 2012 as designated open space; and

WHEREAS, the Arizona State Land Department, as a part of its due diligence to protect and preserve the cultural resources present at the Preserve prior to the sale of State Trust lands, required that the City comply with all applicable historic preservation laws and regulations, including the Arizona Antiquities Act, A.R.S. § 41-841 through 41-845; and

WHEREAS, the City passed Resolution 2012-12 adopting a Cultural Resources Policy for Picture Canyon. The resolution protects cultural resources at the Preserve; and

WHEREAS, the City entered into the First Intergovernmental Agreement with the Arizona State Parks Board for the volunteer Site Stewards Program in April 2014; and

WHEREAS, the archaeological resources of the State of Arizona are deemed a valuable and non-renewable resource of the people of Arizona and the people of the United States of America, many of which are currently being subjected to vandalism and other forms of permanent destruction; and

WHEREAS, state and federal laws encourage cooperation among state and federal agencies, local governmental entities, and private citizens; and

WHEREAS, Arizona State Parks and Trails have determined that a program of regular, volunteer visitation of locations of archaeological resources diminishes the rate of their destruction and leads to an improved attitude among local citizens toward archaeological resources in their region; and

WHEREAS, the Flagstaff City Council has determined that the best interests of the City will be served by approving the agreement for the implementation of the Site Steward Program.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

The Flagstaff City Council hereby authorizes the Mayor to execute the Intergovernmental Agreement between Arizona State Parks and Trails and the City, attached hereto as Exhibit A.

SECTION 2. Effective Date.

This resolution shall be immediately effective upon adoption.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 27th day of August, 2019.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:
IGA

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No.	
		Re: Site Steward Program	Date: August 5, 2019

I. INTRODUCTION

This Intergovernmental Agreement, herein referred to as an "Agreement" or "IGA", recognizes interests, concerns, and mutual responsibilities in the implementation of the Site Steward Program in the State of Arizona. The participants to this agreement are as follows:

A. Arizona State Parks Board, doing business as Arizona State Parks, hereafter referred to as "ASP", and

B. City of Flagstaff

II. DEFINITIONS

Governor's Archaeology Advisory Commission (GAAC)	The GAAC advises the SHPO on a variety of important archaeological matters.
Arizona Site Steward or Site Steward (SS)	A certified volunteer appointed by ASP
Arizona State Parks Board (ASPB)	Charged by the legislature to administer the ASP & SHPO programs.
Region	Identifies a boundary usually within a 50-mile radius from the community where the SS have been trained, certified, and a Regional Coordinator has been identified.
Regional Coordinator (RC)	The RC works with local land managers to determine site monitoring priorities and frequency, establish a site inventory and a program of two other preservation activities, etc.
Site Steward Coordinator (SSC)	Designated by the Land Manager or Local Land Manager, as appropriate, to coordinate Site Steward activities on the lands under their jurisdiction.
State Historic Preservation Office (SHPO)	The SHPO is under the direction of the State Historic Preservation Officer who is an employee of ASPB and designated by the Governor.
State Program Coordinator (SPC)	Hired by ASP to coordinate the statewide operations of the Arizona Site Steward Program.

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No.	
		Re: Site Steward Program	Date: August 5, 2019

III. PURPOSE

The archaeological resources of the State of Arizona are deemed a valuable and non-renewable resource of the people of Arizona and the people of the United States of America. Many archaeological sites throughout Arizona are currently being subjected to vandalism and other forms of permanent destruction. This illegal activity continues, in part, due to a lack of understanding by the public of the true value of the resources and a lack of regular surveillance of these locations. State and federal laws encourage cooperation among state and federal agencies, local governmental entities, and private citizens. The undersigned parties have determined that a program of regular, volunteer visitation of locations of archaeological resources throughout the City of Flagstaff diminishes the rate of their destruction and leads to an improved attitude among local citizens toward archaeological resources in their region.

- The Parties recognize and encourage a continued commitment to the enhancement and protection of the cultural and natural resources of the State of Arizona as well as the goals of public recreation.

- This Agreement establishes an enduring basis for cooperation and assistance between the Parties to achieve common goals and objectives that are sensitive to our cultural and natural resources.

IV. PARTIES TO THIS AGREEMENT

A. This IGA is made and entered into between the following parties:
   1. ASP; and
   2. City of Flagstaff

   These entities may be identified singularly as "Party" or together as the "Parties".

B. The Parties hereby agree to cooperate in maintaining a volunteer program called the Site Steward Program ("SSP") that will be under the direction of ASP, as the agency in charge of coordination and training. Assumption of this leadership role shall not impose any additional liabilities on ASP arising from these duties.

C. To the extent that funding is available, a full-time State Program Coordinator shall be hired by the ASP, and assisted by appointed volunteer Regional Coordinators.

D. ASP will issue a training certificate to Site Stewards who have successfully completed the required training.

E. Local volunteers will act as Site Stewards to assist the Regional Coordinators by visiting specific archaeological sites identified by the City of Flagstaff. The Site Stewards will report their observations to designated authorities, but will not act in any law enforcement capacity.

F. In June 2019, ASP will be building a new on-line database for the program to replace an existing database that no longer handles the full needs of the program. The SSP database will include several of the core features from the existing database but with several upgrades to improve the efficiency of the program as a centralized storage location for the SSP, Land Managers will have access to all data specific to their jurisdiction at all times. Provided below is a summary of the key features the new system will have:

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No.	
		Re: Site Steward Program	Date: August 5, 2019

1) Steward application: All potential stewards will continue to submit an application in the database. Stewards will submit volunteer hours and vandalism reports in one location.
2) Improved data collection and an easier process for vandalism reporting will be implemented.
3) Store Site Kit information. Each land manager will have the option to upload sitemaps, photos and other documents that a current paper-based site kit contains.
4) Fillable volunteer agreement forms: Volunteer Agreement forms have caused numerous problems due to the frequency in which they are renewed and the sheer number of agreement forms SSP Regional Coordinators must collect from their stewards. To help alleviate these time-consuming efforts and reduce written mistakes individual Land Manager Volunteer Agreement Forms will be integrated into the new database where Stewards will be able to complete using electronic format and signature. Several land managers are only requiring a new signed agreement from vested volunteers only if there is a change in the form (i.e. new insurance language). We are encouraging all land managers to adopt this policy to reduce the time required to process new agreements for a given region.

G. Each Volunteer Agreement will enable Site Stewards access to visit archaeological sites and to assist in other activities, under the direct supervision of a professionally qualified archaeologist, related to the preservation and protection of archaeological resources including, but not limited to, inventory, stabilization, and mitigation on lands under their jurisdiction.

V. AUTHORITIES

A. Arizona State Parks and Trails authorities:

1. WHEREAS, the parties are authorized to enter into agreement pursuant to 41-511.05(2)
2. A.R.S. §41-511.04(A)(7) and (A)(8) authorize ASP to administer a state historic preservation program established pursuant to the National Historic Preservation Act of 1966, 16 U.S.C.A. section 470 et seq. A.R.S. §41-511.05 (2). Authorizes These sections also authorize ASP to enter into such contracts as are reasonably necessary or desirable to perform its duties.
3. A.R.S. § 41-511.02(B) and A.R.S. § 41-511.04(D)(4) authorize the State Historic Preservation Office to administer the state historic preservation program and advise, assist, and monitor state and federal agencies in carrying out their historic preservation duties.
4. National Historic Preservation Act of 1966, 16 U.S.C. section 470 et seq.
5. The Archaeology Advisory Commission Act, A.R.S. § 41-847 establishes the Archaeology Advisory Commission to advise the State Historic Preservation Officer by providing expert advice in the areas of archaeological education, protection of archaeological sites, and archaeological activities and by developing a volunteer program to prevent destructive activities on archaeological sites.

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No. Re: Site Steward Program Date: August 5, 2019

B. CITY OF FLAGSTAFF authorities:

1. A.R.S. § 11-951 et seq. authorizes public agencies to enter into Intergovernmental Agreements for the joint exercise of common powers.
2. Arizona Antiquities Act, A.R.S. § 41-841 et seq., A.R.S. § 13-3702, and A.R.S. § 13-3702.01 prohibit excavation or defacement of prehistoric and historic sites and collection of archaeological specimens from the sites without a permit issued by the director of the Arizona State Museum, and duty to report discoveries on lands owned and controlled by state, county, or municipality.
3. A.R.S. § 9-494 authorizes a city to establish and maintain public parks and to acquire, hold and improve real property for that purpose.

VI. RESPONSIBILITIES

A. ASP shall:

1. Formulate a set of procedures for training and administration of the volunteers.
2. Create and oversee the conduct of a training program.
3. Oversee public information on a statewide level.
4. Manage an on-line database for the purposes of tracking hours, reporting vandalism reports, submitting and storing volunteer agreements and site information.

B. City of Flagstaff shall:

1. Identify and assign a Site Steward Coordinator ("SSC") to work with the ASP Regional Coordinator to provide guidance in supervising volunteer Site Steward activities on lands under its jurisdiction (refer to *Arizona Site Steward Handbook*, under Program participants: Their Roles and Responsibilities). The SSC, who works directly with the Regional Coordinators, is responsible for nominating sites to be monitored within the City of Flagstaff, developing and providing site kits to the Regional Coordinators, developing local operating procedures on site scheduling, and providing support to the local region.
2. Identify priority sites within the City of Flagstaff that have been listed on the National Register of Historic Places or have been evaluated as eligible to be listed and to be monitored under the terms of the Site Steward Program.
3. Work with ASP to execute individual or group Volunteer Agreements with volunteer Site Stewards working on lands under its jurisdiction.
4. Identify law enforcement officers to be contacted and reporting procedures to be followed when vandalism or looting of archaeological resources is identified on its lands.
5. Attendance to the annual Site Steward Program Conference is highly recommended.

C. Both Parties shall:

1. At least annually, meet to evaluate the effectiveness of the Site Steward Program, make recommendations, and acknowledge superior performances;

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No. Re: Site Steward Program Date: August 5, 2019

2. Meet more often, if requested by either the Site Steward Program Coordinator or any of the participating Regional Coordinators, to review and discuss proposals and plans; Work together to monitor the activities of the program.

VII. CORRESPONDENCE:

Arizona State Parks
Sean Hammond
Steward Program Coordinator
23751 N. 23rd Ave, Ste 190
Phoenix, AZ 85085
Phone: 602-542-7130
Email: shammond@azstateparks.gov

City of Flagstaff
Robert Wallace
Open Space Specialist
City Hall. 211 West Aspen
Flagstaff, AZ 86001
Phone: 928-213-2154
Email: Robert.wallace@flagstaffaz.gov

VIII. DURATION AND TERMINATION

A. Duration: This Agreement is entered into and is effective as of the date of last signature to this Agreement and shall continue for ten (10) years from that date ("Initial Term"). Unless terminated earlier by the Parties, this Agreement may be renewed at expiration for an additional ten (10) year term. This renewal process can be repeated as necessary and when deemed appropriate by both Parties.

B. Termination: This Agreement may be terminated at any time by mutual consent of the Parties or may be terminated by either Party by giving (60) days written notice to the other Party.

IX. GENERAL TERMS AND CONDITIONS

A. Arizona Law: The law of Arizona applies to this Agreement including, where applicable, the Uniform Commercial Code as adopted by the State of Arizona.

B. Amendment: The terms, conditions, and representations of the Parties contained in this Agreement may not be orally amended, modified, or altered. Any amendment or modification of this Agreement must be in writing and effective only after the authorized signature of both Parties. Amendments must be approved with the same formalities as with this Agreement.

C. Successors and Assigns: This Agreement will be binding upon the Parties and upon their successors. Neither Party may assign its rights or obligations under this Agreement without the prior written consent of the parties hereto and any purported assignment without such consent shall be void and of no effect.

D. Relationship of Parties: No partnership, joint venture, or other business relationship is established among the Parties to this Agreement. Except as expressly provided in this Agreement, no Party is liable for any acts, omissions or negligence on the part of any other Party or the other Party's employees, agents, independent contractors, or successors-in-interest resulting in either personal injury, economic loss, or property damage to any individual or entity.

Celebrating 60 Years! Est. 1957 Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No.	
		Re: Site Steward Program	Date: August 5, 2019

E. Arbitration: The parties to this Agreement agree to resolve all disputes arising out of or relating to this Agreement through arbitration, after exhausting applicable administrative review, to the extent required by A.R.S. § 12-1518, except as may be required by other applicable statutes.

G. Non-Discrimination: The City of Flagstaff shall comply with State Executive Order No. 2009-09 and all other applicable federal and state laws, rules and regulations, including the Americans with Disabilities Act.

H. Cancellation for Conflict of Interest: The Parties are put on notice that this Agreement is subject to cancellation pursuant to A.R.S. § 38-511.

I. Immigration: The parties agree to comply with Executive Order 2005-30, "Ensuring Compliance with Federal Immigration Laws by State Employers and Contractors," and A.R.S. § 41-4401, the provisions and successor statutes of which are hereby incorporated by reference.

J. Limitations: Nothing in this Agreement shall be construed as limiting or expanding the statutory responsibilities of the Parties.

K. Indemnification: To the extent permitted by law each Party (as "Indemnitor") agrees to indemnify, defend, and hold harmless the other Party (as "Indemnitee") from and against any and all claims, losses, liabilities, costs, or expenses (including reasonable attorney's fees) (hereinafter collectively referred to as "Claims") arising out of bodily injury of any person (including death) or property damage, but only to the extent that such Claims which result in vicarious/derivative liability to the Indemnitee are caused by the act, omission, negligence, misconduct, or other fault of the Indemnitor, its officers, officials, agents, employees, or volunteers.

In addition, the City of Flagstaff shall cause its contractor(s) and subcontractors, if any, to indemnify, defend, save and hold harmless the State of Arizona, any jurisdiction or agency issuing any permits for any work arising out of this Agreement, and their respective directors, officers, officials, agents, and employees (hereinafter referred to as "Indemnitee") from and against any and all claims, actions, liabilities, damages, losses, or expenses (including court costs, attorneys' fees, and costs of claim processing, investigation and litigation) (hereinafter referred to as "Claims") for bodily injury or personal injury (including death), or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of the City of Flagstaff's contractor or any of the directors, officers, agents, or employees or subcontractors of such contractor. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the Parties that the Indemnitee shall, in all instances, except for Claims arising solely from the negligent or willful acts or omissions of the Indemnitee, be indemnified by such contractor from and against any and all claims. It is agreed that such contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable.

L. Entire Agreement: This Agreement constitutes the entire agreement of the Parties with respect to the subject matter hereof and supersedes all prior agreements and understandings related to such subject matter.

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No.	
		Re: Site Steward Program	Date: August 5, 2019

M. Other Agreements: This Agreement in no way restricts either Party from participating in similar activities with other public or private agencies, organizations, and individuals.

N. Severability: The provisions of this Agreement are severable. Any term or condition deemed illegal or invalid shall not affect any other term or condition of the Agreement.

X. SIGNATURE AUTHORITY:

A. This Agreement is entered into and is effective as of the date of the last signature to this Agreement and appropriate action pursuant to A.R.S. § 41-511.05(2).

B. This Agreement may be executed in counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument.

C. The Parties acknowledge that signatures by electronic means are acceptable and legally binding.

D. By signing below, the signer certifies the authority to enter into this Agreement and has read the foregoing and agrees to accept the provisions herein.

RESERVED FOR ARIZONA STATE PARKS

_____

Signature *Date*

Timothy Franquist, Deputy Director
Arizona State Parks
23751 N. 23rd Ave., Ste 190
Phoenix, AZ 85085

Arizona State Parks 23751 N. 23rd Ave, Ste 190 Phoenix, AZ 85085	**INTERGOVERNMENTAL AGREEMENT** Between Arizona State Parks And City of Flagstaff	ASP No.: PR19-012 City of Flagstaff No.	
		Re: Site Steward Program	Date: August 5, 2019

RESERVED FOR CITY OF FLAGSTAFF

Signature *Date*	*Signature* *Date*	*Signature* *Date*
City Manager *Typed Name and Title*	City Clerk *Typed Name and Title*	City Attorney *Typed Name and Title*
City of Flagstaff, 211 West Aspen *Entity Name*	City of Flagstaff, 211 West Aspen *Entity Name*	City of Flagstaff, 211 West Aspen *Entity Name*
Flagstaff, AZ 86001 *Address: City/State/Zip*	Flagstaff, AZ 86001 *Address: City/State/Zip*	Flagstaff, AZ 86001 *Address: City/State/Zip*

RESERVED FOR THE ATTORNEY GENERAL:	BLANK
Attorney General been reviewed pursuant to A.R.S. 41-511.05 by the undersigned Assistant Attorney General who has determined that it is in proper form and is within the powers and authority granted under the laws of the State of Arizona to those parties to the Agreement represented by the Attorney General. **Dated this ____day of _____, 2019** MARK BRNOVICH The Attorney General	
Assistant Attorney General Date	

AZ State Parks IGA

AZ Site Steward Program





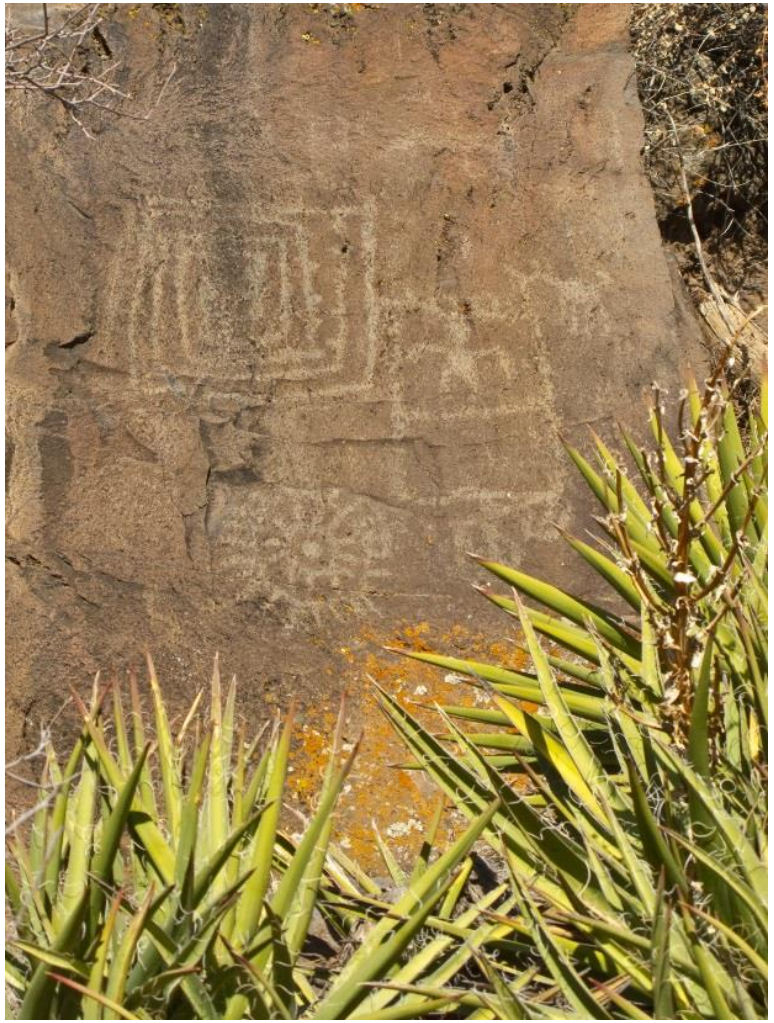
Discussion

- Background on the Arizona State Parks Site Steward Program
- Site Stewards Outcomes 2015-2018
- Arizona State Parks commitment
- City of Flagstaff commitment
- Requesting City Council's approval of the Inter-Governmental Agreement

Site Steward Program

Background:

- Administered by Arizona State Parks
- Supports the protection of cultural sites on public lands
- Main objective is to report destruction or vandalism of prehistoric/historic sites
- Volunteer supported program
- No financial commitment from the City



Site Stewards Programs

Outcomes:

- In 2013, Council approved the 1st IGA with Arizona State Parks
- Volunteers reported graffiti to cultural sites that may have otherwise gone unreported
- Between June 30th, 2017 and July 1st, 2018, Site Stewards donated 90 hours to monitoring Picture Canyon









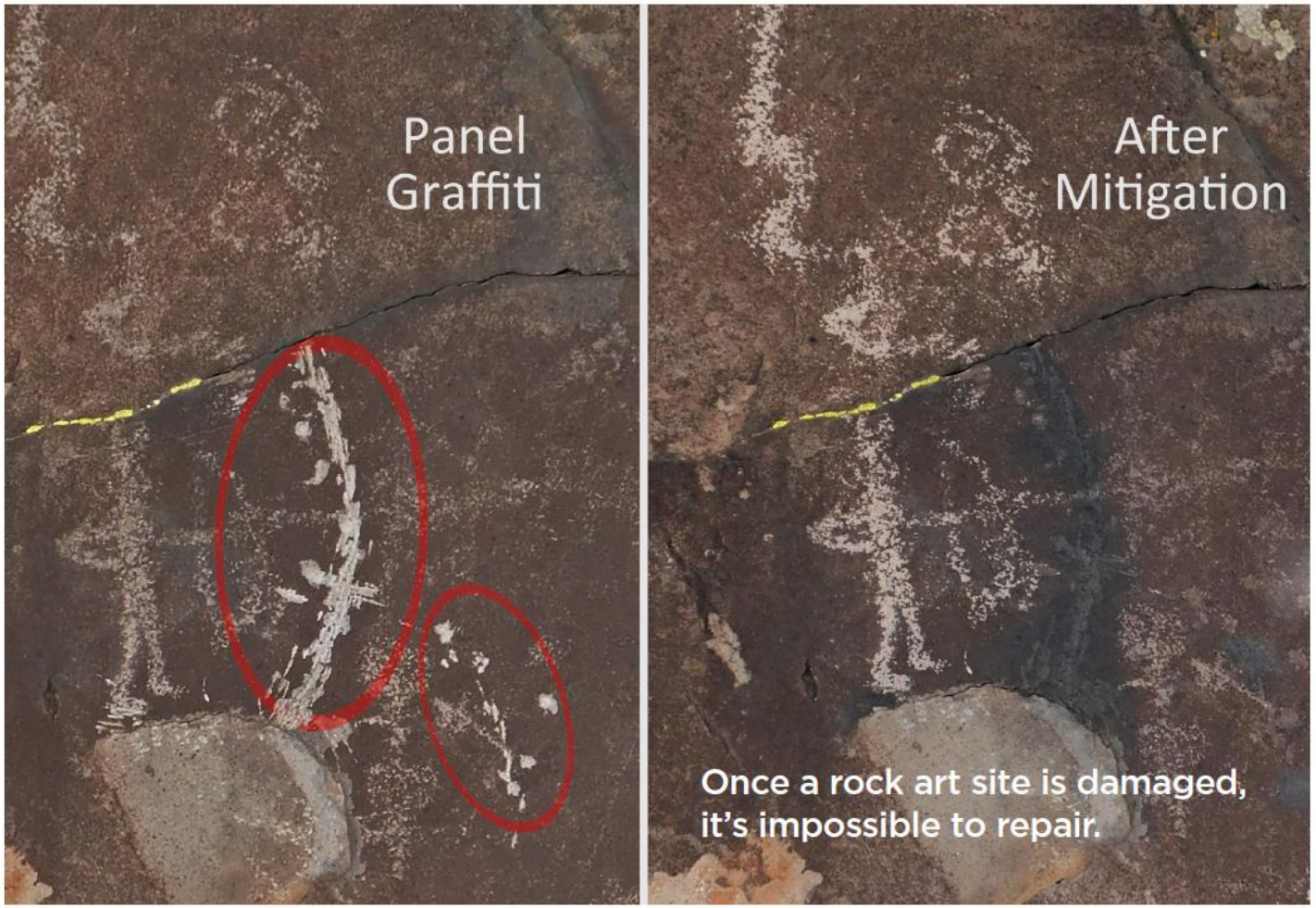


Photo credit: Johannes Loubser, archaeologist and rock art specialist with Stratum Unlimited

Site Stewards Program

Arizona State Parks Commits to:

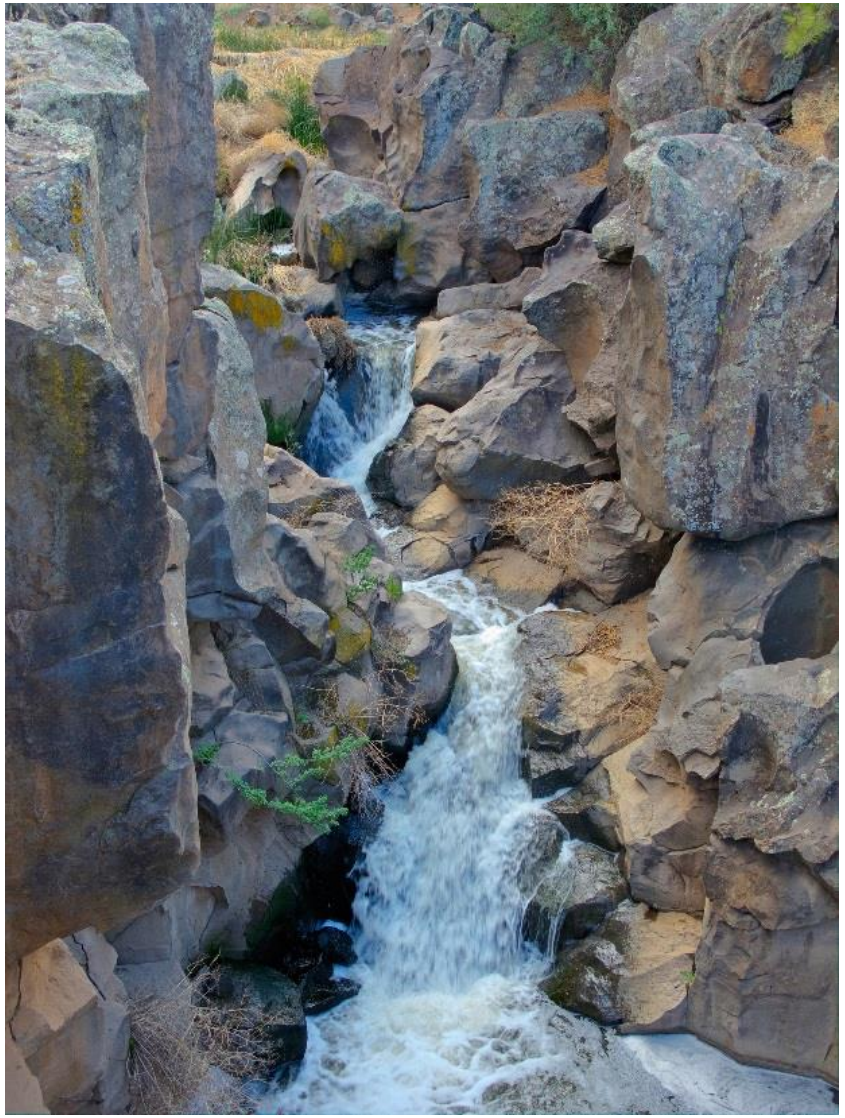
- Designated Site Steward program coordinator, Sean Hammond
- Appoint a regional coordinator that oversees volunteer efforts
- Provide field training and support to volunteers
- Supports Site Steward Code of Ethics
- Assures all regional monitoring commitments are met



Site Steward Program

City of Flagstaff Commits to:

- Work with the Regional Coordinator to provide guidance
- Identify priority sites within the City of Flagstaff
- Work with Arizona State Parks to execute volunteer agreements.
- Evaluate the effectiveness of the program



Questions?





TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

16. E.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Adoption of Resolution No. 2019-38: A resolution of the Flagstaff City Council, repealing Resolution No. 2016-33 which adopted the *2016 Board and Commission Members' Rules and Operations Manual*, and adopting the *2019 Board and Commission Members' Rules and Operations Manual* and the *2019 Board and Commission Staff Liaison Resource Guide.*

RECOMMENDED ACTION:

1) Read Resolution No. 2019-38 by tittle only
2) City Clerk reads Resolution No. 2019-38 by title only (if approved above)
3) Adopt Resolution No. 2019-38

Executive Summary:

Attached is a copy of the current Board and Commission Members' Rules and Operations Manual which was approved by the City Council in October 2016. Based on prior discussions, changes have been made to reflect Council's direction for improved communications as well as better defined roles and responsibilities for board and commission members. Additionally, significant editing, re-formatting, and re-organizing have been done to make the Manual easier to navigate, understand, and more visually appealing.

The proposed changes include:

- Significant editing, re-formatting, and re-organizing.
- The Roles and Responsibilities Section has been updated.
- Guidance on how boards and commissions interact with the City Council.
- Clarification of how recommendations are to be submitted to the City Council.
- Parking information for board and commission members has been added.
- The City Council Rules of Procedure have been incorporated into the Manual instead of it being a separate attachment.

Also attached is a copy of the proposed Board and Commission Staff Liaison Resource Guide. Over the last few years, board and commission staff liaisons have been expressing a need for a separate manual or guide to assist them in how they support and interact with their respective boards or commissions as well as what the expectations are in how they perform their duties. The City Clerk's Office has developed a Guide that incorporates more detailed information about the staff liaison role as well as defined processes to bring consistency and clear expectations to all board and commission operations. The manual includes many of the same elements as the Board and Commission Member Manual, but it is tailored specifically to the staff liaison.

Some highlights of the guide include:

- Clarification on the authority of boards and commissions.
- Roles and Responsibilities for the staff liaison, board and commission members, the City Clerk's Office, and City Council.
- Communication expectations with City Council and how to submit recommendations.
- Information on how to prepare agendas.
- Guidance on how meetings are to be conducted.
- Records retention requirements and expectations.

Financial Impact:

None

Connection to Council Goal and/or Regional Plan:

There is no Council goal that specifically addresses Boards and Commissions; however, boards and commissions do provide input and recommendations based on City Council goals that may pertain to the board or commission work plan.

Has There Been Previous Council Decision on This:

Several work session meetings and Council discussions have been had over the last year to specifically discuss communication between boards and commissions and the City Council. The proposed updates to the manual and the new Staff Liaison guide capture the direction given by Council at those times.

Options and Alternatives:

1) Adopt the resolution as presented
2) Amend the resolution by making further changes to the manual and/or guide
3) Not adopt the resolution

Community Involvement:

Inform

Attachments: Res. 2019-38
Staff Liaison Guide
Commission Member Guide

RESOLUTION NO. 2019-38

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL, REPEALING RESOLUTION NO. 2016-33 WHICH ADOPTED THE 2016 BOARD AND COMMISSION MEMBERS' RULES AND OPERATIONS MANUAL, AND ADOPTING THE *2019 BOARD AND COMMISSION MEMBERS' RULES AND OPERATIONS MANUAL* AND *THE 2019 BOARD AND COMMISSION STAFF LIAISON RESOURCE GUIDE*

RECITALS:

WHEREAS, the Flagstaff City Charter, Article 5, Section 1, authorizes the Flagstaff City Council to create boards or commissions and to grant them duties and powers consistent with the Charter; and

WHEREAS, a vital and healthy boards and commissions program is essential to the successful function of City government; and

WHEREAS, those who serve on Flagstaff's boards and commissions dedicate invaluable time and energy to the Flagstaff community and provide valuable advice to the City Council; and

WHEREAS, board and commission recommendations have a direct impact on the quality and level of services the City of Flagstaff offers its citizens; and

WHEREAS, on October 4, 2016, the Flagstaff City Council adopted Resolution No. 2016-33 adopting the 2016 Board and Commission Members' Rules and Operations Manual; and

WHEREAS, it has been determined that changes were needed to the Manual to provide for better clarity in the duties and obligations of boards and commission under state and local laws; and

WHEREAS, it has been determined that a Board and Commission Staff Liaison Resource Guide is needed to define the various roles and responsibilities of the staff liaison and assist in their oversight of Boards and Commissions.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. Resolution No. 2016-33, adopted on October 4, 2016, is hereby repealed.

SECTION 2: The 2019 Board and Commission Members' Rules and Operations Manual and 2019 Board and Commission Staff Liaison Resource Guide, attached hereto, is hereby adopted.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 27th day of August, 2019.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Attachments:

2019 Board and Commission Members' Rules and Operations Manual
2019 Board and Commission Staff Liaison Resource Guide

2019

Board and Commission Staff Liaison Resource Guide

City of Flagstaff
August 2019
Adopted by Resolution No. 2019-XX

For purposes of this manual, the term “commission” refers to all boards, commission, or committees which have been established by the City Council.

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PART ONE – Understanding the Board & Commission Process

Board and Commission Creation

How Are Boards and Commissions Formed?

The city relies on its citizens to voice their opinions and to provide their expertise to better our government. Boards and commissions provide excellent formats for this expression. As our city grows, these opportunities are expected to increase for our citizenry.

Per our Charter, the City Council may, by ordinance, create, change, or abolish a board or commission. When established, boards and commissions are given specific guidelines surrounding their purpose and authority. The purpose and authority of a board or commission can be found in its establishing legislation (ordinance or resolution).

Currently, the City has 24 active boards and commissions. APPENDIX A describes each board and commission and references their enabling legislation.

Types and Duties of Boards and Commissions

Advisory

Most commissions fall into this category. **Advisory commissions have the primary responsibility of advising and making recommendations to the City Council.** It is the City Council's role to consider the advice and recommendations offered by numerous sources and then decide. Because the recommendations of commissions are advisory, the City Council may not always follow the recommendations offered. An example of an advisory commission is the Parks and Recreation Commission, which was formed to make recommendations to the City Council regarding parks and recreational programs, the annual budget and capital improvements for the Parks and Recreation Divisions.

Ad hoc

Ad hoc committees are typically advisory in nature and are created to study, review, and make recommendations regarding specific issues designated by City Council. The major difference between *ad hoc* committees and other advisory bodies is that *ad hoc* committees are established only for a limited, clearly-defined period of time. At the end of the designated time, they automatically are allowed to sunset (or end), unless the term is extended by the City Council. An example of an *ad hoc* committee was the Citizen's Transportation Tax Commission, which was created in August 2017 and disbanded in June 2018. The goal of the committee was to provide input and recommendations regarding the city's future transportation needs.

Decision-making

A decision-making commission is a public body that possesses the power to select a course of action from multiple alternatives without having to seek the approval of a higher body, such as the City Council.

Examples of decision-making commission are the Planning and Zoning Commission, the Board of Adjustment, and Building and the Fire Code Board of Appeals.

Quasi-Judicial

The Open Meeting Law defines a quasi-judicial body as "a public body, other than a court of law, possessing the power to hold hearings on disputed matters between a private person and a public

agency and to make decisions in the general manner of a court regarding such disputed claims." Contested proceedings or quasi-judicial or adjudicatory proceedings conducted by public bodies are subject to all the requirements of the Open Meeting Law, as well as a number of additional due process requirements. These due process requirements include: no *ex-parte* communication (outside communication with the involved parties), and an opportunity for the person to present their case through witnesses, cross-examination, and argument. Robert's Rules are difficult to apply to quasi-judicial hearings, and separate rules for such hearings may be necessary. The following boards are considered quasi-judicial:

- Board of Adjustment
- Building and Fire Code Board of Appeals

Subcommittees

A commission may establish subcommittees and charge these bodies with their powers, duties, and responsibilities. Subcommittees are bound by the same rules and regulations as commissions. The commission may refer matters to a subcommittee for the purpose of collecting information, providing analysis, and making recommendations to the commission. An example of a subcommittee is the Bicycle Advisory Committee which has been established by the Transportation Commission to investigate, consider, and make recommendations to the Transportation Commission on items assigned to them by the Commission.

The commission appoints and removes the members and chair for each subcommittee. Subcommittees should have a consistent body of members. The number of members should be set by the commission, and a quorum would be half plus one of the total members of the subcommittee. It is recommended that at least one member of the commission serve on the subcommittee (this member possibly could chair the subcommittee). Commissions often use subcommittees as a way to involve individuals who want to serve on the commission but cannot due to a lack of vacancies. The City strives to have a diverse makeup of its commissions. Likewise, commissions should look for diversity when filling their subcommittee rosters.

All subcommittee members should officially declare participation in the subcommittee when it is formed or when it is time to make new appointments. In other words, you cannot have commission members participating as they wish. Finally, there cannot be a quorum of regular members on a subcommittee. Otherwise, the public could claim that the subcommittee is doing the work of the full commission. Additionally, there may be an Open Meeting Law (which is discussed in more detail in its own Section) violation as well if the subcommittee (acting as the full commission) exceeds its authority or goes beyond the posted agenda topics.

Staff Liaison Duties for Subcommittees

For staffing purposes, subcommittees should be treated as smaller versions of the commission. General staffing duties are discussed in more detail in the Roles and Responsibilities Section. In addition to your normal duties (which are discussed in detail throughout the rest of the resource guide), here are several things to be aware of when it comes to subcommittees:

- The meeting agenda **must** be posted at least 24 hours in advance of the meeting time, in accordance with the Open Meeting Law.
- Minutes are required for each subcommittee, in accordance with Open Meeting Law.
- You need to file the following items with the City Clerk's Office:
  - A list of all subcommittees;
  - A copy of each subcommittee's membership list, noting the chair and vice;
  - A copy of the subcommittee's charge;
  - Creation of any new subcommittees or dissolution of existing subcommittees.

Informal Working Groups

Informal working groups may be created to research, gather information, and provide recommendations back to the commission on various matters. **No official appointments are made to a working group by the commission.** Working groups may consist of members of the public and/or less than a quorum of commission members. Unlike subcommittees, working groups are not required to have formal agendas or minutes.

All information and recommendations from the work group must be provided and presented to the commission in an open meeting for public discussion. Informal working groups do not have any powers, duties, or responsibilities of the parent commission. No actions, statements, or recommendations can be made or provided by the working group on behalf of the commission.

Scope of Authority

The strength of commissions lies in their ability to provide detailed review of specific issues and to increase public input and citizen participation in the determination of City policies and procedures. This process provides an opportunity for further public discussion and gives the City Council a broader base of information on which to formulate decisions.

Commissions are established by the City Council and they are given specific guidelines surrounding their purpose and authority. With few exceptions, commissions are advisory to the City Council. The purpose and authority of your commission is found in its establishing legislation (ordinance or resolution). Upon the request of the City Council, a commission shall advise the City Council on a matter. A commission may also submit to the City Council recommendations on matters that fall only within their purpose and authority as established by the City Council (see Recommendations to City Council Section).

Only the City Council or a person acting pursuant to the direction of the City Council, may issue a communication (verbal or written) which represents an official position of the City. This includes, but is not limited to, statements of support or opposition to an issue, resolutions on any matter, directives or requests of any kind to external agencies or entities, or anything that remotely purports to be of official city import.

Commissions shall not take independent action to represent a position or opinion, whether or not related to its responsibility pursuant to city ordinance, except by submitting an advisory recommendation to the City Council. In addition, commissions may not make recommendations for elective candidates or take a position on an election issue. Furthermore, a commission member may not use their official title or make any statement as a representative or member of their commission unless they are authorized to do so by a formal action of the commission.

Statements Made to Other Public or Private Bodies

Official versus Personal Capacity

It is important that members differentiate between their official and personal capacities. As a commission member they have certain official capacities which may include hearing presentations, obtaining public input, and making recommendations to a higher body. If they have not been charged with providing input to a higher body, then you should not do so.

Commission members cannot attend another commission meeting and provide input in an official capacity unless they have specifically been given that responsibility by their commission. However, they can attend other commission meetings in their personal capacity as a resident. When attending another public or private body meeting in their personal capacity, it is best to

clarify that they do not speak on behalf of their commission (unless authorized to do so), rather that they are speaking in their personal capacity as a resident. This disclosure is even more important when their personal position conflicts with a decision of the commission.

Should you ever have any questions about official or personal capacities, please contact the City Clerk's Office.

Media Requests

At some point one of your commission members may be contacted by the media to give thoughts on a recent decision made by your commission or by the City Council. It is recommended that the commission member contact you before speaking with the media.

Commission members shall not take independent action to make a statement on behalf of, or as a representative of, the commission unless authorized to do so by a formal action. Members may speak as an individual, but it is important that they stress to the reporter that they are speaking on their own behalf, not on behalf of the commission.

Most importantly, only the City Council or a person acting pursuant to the direction of the City Council, may issue a communication (verbal or written) which represents an official position of the city. This includes, but is not limited to, statements of support or opposition to an issue, resolutions on any matter, directives, or requests of any kind to external agencies or entities; or anything that remotely purports to be of official city import.

Recommendations to City Council

Except as specified by state law or city ordinance, commission recommendations must be submitted to the City Manager through your Division Director. You should prepare a detailed report that includes information on how and why the commission decided to present the recommendation. The City Manager will determine how the recommendation gets delivered to the City Council whether through a formal City Council meeting presentation or a more informal manner. If it is to be presented at a City Council meeting, you will prepare a staff summary report that includes information regarding the recommendation and present the recommendation to the City Council. In addition to providing a formal recommendation to the City Manager, if a Council Representative is assigned to your commission, they are able to provide information about the recommendation during their report at a Council Meeting.

Commission recommendations are important to the City Council and they are taken under consideration for possible action. The City Council has several options and may:

- Accept the recommendation and give further direction.
- Change the provisions of a recommendation before giving further direction.
- Send a matter back for further consideration.
- Not accept the recommendation.

Appointment Process

First Step – Apply

With a few exceptions, commission membership appointments are made by the City Council. To apply to an open commission, individuals fill out an application (available online at https://www.flagstaff.az.gov/994/Boards-Commissions). By default, applications go to the City Clerk's Office and are entered into a database. Typically, appointments are brought forward for consideration when there is at least one more application than available seats.

With a few exceptions, it is the City Council's policy that an individual may serve on only one commission at any given time, unless they serve as a liaison to another commission. A commission member may apply to serve on a different commission during the last six months of their term if they do not intend to apply for reappointment to their current commission. If the City Council appoints that individual to a new commission, overlapping service is permitted to finish the current term and begin the new term.

Under most circumstances, a commission member is eligible to serve two full terms and a partial term if they are filling the remaining term of a vacancy. If the member indicates their desire for reappointment and they are eligible to serve a second term, they must submit an application to the City Clerk's Office in accordance with applicable deadlines. Commission members seeking a second term are considered along with all other applicants for the vacant seat on the commission. **There is no preference given to current commission members and it is possible that they may not be selected for reappointment**.

City employees may apply and be considered for appointment on a commission so long as their position does not present a direct or perceived conflict of interest and if their Division Director approves the participation on the commission.

Second Step – Review

To give each councilmember the opportunity to appoint members of their choosing, a randomly rotating list of councilmembers has been developed for each commission to assign councilmembers when vacancies arise. Using the list for the appropriate commission, one councilmember is assigned to a single vacancy or appointment. If there is more than one appointment for that particular commission the next councilmember on the list will be assigned to the next appointment and so on. The assigned councilmember(s) will review the submitted applications for consideration of appointment.

Qualifications

Occasionally a commission's organizational structure will require a member to have a specific qualification or background. It is the City Council's responsibility to determine which applicants, if any, meet those qualifications for appointment; staff does not provide this determination.

Third Step – Appointment

The assigned councilmember(s) will make a motion to appoint their selected individual for the City Council to vote upon for possible approval. Should the motion not pass, the assigned councilmember may select another applicant for possible approval. This process may continue until an applicant is successfully approved. If the assigned councilmember chooses not to make another motion, the next councilmember on the rotating list may make a motion to appoint. In the event that the list of applicants is exhausted, the appointment will be postponed until additional applications are received.

Commission appointments are scheduled during the 4:30 PM session of regular City Council meetings. The City Clerk's Office will notify you of the date the appointments will be considered by the City Council. You should attend or view those meetings so you are aware of who was appointed or any current members who may not have been reappointed.

Fourth Step – After Appointments are Made

After appointments are made by the City Council, the City Clerk's Office will provide you with a new roster that includes contact information and term dates. **It is your responsibility to contact the new and outgoing members.**

The City Clerk's Office mails out a packet of information to new members that includes basic information about serving on a commission along with a certificate of appointment, a current commission roster, information about parking, new member training, open meeting law and a copy of the Board and Commission Member Manual. A copy of the welcome letter and updated roster will be forwarded to you for your records.

Term of Office

Each commission member's term of office can be found in the ordinance or resolution that establishes the commission. The term of ad hoc committee members is equal to the life of the committee itself. Generally, the terms of each member are staggered to ensure continuity on the commission, with a third of the member terms expiring each year. Most appointments to city commissions are for three-year terms, unless an appointment is made for the balance of a member's term due to resignation, disqualification or removal from office.

Important to note: Individuals serve as active commission members until reappointed, removed, or replaced, even if their term has expired. In other words, **if a member's term has expired, please consider them an active member that continues to serve on the commission until a replacement is made.**

Oaths of Office and Training Affirmations

What is the Oath of Office?

The Oath of Office is a written affirmation in which the commission member promises to faithfully and impartially discharge the duties of their commission. The Training and Open Meeting Law affirmations are an acknowledgement that the commission member has reviewed the Open Meeting Law and watched the online training video. The Oath of Office and affirmations are included in the new member packet that is sent to new members following appointment.

Why do Board and Commission Members Need to Sign These Forms?

Commission members are required by State law (A.R.S. Title 38, Chapter 2, Article 4) to sign and file (with the City Clerk's Office) an Oath of Office before participating in a meeting or otherwise exercising the powers of the office they were appointed to hold.

Formal in-person commission member training is held at least one time per year. Rather than waiting until the next in-person training, new commission members can view the member and Open Meeting Law training online. Signing the affirmations indicates that they have reviewed this important information and are prepared to perform their duties as a commission member.

As the staff liaison, it is important for you to explain to your commission members the need to sign their Oaths of Office and review the training materials in a timely fashion upon appointment.

Roles and Responsibilities

Staff Liaisons

The Role of Staff Liaisons

Your role as staff liaison is to facilitate and enhance the commission's operation and effectiveness. You are responsible for providing technical expertise and research assistance, ensuring that your commission complies with the Open Meeting Law, answering questions related to city policies and procedures, and coordinating the involvement of other departments, or commissions as needed.

Your role is critical to the commission process; the liaison is the link between the commission and the City Council. You are a neutral third-party who advises the commission and ensures they focus their discussion on the properly-posted agenda items. It is important for you to develop a good working relationship with the entire commission.

Responsibilities of the Staff Liaison

In addition to the primary role of serving as the contact and advisor to the commission, you have a variety of other duties, including advising the commission, preparing the agenda, reserving and setting up the meeting room, taking minutes (or ensuring minutes are taken), and keeping track of attendance, among other things. These duties and others are discussed in more detail throughout this guide. A commission may request your assistance on various projects; however, your Division Director must approve all requests which create a substantial demand for a work product.

You are responsible for reporting commission recommendations and concerns to your Division Director for proper follow up with the City Manager and/or City Council.

Releasing Personal Information

Occasionally, you may receive a request from an outside third-party to release personal information (such as mailing addresses) of your commission members. You can direct the requestor to the City's Boards and Commissions website (https://www.flagstaff.az.gov/994/Boards-Commissions), where they can obtain a list of members (without any other personal information). If the requestor is insistent on obtaining personal information, please have them contact the City Clerk's Office.

City Council

The Role of City Council

A representative from the City Council may be assigned to your commission. The role of the Council Representative will be to gather information from the commission regarding their current work program, projects, and other activities and share that information with the City Council. The Council Representative may also convey information from the City Council to the commission or provide feedback on City Council decisions or direction that may be relevant to the duties and work of the commission. The Council Representative is not a voting member of the commission.

Responsibilities of City Council

The Council Representative is responsible for gathering information and reporting back to the City Council. Your Council Representative may attend meetings in person, stream meetings on the City website, review agendas and minutes, and/or reach out to meet with you and the Chairperson of your commission. Information that is collected will be shared with the rest of the City Council during the Council Liaison Reports portion of the Council Meetings.

The City Council will hold quarterly Work Session meetings to hear and discuss updates from and commissions on their work over the past year. This is another opportunity for the commission to share recommendations with the Council.

City Clerk

The Role of the City Clerk

The City Clerk will provide ongoing training and serve as a resource for city staff and commission members.

Responsibilities of the City Clerk

The City Clerk serves as the central contact for staff liaisons and commission members on all public-body related issues. The City Clerk also conducts training for staff liaisons and commission members on the overall commission process, Open Meeting Law requirements, and Conflict of Interest. The City Clerk retains all commission agendas and minutes permanently and tracks meeting agendas and minutes for proper online archiving.

The City Clerk also maintains membership rosters for all the city's official and commissions. If a commission member's home or work address, email addresses, or phone number changes, be sure to notify the Clerk's Office as quickly as possible.

Board and Commission Members

The Role of Board and Commission Members

The primary role of most commission members is to advise and make recommendations to the City Council.

Commission members provide a great service to the city in terms of the commitment, interest, and expertise that they bring. The opportunity for citizen participation in the decision-making process is crucial to open and responsive government. It is important to remember that these individuals are not paid for their work and that they are volunteering their time and effort.

Responsibilities of Board and Commission Members

Residency

The City Charter requires all commission members to be residents of the City of Flagstaff at the time of their appointment and for the full duration of their term in office. This means that their primary physical residence must be located within city limits and that they reside at that location. A commission member who moves out of town during a term of office is no longer eligible to serve on the commission and must resign. The only exception to this rule is the joint City/County Library Board where the County appoints two individuals who are county residents but who may or may not be residents of the City.

Code of Conduct

The conduct of commission members is very important. It can strengthen or undermine the credibility of the commission and the decisions or recommendations that it makes. A commission member's statements and actions assume special significance and, if not responsibly discharged, could be detrimental to the city's best interests. In addition, improprieties of a commission member can have a legal impact on the city.

As an official member of the City of Flagstaff team, city policies apply to commission members.

Members of a commission may not use their official title or make any statement as a representative or member of the commission to influence an election, further a personal position, or for personal benefit. Under City policy, commission members are not allowed to make unauthorized statements as a representative of the commission unless authorized to do so by a formal action of the commission.

A process has been established for commission recommendations to be presented to the City Council. Individual members should not meet jointly or separately with members of the City Council on matters of commission business. This provision is not meant to deprive the commissioner, as a citizen, of the right to meet with any member of the City Council on any other matter. Private meetings with City Councilmembers can be interpreted as attempting to influence

the outcome of a vote of the City Council prior to a matter coming to the City Council. Discussing commission business outside a public meeting could lead City Councilmembers into violations of the Open Meeting Law if the item is forthcoming on a City Council meeting agenda, particularly if a commissioner conveys information from one councilmember to another.

Along the way, your commission members may find themselves facing ethical dilemmas. Matters of ethics are often difficult to detect. It is important to preserve the public perception of the ethics and values of the City. If you have a question on an ethical issue, contact your Division Director and/or the City Attorney's Office on the issue and take no position until the matter has been resolved.

Gift giving is one of the most common situations that come into play with public officials. If a commission member inquires about a gift, it may be helpful to ask the following questions:

1. Is the giver associated with an individual or organization involved with a past, present, or future matter that has been considered or will be considered by the commission?
2. Does the giver expect something in return?
3. Is the gift of more than nominal value?
4. Would someone question your integrity and values if they knew about the gift?

If the answer is "yes" to any of these questions the gift should not be accepted regardless of intent.

Removal from Public Office

Commission members serve at the discretion of the City Council and, like any other City Council-appointed position, may be removed from office by an official vote of the City Council. The following are examples of activities that can precipitate admonishment or removal from office:

- Violation of the Open Meeting Law.
- Refusal to sign the Official Oath of Office.
- More than two consecutive unexcused absences from regularly scheduled meetings.
- A 30% absenteeism rate or more from regularly scheduled meetings.
- Persistent or willful violation of the Conflict of Interest Law.
- Conduct jeopardizing the City's and community's best interests.
- Rude, abusive, slanderous, and/or disrespectful behavior directed at the public, city staff, or members of the City Council.
- Failure or refusal to participate in commission member training within a year of appointment, or when directed by the City Council, City Manager, or City Attorney.
- Violation of City policies.
- Unethical behavior.
- Using their status as a City official for personal purposes, to influence the outcome of an election, or other unsanctioned activities not related to official business.
- Willful non-compliance with the provisions of this guide.
- Fraud, collusion or coercion.
- Inefficiency, neglect of duty, or malfeasance in office.

PART TWO – Preparing for the Meeting

Attendance

It is always preferable to have full attendance as compared to a bare quorum (half the membership plus one). The success of a commission depends on the active participation of the members. A meeting cannot proceed without a quorum of members in attendance.

Here are several rationales that you can provide to commission members when explaining the importance of attendance:

1. The City Council appoints commission members for their experience, background, and perspective in a particular policy area and the City Council wants the benefit of those factors when the commission is making a decision.
2. More members in attendance will mean a greater likelihood of diversity of thoughts and opinions and hopefully generate a fruitful discussion.
3. Bare quorums mean a greater likelihood of meetings being cancelled or cut short due to last minute no-shows or members having to declare a conflict of interest. This not only wastes considerable time of the members and staff, delays the important work of the body, and is disappointing to the members and staff who attended the meeting, but it also sends a negative message to any members of the public who may have wished to speak on an item and believe their time was wasted.

Requirements

Commission members are expected to attend all regularly scheduled meetings. **It is important to stress that commission members should contact you as soon as they know they will not be able to attend a meeting.** The sooner you know that a quorum will not be present, the sooner the meeting can be cancelled and rescheduled.

Along with absence, tardiness can also be an issue. If meetings are starting late or being cancelled due to a lack of a quorum, it may be beneficial to have the chair remind the members of the importance of timely attendance or you may want to talk to individual members to see if there is something causing them to be late or absent (such as the meeting is too early or they have a conflicting commitment). After talking to the individual, confer with the chair to see if a solution can be reached (starting the meeting 15-30 minutes later for example). If the individual provides no reason and continues to be habitually late or absent, please contact the City Clerk's Office for follow up.

Some establishing ordinances contain attendance requirements, while other commissions have adopted bylaws to clearly define attendance requirements. As a general rule, a commission may recommend to the City Council the dismissal of any citizen member who is absent for more than two consecutive regular meetings without prior notification. This same rule applies if a commission member is absent for more than thirty percent (30%) of all meetings during a twelve-month period. For this reason, it is important to keep a record of absent or tardy members as well as a record of lost quorums.

Resignations

All resignations should be in written form (e-mail is acceptable) and forwarded to the City Clerk's Office for processing. Upon receipt of a resignation the roster will be updated, a thank you letter and certificate of appreciation from the Mayor will be sent to the outgoing member and the vacancy list will be updated.

Quorum

What is a Quorum?

A quorum is the number of members of the public body required to be in attendance at meetings in order for the meeting to be held. The city defines majority as **one more than half of the full voting membership of a commission, regardless of vacancies**. For most commissions this is four members. For example, if there are seven authorized members of your commission, then you would need to have four members present to have a quorum. Please contact the City Clerk's Office with any vacancy or quorum related questions or issues.

Maintaining a Quorum Throughout the Meeting

If a meeting is started with a quorum and the quorum is lost due to a member leaving, a member declaring a conflict of interest (see the Conflict of Interest Section for more information), or some other reason, items **cannot** be discussed or acted on until the quorum is regained. If it is not possible to regain the quorum, the meeting must end with any remaining items considered at the next commission meeting.

In the week leading up to the meeting, you should contact each commission member to determine if they can attend the upcoming meeting. Assuming you can only confirm a minimum quorum, you may want to consider cancelling the meeting because if one of the members does not show, you cannot discuss or act on items. If cancelling the meeting is not an option, call each confirmed member and stress the importance of attending the meeting and explain the quorum requirement. **If a quorum does not exist or is lost and cannot be regained, the meeting should not be held or it must end (in cases where the quorum cannot be regained).**

The Open Meeting Law

What is the Open Meeting Law?

Commission meetings are public meetings which are conducted openly in compliance with the Open Meeting Law. The Open Meeting Law promotes openness in government and ensures the general public has access to government processes. The Open Meeting Law applies anytime a quorum gathers and discusses business at a meeting, retreat, workshop, tour, or social function. For more information about quorums, please see the Quorum Section. The Open Meeting Law is a State Law (A.R.S. Title 38, Chapter 3, Article 3.1) that requires all public bodies (which includes commissions and their subcommittees) to conduct their meetings in an open environment. An agenda **must** be made available to the public at least 24 hours before the meeting with the meeting's time, date, location, and items for discussion and/or action indicated on the agenda. Meeting agendas **must** be posted online and physically on the bulletin board at the southwest corner of the City Hall lobby directly behind Human Resources. For instructions on posting items to the City website see APPENDIX B.

Allowed and Prohibited Communication Methods

The Open Meeting Law opens government to public review and prevents commissions from making decisions in secret. There are risks whenever commission members communicate with each other outside a public meeting. For example, while sending an e-mail to less than a quorum of commission members is not an Open Meeting Law violation, there is a chance that subsequent responses could be. In addition, member #1 could be talking with member #2 about an item, not realizing that member #3 and member #4 are also talking about the same item. This exchange of e-mails might result in a discussion or deliberation that could violate the Open Meeting Law. A final consideration is that any type of communication, including but not limited to e-mails, text messages, and social media posts, generated by commission members and/or staff pertaining to government business are public records. These communications must be preserved according to

the public records retention schedule and be available for inspection.

Here are some examples of prohibited and allowed communication methods under the Open Meeting Law:

> **Prohibited:** Commission members cannot circumvent public discussion by splintering the quorum and having separate or serial (one after another) discussions. For example, one commission member cannot communicate with another member and then pass on the results of that discussion to a third member.
>
> **Prohibited:** An e-mail from a commission member to the entire commission or to a quorum of the commission that proposes action would be considered a meeting and subject to the Open Meeting Law, **even if** no member responds to the e-mail. For example, an e-mail sent from a commission member to the commission which states "We should approve the grant to the elementary school" would be considered an action and would violate the Open Meeting Law.
>
> **Allowed:** An e-mail request by a commission member to you for specific information does not violate the Open Meeting Law. You may send e-mails and replies to all commission members without violating the Open Meeting Law as long as the response does not communicate the opinions of the other members. However, if further clarification is needed, the member should only respond to the you and not copy the other commission members as this would constitute a discussion or deliberation, which violates the Open Meeting Law.
>
> **Allowed:** An e-mail, phone call, text message, etc. between members about an upcoming social function.

It is **highly recommended** that the following statement be placed at the bottom of all e-mail correspondence to commission members:

> ***"NOTE TO [BOARD MEMBERS, COMMISSIONERS, OR COMMITTEE MEMBERS]:*** *To ensure compliance with the Open Meeting Law, recipients of this message should not forward it to other members of the* ***[Board or Commission name]****. Members of the* ***[Board or Commission name]*** *may reply to this message, but they should not send a copy of the reply to other members.*
>
> *Board and commission members can respond to staff's e-mail but should not discuss or deliberate with other board and commission members through e-mail."*

Open Meeting Law Violations

Actions taken at a meeting held in violation of the Open Meeting Law are null and void unless ratified within 30 days of discovery and notice and a detailed description is given at least 72 hours prior to the meeting to ratify the non-complying action(s).

Arizona's Open Meeting Law includes penalty provisions for violations. Anyone affected by an "illegal action" can file suit in Superior Court. If the Court finds that the Open Meeting Law has been violated, it may levy a fine of up to $500 against the individual(s) for each violation. The individual, and not the municipality, must pay the fine. Commission members are also subject to removal from office.

Bottom Line

Communications can occur among commission members in a variety of ways other than a public setting: face-to-face, in writing, over the telephone and through the use of e-mail, text messages, or social media. These types of communications can constitute a "meeting." The public does not

have access to these communication formats, so when members of a public body begin having discussions through these methods, it can result in Open Meeting Law violations. Once a commission member commits to a written form communication related to commission business, that record no longer belongs to the member as an individual but becomes part of the public domain. Anyone involved in sending messages back and forth which even discuss possible action or propose a formal action are breaking the law; it is the same as if the member had met together in a private meeting. Therefore, based on these reasons, **it is best that commission members communicate at public meetings about business and not through other methods.**

To avoid pitfalls associated with Arizona's Open Meeting Law, information and materials that a commission member wishes to share with other members of the commission should be provided to you for distribution, or should be distributed by the member at an open meeting with sufficient copies for those in attendance. Discussion is to be limited to public sessions.

Additional Resources

For more information on the Open Meeting Law, please refer to the Arizona Open Meeting Law Handbook found at https://www.azoca.gov/wp-content/uploads/Open-Meeting-Law-Booklet-September2018.pdf. Additionally, the City Clerk's Office in partnership with the City Attorney's Office can provide a presentation to commissions on the Open Meeting Law. To schedule a presentation, please contact the City Clerk's Office at (928) 213-2077.

Meeting Agenda Process

Types of Agendas

The meeting agenda is normally set by the commission chair, with input from members and yourself. Agenda items can be placed on agendas in a variety of ways:

- In response to direction from the City Council.
- In response to a directive from the City Manager.
- As requested by any commission member at a public meeting.
- In response to a request from the chairperson.
- As deemed necessary by the staff liaison.
- As requested by other commissions.

Agendas must include the following information:

1. Date, time, and location of the meeting.
2. Posting statement at the bottom.
3. Enough information to inform the public of the matters to be discussed or decided.

The agenda should be specific enough to allow members of the public to have a general idea of what will be discussed and may be voted on (if the item is set for action). The public is entitled to know what could potentially take place. The use of agenda items such as "new business" or "old business," is not permitted unless the specific items of new and old business are listed.

A commission agenda may include a "Call to the Public" to designate a part of the meeting for the public to address the commission on items that are not on the agenda. Neither discussion nor action may occur on items raised during public participation because they are not on the agenda. See Public Comment Section for additional information.

In the event that a previously posted or regularly scheduled meeting is cancelled, you must draft and post a cancellation notice. You must also update the meeting room calendar and notify the

IT Help Desk of the cancellation. APPENDIX C is the template for posting meeting cancellations. In addition to regular meeting agendas, there are also notices for events, retreats/workshops, and tours. At these types of events, a quorum of the commission may be present. Discussion and action on commission-related business may not be discussed at events, retreats/workshops, and tours.

For example, if your division was involved with a city-sponsored luncheon and there was a possibility that a quorum of your commission members may attend this luncheon, you would create and post a Notice of Possible Quorum. The notice must state that no business will be discussed or acted on. APPENDIX D is a template for possible quorum postings.

If your commission is going on a tour of a location related to an upcoming agenda item, you would post a tour notice noting that information may be provided, but any discussion and/or action on the agenda item will occur at a publicly posted meeting.

Important note: For a tour, if you provide transportation (for example in a bus or van) for the commission members, you must also make this transportation available to the public.

Creating the Agenda

Commission agendas have been standardized for consistency and will be created and published in Agenda Quick using a standard template. APPENDIX E is the required template to be used for preparing agendas until Agenda Quick is in use.

Posting the Agenda

Agendas must be posted at least 24 hours in advance of the meeting **online and physically** on the bulletin board at the southwest corner of the City Hall lobby directly behind Human Resources. The posting statement portion of the physical agenda must be filled out and signed. Once signed, the agenda must be copied, and the copy is to be physically posted at the location described above. **The original, signed posting, along with any agenda packet materials must be forwarded to the City Clerk's Office for permanent retention.**

As a follow up, please check the website to ensure that the agenda has been properly uploaded. For instructions on how to post items on the city website please refer to APPENDIX B.

Sending out the Agenda

The agenda should be sent to your commission members by e-mail or other preferred method. Agendas must also be copied to your Division Director, Department Head, the Mayor and City Council, and the Executive Assistant to Mayor and City Council.

Executive Session

What is an Executive Session?

On a rare occasion, a commission may need to convene for an executive session. An executive session is a gathering of a quorum of members of a public body from which the public is excluded for one or more of the subjects prescribed in A.R.S. Section 38-431.03. In addition to the members of the commission, officers, appointees and employees, only individuals whose presence is reasonably necessary in order for the commission to carry out its executive session responsibilities may attend the executive session. **Executive sessions may not be held without the prior consent of the City Attorney.**

Subjects that Can be Discussed in an Executive Session

Bodies are allowed to convene in executive session for only seven reasons. The most likely topic

of an executive session involving a commission would be for legal advice, property negotiations, or personnel related issues. **A commission may not go into executive session without a City Attorney present**. Executive sessions are not open to the public and no formal action may be taken. Legal action involving a final vote or decision **shall not** be taken at an executive session. Rather, a vote on executive session topics must be taken at a publicly posted meeting. It is important to advise attendees that the information discussed is confidential and may not be discussed with anyone. Additionally, the item(s) to be discussed in executive session must be listed on the agenda. For assistance with creating an executive session agenda please contact the City Clerk's Office and your City Attorney.

Getting Ready for the Meeting

Meeting Location

All commission meetings must be held at City Hall in the Council Chambers and live-streamed. Live streaming meetings helps with public access and allows for compliance with Open Meeting Law for the posting of meeting minutes.

When reserving your commission meeting in the Council Chambers, please create a meeting invitation and include "VideoStreaming" and "Council CH" as meeting attendees. Be sure to include the needed equipment for your meeting in the location line of the appointment (i.e. sound, computer, screens, etc.), this will notify Facility Maintenance staff to set up the room accordingly.

When the meeting is ready to start un-mute the microphones by pressing the button at the desk nearest the utility/sound room in Council Chambers.

On occasion, conflicts arise with a need for Council Chambers by the City Council or City Manager's Office. In those instances an alternate location may be used. Arrangements must be made with the IT Help Desk to arrange for video recording at the alternate location.

All persons desiring to attend and listen to meetings must be accommodated. This may result in accommodations such as listening devices or interpreters. Reasonable requests for accommodation must be made three days in advance of the meeting. Please coordinate with the City Clerk's Office if a request for accommodation is made.

Items to Bring to the Meeting

Here is a list of helpful items to bring to every meeting (please note that these are not required items, only suggestions):

- Copies of the agenda.
- Copies of reports to be presented.
- Sign-in sheet for members of the public and city staff.
- Name tents for commission members and staff.
- If items voted on by the commission will be considered by the City Council, have the date of that City Council Meeting available.
- Board and Commission Staff Liaison Guide.
- Staff contact information (bring business cards to hand out to members of the public).
- Calendar and future meeting schedule.
- Extra pens and notepads.
- Speaker cards for members of the public to fill out (optional).
- Copies of any presentations on flash drive or computer disks.
- Printed copies of presentations in case laptop does not work.

***Remember to arrive early to ensure proper setup and deal with any unanticipated issues.**

Board and Commission Member Parking

Commission members are permitted to park free of charge through Park Flag in one of the seven designated spaces on the west side of the Wheeler Park parking lot. The City Clerk's Office will notify Park Flag of new appointments to commissions and Park Flag will contact the member directly with instructions on how to obtain the appropriate permit. The City Clerk's Office will also notify Park Flag about outgoing members.

***Commission members who have outstanding parking violations will not be issued a permit until the matter is resolved.**

PART THREE – Staffing the Meeting

Meeting Management

Who Runs the Meeting?

The chairperson is the moderator of meetings and speaks on behalf of the commission when authorized by a majority of the members to do so. The vice-chair serves in the absence of the chairperson. There is no formal order of who would take over during the absence of both the chair and vice-chair and the commission can choose a presiding officer for the meeting.

Most commissions elect a chairperson and vice-chair, usually on an annual basis. This is generally accomplished by having a member make a motion to select another member as chair. If seconded by another member, the nomination is voted on by the full commission. This process can be repeated for the vice-chair position. When it comes time to appoint the leadership, the nomination process should be listed as an agenda item. Please notify the City Clerk's Office with the chair and vice-chair names.

The chair may, at their discretion, or shall, upon the majority vote of members present, change the order of the agenda. However, caution should be given to not changing the order to circumvent the Open Meeting Law.

Role of Staff Liaison

Your primary role is as an advisor to the chair, vice-chair, and commission. At the meeting, your duties include:

- Greeting members of the public and seeing if they would like to comment on agenda items. If so, have them fill out a speaker card and present it to the chair for use when the item comes up during the meeting.
- Tell the chair when everyone is present and when the meeting should begin.
- Remind the chair of any correspondence to be read at the meeting or any presentations to be made.
- Advise your commission on applicable State laws and City policies, ordinances, resolutions, bylaws, and actions taken at previous meetings.
- Ensure your commission is operating in accordance with the Open Meeting Law, the City Charter, and refer to "Robert's Rules of Order" as a guide.
- Ensure your commission is staying on topic and only discussing items that are on the posted agenda. If the commission discussion moves away from the posted agenda, remind the chair that it is important to stay on the posted agenda due to the Open Meeting Law.
- Keep track of the discussion time for each agenda item. If the discussion is taking significantly longer than anticipated, let the chair know so a decision can be made about the best way to proceed through the rest of the agenda.
- When it is time to plan the future agenda, keep track of activities or decisions that were deferred to upcoming meetings and let the chair know.

You have many significant duties. For this reason, we recommend **that a second staff person take minutes to allow you to fully concentrate on the aforementioned duties, along with any commission-specific duties. This second person should not be a commission member.**

Public Comment

What is Public Comment?

Public comment provides members of the public the opportunity to address the commission in two ways – on a **published agenda item** or on other issues that are not on the agenda during the **public participation period**. The public participation period is normally its own agenda item (see the Agenda Creation Section) and the commission cannot discuss, make any decisions, or take any action on any of the issues raised during this comment period.

The Open Meeting Law does not grant citizens the right to speak at public meetings and therefore a public comment period is not legally required. However, it is the policy and practice of the city to allow individuals to appear before public bodies to express their views on published agenda items and during the public comment period.

Individuals may speak only when recognized by the chair. It is a good idea to have individuals wishing to speak fill out a Speaker Comment Card (APPENDIX F). There are several benefits to having individuals fill out Speaker Cards:

- The chair is made aware of how many people wish to speak on a particular item and can implement reasonable time-limit restrictions.
- The chair can call up the speakers in order by name.
- You have a record to refer to when drafting minutes.
- Confirmation for those individuals not wishing to speak but wanting to have something on the record (that they supported or opposed a particular item).

If speaker cards are used, you should get all cards from the chair after the meeting for use in composing the minutes. You should maintain the comment cards for the appropriate public records retention period.

What Can the Public Say and How Can Board and Commission Members Respond?

The chair can place reasonable limits on the amount of time for each individual to speak on an agenda item or during public participation. For example, the City Council limits each speaker to three minutes to talk. It is important that the chair announces the limits prior to the start of public comment and all speakers be given the same amount of time to speak.

If an individual is commenting on a posted agenda item, the speaker must confine their statements to the agenda item. During these items commission members and/or staff can respond to citizen comments or questions.

The public can comment during public participation on any item that is not on the agenda. There are special restrictions on what commission members can respond to during public participation. Commission members can respond to statements made during the public comment period in three ways:

1. They can respond to personal attacks (someone questions their qualifications, suggests the member has a conflict of interest that was not disclosed, etc.).
2. The commission can instruct staff to follow up.
3. The commission can instruct staff to place the item brought up (by the member of the public) on a future agenda.

Commission members cannot express agreement or disagreement with a person's comment, discuss it, or take action. The reasoning behind this rule is that items brought up during public comment periods were not posted in accordance with the Open Meeting Law. The public is not

aware of these items and did not have a chance to respond. This is why discussion or action cannot take place and why the item can be discussed only at a future meeting with a properly-posted agenda. **As the staff liaison, it is important to remind commission members of this if you see them responding in a way other than one of three previously listed exceptions.**

Decorum

Here are some tips to talk about with your commission members regarding discussion and conduct etiquette:

- Assume that the microphones are always on.
- Members should speak directly into the microphones to ensure that the audience, both present and streaming online, can hear.
- Commission members may speak after recognition by the chair. The chair shall not unreasonably withhold such recognition. However, the chair may not recognize similar repetitive discussions or motions which would delay the meeting.
- When two or more members wish to speak, the chair shall determine the order of speaking and recognize the first speaker.
- While a member is speaking, no other member shall interrupt except to make a point of order or a point of personal privilege. A point of order is made when a member notes an infraction of the rules or improper decorum in speaking. The point of order must be raised immediately after the error is made. A point of personal privilege pertains to noise, personal comfort, or related items.

Robert's Rules of Order

What are Robert's Rules of Order?

Robert's Rules of Order provide instruction, guidance, and consistency for how meetings are conducted. Robert's Rules are used only as a supplement to city policy. Therefore, in any conflict between Robert's Rules and city policy and procedures, the city's policy takes precedence.

It is important to remember that Robert's Rules of Order are only a guide for conducting the business of a meeting and it is not the law. The only required actions to make an item legal are a motion, a second, and a vote. Within the motion, intent must be clear and those who vote on the matter must clearly understand the intent. Robert's Rules of Order provide formulas for the sequencing of different kinds of motions and an orderly rule for conducting a meeting. However, if a motion is plainly made, a second to the motion is placed on the record, and the voting participants understand the effect of their vote and support the outcome of the motion, it will stand up on its own even if it does not follow the letter of Robert's Rules of Order.

Robert's Rules of Order regarding debate and decorum are further discussed in the Voting Section below.

Voting

Can a Designee or Proxy Vote?

No, this is not allowed. At times, a commission member will be unable to attend a meeting and may ask if a representative (also known as a designee, delegate or proxy) can be sent in their place. While allowed under Robert's Rules of Order, this practice is **not** allowed under the Arizona Open Meeting Law. Proxy voting is inconsistent with provisions of Arizona's Open Meeting Law and is also inconsistent with the requirement that members of public bodies be appointed by the City Council and take an Oath of Office before assuming the duties of the office.

Can Board and Commission Members Abstain from Voting?

The City Charter provides that, in the absence of a conflict of interest (see the Conflict of Interest Section for more information on this subject), an abstention vote is counted as an affirmative vote. When a refusal to vote occurs, it is entered in the minutes as an affirmative vote with no explanation. The abstention clause is intended to provide an incentive to vote. The provision also protects the public process and ensures that, at a minimum, a majority of members present at a meeting vote on an issue.

Discussion and Voting Procedures

The general procedure for discussing and voting on a posted agenda item is:

1. The chair will explain the item is up for discussion and voting (if applicable as certain agenda items are for information or discussion only).
2. A presentation will be made by either staff or possibly an outside group that is making a presentation before the commission.
3. Following the presentation, and if public comments are allowed (see Public Comment Section), the chair may invite comments from the public on the item being considered.
4. If there is no discussion, or after discussion ends and the item is posted for action, the chair will ask for a motion.
    - A motion is a formal proposal that certain action be taken or that a certain statement express the opinion, desire, or will of the commission.
    - Motions must be made by members, not by guests or the public.
5. In order to vote, all motions require a second to put the issue before the commission. A member does not need to be recognized to second a motion.
    - A member who seconds a motion does not have to vote in favor of that motion.
    - Seconding a motion does not endorse the motion; it simply indicates a desire to have the motion considered.
6. After the motion and second the chair will call for discussion before the item is voted on.
7. Any member, at any time, may request a roll call vote. A roll call vote is a vote where each member notes their position (yes/yea or no/nay) when called by the individual taking minutes or the staff liaison.
8. A motion will pass or fail based on a majority vote.
    - The chair should announce whether the motion passed or failed.
    - For voice votes of ayes and nays that are not unanimous, the chair shall indicate the individual votes.
    - The chair may ask that a member's vote be clarified.
    - Printed or secret ballots are not permitted.
9. In the case of a tie in the vote on any motion, the motion fails.
10. If a motion fails, an alternative motion can be made.

Rules Governing Common Motions

Motion to be Stated by the Chair - Withdrawal

When a motion is made and seconded, it shall be so stated by the Chair before debate commences. A motion may not be withdrawn by the mover without the consent of the member seconding it.

Motion to Postpone

A motion to postpone is in order when an item is rescheduled to a time certain, when it is delayed with conditions, or when the matter is intended to be disposed of without action. If the motion prevails, the item shall return for action at the meeting specified or in accordance with the conditions established in the postponement. A motion to postpone may be debated prior to vote,

but no other motion, including a motion to amend, may be offered until the vote is taken and only if the motion to postpone fails.

A motion to postpone indefinitely, if it receives a majority vote, effectively extinguishes an item.

Motion to Table
A motion to table is used to delay discussion on an item until later in the meeting or until the next meeting. Neither the motion to table nor other business can be discussed until a vote has been taken on the motion. If the motion is successful, no further discussion can be had without a motion to take off the table. To take an item off the table at the same or immediately succeeding meeting, a motion and second must be made to take the item off the table, and it must pass by majority vote.

If not revived by the adjournment of the immediately succeeding meeting, the matter is considered to be dead.

Motion to Divide the Question
If the question contains two or more divisionable propositions, the chairperson may, and upon request of a member shall, divide the same.

Motion to Amend
On a motion to amend or "strike out and insert" the motion shall be made so that the intent of the amendment is clear to the commission and public, and for the record.

Motion to Amend an Amendment
A motion to amend an amendment shall be in order, but one to amend an amendment to an amendment shall not be introduced. An amendment modifying the intention of a motion shall be in order, but an amendment relating to a different matter shall not be in order.

Motion to Reconsider
After the decision on any question, any member who voted with the majority may move for a reconsideration of any action at the same meeting or at the next regular meeting that occurs at least one week after the date the action was taken. In the event of a tie vote on a motion, any member may move for reconsideration at the next regular meeting. To ensure that the matter will be included on the posted agenda in conformance with the Open Meeting Law, any member who wishes to have a decision reconsidered must alert the staff liaison in writing at least five (5) days prior to the meeting at which the motion to reconsider will be made, unless the motion to reconsider was made and seconded at a meeting.

A motion to reconsider shall require the affirmative vote of the majority of the members present at the time of reconsideration. After a motion for reconsideration has once been acted on, no other motion for reconsideration of the same subject shall be made without unanimous consent of all members.

After the reconsideration time period has expired, the same matter may be placed on a later meeting agenda as requested according to proper protocols.

Minute Taking

Purpose of Taking Minutes
Minutes are the official, formal record of what occurred in a meeting and are essential for continuity and information for future commissions. Minutes summarize action taken, action

planned, responsibilities, and deadlines. Minutes can vary in length depending on the meeting length and the desires of the meeting body, chair, or management.

All commissions, and their subcommittees are required to take minutes under the Open Meeting Law. Additionally, minutes are public records and draft minutes or an audio/visual recording of a public meeting must be posted online for public viewing within three working days after the meeting. **All commission meetings are streamed live, recorded, and posted to the City's website which eliminates this three-day requirement.** Should a technical error occur and a meeting is not recorded then legal action of the meeting is required to be documented and posted to the website within three days.

What Must be Included in the Minutes?

Good minutes serve to refresh the minds of the meeting body on points of fact. The agenda items, decision, and actions will provide the outline of the record. Minutes should detail all subjects discussed, decisions reached, and relevant opinions and ideas offered during the discussion. The minutes do not need to be verbatim.

Minutes must include:

- The date, time, and place of the meeting. Include the actual time the meeting was called to order and the actual time the meeting was adjourned.
- The members recorded as either present or absent along with a list of staff in attendance.
- The names of the persons making statements or presenting material and a reference to the item or topic they discussed.
- A general description of all matters discussed or considered.
- An accurate description of all legal actions proposed, discussed, or taken and the voting process.
- The components of the voting process must include the names of the members who made the motion and seconded the motion.
- The numerical breakdown of the vote (for example 4 in favor, 1 opposed) should be noted along the names of those who made dissenting votes.
- If a member declares a conflict of interest, it should be noted in the minutes as that member not voting due to the conflict.
- If a member arrives after a meeting has started, list their name under "Members Present" and then make a notation of the time they arrived.
- If a member leaves during a meeting, make a notation in the minutes at what time that member left. If a quorum is lost (due to members leaving) at any time during the meeting, the meeting must end. For more information on quorum, please see the Quorum Section.
- If a member participates via telephone, minutes should identify those members participating by telephone.

Are Minutes Required if There is no Quorum?

If a quorum is not present, there is no meeting and, therefore, there is no need to take minutes. However, a Notice of Cancellation (APPENDIX C) should be created and posted on the website with an original forwarded to the City Clerk's Office.

Are Minutes Required for an Executive Session?

Minutes are required for an executive session. However, minutes of an executive session are confidential and may not be disclosed to anyone except members of the commission and certain necessary staff members.

Executive session minutes must include the following:

- The date, time and place of the meeting.
- The members recorded as present or absent.
- A general description of the matters considered.
- The detail of the minutes should be the same as in regular meeting minutes by providing a record of what took place in the executive session.
- No decisions can be made in executive session; therefore, there will be no votes to record.
- An accurate description of all instructions given to attorneys.
- Any other information deemed appropriate. For example, the public body might record that those present were advised that the information discussed and the minutes are confidential.

Approving the Minutes

Minutes are generally sent with the agenda of the next meeting to be reviewed and considered for approval by all members. Any member may make a motion to approve the minutes. Even a member not present during the meeting for which minutes are being approved may make the motion.

If a member makes a correction to the minutes and no other members object, the minutes are considered approved as corrected when the members vote. Any disputed corrections would need to be formally voted on by the group. Once approved, minutes become official government documents and their form is fixed. Any changes to approved minutes can only be made by a vote of the body that approved those minutes.

*** For information on drafting and filing minutes, see PART FOUR – After the Meeting.**

Conflict of Interest

What is a Conflict of Interest?

A conflict of interest refers to a situation when someone, such as a commission member, has competing professional or personal obligations or personal or financial interests that would make it difficult to fulfill their duties fairly. It is a conflict between an individual's personal interest and their public duty. This can exist whether or not money is involved, and whether the conflict is actual or only perceived. Public perception is not a sufficient basis alone upon which to determine whether or not a conflict of interest occurs.

Determining if a Conflict Exists

The City of Flagstaff is governed by Arizona's Conflict of Interest Laws (A.R.S. § 38-501 et seq.). It is the responsibility of commission members to be aware of and to identify the circumstances in which the commission's actions might affect them or a relative and to avoid any situation in which a conflict of interest exists or appears to exist. A conflict of interest may result in prosecution of up to a class 6 felony.

You should encourage your commission members to review meeting agendas before each meeting. If a member determines that there may be a potential conflict of interest with an item, they should let you know as soon as possible and then you should address the matter in writing to your City Attorney for disposition on if an actual conflict exists. **If there is any doubt about whether a conflict exists, the member should opt not to participate in the discussion, deliberation and voting process on that item.** This is better than taking the risk of inadvertently violating the law.

Noting a Conflict for the Record

Any member having a conflict of interest (or even a possible conflict) in a commission decision must make that interest known in the official records (minutes) of the body. **Before** discussion on that item begins, the member should declare the conflict. Once the conflict is declared, the member should leave the dais and must refrain from taking part in the discussion, deliberation, or voting on that item. The member's vote would be recorded as an abstention because of the conflict of the interest. Conflicts of interest must be recorded each time they come up. A written disclosure of the conflict is required and must be kept for the public record. Recording the conflict in the minutes meets this requirement.

During this time, the member is not required to leave the meeting but can "step outside" if they so choose. Once the item is over, you should bring back any member who left the meeting due to a conflict before discussion begins on the next item.

As previously discussed in the Quorum Section, any member that declares a conflict of interest and does not participate cannot be counted toward the quorum requirement on that particular item.

Examples of a Conflict of Interest

The following examples provide a general understanding of how Arizona's Conflict of Interest Laws would be applied. One thing to keep in mind is that each situation is unique and depends on the specific facts presented. For this reason, it is a good idea to consult with the City Attorney's Office to determine if an actual conflict exists.

NOTE: The situations below assume that the commission on which the member is sitting is deciding the matter in question.

- The commission member owns a property close to another property that is the subject of a zoning or license application. The granting or denial of the application could affect the value of the member's property.
- A proposed amendment to the City Code seeks to regulate a specific type of business activity. The commission member or a relative has an exclusive franchise or right to conduct the activity in the city.
- A commission member's relative (for example, a sister) has done work in the past for a firm seeking a city contract. She anticipates doing further work for this firm in the future. A potential conflict exists whether or not she is involved in the work that is the subject of the contract.
    - A conflict only exists if the relative has a continuing business relationship with the company under consideration or anticipates a continuing business relationship in the future with this company. A past association does not constitute a conflict of interest. The statute defines "relative" as a "spouse, child, child's child, parent, grandparent, brother or sister of the whole or half blood and their spouses and the parent, brother, sister or child of a spouse."

PART FOUR – After the Meeting

Minutes

As with agendas, a standard template will be used for consistency and will be created and published using Agenda Quick. APPENDIX G is the required template to be used for preparing minutes until Agenda Quick is in use.

Tips for Good Minute Writing

- Draft your minutes as soon as possible after the meeting while the proceedings are still fresh in your mind.
- Have a copy of the agenda, attachments, documentation and minutes of the previous meeting available before typing up your minutes.
- Use the agenda items as a format for the minutes.
    - The discussion and action can then be summarized under each item which speeds the indexing of the minutes and assists anyone researching the information.
    - Bold or underline the agenda item to set it off from the summary.
    - Meeting minutes are entered into Agenda Quick.
- The motion and votes should be in a separate paragraph after the discussion paragraphs.
- Minutes are always written in the third person using past tense.
- Minutes should be a clear, accurate and concise record of the proceedings.
- Minutes are summary in nature – focus on the action items and the substance of the meeting. That being said, motions should be typed verbatim.
- Use simple, ordinary words which are commonly understood.
- Avoid personal comments, judgments, adjectives or adverbs that suggest good or bad qualities. Minutes should not be your interpretation of what happened.
- Minutes should follow the order of the meeting. If an item was taken out of order, that should be noted on the minutes by stating “Item Taken Out of Order” before beginning discussion on that agenda item.
- Make sure to spell out any acronyms when used for the first time in your minutes and put the acronym in parentheses after the full name. After that, you can use the acronym. [Example – Development Advisory Board (DAB)].
- Have someone else review your minutes for grammar, punctuation and word choice.

Minute Filing

All approved minutes **must** be filed in the City Clerk’s Office, this includes subcommittee minutes as well.

Once minutes are completed and approved by the commission they must be labeled with the date of approval, posted online, and the original forwarded to the City Clerk’s Office for permanent retention.

Records Retention

E-mail

E-mails sent to and among commission members are subject to the Public Records Law, as well as the Open Meeting Law. E-mails that members or staff generate pertaining to the business of the commission are public records. Therefore, e-mails must be preserved according to your approved records retention schedule and generally must be made available for public inspection

if a public records request is made. It is a good idea to maintain a file containing any e-mails sent to and from members.

Agendas and Minutes
All commission agendas and minutes are retained permanently by the City Clerk under the City's Records Management Program and posted online.

Public Records Requests
With limited exceptions, Arizona's Public Records Law makes public records and other matters in the custody of a public body open to inspection during office hours by any person (See Ariz. Rev. Stat. § 39-121). Although there are exceptions, as a general rule, members of commissions and committees should always assume that their records will be subject to inspection by the public.

What is Due and When is it Due to the City Clerk

Questions or possible revisions or additions to the Staff Liaison Resource Guide. **Due:** As needed.

Updates to commission member contact information. **Due:** As needed.

Changes to staff liaison (either contact information or new person appointed as liaison). **Due:** As needed.

Update to chair and vice-chair appointments, including the start and end dates of their terms of office. **Due:** each time a new chair and/or vice-chair is appointed.

The City Clerk' Office will be in periodic contact with staff liaisons regarding missing Oaths of Office or training affirmations. Please work with your members to ensure that oaths are sent to City Clerk's Office in a timely manner. **Due:** as needed.

Questions with vacancy, reappointment, and attendance issues. **Due:** As needed.

As issues or concerns arise about your commission, you should contact your supervisor and the City Clerk's Office. We are happy to assist in any way possible. **Due:** as needed.

A list of all subcommittees for the commission including:
- Each subcommittee's membership list, noting the chair and vice-chair (if applicable);
- Any changes to the subcommittee information; and
- Creation of any new subcommittees or dissolution of existing subcommittees.

Due: As soon as possible.

Original, signed agenda. **Due:** At time of posting (at least 24 hours in advance of the meeting).

Original, approved meeting minutes. **Due:** When approved.

Concluding Remarks

Democratic government can function properly only when the citizenry has confidence in how its government is run. Public trust is built largely upon the perceptions that citizens have regarding their Mayor and City Council, city employees, and commission members. If it is destroyed, it is hard to reestablish public confidence. Many of the rules and policies discussed in this resource guide were put in place to reinforce the public's trust in the commission process. These rules and policies are used to ensure that the business of commissions is conducted in an open atmosphere where the public can provide input and feedback.

APPENDICES

APPENDIX A – Board and Commission Descriptions and Enabling Legislation

APPENDIX B – How to Post Agendas and Minutes to the Website

APPENDIX C – Notice of Cancellation

APPENDIX D – Notice of Possible Quorum

APPENDIX E – Agenda Template

APPENDIX F – Speaker Request Card

APPENDIX G – Minutes Template

APPENDIX H – Open Meeting Law

APPENDIX I – Conflict of Interest Law

APPENDIX A

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Airport Responsible for reporting to the Council on the development of the Airpark and matters affecting the operation and efficiency of the airport.	3 yrs	Council	City Code: Title 2, Chapter 2-11	Barney Helmick	7
Audit Committee Meets at least once a year, to review the Annual Financial and Single Audit reports.	Indef.	Council	Res Nos. 1320, 2029, 2002-59	Rick Tadder	6
Beautification and Public Art Recommends expenditures from the BBB, community beautification projects, the purchase and installation of public art projects.	3 yrs	Council	City Code: Title 2, Chapter 2-14	Mark DiLucido	7
Bicycle Advisory Committee Report to the City's Transportation Commission on issues related to planning for and accommodation of bicycles.	3 yrs	Transport Comm.	City Code: Title 2, Chapter 2-12	Martin Ince	7
Board of Adjustment Holds hearings on request for variances and appeals of decision by the Zoning Code Administrator.	3 yrs	Council	ARS § 9-462.06, City Code: Title 2, Chapter 2-10	Daniel Symer	7
Building and Fire Code Board of Appeals Holds hearings on appeals related to the application and interpretation of City building and fire codes.	5 yrs	Council	Res. 1565, 2001-42	Amy Palmer	7
Diversity Awareness Fosters mutual understanding, tolerance, respect, and awareness among all citizens; recognizing the different economic, cultural, social, religious, and ethnic groups within the City; cooperating in the development of educational programs dedicated to improving community relations and enlisting support of various groups to foster diversity awareness.	3 yrs	Council	City Code: Title 2, Chapter 2-08	Shannon Anderson	7
Flagstaff Housing Authority Oversees the functions of the Housing Authority. The Authority implements the public housing programs.	4 yrs	Mayor	ARS § 36-1404.B City Code: Title 1, Chapter 1-13	Sarah Darr	7
Flagstaff Metropolitan Planning Organization Federally mandated organization responsible for planning and programming federal transportation funds in the region	2 yrs	Council	Intergovernmental Agreement	Jeff Meilbeck	6

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Housing Commission Makes recommendations with respect to housing policies, needs, and programs in Flagstaff.	3 yrs	Council	City Code: Title 2, Chapter 2-25	Sarah Darr	15
Heritage Preservation Advises the City Council on all matters relating to historic preservation, and reviews development projects in designated historic districts.	3 yrs	Council	City Code: Title 2, Chapter 2-19	Tiffany Antol	7
Inclusion and Adaptive Living Expand educational opportunities; improve access to housing, buildings, and transportation; have greater participation in recreational, social, and cultural activities; encourage greater opportunity for employment and expand/strengthen rehabilitative programs and facilities	3 yrs	Council	City Code: Title 2, Chapter 2-18	Denise Thompson	7
Industrial Development Authority Independent authority established by State law. Issue revenue bonds to projects eligible for financing under State statute.	6 yrs	Council	Resolution No. 1636	Brandon Kavanagh	9
Library Board Serves as a citizen's advisory board to the Library Director.	3 yrs	Council	Intergovernmental Agreement	Mark Cesare	8
Open Spaces Advises the Council on the acquisition, management, use, restoration, enhancement, protection, and conservation of open space land within the City of Flagstaff.	3 yrs	Council	City Code: Title 2, Chapter 2-20	Robert Wallace	7
Parks and Recreation Makes recommendations to the Council regarding City parks and recreational programs, the annual budget and capital improvements for the Parks and Recreation Divisions.	3 yrs	Council	City Code: Title 2, Chapter 2-03	Rebecca Sayers	7
Pedestrian Advisory Committee Report to the City's Transportation Commission on issues related to planning for and accommodation of pedestrians.	3 yrs	Transport Comm.	Code, Title 2, Chapter 2-12	Martin Ince	7
Personnel Board Conducts hearing to ensure due process for regular, classified employees who are dismissed, demoted, or suspended without pay.	4 yrs	Council	Ord. No. 971, 1041, 1116, 1146, 1198	Shannon Anderson	7

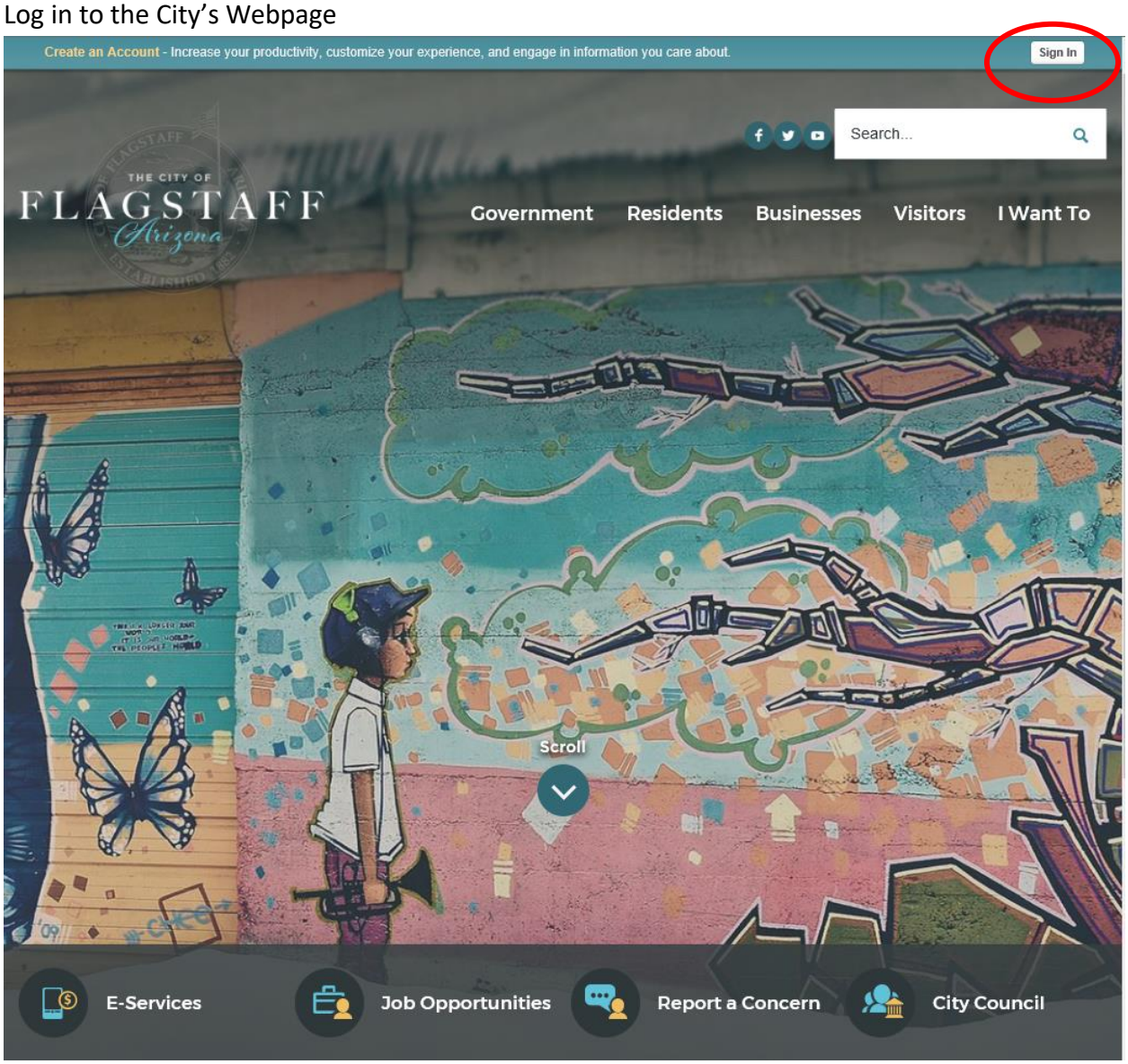
NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Planning and Zoning Serves as an advisory board to the Council on matters relating to the growth and physical development of the City. Conduct hearings on amendments to the Zoning Map, tentative subdivision plats, Conditional Use Permits.	3 yrs	Council	ARS § 9-461.02 City Code: Title 2, Chapter 2-01	Tiffany Antol	7
PSPRS Board Processes membership and retirement applications from the Flagstaff police officers and firefighters.	4 yrs	Mayor	ARS § 38-847	Vivian Fennema Allison Hughes	7
Self-Insurance Trust Fund Board Administers the self-insurance program of the City.	2 yrs	Council	City Code: Title 1, Chapter 1-24	Dean Coughenour	5
Sustainability Recommend and coordinates activities in concert with the Flagstaff Sustainability Program. Promotes sustainable practices in all spheres of life and educating Flagstaff citizens	3 yrs	Council	City Code: Title 2, Chapter 2-17	Nicole Antonopoulos	7
Tourism Develops, promotes, and maintains Flagstaff as a year-round destination with professional visitor services that will benefit the community economically, environmentally, and socially.	3 yrs	Council	City Code: Title 2, Chapter 2-13	Trace Ward	7
Transportation Reviews requests for changes in traffic regulations and recommends traffic-related policies to the Council.	3 yrs	Council	City Code: Title 2, Chapter 2-12	Jeffrey Bauman	7
Water Reviews extensions of the water and sewer collection systems, treatment and use of water furnished by the City, treatment and disposal of the City's sewage system effluent, and water/sewer rates.	3 yrs	Council	City Code: Title 2, Chapter 2-04	Brad Hill	7

APPENDIX B

How to Post Minutes and Agendas to Board & Commission Pages

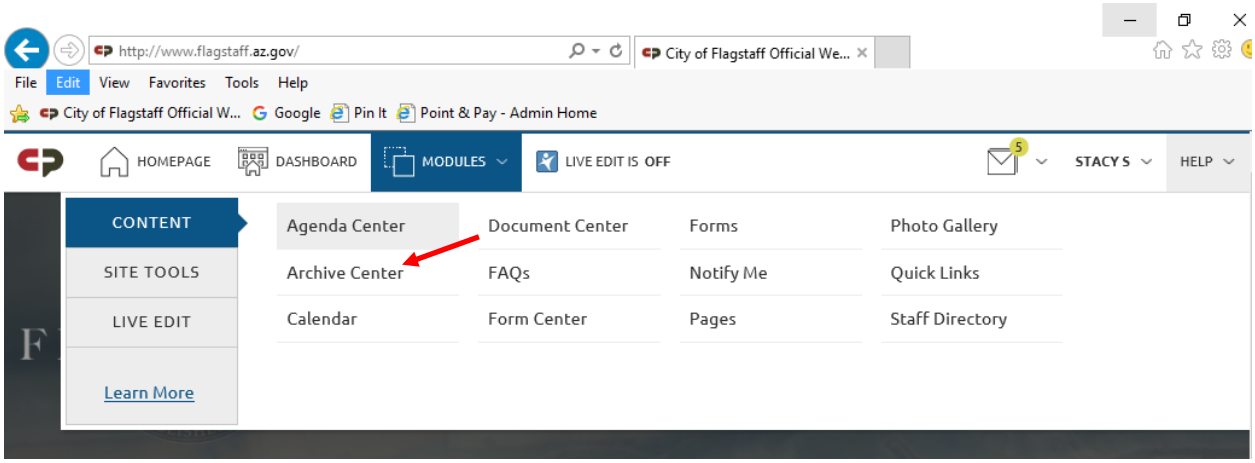
1. Save your document as a PDF and save on the network. If you need help doing this please let me know.

2. Log in to the City's Webpage

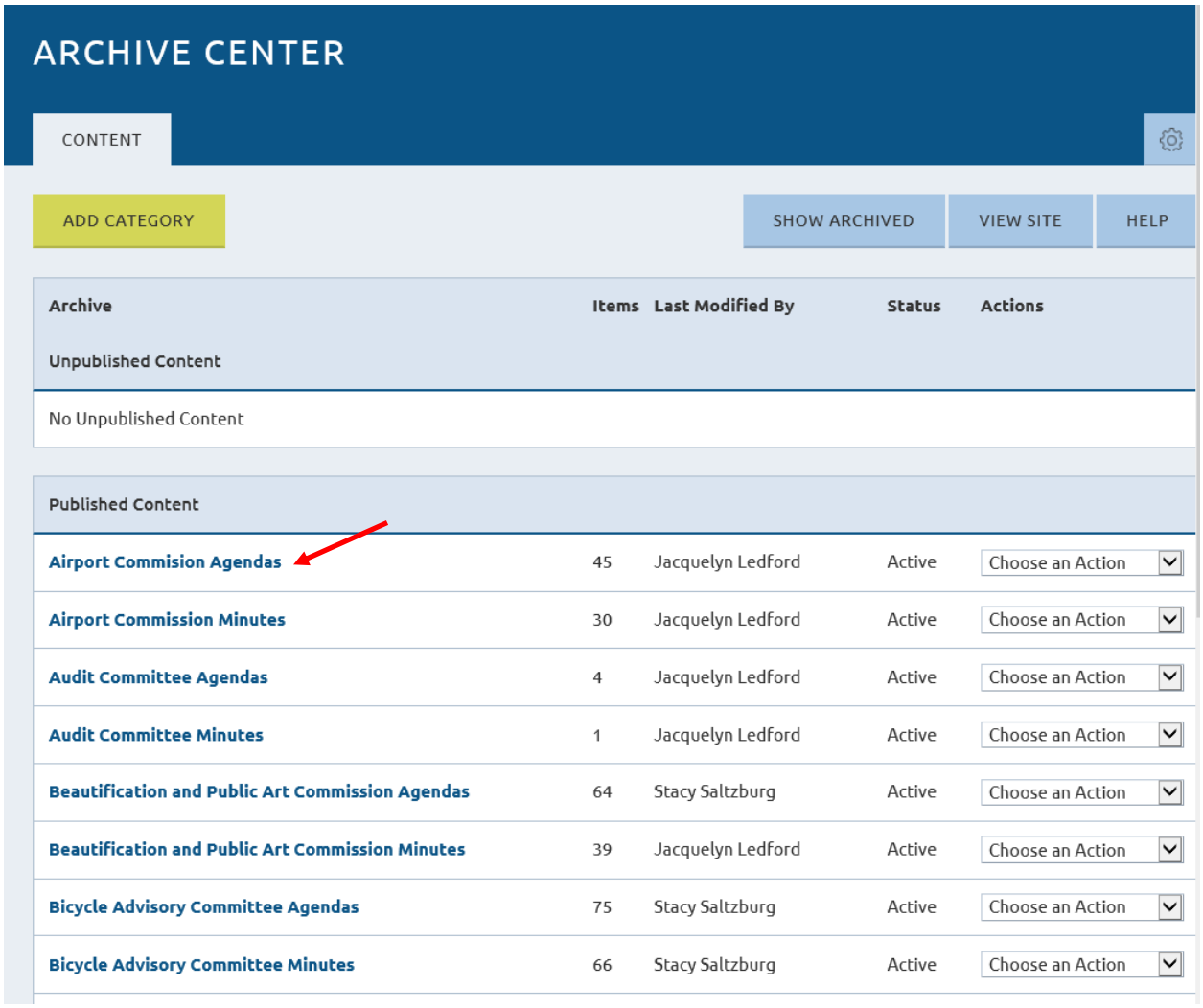


If you do not have a username or password please contact Jessica Drum to have one set up.

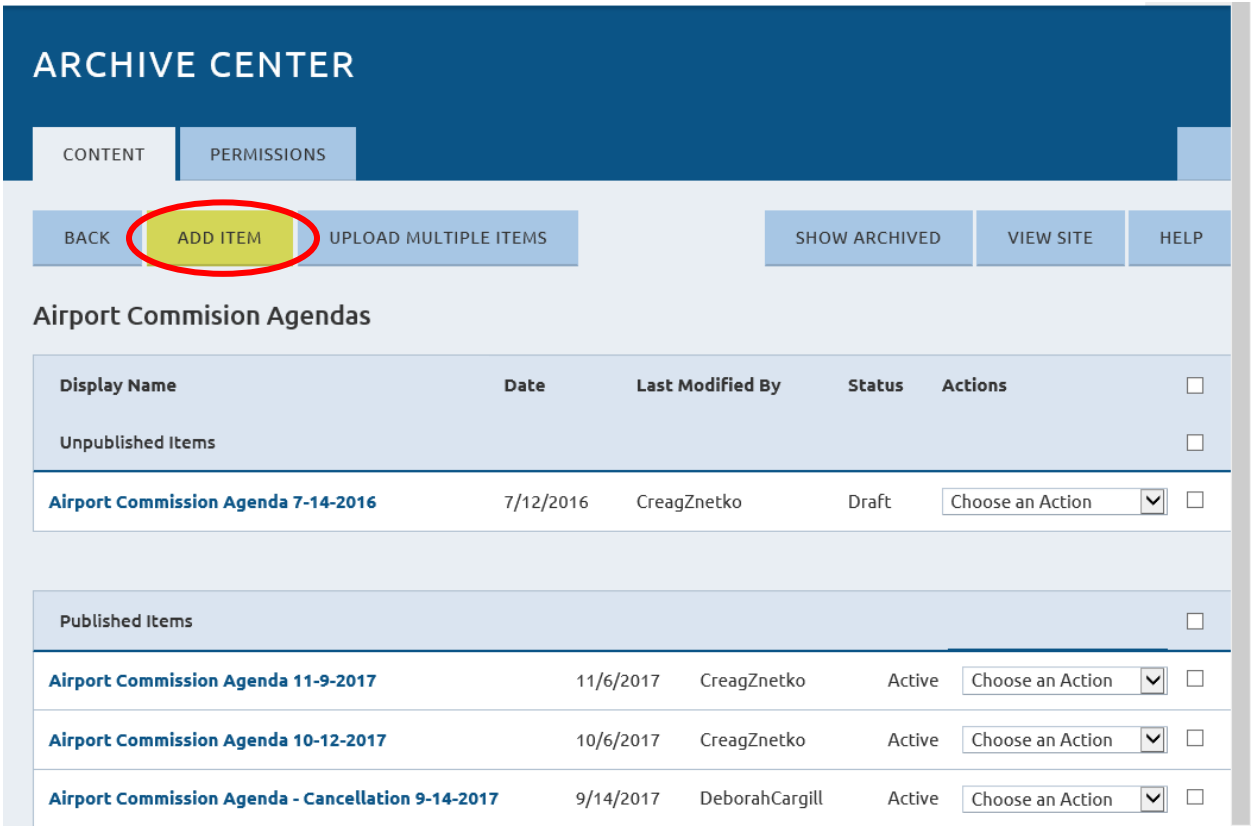
3. Click the ***Modules*** Button and choose ***Archive Center***



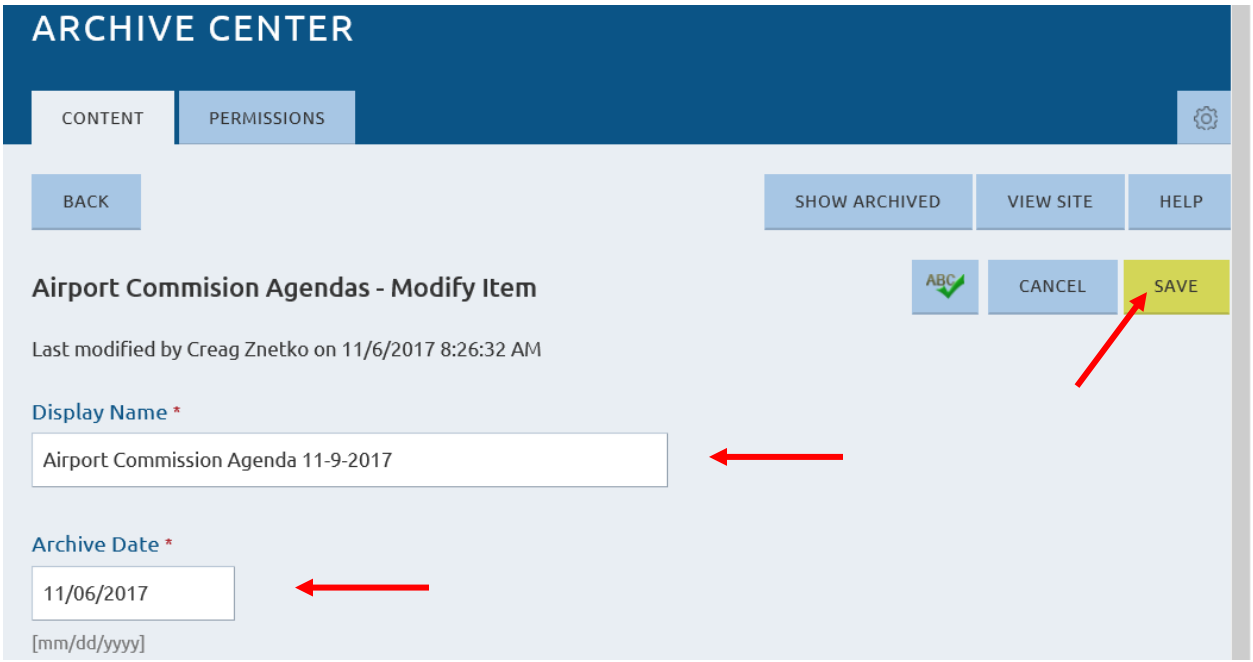
4. Select the appropriate commission minutes or agendas



5. Click ***Add Item***



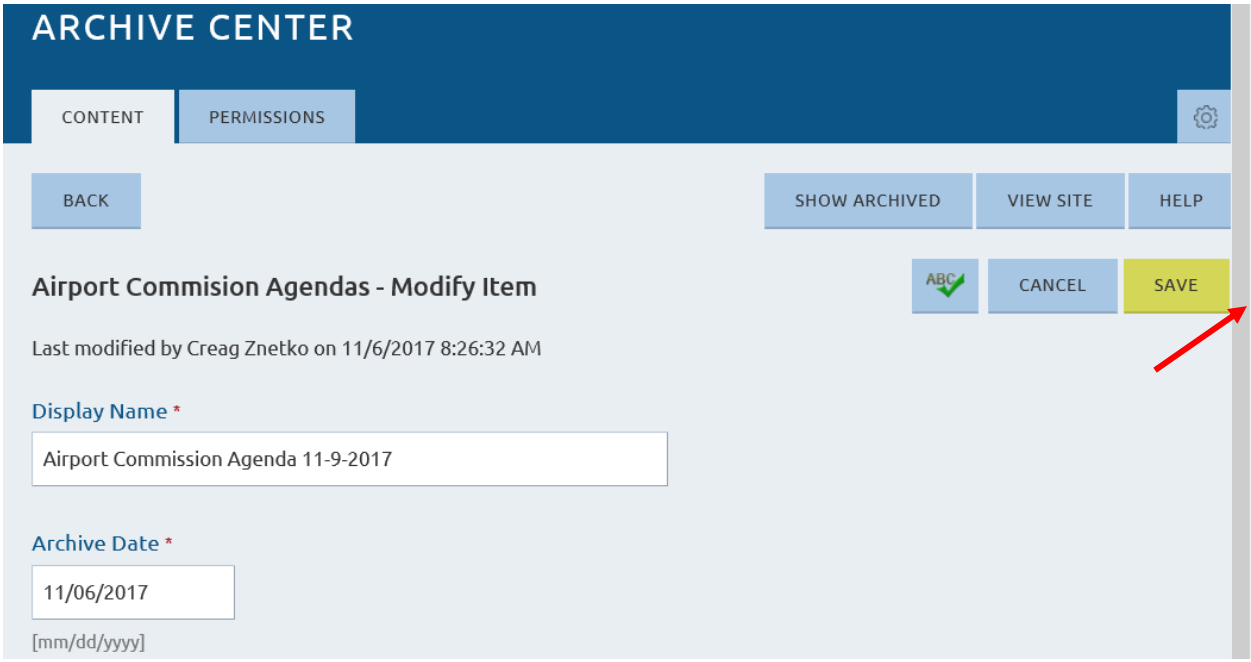
6. Fill in Display Name and Archive Date (the archive date should be the date of the meeting) and click ***Save*** (you must click save before going on to the next step)



7. Attach your document by clicking ***Browse*** under File Upload to locate your file.



8. Click ***Save***



You're done. Now go and check your work.

APPENDIX C

CITY OF FLAGSTAFF – [COMMISSION NAME]
NOTICE OF CANCELLATION

NOTICE IS HEREBY GIVEN THAT THE CITY OF FLAGSTAFF [COMMISSION NAME] HAS CANCELLED THEIR REGULARLY SCHEDULED MEETING FOR [DATE]. THEIR NEXT REGULARLY SCHEDULED MEETING WILL BE HELD ON [DATE].

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on_____, at_____a.m./p.m. in accordance with the statement filed by the Commission with the City Clerk.

Dated this_____day of_____, 2019.

_____
[YOUR NAME], [YOUR TITLE]

APPENDIX D

CITY OF FLAGSTAFF – [COMMISSION NAME]
NOTICE OF POSSIBLE QUORUM

A QUORUM OF THE [COMMISSION NAME] MAY BE IN ATTENDANCE ON [DATE OF FUNCTION] AT [ADDRESS OF FUNCTION], FLAGSTAFF, AZ 86001. NO FORMAL DISCUSSION/ACTION WILL BE TAKEN BY MEMBERS IN THEIR ROLE AS COMMISSIONERS

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on_____, at_____a.m./p.m. in accordance with the statement filed by the Commission with the City Clerk.

Dated this_____day of_____, 2019.

_____
[YOUR NAME], YOUR TITLE]

APPENDIX E

NOTICE AND AGENDA

[COMMISSION NAME]
[DAY OF WEEK]
[DATE]

COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
[TIME]

1. CALL TO ORDER

2. ROLL CALL
NOTE: One or more Commission Members may be in attendance telephonically or by other technological means.

NAME, CHAIRPERSON	NAME
NAME, VICE CHAIRPERSON	NAME
NAME	NAME
NAME	

3. GENERAL BUSINESS

A. PUBLIC COMMENT
At this time, any member of the public may address the Commission on any subject within their jurisdiction that is not scheduled before the Commission on that day. Due to Open Meeting Laws, the Commission cannot discuss or act on items presented during this portion of the agenda. To address the Commission on an item that is on the agenda, please wait for the Chair to call for Public Comment at the time the item is heard.

B. Approval of Minutes

C. [Other Business]

4. DISCUSSION ITEM(S)

A.

B.

5. INFORMATIONAL ITEMS TO/FROM COMMISSION AND STAFF, FUTURE AGENDA ITEM REQUESTS

6. ADJOURNMENT

CERTIFICATE OF POSTING OF NOTICE

The undersigned hereby certifies that a copy of the foregoing notice was duly posted at Flagstaff City Hall on _____, at_____a.m./p.m. in accordance with the statement filed by the Commission with the City Clerk. This notice has been posted on the City's website and can be downloaded at www.flagstaff.az.gov.

Dated this_____day of_____, 2019.

_____

[YOUR NAME], YOUR TITLE]

APPENDIX F

SPEAKER REQUEST Agenda #/Topic:_____

Flagstaff Resident? ☐ Yes ☐ No ☐ FOR ☐ AGAINST

Thank you for participating in your City government. We value your comments. If you wish to speak to the Council at tonight's meeting, complete the form below and submit it to the Recording Clerk. To allow everyone an opportunity to speak, comments will be limited to 3 minutes and speaking time cannot be transferred to another. If you are having your comments translated, you are permitted 5 minutes. If you are with a group, please designate a spokesperson. A spokesperson for TEN OR MORE PEOPLE PRESENT AT TONIGHT'S MEETING may be given up to 15 minutes to speak. Your name will be called when it is your turn to speak.

NAME_____ **DATE**_____

(Required for the record – PRINT CLEARLY)

THE FOLLOWING INFORMATION IS OPTIONAL AND WILL BECOME PART OF THE RECORD

ADDRESS _____ **PHONE**_____

☐ I am speaking on behalf of myself ☐ I am requesting 5 minutes to allow for translation

☐ I am speaking on behalf of a group of ten or more who are present at tonight's meeting, whose names are listed below:

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

APPENDIX G

[COMMISSION NAME]
[DAY OF WEEK], [DATE]
CITY HALL COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
[TIME]

MINUTES

1. Call to Order

[NAME] called the Meeting of the meeting of the [COMMISSION NAME] held [DATE], to order at [TIME] p.m.

2. Roll Call

Commission Members present:	**Commission Members absent:**

Others present: [LIAISON NAME AND ANY OTHER STAFF]

3. Public Participation

Public Participation enables the public to address the Commission on any subject within their jurisdiction that is not scheduled before the Commission on that day. Due to Open Meeting Laws, the Commission cannot discuss or act on items presented during this portion of the agenda. To address the Commission on an item that is on the agenda, please wait for the Chair to call for Public Comment at the time the item is heard.

NOTES

4. Approval of Minutes

Moved by _____, **seconded by** _____ to…

Vote: 7 – 0 – Unanimously or

Vote: 5 – 2

NAY: Commissioner Smith
Commissioner Doe opposed

5. Action Items

[Heading/Title]

NOTES

Moved by _____, **seconded by** _____ to…

Vote: 7 – 0 – Unanimously or

Vote: 5 – 2

NAY: Commissioner Smith
Commissioner Doe opposed

6. Reports/Discussions Items

[Heading/Title]

NOTES

7. Informational Items To/From Commission and Staff, Future Agenda Item Requests

NOTES

8. Adjournment

The meeting of the [COMMISSION NAME] of [DATE], adjourned at [TIME].

APPENDIX H

Title 38. Public Officers and Employees
Chapter 3. Conduct of Office
Article 3.1. Public Meetings and Proceedings

§ 38-431. Definitions

In this article, unless the context otherwise requires:

1. "Advisory committee" or "subcommittee" means any entity, however designated, that is officially established, on motion and order of a public body or by the presiding officer of the public body, and whose members have been appointed for the specific purpose of making a recommendation concerning a decision to be made or considered or a course of conduct to be taken or considered by the public body.

2. "Executive session" means a gathering of a quorum of members of a public body from which the public is excluded for one or more of the reasons prescribed in section 38-431.03. In addition to the members of the public body, officers, appointees and employees as provided in section 38-431.03 and the auditor general as provided in section 41-1279.04, only individuals whose presence is reasonably necessary in order for the public body to carry out its executive session responsibilities may attend the executive session.

3. "Legal action" means a collective decision, commitment or promise made by a public body pursuant to the constitution, the public body's charter, bylaws or specified scope of appointment and the laws of this state.

4. "Meeting":

   (a) Means the gathering, in person or through technological devices, of a quorum of the members of a public body at which they discuss, propose or take legal action, including any deliberations by a quorum with respect to such that action.
   (b) Includes:

      (i) A one-way electronic communication by one member of a public body that is sent to a quorum of the members of a public body and that proposes legal action.

      (ii) An exchange of electronic communications among a quorum of the members of a public body that involves a discussion, deliberation or the taking of legal action by the public body concerning a matter likely to come before the public body for action. "Political subdivision" means all political subdivisions of this state, including without limitation all counties, cities and towns, school districts and special districts.

5. "Public body" means the legislature, all boards and commissions of this state or political subdivisions, all multimember governing bodies of departments, agencies, institutions and instrumentalities of this state or political subdivisions, including without limitation all corporations and other instrumentalities whose boards of directors are appointed or elected by this state or political subdivision. Public body includes all quasi-judicial bodies and all standing, special or advisory committees or subcommittees

of, or appointed by, the public body. Public body includes all commissions and other public entities established by the Arizona constitution or by way of ballot initiative, including the independent redistricting commission, and this article applies except and only to the extent that specific constitutional provisions supersede this article.

6. "Quasi-judicial body" means a public body, other than a court of law, possessing the power to hold hearings on disputed matters between a private person and a public agency and to make decisions in the general manner of a court regarding such disputed claims.

§ 38-431.01. Meetings shall be open to the public

A. All meetings of any public body shall be public meetings and all persons so desiring shall be permitted to attend and listen to the deliberations and proceedings. All legal action of public bodies shall occur during a public meeting.

B. All public bodies shall provide for the taking of written minutes or a recording of all their meetings, including executive sessions. For meetings other than executive sessions, the minutes or recording shall include:

1. The date, time and place of the meeting.

2. The members of the public body recorded as either present or absent.

3. A general description of the matters considered.

4. An accurate description of all legal actions proposed, discussed or taken, including a record of how each member voted. The minutes shall also include the names of the members who propose each motion and the names of the persons, as given, who make statements or present material to the public body and a reference to the legal action about which they made statements or presented material.

C. Minutes of executive sessions shall include items set forth in subsection B, paragraphs 1, 2 and 3 of this section, an accurate description of all instructions given pursuant to section 38-431.03, subsection A, paragraphs 4, 5 and 7 and such other matters as may be deemed appropriate by the public body.

D. The minutes or a recording of a meeting shall be available for public inspection three working days after the meeting except as otherwise specifically provided by this article.

E. A public body of a city or town with a population of more than two thousand five hundred persons shall:

1. Within three working days after a meeting, except for subcommittees and advisory committees, post on its website, if applicable, either:

(a) A statement describing the legal actions taken by the public body of the city or town during the meeting.

(b) Any recording of the meeting.

2. Within two working days following approval of the minutes, post approved minutes of city or town council meetings on its website, if applicable, except as otherwise specifically provided by this article.

3. Within ten working days after a subcommittee or advisory committee meeting, post on its website, if applicable, either:

   (a) A statement describing legal action, if any.

   (b) A recording of the meeting.

F. All or any part of a public meeting of a public body may be recorded by any person in attendance by means of a tape recorder or camera or any other means of sonic reproduction, provided that there is no active interference with the conduct of the meeting.

G. The secretary of state for state public bodies, the city or town clerk for municipal public bodies and the county clerk for all other local public bodies shall conspicuously post open meeting law materials prepared and approved by the attorney general on their website. A person elected or appointed to a public body shall review the open meeting law materials at least one day before the day that person takes office.

H. A public body may make an open call to the public during a public meeting, subject to reasonable time, place and manner restrictions, to allow individuals to address the public body on any issue within the jurisdiction of the public body. At the conclusion of an open call to the public, individual members of the public body may respond to criticism made by those who have addressed the public body, may ask staff to review a matter or may ask that a matter be put on a future agenda. However, members of the public body shall not discuss or take legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action.

I. A member of a public body shall not knowingly direct any staff member to communicate in violation of this article.

J. Any posting required by subsection E of this section must remain on the applicable website for at least one year after the date of the posting.

§ 38-431.02. Notice of meetings

A. Public notice of all meetings of public bodies shall be given as follows:

1. The public bodies of this state, including governing bodies of charter schools, shall:

   (a) Conspicuously post a statement on their website stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) Post all public meeting notices on their website and give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting

for which the notice was posted if the public body complies with all other public notice requirements required by this section.

2. The public bodies of the counties and school districts shall:

   (a) Conspicuously post a statement on their website stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) Post all public meeting notices on their website and give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

3. Special districts that are formed pursuant to title 48:

   (a) May conspicuously post a statement on their website stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) May post all public meeting notices on their website and shall give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

   (c) If a statement or notice is not posted pursuant to subdivision (a) or (b) of this paragraph, shall file a statement with the clerk of the board of supervisors stating where all public notices of their meetings will be posted and shall give additional public notice as is reasonable and practicable as to all meetings.

4. The public bodies of the cities and towns shall:

   (a) Conspicuously post a statement on their website or on a website of an association of cities and towns stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) Post all public meeting notices on their website or on a website of an association of cities and towns and give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

B. If an executive session is scheduled, a notice of the executive session shall state the provision of law authorizing the executive session, and the notice shall be provided to the:

1. Members of the public body.

2. General public.

C. Except as provided in subsections D and E of this section, meetings shall not be held without at least twenty-four hours' notice to the members of the public body and to the general public. The twenty-four hour period includes Saturdays if the public has access to the physical posted location in addition to any website posting, but excludes Sundays and other holidays prescribed in § 1-301.

D. In case of an actual emergency, a meeting, including an executive session, may be held on such notice as is appropriate to the circumstances. If this subsection is utilized for conduct of an emergency session or the consideration of an emergency measure at a previously scheduled meeting the public body must post a public notice within twenty-four hours declaring that an emergency session has been held and setting forth the information required in subsections H and I of this section.

E. A meeting may be recessed and resumed with less than twenty-four hours' notice if public notice of the initial session of the meeting is given as required in subsection A of this section, and if, before recessing, notice is publicly given as to the time and place of the resumption of the meeting or the method by which notice shall be publicly given.

F. A public body that intends to meet for a specified calendar period, on a regular day, date or event during the calendar period, and at a regular place and time, may post public notice of the meetings at the beginning of the period. The notice shall specify the period for which notice is applicable.

G. Notice required under this section shall include an agenda of the matters to be discussed or decided at the meeting or information on how the public may obtain a copy of such an agenda. The agenda must be available to the public at least twenty-four hours before the meeting, except in the case of an actual emergency under subsection D of this section. The twenty-four hour period includes Saturdays if the public has access to the physical posted location in addition to any website posting, but excludes Sundays and other holidays prescribed in § 1-301.

H. Agendas required under this section shall list the specific matters to be discussed, considered or decided at the meeting. The public body may discuss, consider or make decisions only on matters listed on the agenda and other matters related thereto.

I. Notwithstanding the other provisions of this section, notice of executive sessions shall be required to include only a general description of the matters to be considered. The agenda shall provide more than just a recital of the statutory provisions authorizing the executive session, but need not contain information that would defeat the purpose of the executive session, compromise the legitimate privacy interests of a public officer, appointee or employee or compromise the attorney-client privilege.

J. Notwithstanding subsections H and I of this section, in the case of an actual emergency a matter may be discussed and considered and, at public meetings, decided, if the matter was not listed on the agenda and a statement setting forth the reasons necessitating the discussion, consideration or decision is placed in the minutes of the meeting and is publicly announced at the public meeting. In

the case of an executive session, the reason for consideration of the emergency measure shall be announced publicly immediately before the executive session.

K. Notwithstanding subsection H of this section, the chief administrator, presiding officer or a member of a public body may present a brief summary of current events without listing in the agenda the specific matters to be summarized, if:

1. The summary is listed on the agenda.

2. The public body does not propose, discuss, deliberate or take legal action at that meeting on any matter in the summary unless the specific matter is properly noticed for legal action.

§ 38-431.03. Executive sessions

A. Upon a public majority vote of the members constituting a quorum, a public body may hold an executive session but only for the following purposes:

1. Discussion or consideration of employment, assignment, appointment, pro-motion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee or employee of any public body, except that, with the exception of salary discussions, an officer, appointee or employee may demand that the discussion or consideration occur at a public meeting. The public body shall provide the officer, appointee or employee with written notice of the executive session as is appropriate but not less than twenty-four hours for the officer, appointee or employee to determine whether the discussion or consideration should occur at a public meeting.

2. Discussion or consideration of records exempt by law from public inspection, including the receipt and discussion of information or testimony that is specifically required to be maintained as confidential by state or federal law.

3. Discussion or consultation for legal advice with the attorney or attorneys of the public body.

4. Discussion or consultation with the attorneys of the public body in order to consider its position and instruct its attorneys regarding the public body's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation or in settlement discussions conducted in order to avoid or resolve litigation.

5. Discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations with employee organizations regarding the salaries, salary schedules or compensation paid in the form of fringe benefits of employees of the public body.

6. Discussion, consultation or consideration for international and interstate negotiations or for negotiations by a city or town, or its designated representatives, with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city or town.

7. Discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property.

B. Minutes of and discussions made at executive sessions shall be kept confidential except from:

1. Members of the public body which met in executive session.

2. Officers, appointees or employees who were the subject of discussion or consideration pursuant to subsection A, paragraph 1 of this section.

3. The auditor general on a request made in connection with an audit authorized as provided by law.

4. A county attorney or the attorney general when investigating alleged violations of this article.

C. The public body shall instruct persons who are present at the executive session regarding the confidentiality requirements of this article.

D. Legal action involving a final vote or decision shall not be taken at an executive session, except that the public body may instruct its attorneys or representatives as provided in subsection A, paragraphs 4, 5 and 7 of this section. A public vote shall be taken before any legal action binds the public body.

E. Except as provided in section 38-431.02, subsections I and J, a public body shall not discuss any matter in an executive session which is not described in the notice of the executive session.

F. Disclosure of executive session information pursuant to this section or section 38-431.06 does not constitute a waiver of any privilege, including the attorney-client privilege. Any person receiving executive session information pursuant to this section or section 38-431.06 shall not disclose that information except to the attorney general or county attorney, by agreement with the public body or to a court in camera for purposes of enforcing this article. Any court that reviews executive session information shall take appropriate action to protect privileged information.

§ 38-431.04. Writ of mandamus

Where the provisions of this article are not complied with, a court of competent jurisdiction may issue a writ of mandamus requiring that a meeting be open to the public.

§ 38-431.05. Meeting held in violation of article; business transacted null and void; ratification

A. All legal action transacted by any public body during a meeting held in violation of any provision of this article is null and void except as provided in subsection B.

B. A public body may ratify legal action taken in violation of this article in accordance with the following requirements:

1. Ratification shall take place at a public meeting within thirty days after discovery of the violation or after such discovery should have been made by the exercise of reasonable diligence.

2. The notice for the meeting shall include a description of the action to be ratified, a clear statement that the public body proposes to ratify a prior action and information on how the public may obtain a detailed written description of the action to be ratified.

3. The public body shall make available to the public a detailed written description of the action to be ratified and all deliberations, consultations and decisions by members of the public body that preceded and related to such action. The written description shall also be included as part of the minutes of the meeting at which ratification is taken. The public body shall make available to the public the notice and detailed written description required by this section at least seventy-two hours in advance of the public meeting at which the ratification is taken.

§ 38-431.06. Investigations; written investigative demands

A. On receipt of a written complaint signed by a complainant alleging a violation of this article or on their own initiative, the attorney general or the county attorney for the county in which the alleged violation occurred may begin an investigation.

B. In addition to other powers conferred by this article, in order to carry out the duties prescribed in this article, the attorney general or the county attorney for the county in which the alleged violation occurred, or their designees, may:

1. Issue written investigative demands to any person.

2. Administer an oath or affirmation to any person for testimony.

3. Examine under oath any person in connection with the investigation of the alleged violation of this article.

4. Examine by means of inspecting, studying or copying any account, book, computer, document, minutes, paper, recording or record.

5. Require any person to file on prescribed forms a statement or report in writing and under oath of all the facts and circumstances requested by the attorney general or county attorney.

C. The written investigative demand shall:

1. Be served on the person in the manner required for service of process in this state or by certified mail, return receipt requested.

2. Describe the class or classes of documents or objects with sufficient definiteness to permit them to be fairly identified.

3. Prescribe a reasonable time at which the person shall appear to testify and within which the document or object shall be produced and advise the person that objections to or reasons for not complying with the demand may be filed with the attorney general or county attorney on or before that time.

4. Specify a place for the taking of testimony or for production of a document or object and designate a person who shall be the custodian of the document or object.

D. If a person objects to or otherwise fails to comply with the written investigation demand served on the person pursuant to subsection C, the attorney general or county attorney may file an action in the superior court for an order to enforce the demand. Venue for the action to enforce the demand

shall be in Maricopa county or in the county in which the alleged violation occurred. Notice of hearing the action to enforce the demand and a copy of the action shall be served on the person in the same manner as that prescribed in the Arizona rules of civil procedure. If a court finds that the demand is proper, including that the compliance will not violate a privilege and that there is not a conflict of interest on the part of the attorney general or county attorney, that there is reasonable cause to believe there may have been a violation of this article and that the information sought or document or object demanded is relevant to the violation, the court shall order the person to comply with the demand, subject to modifications the court may prescribe. If the person fails to comply with the court's order, the court may issue any of the following orders until the person complies with the order:

1. Adjudging the person in contempt of court.

2. Granting injunctive relief against the person to whom the demand is issued to restrain the conduct that is the subject of the investigation.

3. Granting other relief the court deems proper.

§ 38-431.07. Violations; enforcement; removal from office; in camera review

A. Any person affected by an alleged violation of this article, the attorney general or the county attorney for the county in which an alleged violation of this article occurred may commence a suit in the superior court in the county in which the public body ordinarily meets, for the purpose of requiring compliance with, or the prevention of violations of, this article, by the public body as a whole, or to determine the applicability of this article to matters or legal actions of the public body. The attorney general may also commence a suit in the superior court in the county in which the public body ordinarily meets against an individual member of a public body for a knowing violation of this article, and in such a suit the court may impose a civil penalty against each person who knowingly violates this article or who knowingly aids, agrees to aid or attempts to aid in violating this article and order equitable relief as the court deems appropriate in the circumstances. The court may impose a civil penalty not to exceed five hundred dollars for the second offense and not to exceed two thousand five hundred dollars for the third and subsequent offenses. If the court imposes a civil penalty against an individual member of the public body who knowingly violates this article, the public body may not pay the civil penalty on behalf of, or otherwise reimburse, the individual against whom the civil penalty has been imposed. If the court finds that a person who might otherwise be liable under this subsection objected to the action of the public body and the objection is noted on a public record, the court may choose not to impose a civil penalty on that person. The civil penalties awarded pursuant to this section shall be deposited into the general fund of the public body concerned. The court may also order payment to a successful plaintiff in a suit brought under this section of the plaintiff's reasonable attorney fees, by the defendant state, the political subdivision of the state or the incorporated city or town of which the public body is a part or to which it reports. If the court determines that a public officer with intent to deprive the public of information knowingly violated any provision of this article, the court may remove the public officer from office and shall assess the public officer or a person who knowingly aided, agreed to aid or attempted to aid the public officer in violating this article, or both, with all of the costs and attorney fees awarded to the plaintiff pursuant to this section.

B. A public body shall not expend public monies to employ or retain legal counsel to provide legal services or representation to the public body or any of its officers in any legal action commenced

pursuant to any provisions of this article, unless the public body has authority to make the expenditure pursuant to other provisions of law and takes a legal action at a properly noticed open meeting approving the expenditure before incurring any obligation or indebtedness.

C. In any action brought pursuant to this section challenging the validity of an executive session, the court may review in camera the minutes of the executive session, and if the court in its discretion determines that the minutes are relevant and that justice so demands, the court may disclose to the parties or admit in evidence part or all of the minutes.

§ 38-431.08. Exceptions; limitation

A. This article does not apply to:

1. Any judicial proceeding of any court or any political caucus of the legislature.

2. Any conference committee of the legislature, except that all such meetings shall be open to the public.

3. The commissions on appellate and trial court appointments and the commission on judicial qualifications.

4. Good cause exception and central registry exception determinations and hearings conducted by the board of fingerprinting pursuant to sections 41-619.55 and 41-619.57.

B. A hearing held within a prison facility by the board of executive clemency is subject to this article, except that the director of the state department of corrections may:

1. Prohibit, on written findings that are made public within five days of so finding, any person from attending a hearing whose attendance would constitute a serious threat to the life or physical safety of any person or to the safe, secure and orderly operation of the prison.

2. Require a person who attends a hearing to sign an attendance log. If the person is over sixteen years of age, the person shall produce photographic identification that verifies the person's signature.

3. Prevent and prohibit any articles from being taken into a hearing except recording devices, and if the person who attends a hearing is a member of the media, cameras.

4. Require that a person who attends a hearing submit to a reasonable search on entering the facility.

C. The exclusive remedies available to any person who is denied attendance at or removed from a hearing by the director of the state department of corrections in violation of this section shall be those remedies available in section 38-431.07, as against the director only.

D. Either house of the legislature may adopt a rule or procedure pursuant to article IV, part 2, section 8, Constitution of Arizona, to provide an exemption to the notice and agenda requirements of this article or to allow standing or conference committees to meet through technological devices rather than only in person.

§ 38-431.09. Declaration of public policy

A. It is the public policy of this state that meetings of public bodies be conducted openly and that notices and agendas be provided for such meetings which contain such information as is reasonably necessary to inform the public of the matters to be discussed or decided. Toward this end, any person or entity charged with the interpretations of this article shall construe this article in favor of open and public meetings.

B. Notwithstanding subsection A, it is not a violation of this article if a member of a public body expresses an opinion or discusses an issue with the public either at a venue other than at a meeting that is subject to this article, personally, through the media or other form of public broadcast communication or through technological means if:

1. The opinion or discussion is not principally directed at or directly given to another member of the public body.

2. There is no concerted plan to engage in collective deliberation to take legal action.

APPENDIX I

Title 38. Public Officers and Employees
Chapter 3. Conduct of Office
Article 8. Conflict of Interest of Officers and Employees

§ 38-501. Application of article

A. This article shall apply to all public officers and employees of incorporated cities or towns, of political subdivisions and of the state and any of its departments, commissions, agencies, bodies or boards.

B. Notwithstanding the provisions of any other law, or the provisions of any charter or ordinance of any incorporated city or town to the contrary, the provisions of this article shall be exclusively applicable to all officers and employees of every incorporated city or town or political subdivision or the state and any of its departments, commissions, agencies, bodies or boards and shall supersede the provisions of any other such law, charter provision or ordinance.

C. Other prohibitions in the state statutes against any specific conflict of interests shall be in addition to this article if consistent with the intent and provisions of this article.

§ 38-502. Definitions

In this article, unless the context otherwise requires:

1. "Compensation" means money, a tangible thing of value or a financial benefit.

2. "Employee" means all persons who are not public officers and who are employed on a full-time, part-time or contract basis by an incorporated city or town, a political subdivision or the state or any of its departments, commissions, agencies, bodies or boards for remuneration.

3. "Make known" means the filing of a paper which is signed by a public officer or employee and which fully discloses a substantial interest or the filing of a copy of the official minutes of a public agency which fully discloses a substantial interest. The filing shall be in the special file established pursuant to section 38-509.

4. "Official records" means the minutes or papers, records and documents maintained by a public agency for the specific purpose of receiving disclosures of substantial interests required to be made known by this article.

5. "Political subdivision" means all political subdivisions of the state and county, including all school districts.

6. "Public agency" means:

   (a) All courts.

   (b) Any department, agency, board, commission, institution, instrumentality or legislative or administrative body of the state, a county, an incorporated town or city and any other political

subdivision.

(c) The state, county and incorporated cities or towns and any other political subdivisions.

7. "Public competitive bidding" means the method of purchasing prescribed by title 41, chapter 23, or procedures substantially equivalent to such method of purchasing, or as provided by local charter or ordinance.

8. "Public officer" means all elected and appointed officers of a public agency established by charter, ordinance, resolution, state constitution or statute.

9. "Relative" means the spouse, child, child's child, parent, grandparent, brother or sister of the whole or half blood and their spouses and the parent, brother, sister or child of a spouse.

10. "Remote interest" means:

(a) That of a nonsalaried officer of a nonprofit corporation.

(b) That of a landlord or tenant of the contracting party.

(c) That of an attorney of a contracting party.

(d) That of a member of a nonprofit cooperative marketing association.

(e) The ownership of less than three percent of the shares of a corporation for profit, provided the total annual income from dividends, including the value of stock dividends, from the corporation does not exceed five percent of the total annual income of such officer or employee and any other payments made to him by the corporation do not exceed five percent of his total annual income.

(f) That of a public officer or employee in being reimbursed for his actual and necessary expenses incurred in the performance of official duty.

(g) That of a recipient of public services generally provided by the incorporated city or town, political subdivision or state department, commission, agency, body or board of which he is a public officer or employee, on the same terms and conditions as if he were not an officer or employee.

(h) That of a public school board member when the relative involved is not a dependent, as defined in section 43-1001, or a spouse.

(i) That of a public officer or employee, or that of a relative of a public officer or employee, unless the contract or decision involved would confer a direct economic benefit or detriment on the officer, the employee or his relative, of any of the following:

(i) Another political subdivision.

(ii) A public agency of another political subdivision.

(iii) A public agency except if it is the same governmental entity.

(j) That of a member of a trade, business, occupation, profession or class of persons consisting of at least ten members which is no greater than the interest of the other members of that trade, business, occupation, profession or class of persons.

(k) That of a relative who is an employee of any business entity or governmental entity that employs at least twenty-five employees within this state and who, in the capacity as an employee, does not assert control or decision-making authority over the entity's management or budget decisions.

(l) The ownership of any publicly traded investments that are held in an account or fund, including a mutual fund, that is managed by one or more qualified investment professionals who are not employed or controlled by the officer or employee and that the officer or employee owns shares or interest together with other investors.

11. "Substantial interest" means any nonspeculative pecuniary or proprietary interest, either direct or indirect, other than a remote interest.

§ 38-503. Conflict of interest; exemptions; employment prohibition

A. Any public officer or employee of a public agency who has, or whose relative has, a substantial interest in any contract, sale, purchase or service to such public agency shall make known that interest in the official records of such public agency and shall refrain from voting upon or otherwise participating in any manner as an officer or employee in such contract, sale or purchase.

B. Any public officer or employee who has, or whose relative has, a substantial interest in any decision of a public agency shall make known such interest in the official records of such public agency and shall refrain from participating in any manner as an officer or employee in such decision.

C. Notwithstanding the provisions of subsections A and B of this section, no public officer or employee of a public agency shall supply to such public agency any equipment, material, supplies or services, unless pursuant to an award or contract let after public competitive bidding, except that:

1. A school district governing board may purchase, as provided in sections 15-213 and 15-323, supplies, materials and equipment from a school board member.

2. Political subdivisions other than school districts may purchase through their governing bodies, without using public competitive bidding procedures, supplies, materials and equipment not exceeding three hundred dollars in cost in any single transaction, not to exceed a total of one thousand dollars annually, from a member of the governing body if the policy for such purchases is approved annually.

D. Notwithstanding subsections A and B of this section and as provided in sections 15-421 and 15-1441, the governing board of a school district or a community college district may not employ a person who is a member of the governing board or who is the spouse of a member of the governing board.

§ 38-504. Prohibited acts

A. A public officer or employee shall not represent another person for compensation before a public

agency by which the officer or employee is or was employed within the preceding twelve months or on which the officer or employee serves or served within the preceding twelve months concerning any matter with which the officer or employee was directly concerned and in which the officer or employee personally participated during the officer's or employee's employment or service by a substantial and material exercise of administrative discretion.

B. During the period of a public officer's or employee's employment or service and for two years thereafter, a public officer or employee shall not disclose or use for the officer's or employee's personal profit, without appropriate authorization, any information acquired by the officer or employee in the course of the officer's or employee's official duties which has been clearly designated to the officer or employee as confidential when such confidential designation is warranted because of the status of the proceedings or the circumstances under which the information was received and preserving its confidentiality is necessary for the proper conduct of government business. A public officer or employee shall not disclose or use, without appropriate authorization, any information that is acquired by the officer or employee in the course of the officer's or employee's official duties and that is declared confidential by law.

C. A public officer or employee shall not use or attempt to use the officer's or employee's official position to secure any valuable thing or valuable benefit for the officer or employee that would not ordinarily accrue to the officer or employee in the performance of the officer's or employee's official duties if the thing or benefit is of such character as to manifest a substantial and improper influence on the officer or employee with respect to the officer's or employee's duties.

§ 38-505. Additional income prohibited for services

A. No public officer or employee may receive or agree to receive directly or indirectly compensation other than as provided by law for any service rendered or to be rendered by him personally in any case, proceeding, application, or other matter which is pending before the public agency of which he is a public officer or employee.

B. This section shall not be construed to prohibit the performance of ministerial functions including, but not limited to, the filing, or amendment of tax returns, applications for permits and licenses, incorporation papers, and other documents.

§ 38-506. Remedies

A. In addition to any other remedies provided by law, any contract entered into by a public agency in violation of this article is voidable at the instance of the public agency.

B. Any person affected by a decision of a public agency may commence a civil suit in the superior court for the purpose of enforcing the civil provisions of this article. The court may order such equitable relief as it deems appropriate in the circumstances including the remedies provided in this section.

C. The court may in its discretion order payment of costs, including reasonable attorney's fees, to the prevailing party in an action brought under subsection B.

§ 38-507. Opinions of the attorney general, county attorneys, city or town attorneys and house and senate ethics committee

Requests for opinions from either the attorney general, a county attorney, a city or town attorney, the senate ethics committee or the house of representatives ethics committee concerning violations of this article shall be confidential, but the final opinions shall be a matter of public record. The county attorneys shall file opinions with the county recorder, the city or town attorneys shall file opinions with the city or town clerk, the senate ethics committee shall file opinions with the senate secretary and the house of representatives ethics committee shall file opinions with the chief clerk of the house of representatives.

§ 38-508. Authority of public officers and employees to act

A. If the provisions of section 38-503 prevent an appointed public officer or a public employee from acting as required by law in his official capacity, such public officer or employee shall notify his superior authority of the conflicting interest. The superior authority may empower another to act or such authority may act in the capacity of the public officer or employee on the conflicting matter.

B. If the provisions of section 38-503 prevent a public agency from acting as required by law in its official capacity, such action shall not be prevented if members of the agency who have apparent conflicts make known their substantial interests in the official records of their public agency.

§ 38-509. Filing of disclosures

Every political subdivision and public agency subject to this article shall maintain for public inspection in a special file all documents necessary to memorialize all disclosures of substantial interest made known pursuant to this article.

§ 38-510. Penalties

C. A person who:

1. Intentionally or knowingly violates any provision of sections 38-503 through 38-505 is guilty of a class 6 felony.

2. Recklessly or negligently violates any provision of sections 38-503 through 38-505 is guilty of a class 1 misdemeanor.

D. A person found guilty of an offense described in subsection A of this section shall forfeit his public office or employment if any.

E. It is no defense to a prosecution for a violation of sections 38-503 through 38-505 that the public officer or employee to whom a benefit is offered, conferred or agreed to be conferred was not qualified or authorized to act in the desired way.

F. It is a defense to a prosecution for a violation of sections 38-503 through 38-505 that the interest charged to be substantial was a remote interest.



CITY OF FLAGSTAFF

Board and Commission Members'

Rules and Operations Manual

City Clerk's Office
(928) 213-2077

07/02/2019
Adopted by Resolution No. 2019-XX

Message

Good government is not just the responsibility of city officials and employees, residents also play an important role. Through its boards, commissions, and committees, the city offers numerous opportunities for residents to get involved. Board and commission members provide input to the City Council, City Manager, and Departments on a variety of issues affecting the city. As a board, commission, or committee member, you are an important part of the city process, and the city appreciates your devotion, energy, time, and expertise spent in making Flagstaff a better place for everyone.

This manual is designed to provide you with an easily accessible reference to various issues and questions related to serving on a board or commission. The guide is divided into six parts: 1) Providing information on city government; 2) Understanding the board and commission process; 3) Explaining the roles and responsibilities of members and staff; (4) Guidance on recommendations and public statements; (5) Explaining the Board and Commission process; and (6) Providing information on the laws and regulations associated with boards and commissions. I hope this manual will help to answer any questions you may have about boards, commissions, committees, and their subcommittees.

The City Clerk's Office has been designated by the City Manager to coordinate the city's boards and commissions. The City Clerk is responsible for serving as the central contact for staff liaisons and as the secondary contact for board, commission, and committee members.

Training and resource guides for both staff liaisons and board members are expected to lead to greater effectiveness and more consistency among our city's boards, commissions, and committees.

There are several items to note about this resource guide:

- The term "commission" refers to all boards, commission, or committees which have been established by the City Council.
- There are several "additional resources" mentioned throughout the guide, copies of these policies are included as appendices to this manual. This information is also available on the city's website at https://www.flagstaff.az.gov/994/Boards-Commissions
- "A.R.S." stands for Arizona Revised Statutes, which is a collection of all state laws.

Please keep in mind that this manual will be revised as needed. Your feedback will be important in improving the resource. Please contact the City Clerk's Office to let us know what works well, what needs improvement, or if you need additional information.

Thank you.

Stacy Saltzburg, MMC
City Clerk

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PART ONE – City Government

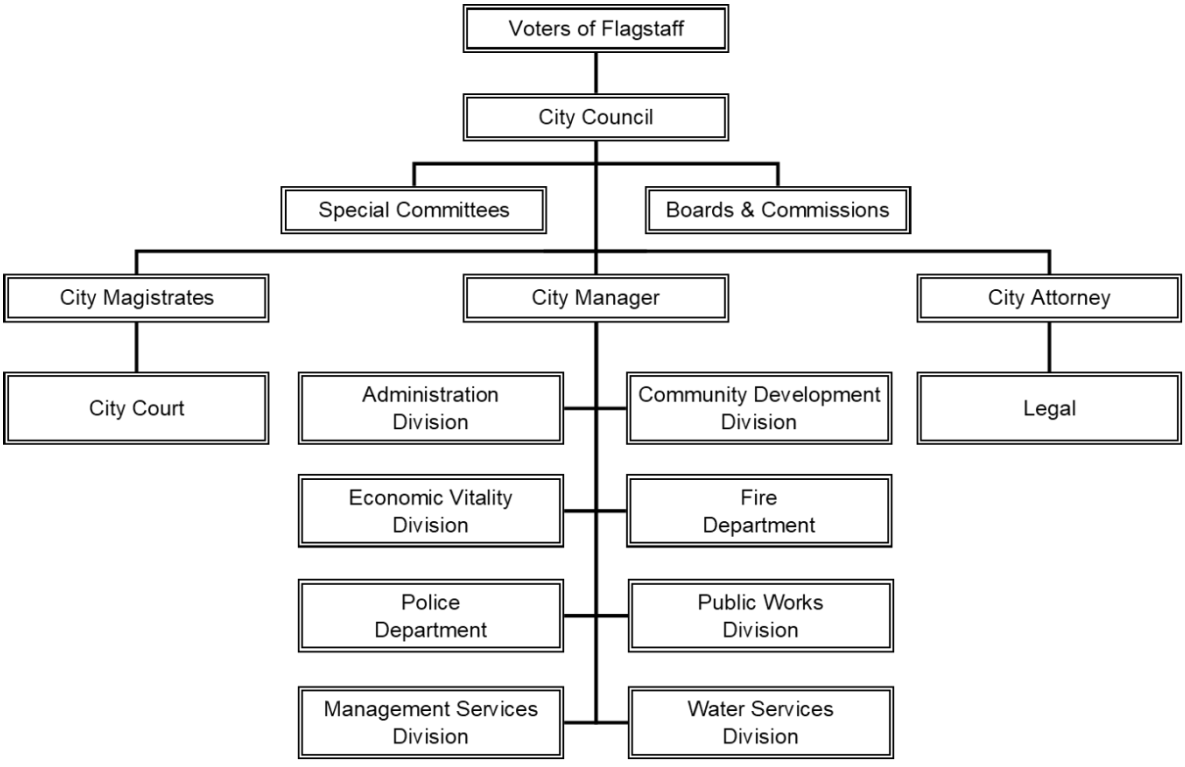
Flagstaff City Government

How the City of Flagstaff Operates

The Flagstaff City Charter was adopted by the voters in 1958 and is the basic governing authority of the City. The City Charter establishes a Council-Manager form of government. The City Council provides leadership and sets policy for the City, which means making decisions about what is and is not allowed in Flagstaff, what services need to be provided to residents and how to solve problems and concerns. The City Manager is hired by the City Council to manage the day-to-day operations of the City and to advise them about these operations as they set policy. With the assistance of the Department and Division Directors, the City Manager directs City divisions and functions. Overseeing more than 900 employees, the City Manager is responsible for the efficient, ongoing operation of all City services as set forth by the City Council.

City Council

The Flagstaff City Council is comprised of a mayor and six councilmembers elected at-large by the people on a nonpartisan ballot. The Mayor is elected every two years and acts as chairperson of the City Council presiding over Council meetings. Councilmembers hold staggered, four-year terms, with three seats decided every two years. Shortly after every City General Election, the City Council chooses a Vice-Mayor to serve in the absence of the Mayor. The Mayor and Councilmembers have equal voting power.



City Manager
The City Manager is the City's administrative head and is appointed by the City Council. The City Charter grants the City Manager a non-voting seat on the City Council. This allows the City Manager to take part in City Council discussions. The City Manager implements City Council policies and directives and makes recommendations to the City Council on measures necessary for the efficient and effective operation of municipal services. It is the City Manager's responsibility to direct the preparation of the City's annual budget and submit it to the City Council for approval. In addition, the City Manager oversees the day-to-day operation of the city and directs the activities of city employees.

City Attorney
The City Council also appoints the City Attorney. The City Attorney's Office represents the city's legal interests and rights, providing legal advice and prosecuting criminal complaints. Among other things, the City Attorney's Office drafts and reviews the city's legal documents and issues legal opinions.

City Clerk
The City Clerk is appointed by the City Manager. The City Clerk conducts City elections, ensures compliance with the Open Meeting Law, and maintains the official records of the City. The City Clerk's Office administers the Board and Commission Program and conducts commission member training.

City Divisions
The primary City Divisions are: Administration, Community Development, Economic Vitality, Fire, Management Services, Police, Public Works, Water Service, the City Attorney's Office, and Municipal Court. You will find that your board or commission works very closely with at least one City Division, if not more.

City Council Meetings

Overview of City Council Meetings
Unless posted differently, all City Council meetings are held in the Council Chambers at Flagstaff City Hall, which is located at 211 W. Aspen Avenue. The public is invited to attend these meetings and to participate. There are several types of meetings which are discussed in more detail further in this guide. Agendas can be obtained online at https://www.flagstaff.az.gov/991/Agendas-Minutes

Regular Meetings
Regular meetings of the City Council are held on the first and third Tuesdays of the month at 4:30 p.m. and 6:00 p.m. At these meetings the City Council takes official action, including enacting or rejecting ordinances, resolutions, and formal actions such as contract awards, property zoning and equipment or property purchases, among other things. The 4:30 p.m. portion of the meeting will include routine, non-controversial matters such as the approval of minutes, appointments, liquor license hearings, and consideration of routine contracts.

At the beginning of the regular Council meeting, under "Public Participation", the public may speak out on issues or concerns that are not listed on the regular meeting agenda. Due to the Open Meeting Law (which is discussed in PART FOUR), Councilmembers may not discuss the issues raised, but may ask staff to follow up or place the issue on a future agenda.

Work Sessions

Work Sessions are held on the second and fourth Tuesdays of the month at 6:00 p.m. Work sessions are public meetings held for the following purposes: (1) briefing Councilmembers on items included on the City Council's regular meeting agenda; (2) discussion of long range plans and programs for which no immediate action is required; (3) detailed discussion of matters which may soon be placed on a regular meeting agenda; and (4) exchange of information between the staff and City Council. No formal vote shall be taken on any matter under discussion.

All City Council meetings are live streamed to the city webpage:
https://www.flagstaff.az.gov/1461/Streaming-City-Council-Meetings

Part Two – The Board and Commission Process

Background Information

The Importance of the City's Boards, Commissions and Committees

Good government is not just the responsibility of city officials and employees, residents also play an important role. Through its boards and commissions, the City offers numerous opportunities for residents to get involved. Commission members provide input to the City Council, City Manager and Departments on a variety of issues affecting the city.

Close to 150 volunteers serve on 24 different boards, commissions, and committees, some of which make direct recommendations to the City Council. Members examine a variety of issues from art projects to rezone requests. You are an important part of the City process, and the City appreciates your devotion, energy, time, and expertise spent in making Flagstaff a better place for everyone.

Creation

How Boards, Commissions and Committees are Formed

The City relies on its citizens to voice their opinions and to provide their expertise to better our government. Commissions provide excellent formats for this expression. As our city grows and develops, these opportunities are expected to increase for our citizenry.

The Flagstaff City Charter, Article 5, Section 1, authorizes the City Council to create commissions and to grant to them duties and powers consistent with the City Charter. Commission members are appointed by and serve solely at the discretion of the City Council. When established, commissions are given specific guidelines surrounding its purpose and authority. The purpose and authority of a commission can be found in its establishing legislation (ordinance or resolution).

Currently, the City has 24 active boards and commissions. APPENDIX A describes each board and commission and references their enabling legislation.

Types of Boards and Commissions

All boards, commissions, and committees of the city are classified as advisory, *ad hoc*, quasi-judicial, or decision-making.

Advisory

Most commissions fall into this category. Advisory commissions have the primary responsibility of advising and making recommendations to the City Council. It is the City Council's role to absorb the advice and recommendations offered by numerous sources and then make a decision. Because the recommendations of commissions are advisory, the City Council may not always follow the recommendations offered. An example of an advisory commission is the Parks and Recreation Commission, which was formed to make recommendations to the City Council regarding City parks and recreation programs, the annual budget, and capital improvements for the Parks and Recreation Divisions.

Ad hoc

Ad hoc committees are typically advisory in nature and are created to study, review, and make recommendations regarding specific issues designated by City Council. The major difference between *ad hoc* committees and other advisory bodies is that *ad hoc* committees are established only for a limited, clearly-defined period of time. At the end of the designated time, they are automatically allowed to sunset (or end), unless the term is extended by the City Council. An example of an *ad hoc* committee was the Citizen's Transportation Tax Commission, which was created in August 2017 and disbanded in June 2018. The goal of the committee was to provide input and recommendations regarding the city's future transportation needs.

Decision-making

A decision-making board is a public body that possesses the power to select a course of action from multiple alternatives without having to seek the approval of a higher body, such as the City Council. Examples of decision-making boards are the Planning and Zoning Commission, the Board of Adjustment, and the Building and Fire Code Board of Appeals.

Quasi-Judicial

The Open Meeting Law defines a quasi-judicial body as "a public body, other than a court of law, possessing the power to hold hearings on disputed matters between a private person and a public agency and to make decisions in the general manner of a court regarding such disputed claims." Contested proceedings or quasi-judicial or adjudicatory proceedings conducted by public bodies are subject to all the requirements of the Open Meeting Law, as well as several additional due process requirements. These due process requirements include: no ex-parte communication (outside communication with the involved parties) and an opportunity for the person to present their case through witnesses, cross-examination and argument. Robert's Rules are difficult to apply to quasi-judicial hearings and separate rules for such hearings may be necessary. The following boards are considered quasi-judicial:

- Board of Adjustment
- Building and Fire Code Board of Appeals

Subcommittees

A commission may appoint subcommittees and charge these bodies with their powers, duties, and responsibilities. Normally, a subcommittee is charged with a specific duty or role. The commission may refer matters to the subcommittees for the purpose of providing analysis and making recommendations to the commission. An example of a sub-committee is the Bicycle Advisory Committee which has been established by the Transportation Commission to investigate, consider, and make recommendations to the Transportation Commission on items assigned to them by the Commission regarding their respective areas of interest.

The commission appoints and removes the members and chair for each subcommittee. Subcommittees should have a consistent body of members. The number of members should be set by the commission, and a quorum would be half plus one of the total members of the subcommittee. It is recommended that at least one member of the commission serve on the subcommittee (this member possibly could chair the subcommittee). Commissions often use subcommittees as a way to involve individuals who want to serve on the commission but cannot due to a lack of vacancies. The City strives to have a diverse makeup of its commissions. Likewise, commissions should look for diversity when filling their subcommittee rosters.

All subcommittee members should officially declare participation in the subcommittee when it is

formed or when it is time to make new appointments. In other words, you cannot have commission members participating as they wish. Finally, there cannot be a quorum of regular members on a subcommittee. Otherwise, the public could claim that the subcommittee is doing the work of the full commission. Additionally, there may be an Open Meeting Law (which is discussed in more detail in its own Section) violation as well if the subcommittee (acting as the full commission) exceeds its authority or goes beyond the posted agenda topics.

Informal Working Groups

Informal working groups may be created to research, gather information, and provide recommendations back to the commission on various matters. **No official appointments are made to a working group by the commission.** Working groups may consist of members of the public and/or less than a quorum of commission members. Unlike subcommittees, working groups are not required to have formal agendas or minutes.

All information and recommendations from the work group must be provided and presented to the commission in an open meeting for public discussion. Informal working groups do not have any powers, duties, or responsibilities of the parent commission. No actions, statements, or recommendations can be made or provided by the working group on behalf of the commission.

Appointment Process

First Step – Apply

With a few exceptions, commission membership appointments are made by the City Council. To apply to an open commission, individuals fill out an application (available online at https://www.flagstaff.az.gov/994/Boards-Commissions). By default, applications go to the City Clerk's Office and are entered into a database. Typically, appointments are brought forward for consideration when there is at least one more application than available seats.

With a few exceptions, it is the City Council's policy that you may serve on only one commission at any given time, unless you serve as a liaison to another commission. You may apply to serve on a different commission during the last six months of your term if you do not intend to apply for reappointment to your current commission. If the City Council appoints you to a new commission, overlapping service is permitted to finish the current term and begin the new term.

Under most circumstances, you are eligible to serve two full terms and a partial term if you are filling the remaining term of a vacancy. If you would like to be considered for reappointment and you are eligible to serve a second term, you must submit an application to the City Clerk's Office in accordance with applicable deadlines. Commission members seeking a second term are considered along with all other applicants for the vacant seat on the commission. **There is no preference given to current commission members and it is possible that you may not be selected for reappointment.**

Second Step – Review

To give each councilmember the opportunity to appoint members of their choosing, a randomly rotating list of councilmembers has been developed for each commission to assign councilmembers when vacancies arise. Using the list for the appropriate commission, one councilmember is assigned to a single vacancy or appointment. If there is more than one appointment for that particular commission the next councilmember on the list will be assigned to the next appointment and so on. The assigned councilmember(s) will review the submitted applications for consideration of appointment.

Third Step – Appointment
The assigned councilmember(s) will make a motion to appoint their selected individual for the City Council to vote upon for possible approval. Should the motion not pass, the assigned councilmember may select another applicant for possible approval. This process may continue until an applicant is successfully approved. If the assigned councilmember chooses not to make another motion, the next councilmember on the rotating list may make a motion to appoint. In the event that the list of applicants is exhausted, the appointment will be postponed until additional applications are received.

Fourth Step – After Appointments are Made
The appointee will receive a new member packet in the mail that includes basic information about serving on a commission along with a certificate of appointment, a current commission roster, information about parking, new commissioner training, Open Meeting Law, and a copy of the Board and Commission Member Manual.

Oaths of Office and Training Affirmations

What is the Oath of Office?
The Oath of Office is a written affirmation in which you promise to faithfully and impartially discharge the duties of your commission. The Training and Open Meeting Law affirmations are an acknowledgement that you have reviewed the Open Meeting Law and watched the online training video. The Oath of Office and affirmations are included in the new member packet that is sent to you following appointment.

Why Do Board and Commission Members Need to Sign These Forms?
Commission members are required by State law (A.R.S. Title 38, Chapter 2, Article 4) to sign Oaths of Office. State law requires that you sign and file (with the Office of the City Clerk) the Oath prior to participating in a meeting or otherwise exercising the powers of the office you were appointed to hold. Oaths of Office must be signed upon appointment for each commission you serve on.

Orientation
You are required to participate in at least one session of the City's commission training within your first three months in office. Because this training occurs only once or twice a year, the City Clerk's Office has made the training available online at http://www.flagstaff.az.gov/index.aspx?nid=994 under “Member Training.” You can view the training upon appointment rather than waiting until the next in-person training. Signing the affirmations indicates that you have viewed the training and reviewed the Open Meeting Law information and are prepared to perform your duties as a commission member.

PART THREE – ROLES AND RESPONSIBILITIES

Scope of Authority

The strength of commissions lies in their ability to provide detailed review of specific issues and to increase public input and citizen participation in the determination of city policies and procedures. This process provides an opportunity for further public discussion and gives the City Council a broader base of information on which to formulate decisions.

Commissions are established by the City Council and they are given specific guidelines surrounding its purpose and authority. With few exceptions, commissions are advisory to the City Council. The purpose and authority along with duties and responsibilities of each commission are described in its enabling legislation, which could be an ordinance, resolution, or formal action of the City Council. Upon the request of the City Council, a commission shall advise the City Council on a matter. A commission may also submit to the City Council recommendations on matters that fall only within their purpose and authority as established by the City Council.

Only the City Council or a person acting pursuant to the direction of the City Council, may issue a communication (verbal or written) which represents an official position of the city. This includes, but is not limited to, statements of support or opposition to an issue, resolutions on any matter, directives or requests of any kind to external agencies or entities, or anything that remotely purports to be of official city import.

Commissions shall not take independent action to represent a position or opinion, whether or not related to its responsibility pursuant to city ordinance, except by submitting an advisory recommendation to the City Council. In addition, commissions may not make recommendations for elective candidates or take a position on an election issue. Furthermore, you may not use your official title or make any statement as a representative or member of your commission unless authorized to do so by a formal action of your commission.

Board and Commission Members

The opportunity for residents to participate in the decision-making process is crucial to an open and responsive government. The primary role of most commissions is to advise and make recommendations to the City Council.

Except for certain specifically identified exceptions, which are discussed in a later section, all matters to be considered and actions to be taken by a commission must be done in an open meeting. Staff liaisons will provide you with an agenda in advance of the meeting date. Agendas will often include a packet of information related to agenda items. It is vital to review this information before the meeting. Analyzing this information ahead of time allows you to make an informed evaluation of the item, participate actively in the discussion, and aids in preparing questions that you may have for the presenter.

Term of Office

Your term of office can be found on the commission roster. Generally, the terms of each member are staggered to ensure continuity on the commission, with a third of the member terms expiring each year. Most appointments to Flagstaff's commissions are for three-year terms, unless an

appointment is made for the balance of a member's term due to resignation, disqualification, or removal from office.

Important to note: You serve as an active commission member until reappointed, removed, or replaced, even if your term has expired. **In other words, if your membership term has expired, please consider yourself an active member and continue to serve on your commission until notified of your replacement.**

Residency

The City Charter requires all commission members to be residents of the City of Flagstaff at the time of your appointment and for the full duration of your term in office. This means that your primary physical residence must be located within city limits and that you reside at that location. If you move out of the city limits during your term of office, you are no longer eligible to serve on the commission and must resign. The only exception to this rule is the joint City/County Library Board where the Coconino County Board of Supervisors appoints two individuals who are county residents but who may or may not be residents of the city.

Attendance

You are expected to attend all regularly scheduled meetings. If you know you will not be able to attend a meeting, please let your staff liaison know as soon as possible. The sooner the liaison knows that a quorum will not be present, the sooner the meeting can be cancelled and rescheduled.

Having all members in attendance at a meeting, rather than a minimum quorum, is always preferable. You are appointed because of your experience, background, and/or perspective in a particular policy area, and those factors are vital to the commission making a well-reasoned and informed decision. Having more members in attendance generates a healthy discussion because of the diversity of thoughts and opinions among the members.

Although a meeting can be held if a quorum is present, there is a greater possibility of a meeting being cancelled at the last minute because of lack of attendance, members declaring a conflict of interest, or members having to leave early. This can delay the commission’s work, is disappointing to the members and staff who did attend, and sends a negative message to any members of the public who may have wished to speak and believe their time was wasted.

As a general rule, a commission may recommend to the City Council the dismissal of any member who is absent for more than two consecutive regular meetings without prior notification. This same rule applies if a member is absent for more than thirty percent (30%) of all meetings during a twelve-month period.

Code of Conduct

Your conduct as a commission member is very important. It can strengthen or undermine the credibility of your commission and the decisions or recommendations that it makes. Your statements and actions assume special significance and, if not responsibly discharged, could be detrimental to the city's best interests. In addition, improprieties of a commission member can have a legal impact on the city. As an official member of the City of Flagstaff team, City policies apply to you.

You may not use your official title or make any statement as a representative or member of a commission to influence an election, further a personal position, or for personal benefit. Under

City policy, you are not allowed to make statements as a representative of a commission unless authorized to do so by a formal action of your commission.

A process has been established for commission recommendations and decisions to be presented to the City Council. You should not meet jointly or separately with members of the City Council on matters of commission business. However, this provision is not meant to deprive you, as a citizen, of the right to meet with any member of the City Council on any other matter. Private meetings with City Councilmembers can be interpreted as attempting to influence the outcome of a vote of the City Council prior to a matter coming before them at an open meeting. Discussing commission business outside a public meeting with City Councilmembers could lead City Councilmembers into violations of the Open Meeting Law if the item is forthcoming on a City Council meeting agenda, particularly if you convey information from one Councilmember to another.

Along the way, you may find yourself facing ethical dilemmas. Matters of ethics are often difficult to detect. It is important to preserve the public perception of the ethics and values of the City. Gift giving is one of the most common ethical situations that can come into play with public officials. If you are presented with a gift, it may be helpful to ask the following questions to determine whether or not you should accept the gift:

1. Is the giver associated with an individual or organization involved with a past, present, or future matter that has been considered or will be considered by the commission?
2. Does the giver expect something in return?
3. Is the gift of more than nominal value?
4. Would someone question your integrity and values if they knew about the gift?

If the answer is “yes” to any of these questions, the gift should not be accepted regardless of whether or not it is innocent in intent.

Removal from Public Office

You serve at the discretion of the City Council and, like any other City Council-appointed position, may be removed from office by an official vote of the City Council. The following are examples of activities that can precipitate admonishment or removal from office:

- Violation of the Open Meeting Law.
- Refusal to sign the official Oath of Office.
- More than two consecutive unexcused absences from regularly scheduled meetings.
- A 30% absenteeism rate or more from regularly scheduled meetings.
- Persistent or willful violation of the Conflict of Interest Law.
- Conduct jeopardizing the City’s and community’s best interests.
- Rude, abusive, slanderous, and/or disrespectful behavior directed at the public, staff, or members of the City Council.
- Failure or refusal to participate in commission member training within a year of appointment or when directed by the City Council, City Manager, or City Attorney.
- Violation of City policies.
- Unethical behavior.
- Using your status as a City official (commission member) for personal purposes, to influence the outcome of an election or other unsanctioned activities not related to official commission business.
- Willful non-compliance with the provisions of this guide.
- Fraud, collusion or coercion.
- Inefficiency, neglect of duty or malfeasance in office.

Staff Liaisons

The role of your staff liaison is to facilitate and enhance the commission's operation and effectiveness. Your liaison is responsible for providing technical expertise and research assistance, ensuring that the commission complies with the Open Meeting Law, answering questions related to the city policies and procedures, and coordinating the involvement of other departments or commissions as needed.

The staff liaison role is critical to the commission process; the liaison is the link between the commission and the City Council. The liaison is a neutral third-party who advises your commission and ensures that discussions are focused on the properly-posted agenda items. If you ever have any questions or concerns, feel free to contact your staff liaison or the City Clerk's Office.

In addition to the primary role of serving as the contact and advisor to the commission, the staff liaison has a variety of other duties, including advising the commission, preparing the agenda, reserving and setting up the meeting room, taking minutes (or ensuring minutes are taken), and keeping track of attendance, among other things. A commission may request staff's assistance on various projects; however, their Division Director must approve all requests which create a substantial demand for a work product.

Staff liaisons are responsible for reporting commission recommendations and concerns to their Division Director for proper follow up with the City Manager and/or City Council.

City Council

A Council Representative may be assigned to your commission. The role of the Council Representative will be to gather information from their assigned commission regarding their current work program, projects, and other activities and share that information with the City Council. The Council Representative may also convey information from the City Council to the commission or provide feedback on City Council decisions or direction that may be relevant to the commission's duties and work. The Council Representative may attend meetings in person, stream meetings on the City website, review agendas and minutes, and/or reach out to meet with the chairperson and staff liaison. Information that is collected will be shared with the rest of the City Council during the Council Liaison Reports portion of the Council Meetings.

The City Council will hold quarterly Work Session meetings to hear and discuss updates from commissions on their work over the past year. This is another opportunity for the Commission to share information and recommendations with the Council.

City Clerk

The City Clerk helps oversee the City's commissions by serving as the central contact for staff liaisons and as a secondary contact for commission members on all public body related issues. The City Clerk also conducts training for staff liaisons and commission members on the overall commission process, Open Meeting Law requirements, and Conflict of Interest Law. The City Clerk retains all commission agendas and minutes permanently and tracks meeting agendas and minutes for proper online archiving.

The City Clerk also maintains membership rosters for all the City's official commissions. If your contact information changes, be sure to notify your staff liaison as quickly as possible.

PART FOUR – RECOMMENDATIONS & OFFICIAL STATEMENTS

Recommendations to City Council

Except as specified by state law or city ordinance, commission recommendations must be presented to the City Manager through your staff liaison. Your commission should prepare a detailed report that includes information on how and why they decided to present the recommendation. The City Manager will determine how that recommendation gets delivered to the City Council whether through a formal City Council meeting presentation or a more informal manner. If it is to be presented at a City Council meeting, the staff liaison will prepare a staff summary report that includes information regarding the recommendation and present the recommendation to the City Council. In addition to providing a formal recommendation to the City Manager, if a Council Representative is assigned to your commission, they are able to provide information about the recommendation during their report at a Council Meeting.

Commission recommendations are important to the City Council and they are taken under consideration for possible action. The City Council has several options and may:

- Accept the recommendation and give further direction.
- Change the provisions of a recommendation before giving further direction.
- Send a matter back for further consideration.
- Not accept the recommendation.

Statements Made to Other Public or Private Bodies

Official versus Personal Capacity

It is important to differentiate between your official and personal capacities. As a commission member, you have certain official capacities, which may include hearing presentations, obtaining public input, and making recommendations to a higher body. If you have not been charged with providing input to a higher body, you should not do so.

You cannot attend another commission meeting and provide input in an official capacity unless you have specifically been given that responsibility by your commission. However, you can attend other commission meetings in your personal capacity as a resident. Please keep in mind when attending another public or private body meeting in your personal capacity that it is best to clarify that you do not speak on behalf of your commission (unless you have been authorized to do so), rather that you are speaking in your personal capacity as a resident. This disclosure is even more important when your personal position conflicts with a position or decision of your commission.

Should you ever have any questions about your official or personal capacities, please contact your staff liaison or the City Clerk's Office.

Media Requests

At some point in your commission tenure, you may be contacted by the media to give your thoughts on a recent decision made by your commission or by the City Council. It is essential to follow the advice given in the previous section. It is best if you contact your staff liaison before speaking with the media.

Commissions and their members shall not take independent action to make a statement on behalf of, or as a representative of, the commission unless authorized to do so by a formal action. You may speak as an individual, but it is important that you stress to the reporter that you are speaking on your own behalf, not on behalf of the commission.

Most importantly, only the City Council or a person acting pursuant to the direction of the City Council, may issue a communication (verbal or written) which represents an official position of the city. This includes, but is not limited to, statements of support or opposition to an issue; resolutions on any matter; directives or requests of any kind to external agencies or entities; or anything that remotely purports to be of official city import.

Part Five – Board and Commission Meetings

Board and Commission Member Parking

You are permitted to park free of charge through Park Flag in one of the seven designated spaces on the west side of the Wheeler Park parking lot. The City Clerk's Office will notify Park Flag of your appointment and Park Flag will contact you directly with instructions on how to obtain the appropriate permit. If you do not hear from Park Flag prior to your first meeting, please contact your staff liaison or the City Clerk's Office.

***If you have outstanding parking violations you will not be issued a permit until the matter is resolved.**

Quorum

What is a Quorum?

A quorum is the number of members of the public body required to be in attendance at meetings in order for the meeting to be held. A quorum consists of a majority of the members of a commission. (Ariz. Rev. Stat. § 1-216(B)) The City of Flagstaff defines majority as one more than half of the full voting membership of a commission, regardless of vacancies. For most commissions this is four members. For example, if there are seven authorized members of your commission, then you would need to have four members present to have a quorum.

What happens if there is no Quorum?

If there is no quorum, the meeting must be cancelled and discussions or deliberations cannot occur per Arizona's Open Meeting Law (discussed in the next section). If you know in advance that you cannot attend a meeting you should inform your staff liaison as soon as possible. This will give the staff liaison the opportunity to cancel or reschedule the meeting. However, if members and staff arrive at a meeting and discover that a quorum is not present, it is vital for commission members to refrain from speaking or discussing commission business to avoid violating Arizona's Open Meeting Law.

If a meeting is started with a quorum and the quorum is lost because a member leaves the meeting, declares a conflict of interest (see the Conflict of Interest Section) or is lost for some other reason, items cannot be discussed or acted on until the quorum is regained. If it is not possible to regain the quorum, the meeting should end with any remaining items considered at the next meeting.

Meeting Agenda Process

Types of Agendas

The meeting agenda is normally set by the commission chair, with input from members and the staff liaison. Agenda items can be placed on agendas in a variety of ways:

- In response to direction from the City Council or City Manager.
- As requested by any commission member at a public meeting.
- In response to a request from the chairperson.

- As deemed necessary by the staff liaison.
- As requested by other commissions.

The agenda should be specific enough to allow members of the public to have a general idea of what will be discussed and may be voted on (if the item is set for action). The public is entitled to know what could potentially take place.

A commission agenda may include a "Call to the Public" to designate a part of the meeting for the public to address the commission on items that are not on the agenda. Neither discussion nor action may occur on items raised during public participation because they are not on the agenda. See Public Comment Section for additional information.

In addition to regular meeting agendas, there are also notices for events, retreats/workshops, and tours. At these types of events, a quorum of the commission may be present. While these events are not meetings and commission business will not be discussed, it is helpful to notify the public that they may see commission members together, but no commission business will be discussed or acted upon If you are aware of a social gathering in which a quorum of the commission may be in attendance, if possible, notify your staff liaison so they can post a Notice of Possible Quorum.

Discussion and Voting

Who Runs the Meeting?

The chair is the presiding officer in all commission proceedings. During the absence of the chair, the vice-chair acts as chair. If neither the chair nor vice-chair can attend the meeting there is no formal order of who would take over and the members in attendance can choose a presiding officer for the meeting.

Chairs and vice-chairs normally serve for a predetermined period of time (for example, one or two years). Commissions elect their own chair and vice-chair by having a member make a motion to select another member as chair. If seconded by another member, the nomination is voted on by the commission. This process can be repeated for the vice-chair position. When it comes time to elect the leadership, the nomination process must be an agenda item.

Decorum

Members may speak after recognition by the chair and the chair shall not unreasonably withhold such recognition. However, the chair may not recognize similar repetitive discussions or motions which would delay the meeting.

When two or more members wish to speak, the chair shall determine the order of speaking and recognize the first speaker.

While a member is speaking, no other member shall interrupt except to make a point of order or a point of personal privilege. A point of order is made when a member notes an infraction of the rules or improper decorum in speaking. The point of order must be raised immediately after the error is made. A point of personal privilege pertains to noise, personal comfort, or related items.

The general procedure for discussing and voting on a posted agenda item is:

1. The chair will explain the item is up for discussion and voting (if applicable as certain agenda items are for information or discussion only).

2. A presentation will be made by either staff or possibly an outside group that is making a presentation before the commission.
3. Following the presentation, and if public comments are allowed (see Public Comment Section), the chair may invite comments from the public on the item being considered.
4. If there is no discussion, or after discussion ends and the item is posted for action, the chair will ask for a motion.
    - A motion is a formal proposal that certain action be taken or that a certain statement express the opinion, desire, or will of the commission.
    - Motions must be made by members, not by guests or the public.
5. In order to vote, all motions require a second to put the issue before the commission. A member does not need to be recognized to second a motion.
    - A member who seconds a motion does not have to vote in favor of that motion.
    - Seconding a motion does not endorse the motion; it simply indicates a desire to have the motion considered.
6. After the motion and second the chair will call for discussion before the item is voted on.
7. Any member, at any time, may request a roll call vote. A roll call vote is a vote where each member notes their position (yes/yea or no/nay) when called by the individual taking minutes or the staff liaison.
8. A motion will pass or fail based on a majority vote.
    - The chair should announce whether the motion passed or failed.
    - For voice votes of ayes and nays that are not unanimous, the chair shall indicate the individual votes.
    - The chair may ask that a member's vote be clarified.
    - Printed or secret ballots are not permitted.
9. In the case of a tie in the vote on any motion, the motion fails.
10. If a motion fails, an alternative motion can be made.

Who Can Vote?
All commission members may vote, including the chair, on all commission proceedings.

Can I send a Designee or Proxy in my Place?
No, this is not allowed. At times, you may be unable to attend a meeting and ask your staff liaison if a representative (also known as a designee, delegate, or proxy) can be sent in your place. Although proxy voting is permitted under Robert's Rules of Order, members of public bodies, which include commissions established by the City Council, may **NOT** vote by proxy. Proxy voting is inconsistent with provisions of Arizona's Open Meeting Law. Proxy voting is also inconsistent with the requirement that members of public bodies be appointed by the City Council and take an Oath of Office before assuming the duties of the office.

Can I Abstain from Voting?
The failure to vote on matters before you is inconsistent with your official responsibilities. The City Charter provides that, in the absence of a conflict of interest (see the Conflict of Interest Section), an abstention vote is counted as an affirmative vote. When a refusal to vote occurs, it is entered in the minutes as an affirmative vote with no explanation. The abstention clause is intended to provide an incentive to vote. The provision also protects the public process and ensures that, at a minimum, a majority of members present at a meeting vote on an issue.

Absent a statutory conflict of interest, you are expected to vote on agenda items presented to them. You are excused from voting only when a statutory conflict of interest exists.

Robert's Rules of Order

What are Robert's Rules of Order?

Robert's Rules of Order are a guide for conducting meetings. Robert's Rules of Order may be used for procedural matters not addressed by this handbook.

It is important to remember that Robert's Rules of Order are only a guide for conducting the business of a meeting and it is not the law. The only required actions to make an item legal are a motion, a second, and a vote. Within the motion, intent must be clear and those who vote on the matter must clearly understand the intent. Robert's Rules of Order provide formulas for the sequencing of different kinds of motions and an orderly rule for conducting a meeting. However, if a motion is plainly made, a second to the motion is placed on the record, and the voting participants understand the effect of their vote and support the outcome of the motion, it will stand up on its own even if it does not follow the letter of Robert's Rules of Order.

Rules Governing Common Motions

Motions are formal proposals that certain actions be taken, or certain statements expressing the opinion, recommendations or will of the commission be adopted. Motions and seconds must be made by a member of the commission. By making a motion or seconding a motion, a member is not necessarily endorsing the motion but instead is opening the floor for discussion so that the motion can be considered by the commission. If there is no motion and second to consider an agenda item, the commission shall not consider or discuss the item.

Motion to be Stated by the Chair - Withdrawal

When a motion is made and seconded, it shall be so stated by the chair before debate commences. A motion may not be withdrawn by the mover without the consent of the member seconding it.

Motion to Postpone

A motion to postpone is in order when an item is rescheduled to a time certain, when it is delayed with conditions, or when the matter is intended to be disposed of without action. If the motion prevails, the item shall return for action at the meeting specified or in accordance with the conditions established in the postponement. A motion to postpone may be debated prior to vote, but no other motion, including a motion to amend, may be offered until the vote is taken and only if the motion to postpone fails. A motion to postpone indefinitely, if it receives a majority vote, effectively extinguishes an item.

Motion to Table

A motion to table is used to delay discussion on an item until later in the meeting or until the next meeting. Neither the motion to table nor other business can be discussed, until a vote has been taken on the motion. If the motion is successful, no further discussion can be had without a motion to take off the table. To take a motion off the table at the same or immediately succeeding meeting, a motion and second must be made to take the item off the table, and it must pass by majority vote.

If not revived by the adjournment of the immediately succeeding meeting, the matter is considered to be dead.

Motion to Divide the Question
If the question contains two or more divisionable propositions, the chair may, and upon request of a member shall, divide the same.

Motion to Amend
On a motion to amend or "strike out and insert," the motion shall be made so that the intent of the amendment is clear to the members, the public and for the record.

Motion to Amend an Amendment
A motion to amend an amendment shall be in order, but one to amend an amendment to an amendment shall not be introduced. An amendment modifying the intention of a motion shall be in order, but an amendment relating to a different matter shall not be in order.

Motion to Reconsider
After the decision on any question, any member who voted with the majority may move for a reconsideration of any action at the same meeting or at the next regular meeting that occurs at least one week after the date the action was taken. In the event of a tie vote on a motion, any commission member may move for reconsideration at the next regular meeting. To ensure that the matter will be included on the posted agenda in conformance with the Open Meeting Law, any member who wishes to have a decision reconsidered must alert the staff liaison in writing at least five days prior to the meeting at which the motion to reconsider will be made, unless the motion to reconsider was made and seconded at the meeting.

A motion to reconsider shall require the affirmative vote of the majority of the members present at the time of reconsideration. After a motion for reconsideration has once been acted on, no other motion for reconsideration of the same subject shall be made without unanimous consent of all commission members.

After the reconsideration time period has expired, the same matter may be placed on a later meeting agenda as requested according to proper protocols.

Public Comment

What is Public Comment?
Public comment provides members of the public the opportunity to address the commission in two ways – on a **published agenda item** or on other issues that are not on the agenda during the **public participation period**. The public participation period is normally its own agenda item and the commission cannot discuss, make any decisions, or take any action on any of the issues raised during this comment period.

The Open Meeting Law does not grant citizens the right to speak at public meetings, and therefore, a public comment period is not legally required. However, it is the policy and practice of the City of Flagstaff to allow individuals to appear before public bodies to express their views on published agenda items and during the public comment period.

Individuals may speak only when recognized by the chair. It is a good idea to have individuals wishing to speak fill out Speaker Comment Cards.

There are several benefits to having individuals fill out Speaker Cards:

- The chair is made aware of how many people wish to speak on a particular item and can implement reasonable time-limit restrictions.
- The chair can call up the speakers in order by name.
- The staff liaison has a record to refer to when drafting minutes.
- Confirmation for those individuals not wishing to speak but wanting to have something on the record (that they supported or opposed a particular item).

If speaker cards are used, the liaison should get all cards from the chair after the meeting for use in composing the minutes and proper records retention.

What Can the Public Say and How Can Board and Commission Members Respond?

The chair can place reasonable limits on the amount of time for each individual to speak on an agenda item or during the public participation period. For example, the City Council limits each speaker to three minutes to talk. It is important that the chair announces the limits prior to the start of public comment and all speakers be given the same amount of time for comment.

If an individual is commenting on a posted agenda item, the speaker should confine their statements to the agenda item. You can respond to the comments or questions during this time.

The public can comment during public participation on any item that is not on the agenda. There are special restrictions on what you can respond to during public participation. You can respond to statements made during public participation in three ways:

1. You can respond to personal attacks (someone questions your qualifications, suggests you have a conflict of interest that was not disclosed, etc.).
2. The commission can instruct staff to follow up.
3. The commission can instruct staff to place the item brought up (by the member of the public) on a future agenda.

This is all that can be said during public participation. You cannot express agreement or disagreement with a person's comment, discuss it, or take action. The reasoning behind this rule is that items brought up during public participation were not posted in accordance with the Open Meeting Law. The public is not aware of these items and did not have a chance to respond. Therefore, discussion or action cannot take place and the item can be discussed only at a future meeting with a properly-posted agenda.

Minutes

Minutes

Minutes are the official, formal record of what occurred in a meeting and are essential for continuity and information for future commissions. Minutes summarize action taken, action planned, responsibilities, and deadlines.

All commissions, and their subcommittees, are required to take minutes under the Open Meeting Law. Additionally, minutes are public records and draft minutes, or an audio/visual recording, of a public meeting must be posted online for public viewing within three working days after the meeting. All commission meetings are streamed live, recorded, and posted to the City's website which eliminates this three-day requirement.

Approving the Minutes

Minutes generally are sent with the agenda of the next meeting to be reviewed and considered for approval by all members. Any member may make a motion to approve the minutes. Even a member not present during the meeting for which minutes are being approved may make the motion.

If a correction to the minutes is requested and no other commission members object, the minutes are considered approved as corrected when the members vote. Any disputed corrections would need to be formally voted on by the group. Once approved, minutes become official government documents and any changes to approved minutes can only be made by a vote of the body that approved those minutes.

Executive Sessions

What is an Executive Session?

On a rare occasion, a commission may need to convene for an executive session. An executive session is a gathering of a quorum of members of a public body from which the public is excluded for one or more of the subjects prescribed in A.R.S. Section 38-431.03. In addition to the members of the commission, officers, appointees and employees, only individuals whose presence is reasonably necessary in order for the commission to carry out its executive session responsibilities may attend the executive session. **Executive sessions may not be held without the prior consent of the City Attorney.**

Subjects that Can be Discussed in an Executive Session

Bodies are allowed to convene in executive session for only seven reasons. The most likely topic of an executive session involving a commission would be for legal advice, property negotiations, or personnel related issues. **A commission may not go into executive session without a City Attorney present**. Executive sessions are not open to the public and no formal action is taken. Legal action involving a final vote or decision **shall not** be taken at an executive session. Rather, a vote on executive session topics must be taken at a publicly posted meeting. It is important to advise those who are present that the information discussed is confidential and may not be discussed with anyone. Additionally, the item(s) to be discussed in executive session must be listed on the agenda. For questions about a possible executive session agenda please contact your Staff Liaison or the City Clerk's Office.

Part Six – Law, Regulations and Policies

Public agencies and public officials are bound by stricter standards than the private sector. Preparation for meetings, meeting decisions, discussion items, agendas and commissioner conduct are all strictly regulated by state law. These statutes require compliance and they affect all government agencies. Non-compliance or willful disregard of these laws can result in painful consequences.

The two most important laws that you will face as a commissioner are Arizona's Open Meeting Law (Arizona Revised Statutes Title 38, Chapter 3, Article 3.1) and the Conflict of Interest Law (Arizona Revised Statutes, Title 38, Chapter 3, Article 8). Protecting the public and safeguarding the public process is at the core of these laws. Because they have a direct bearing on your commission's activities and your behavior as a commissioner, it is important for you to become familiar with them.

Open Meeting Law (A.R.S. §38-431.09)

What is the Open Meeting Law?

The Open Meeting Law is a state law (A.R.S. Title 38, Chapter 3, Article 3.1) that requires all public bodies (which includes all types of commissions, committees and their subcommittees) to conduct their business in a public environment. With very limited exceptions (see "Executive Sessions" Section), as a means of promoting public awareness and participation, Arizona's Open Meeting Law requires commissions to provide advanced notice to the public of discussions and actions that will be considered at a meeting. Proper posting means that an agenda must be made available to the public at least 24 hours before the meeting with the meeting's time, date, location, and items for discussion and/or action indicated on the agenda. To comply with the state's requirements, meeting agendas must be placed on the posting board at City Hall and online.

The Open Meeting Law promotes openness in government and ensures the general public has access to government processes. Arizona's Open Meeting Law applies anytime a quorum of a public body gathers and discusses any matter that may come before the public body for a formal vote, whether the gathering occurs at a meeting, retreat, workshop, tour, or social function.

Allowed and Prohibited Communication Methods

The Open Meeting Law opens government to public review and prevents commissions from making decisions in secret. Communications, such as telephone calls, e-mails, and other electronic methods used to bypass the Open Meeting Law and its purposes exposes you to possible sanctions. (Arizona Attorney General Opinion No. 105-004 (R05-010), available online at: http://www.azag.gov/opinions/2005/I05-004.pdf.

Communications can occur among commission members in a variety of ways other than a public setting: face-to-face, in writing, over the telephone, and through the use of e-mail, text messages or social media. These types of communications can constitute a "meeting". The public does not have access to these communication formats, so when members of a public body begin having discussions by these means, it can result in Open Meeting Law violations.

For example, even if the first e-mail does not violate the Open Meeting Law, there is a chance that subsequent responses could. Commission member #1 could be talking with commission

member #2 about an item, not realizing that commission member #3 and commission member #4 are also talking about the same item. This exchange of e-mails might result in a discussion or deliberation that could violate the Open Meeting Law. To avoid the risk of inadvertently violating the Open Meeting Law, it is best that commission members communicate at public meetings about commission business and not by telephone or e-mail.

Some examples of prohibited and allowed communication methods under the Open Meeting Law:

Prohibited: Commission members cannot circumvent public discussion by splintering the quorum and having separate or serial (one after another) discussions. For example, one commission member cannot communicate with another commission member and then pass on the results of that discussion to a third commission member.

Prohibited: An e-mail from a commission member to the entire commission or to a quorum of the commission that proposes action would be considered a meeting and subject to the Open Meeting Law, **even if** no commission member responds to the e-mail. For example, an e-mail sent from a commission member to the commission which states "We should approve the grant to the elementary school" would be considered an action and would violate the Open Meeting Law.

Allowed: An e-mail request by a commission member to the staff liaison for specific information does not violate the Open Meeting Law. The staff liaison may send e-mails and replies to all the commission members without violating the Open Meeting Law as long as the response does not communicate the opinions of the other commission members. However, if further clarification is needed, you should only respond to the staff liaison and not copy the other commission members as this would constitute a discussion or deliberation, which violates the Open Meeting Law.

Allowed: An e-mail, phone call, text message, etc. between commission members about an upcoming social function.

Open Meeting Law Violations

Actions taken at a meeting held in violation of the Open Meeting Law are null and void unless ratified within 30 days of discovery and notice and a detailed description is given at least 72 hours prior to the meeting to ratify the non-complying action(s).

Arizona's Open Meeting Law includes penalty provisions for violations. Anyone affected by an "illegal action" can file suit in Superior Court. If the Court finds that the Open Meeting Law has been violated, it may levy a fine of up to $500 against the you for each violation. You as an individual, and not the municipality, must pay the fine. You are also subject to removal from office.

Bottom Line

Once a you commit to a written form communication related to commission business, that record no longer belongs to you as an individual but becomes part of the public domain. Anyone involved in sending messages back and forth which even discuss possible action or propose a formal action are breaking the law; it is the same as if the you had met together in a private meeting. Therefore, based on these reasons, **it is best that commission members communicate at public meetings about business and not through other means.**

Avoiding Open Meeting Law Violations
To avoid pitfalls associated with Arizona's Open Meeting Law the City of Flagstaff recommends the following:

- Limit discussions regarding commission business to public sessions.
- Avoid communication through e-mail, text messages, and social media posts regarding commission business.
- Do not poll other commission members on commission business prior to meetings.
- Disband meetings when a quorum is not present.
- Provide information and materials to your staff liaison for distribution to the entire commission or bring sufficient copies and distribute at a public meeting.

Additional Resources
For more information on the Open Meeting Law, please refer to the Arizona Open Meeting Law Handbook found at https://www.azoca.gov/wp-content/uploads/Open-Meeting-Law-Booklet-September2018.pdf. Additionally, the City Clerk's Office in partnership with the City Attorney's Office can provide a presentation to commissions on the Open Meeting Law. To schedule a presentation, please contact your staff liaison.

Conflict of Interest Law (A.R.S. §38-503)

The Conflict of Interest Law applies to all public officers, including commission members. Because there are severe penalties for violating the Conflict of Interest Law, you should understand your obligations, liabilities, and rights.

Purpose
The Arizona legislature has enacted conflict of interest laws governing the conduct of public officers who, in their official capacities, become involved in decisions that could affect their personal interests or the interests of their relatives (Ariz. Rev. Stat. § 38-501 et seq.). The purpose of these laws is to remove or limit the possibility of personal influence that might otherwise affect a public officer's decisions. One cannot serve two masters with conflicting interests, and the state's conflict of interest laws are intended to prevent situations in which a public officer's professional or financial concerns conflict with the unbiased performance of the public officer's duties.

What is a Conflict of Interest?
A conflict of interest refers to a situation when someone, such as a commission member, has competing professional or personal obligations or personal or financial interests that would make it difficult to fulfill their duties fairly. It is a conflict between an individual's personal interest and their public duty. This can exist whether or not money is involved, and whether the conflict is actual or only perceived. Public perception is not a sufficient basis alone upon which to determine whether or not a conflict of interest occurs.

Remote and Substantial Interest
The Conflict of Interest Law distinguishes between interests that are "remote" and those that are "substantial". Remote interests are considered so minor that they do not constitute legitimate conflicts of interest. Any pecuniary or proprietary interest that is not remote is a "substantial" interest and does constitute a conflict of interest.

Remote Interest

If you have a remote interest in a matter, then you can still vote and participate in the discussion of your commission. A remote interest is:

1. A non-salaried officer of a non-profit corporation doing business with or requesting money from the City.
2. The landlord or tenant of a contracting party. (For example, you may lease office space to a party with a private interest in a public matter without it resulting in a conflict of interest.)
3. An attorney whose client is a contracting party.
4. A member of a non-profit cooperative marketing association doing business with the City.
5. The owner of less than three percent of the shares of a corporation doing business with the City, provided that:
    a. the total annual income from dividends, including the value of stock dividends, does not exceed five percent of the officer's or employee's total annual income; and
    b. any other payments made to the officer or employee by the corporation do not exceed five percent of the officer's or employee's total annual income.
6. Being reimbursed for actual and necessary expenses incurred in performance of official duties.
7. Receiving municipal services on the same terms and conditions as if you were not an officer or employee of the municipality. (For example, when a commissioner who owns a business within the City votes for or against an increase in the business license tax, a conflict would not exist because this action would apply to all businesses in the corporate limits.)
8. An officer of a public agency voting on a contract or decision which would not confer a direct economic benefit or detriment upon the officer. Thus, a commissioner who is a schoolteacher may vote to enter into an intergovernmental agreement with the school district, unless such agreement would confer some direct economic benefit, such as a salary increase to the commissioner or their family.
9. A member of a trade, business, occupation, profession, or class of persons who has no greater interest than the other members of similar trades, businesses, occupations, professions, or classes of persons. (For example, a plumber who serves on the commission may vote to increase or decrease plumbing inspection fees since the effect of this decision will be equal on all plumbers within the City.)

Substantial Interest

When a substantial conflict of interest exists, you must remove yourself from the commission discussion and decision on the item. A substantial conflict generally involves a monetary or ownership relationship with a private entity doing business with the city. This kind of conflict of interest requires you to identify a conflict of interest publicly on the record and to refrain from discussion, vote, or any attempt to influence the decision.

A substantial conflict of interest is defined as any pecuniary (monetary) or proprietary (ownership) interest that is not remote. In general, a conflict of interest exists when an officer of the City is involved in substantial ownership or salaried employment with a private corporation doing business with the City. For example, if a commission member owns or is employed by a lumberyard selling lumber to the City, a conflict may exist. On the other hand, if the commission member is the lawyer of the lumberyard, or if the commissioner leased land to the lumberyard, a conflict may not exist.

A public officer may sell equipment, material, supplies, or services to the municipality in which

the officer serves if this is done through an award or contract let after public competitive bidding. However, the City officer would not be able to influence the bidding process in any way and must make known such interest in the official records of the City.

The Conflict of Interest Law also contains the following restrictions on the activities of public officers:

- When a public officer has exercised "administrative discretion" in an issue, that officer cannot receive compensation if representing another person before an agency of the City on the same issue. This restriction extends to twelve months after termination of office with the city.
- A public officer cannot use confidential information obtained during the term of office for personal gain.
- A public officer cannot receive any compensation for performance of services in any case, special proceeding, application, or other matter pending before any agency of the City. This does not apply, however, to ministerial functions such as filing or amending tax forms, applying for permits, licenses, or other documents.
- A public officer cannot use their position to obtain anything of value that would normally not be received in the performance of official duties. Something is considered of "value" when it exerts a "substantial and improper" influence on the duties of the public official.

A substantial conflict of interest also occurs when a public officer has the opportunity to perform some act or participate in making a decision in an official capacity that might affect an economic interest of either themselves or their relatives.

Determining if a Conflict Exists

It is your responsibility to be aware of and to identify the circumstances in which the commission's actions might affect you or a relative and to avoid any situation in which a conflict of interest exists or appears to exist. You should review meeting agendas before each meeting to determine if there may be any potential conflict of interest with an item.

To help you decide if you have a conflict, ask yourself three questions:

- Will my decision have a positive or negative impact on an interest of my relative's or mine?
- Do I have a monetary or ownership interest in the matter?
- Is my interest other than one of the designated remote interests?

If you are unsure if you have a conflict of interest, let your staff liaison know as soon as possible and they can address the matter with the City Attorney's Office for disposition about whether an actual conflict exists. If there is any doubt about whether a conflict exists, you should opt not to participate in the discussion, deliberation, and voting process on that item. This is better than taking the risk of inadvertently violating the law.

What if I have a Conflict of Interest?

If you find that you have a conflict of interest, you must:

1. Before discussion on the item begins, make the conflict of interest known in the official records of the City by declaring at the commission meeting that a conflict of

interest exists so that the declaration can be officially entered into the minutes.
2. Refrain from voting or in any way influencing the decision.
3. Leave the table or the room until the item is discussed and acted upon.
4. File a conflict of interest disclosure statement with the City Clerk's Office that describes the nature of the conflict.

If you are the chairperson and you declare a conflict of interest, you must hand the conduct of the meeting over to your vice-chair and leave the podium. It is inappropriate for the chairperson to preside over a matter when they have declared a conflict of interest.

During this time, you are not required to leave the meeting but can "step outside" if you so choose. Once the item is over, the staff liaison should bring you back in before discussion begins on the next item.

As previously discussed in the Quorum Section, any commission member that declares a conflict of interest and does not participate cannot be counted toward the quorum requirement on that particular item.

Examples of a Conflict of Interest

The following examples provide a general understanding of how Arizona's Conflict of Interest Laws would be applied. One thing to keep in mind is that each situation is unique and depends on the specific facts presented. For this reason, it is a good idea to consult with your staff liaison to determine if an actual conflict exists.

NOTE: The situations below assume that the commission on which the you are sitting is deciding the matter in question.

- You own a property close to another property that is the subject of a zoning or license application. The granting or denial of the application could affect the value of the your property.
- A proposed amendment to the City Code seeks to regulate a specific type of business activity. You or a relative has an exclusive franchise or right to conduct the activity in the city.
- Your relative (for example, a sister) has done work in the past for a firm seeking a city contract. She anticipates doing further work for this firm in the future. A potential conflict exists whether or not she is involved in the work that is the subject of the contract.
    - A conflict only exists if the relative has a continuing business relationship with the company under consideration or anticipates a continuing business relationship in the future with this company. A past association does not constitute a conflict of interest. The statute defines "relative" as a "spouse, child, child's child, parent, grandparent, brother or sister of the whole or half blood and their spouses and the parent, brother, sister or child of a spouse."

Public Records Law (ARS §39-121)

As a commission member, you are required to maintain records that pertain your official activities and of any government-funded activities as prescribed in A.R.S. § 39-121.01. Moreover, these public records are, with limited exceptions, available to the public upon request.

The Arizona legislature has defined records to mean all books, papers, maps or other

documentary materials, regardless of form, made or received by public bodies in pursuance of law or in connection with the transaction of public business and preserved or appropriate for preservation as evidence of the public bodies functions, policies, decisions, procedures, operations or other activities (See Ariz. Rev. Stat. § 41-151.18).

Arizona courts have interpreted the term public records very broadly. Generally speaking, any documents or materials that are related to or reflect the official duties of the public official or the city are going to be considered public records. Each public official has a statutory duty to preserve public records from deterioration, mutilation, or destruction and may destroy such records only pursuant to statutorily prescribed procedures.

When your term expires or you resign from the commission, all your materials should be given to your staff liaison for proper retention. If you have any questions about what should or should not be kept contact your staff liaison or the City Clerk's Office.

E-mail

E-mail sent to and among commission members are subject to the Public Records Law, as well as the Open Meeting Law. E-mails that members or staff generate pertaining to the business of the commission are public records. Therefore, e-mails must be preserved according to the City's approved records retention schedule and generally must be made available for public inspection if a public records request is made. It is a good idea to maintain a file containing any e-mails sent to and from members.

Public Records Requests

With limited exceptions, Arizona's Public Records Law makes public records and other matters in the custody of a public body open to inspection during office hours by any person. Although there are exceptions, as a general rule, you should always assume that your records will be subject to inspection by the public.

Conclusion

Democratic government can function properly only when the citizenry has confidence in how its government is run. Public trust is built largely upon the perceptions that citizens have regarding their Mayor and City Council, city employees, and members of commissions. Once destroyed, it is hard to reestablish public confidence. The statutes, rules, and policies discussed in this resource book were established to reinforce the public's trust in the commission process, by ensuring that the business of city's commissions and committees is conducted in an open atmosphere where the public can provide input and feedback.

The City of Flagstaff truly appreciates your service. If you have any questions, please contact your staff liaison or the City Clerk. Thank you for making Flagstaff a better place to live.

APPENDICES

APPENDIX A – Board and Commission Descriptions and Enabling Legislation

APPENDIX B – Conflict of Interest Law

APPENDIX C – Open Meeting Law

APPENDIX A

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Airport Responsible for reporting to the Council on the development of the Airpark and matters affecting the operation and efficiency of the airport.	3 yrs	Council	City Code: Title 2, Chapter 2-11	Barney Helmick	7
Audit Committee Meets at least once a year, to review the Annual Financial and Single Audit reports.	Indef.	Council	Res Nos. 1320, 2029, 2002-59	Rick Tadder	6
Beautification and Public Art Recommends expenditures from the BBB, community beautification projects, the purchase and installation of public art projects.	3 yrs	Council	City Code: Title 2, Chapter 2-14	Mark DiLucido	7
Bicycle Advisory Committee Report to the City's Transportation Commission on issues related to planning for and accommodation of bicycles.	3 yrs	Transport Comm.	City Code: Title 2, Chapter 2-12	Martin Ince	7
Board of Adjustment Holds hearings on request for variances and appeals of decision by the Zoning Code Administrator.	3 yrs	Council	ARS § 9-462.06, City Code: Title 2, Chapter 2-10	Daniel Symer	7
Building and Fire Code Board of Appeals Holds hearings on appeals related to the application and interpretation of City building and fire codes.	5 yrs	Council	Res. 1565, 2001-42	Amy Palmer	7
Diversity Awareness Fosters mutual understanding, tolerance, respect, and awareness among all citizens; recognizing the different economic, cultural, social, religious, and ethnic groups within the City; cooperating in the development of educational programs dedicated to improving community relations and enlisting support of various groups to foster diversity awareness.	3 yrs	Council	City Code: Title 2, Chapter 2-08	Shannon Anderson	7
Flagstaff Housing Authority Oversees the functions of the Housing Authority. The Authority implements the public housing programs.	4 yrs	Mayor	ARS § 36-1404.B City Code: Title 1, Chapter 1-13	Sarah Darr	7
Flagstaff Metropolitan Planning Organization Federally mandated organization responsible for planning and programming federal transportation funds in the region	2 yrs	Council	Intergovernmental Agreement	Jeff Meilbeck	6

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Housing Commission Makes recommendations with respect to housing policies, needs, and programs in Flagstaff.	3 yrs	Council	City Code: Title 2, Chapter 2-25		
Heritage Preservation Advises the City Council on all matters relating to historic preservation, and reviews development projects in designated historic districts.	3 yrs	Council	City Code: Title 2, Chapter 2-19	Tiffany Antol	7
Inclusion and Adaptive Living Expand educational opportunities; improve access to housing, buildings, and transportation; have greater participation in recreational, social, and cultural activities; encourage greater opportunity for employment and expand/strengthen rehabilitative programs and facilities	3 yrs	Council	City Code: Title 2, Chapter 2-18	Denise Thompson	7
Industrial Development Authority Independent authority established by State law. Issue revenue bonds to projects eligible for financing under State statute.	6 yrs	Council	Resolution No. 1636	Brandon Kavanagh	9
Library Board Serves as a citizen's advisory board to the Library Director.	3 yrs	Council	Intergovernmental Agreement	Mark Cesare	8
Open Spaces Advises the Council on the acquisition, management, use, restoration, enhancement, protection, and conservation of open space land within the City of Flagstaff.	3 yrs	Council	City Code: Title 2, Chapter 2-20	Robert Wallace	7
Parks and Recreation Makes recommendations to the Council regarding City parks and recreational programs, the annual budget and capital improvements for the Parks and Recreation Divisions.	3 yrs	Council	City Code: Title 2, Chapter 2-03	Rebecca Sayers	7
Pedestrian Advisory Committee Report to the City's Transportation Commission on issues related to planning for and accommodation of pedestrians.	3 yrs	Transport Comm.	Code, Title 2, Chapter 2-12	Martin Ince	7
Personnel Board Conducts hearing to ensure due process for regular, classified employees who are dismissed, demoted, or suspended without pay.	4 yrs	Council	Ord. No. 971, 1041, 1116, 1146, 1198	Shannon Anderson	7

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Planning and Zoning Serves as an advisory board to the Council on matters relating to the growth and physical development of the City. Conduct hearings on amendments to the Zoning Map, tentative subdivision plats, Conditional Use Permits.	3 yrs	Council	ARS § 9-461.02 City Code: Title 2, Chapter 2-01	Tiffany Antol	7
PSPRS Board Processes membership and retirement applications from the Flagstaff police officers and firefighters.	4 yrs	Mayor	ARS § 38-847	Vivian Fennema Allison Hughes	7
Self-Insurance Trust Fund Board Administers the self-insurance program of the City.	2 yrs	Council	City Code: Title 1, Chapter 1-24	Dean Coughenour	5
Sustainability Recommend and coordinates activities in concert with the Flagstaff Sustainability Program. Promotes sustainable practices in all spheres of life and educating Flagstaff citizens	3 yrs	Council	City Code: Title 2, Chapter 2-17	Nicole Antonopoulos	7
Tourism Develops, promotes, and maintains Flagstaff as a year-round destination with professional visitor services that will benefit the community economically, environmentally, and socially.	3 yrs	Council	City Code: Title 2, Chapter 2-13	Trace Ward	7
Transportation Reviews requests for changes in traffic regulations and recommends traffic-related policies to the Council.	3 yrs	Council	City Code: Title 2, Chapter 2-12	Jeffrey Bauman	7
Water Reviews extensions of the water and sewer collection systems, treatment and use of water furnished by the City, treatment and disposal of the City's sewage system effluent, and water/sewer rates.	3 yrs	Council	City Code: Title 2, Chapter 2-04	Brad Hill	7

APPENDIX B

Title 38. Public Officers and Employees
Chapter 3. Conduct of Office
Article 3.1. Public Meetings and Proceedings

§ 38-431. Definitions

In this article, unless the context otherwise requires:

1. "Advisory committee" or "subcommittee" means any entity, however designated, that is officially established, on motion and order of a public body or by the presiding officer of the public body, and whose members have been appointed for the specific purpose of making a recommendation concerning a decision to be made or considered or a course of conduct to be taken or considered by the public body.

2. "Executive session" means a gathering of a quorum of members of a public body from which the public is excluded for one or more of the reasons prescribed in section 38-431.03. In addition to the members of the public body, officers, appointees and employees as provided in section 38-431.03 and the auditor general as provided in section 41-1279.04, only individuals whose presence is reasonably necessary in order for the public body to carry out its executive session responsibilities may attend the executive session.

3. "Legal action" means a collective decision, commitment or promise made by a public body pursuant to the constitution, the public body's charter, bylaws or specified scope of appointment and the laws of this state.

4. "Meeting":

   (a) Means the gathering, in person or through technological devices, of a quorum of the members of a public body at which they discuss, propose or take legal action, including any deliberations by a quorum with respect to such that action.
   (b) Includes:

      (i) A one-way electronic communication by one member of a public body that is sent to a quorum of the members of a public body and that proposes legal action.

      (ii) An exchange of electronic communications among a quorum of the members of a public body that involves a discussion, deliberation or the taking of legal action by the public body concerning a matter likely to come before the public body for action. "Political subdivision" means all political subdivisions of this state, including without limitation all counties, cities and towns, school districts and special districts.

5. "Public body" means the legislature, all boards and commissions of this state or political subdivisions, all multimember governing bodies of departments, agencies, institutions and instrumentalities of this state or political subdivisions, including without limitation all corporations and other instrumentalities whose boards of directors are appointed or elected by this state or political subdivision. Public body includes all quasi-judicial bodies and all standing, special or advisory committees or subcommittees of, or appointed by, the public body. Public body includes all commissions and other public entities established by the Arizona constitution or by way of ballot initiative, including the independent redistricting commission,

and this article applies except and only to the extent that specific constitutional provisions supersede this article.

6. "Quasi-judicial body" means a public body, other than a court of law, possessing the power to hold hearings on disputed matters between a private person and a public agency and to make decisions in the general manner of a court regarding such disputed claims.

§ 38-431.01. Meetings shall be open to the public

A. All meetings of any public body shall be public meetings and all persons so desiring shall be permitted to attend and listen to the deliberations and proceedings. All legal action of public bodies shall occur during a public meeting.

B. All public bodies shall provide for the taking of written minutes or a recording of all their meetings, including executive sessions. For meetings other than executive sessions, the minutes or recording shall include:

1. The date, time and place of the meeting.

2. The members of the public body recorded as either present or absent.

3. A general description of the matters considered.

4. An accurate description of all legal actions proposed, discussed or taken, including a record of how each member voted. The minutes shall also include the names of the members who propose each motion and the names of the persons, as given, who make statements or present material to the public body and a reference to the legal action about which they made statements or presented material.

C. Minutes of executive sessions shall include items set forth in subsection B, paragraphs 1, 2 and 3 of this section, an accurate description of all instructions given pursuant to section 38-431.03, subsection A, paragraphs 4, 5 and 7 and such other matters as may be deemed appropriate by the public body.

D. The minutes or a recording of a meeting shall be available for public inspection three working days after the meeting except as otherwise specifically provided by this article.

E. A public body of a city or town with a population of more than two thousand five hundred persons shall:

1. Within three working days after a meeting, except for subcommittees and advisory committees, post on its website, if applicable, either:

(a) A statement describing the legal actions taken by the public body of the city or town during the meeting.

(b) Any recording of the meeting.

2. Within two working days following approval of the minutes, post approved minutes of city or town council meetings on its website, if applicable, except as otherwise specifically provided by this article.

3. Within ten working days after a subcommittee or advisory committee meeting, post on its website, if applicable, either:

   (a) A statement describing legal action, if any.

   (b) A recording of the meeting.

F. All or any part of a public meeting of a public body may be recorded by any person in attendance by means of a tape recorder or camera or any other means of sonic reproduction, provided that there is no active interference with the conduct of the meeting.

G. The secretary of state for state public bodies, the city or town clerk for municipal public bodies and the county clerk for all other local public bodies shall conspicuously post open meeting law materials prepared and approved by the attorney general on their website. A person elected or appointed to a public body shall review the open meeting law materials at least one day before the day that person takes office.

H. A public body may make an open call to the public during a public meeting, subject to reasonable time, place and manner restrictions, to allow individuals to address the public body on any issue within the jurisdiction of the public body. At the conclusion of an open call to the public, individual members of the public body may respond to criticism made by those who have addressed the public body, may ask staff to review a matter or may ask that a matter be put on a future agenda. However, members of the public body shall not discuss or take legal action on matters raised during an open call to the public unless the matters are properly noticed for discussion and legal action.

I. A member of a public body shall not knowingly direct any staff member to communicate in violation of this article.

J. Any posting required by subsection E of this section must remain on the applicable website for at least one year after the date of the posting.

§ 38-431.02. Notice of meetings

A. Public notice of all meetings of public bodies shall be given as follows:

   1. The public bodies of this state, including governing bodies of charter schools, shall:

      (a) Conspicuously post a statement on their website stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

      (b) Post all public meeting notices on their website and give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

2. The public bodies of the counties and school districts shall:

   (a) Conspicuously post a statement on their website stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) Post all public meeting notices on their website and give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

3. Special districts that are formed pursuant to title 48:

   (a) May conspicuously post a statement on their website stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) May post all public meeting notices on their website and shall give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

   (c) If a statement or notice is not posted pursuant to subdivision (a) or (b) of this paragraph, shall file a statement with the clerk of the board of supervisors stating where all public notices of their meetings will be posted and shall give additional public notice as is reasonable and practicable as to all meetings.

4. The public bodies of the cities and towns shall:

   (a) Conspicuously post a statement on their website or on a website of an association of cities and towns stating where all public notices of their meetings will be posted, including the physical and electronic locations, and shall give additional public notice as is reasonable and practicable as to all meetings.

   (b) Post all public meeting notices on their website or on a website of an association of cities and towns and give additional public notice as is reasonable and practicable as to all meetings. A technological problem or failure that either prevents the posting of public notices on a website or that temporarily or permanently prevents the use of all or part of the website does not preclude the holding of the meeting for which the notice was posted if the public body complies with all other public notice requirements required by this section.

B. If an executive session is scheduled, a notice of the executive session shall state the provision of law authorizing the executive session, and the notice shall be provided to the:

1. Members of the public body.

2. General public.

C. Except as provided in subsections D and E of this section, meetings shall not be held without at least twenty-four hours' notice to the members of the public body and to the general public. The twenty-four hour period includes Saturdays if the public has access to the physical posted location in addition to any website posting, but excludes Sundays and other holidays prescribed in § 1-301.

D. In case of an actual emergency, a meeting, including an executive session, may be held on such notice as is appropriate to the circumstances. If this subsection is utilized for conduct of an emergency session or the consideration of an emergency measure at a previously scheduled meeting the public body must post a public notice within twenty-four hours declaring that an emergency session has been held and setting forth the information required in subsections H and I of this section.

E. A meeting may be recessed and resumed with less than twenty-four hours' notice if public notice of the initial session of the meeting is given as required in subsection A of this section, and if, before recessing, notice is publicly given as to the time and place of the resumption of the meeting or the method by which notice shall be publicly given.

F. A public body that intends to meet for a specified calendar period, on a regular day, date or event during the calendar period, and at a regular place and time, may post public notice of the meetings at the beginning of the period. The notice shall specify the period for which notice is applicable.

G. Notice required under this section shall include an agenda of the matters to be discussed or decided at the meeting or information on how the public may obtain a copy of such an agenda. The agenda must be available to the public at least twenty-four hours before the meeting, except in the case of an actual emergency under subsection D of this section. The twenty-four hour period includes Saturdays if the public has access to the physical posted location in addition to any website posting, but excludes Sundays and other holidays prescribed in § 1-301.

H. Agendas required under this section shall list the specific matters to be discussed, considered or decided at the meeting. The public body may discuss, consider or make decisions only on matters listed on the agenda and other matters related thereto.

I. Notwithstanding the other provisions of this section, notice of executive sessions shall be required to include only a general description of the matters to be considered. The agenda shall provide more than just a recital of the statutory provisions authorizing the executive session, but need not contain information that would defeat the purpose of the executive session, compromise the legitimate privacy interests of a public officer, appointee or employee or compromise the attorney-client privilege.

J. Notwithstanding subsections H and I of this section, in the case of an actual emergency a matter may be discussed and considered and, at public meetings, decided, if the matter was not listed on the agenda and a statement setting forth the reasons necessitating the discussion, consideration or decision is placed in the minutes of the meeting and is publicly announced at the public meeting. In the case of an executive session, the reason for consideration of the emergency measure shall be announced publicly immediately before the executive session.

K. Notwithstanding subsection H of this section, the chief administrator, presiding officer or a member of a public body may present a brief summary of current events without listing in the agenda the specific matters to be summarized, if:

1. The summary is listed on the agenda.

2. The public body does not propose, discuss, deliberate or take legal action at that meeting on any matter in the summary unless the specific matter is properly noticed for legal action.

§ 38-431.03. Executive sessions

A. Upon a public majority vote of the members constituting a quorum, a public body may hold an executive session but only for the following purposes:

1. Discussion or consideration of employment, assignment, appointment, pro-motion, demotion, dismissal, salaries, disciplining or resignation of a public officer, appointee or employee of any public body, except that, with the exception of salary discussions, an officer, appointee or employee may demand that the discussion or consideration occur at a public meeting. The public body shall provide the officer, appointee or employee with written notice of the executive session as is appropriate but not less than twenty-four hours for the officer, appointee or employee to determine whether the discussion or consideration should occur at a public meeting.

2. Discussion or consideration of records exempt by law from public inspection, including the receipt and discussion of information or testimony that is specifically required to be maintained as confidential by state or federal law.

3. Discussion or consultation for legal advice with the attorney or attorneys of the public body.

4. Discussion or consultation with the attorneys of the public body in order to consider its position and instruct its attorneys regarding the public body's position regarding contracts that are the subject of negotiations, in pending or contemplated litigation or in settlement discussions conducted in order to avoid or resolve litigation.

5. Discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations with employee organizations regarding the salaries, salary schedules or compensation paid in the form of fringe benefits of employees of the public body.

6. Discussion, consultation or consideration for international and interstate negotiations or for negotiations by a city or town, or its designated representatives, with members of a tribal council, or its designated representatives, of an Indian reservation located within or adjacent to the city or town.

7. Discussions or consultations with designated representatives of the public body in order to consider its position and instruct its representatives regarding negotiations for the purchase, sale or lease of real property.

B. Minutes of and discussions made at executive sessions shall be kept confidential except from:

1. Members of the public body which met in executive session.

2. Officers, appointees or employees who were the subject of discussion or consideration pursuant to subsection A, paragraph 1 of this section.

3. The auditor general on a request made in connection with an audit authorized as provided by law.

4. A county attorney or the attorney general when investigating alleged violations of this article.

C. The public body shall instruct persons who are present at the executive session regarding the confidentiality requirements of this article.

D. Legal action involving a final vote or decision shall not be taken at an executive session, except that the public body may instruct its attorneys or representatives as provided in subsection A, paragraphs 4, 5 and 7 of this section. A public vote shall be taken before any legal action binds the public body.

E. Except as provided in section 38-431.02, subsections I and J, a public body shall not discuss any matter in an executive session which is not described in the notice of the executive session.

F. Disclosure of executive session information pursuant to this section or section 38-431.06 does not constitute a waiver of any privilege, including the attorney-client privilege. Any person receiving executive session information pursuant to this section or section 38-431.06 shall not disclose that information except to the attorney general or county attorney, by agreement with the public body or to a court in camera for purposes of enforcing this article. Any court that reviews executive session information shall take appropriate action to protect privileged information.

§ 38-431.04. Writ of mandamus

Where the provisions of this article are not complied with, a court of competent jurisdiction may issue a writ of mandamus requiring that a meeting be open to the public.

§ 38-431.05. Meeting held in violation of article; business transacted null and void; ratification

A. All legal action transacted by any public body during a meeting held in violation of any provision of this article is null and void except as provided in subsection B.

B. A public body may ratify legal action taken in violation of this article in accordance with the following requirements:

1. Ratification shall take place at a public meeting within thirty days after discovery of the violation or after such discovery should have been made by the exercise of reasonable diligence.

2. The notice for the meeting shall include a description of the action to be ratified, a clear statement that the public body proposes to ratify a prior action and information on how the public may obtain a detailed written description of the action to be ratified.

3. The public body shall make available to the public a detailed written description of the action to be ratified and all deliberations, consultations and decisions by members of the public body that preceded and related to such action. The written description shall also be included as part of the minutes of the meeting at which ratification is taken. The public body shall make available to the public the notice and detailed written description required by this section at least seventy-two hours

in advance of the public meeting at which the ratification is taken.

§ 38-431.06. Investigations; written investigative demands

A. On receipt of a written complaint signed by a complainant alleging a violation of this article or on their own initiative, the attorney general or the county attorney for the county in which the alleged violation occurred may begin an investigation.

B. In addition to other powers conferred by this article, in order to carry out the duties prescribed in this article, the attorney general or the county attorney for the county in which the alleged violation occurred, or their designees, may:

1. Issue written investigative demands to any person.

2. Administer an oath or affirmation to any person for testimony.

3. Examine under oath any person in connection with the investigation of the alleged violation of this article.

4. Examine by means of inspecting, studying or copying any account, book, computer, document, minutes, paper, recording or record.

5. Require any person to file on prescribed forms a statement or report in writing and under oath of all the facts and circumstances requested by the attorney general or county attorney.

C. The written investigative demand shall:

1. Be served on the person in the manner required for service of process in this state or by certified mail, return receipt requested.

2. Describe the class or classes of documents or objects with sufficient definiteness to permit them to be fairly identified.

3. Prescribe a reasonable time at which the person shall appear to testify and within which the document or object shall be produced and advise the person that objections to or reasons for not complying with the demand may be filed with the attorney general or county attorney on or before that time.

4. Specify a place for the taking of testimony or for production of a document or object and designate a person who shall be the custodian of the document or object.

D. If a person objects to or otherwise fails to comply with the written investigation demand served on the person pursuant to subsection C, the attorney general or county attorney may file an action in the superior court for an order to enforce the demand. Venue for the action to enforce the demand shall be in Maricopa county or in the county in which the alleged violation occurred. Notice of hearing the action to enforce the demand and a copy of the action shall be served on the person in the same manner as that prescribed in the Arizona rules of civil procedure. If a court finds that the demand is proper, including that the compliance will not violate a privilege and that there is not a conflict of interest on the part of the attorney general or county attorney, that there is reasonable cause to believe there may have been

a violation of this article and that the information sought or document or object demanded is relevant to the violation, the court shall order the person to comply with the demand, subject to modifications the court may prescribe. If the person fails to comply with the court's order, the court may issue any of the following orders until the person complies with the order:

1. Adjudging the person in contempt of court.

2. Granting injunctive relief against the person to whom the demand is issued to restrain the conduct that is the subject of the investigation.

3. Granting other relief the court deems proper.

§ 38-431.07. Violations; enforcement; removal from office; in camera review

A. Any person affected by an alleged violation of this article, the attorney general or the county attorney for the county in which an alleged violation of this article occurred may commence a suit in the superior court in the county in which the public body ordinarily meets, for the purpose of requiring compliance with, or the prevention of violations of, this article, by the public body as a whole, or to determine the applicability of this article to matters or legal actions of the public body. The attorney general may also commence a suit in the superior court in the county in which the public body ordinarily meets against an individual member of a public body for a knowing violation of this article, and in such a suit the court may impose a civil penalty against each person who knowingly violates this article or who knowingly aids, agrees to aid or attempts to aid in violating this article and order equitable relief as the court deems appropriate in the circumstances. The court may impose a civil penalty not to exceed five hundred dollars for the second offense and not to exceed two thousand five hundred dollars for the third and subsequent offenses. If the court imposes a civil penalty against an individual member of the public body who knowingly violates this article, the public body may not pay the civil penalty on behalf of, or otherwise reimburse, the individual against whom the civil penalty has been imposed. If the court finds that a person who might otherwise be liable under this subsection objected to the action of the public body and the objection is noted on a public record, the court may choose not to impose a civil penalty on that person. The civil penalties awarded pursuant to this section shall be deposited into the general fund of the public body concerned. The court may also order payment to a successful plaintiff in a suit brought under this section of the plaintiff's reasonable attorney fees, by the defendant state, the political subdivision of the state or the incorporated city or town of which the public body is a part or to which it reports. If the court determines that a public officer with intent to deprive the public of information knowingly violated any provision of this article, the court may remove the public officer from office and shall assess the public officer or a person who knowingly aided, agreed to aid or attempted to aid the public officer in violating this article, or both, with all of the costs and attorney fees awarded to the plaintiff pursuant to this section.

B. A public body shall not expend public monies to employ or retain legal counsel to provide legal services or representation to the public body or any of its officers in any legal action commenced pursuant to any provisions of this article, unless the public body has authority to make the expenditure pursuant to other provisions of law and takes a legal action at a properly noticed open meeting approving the expenditure before incurring any obligation or indebtedness.
C. In any action brought pursuant to this section challenging the validity of an executive session, the court may review in camera the minutes of the executive session, and if the court in its discretion determines that the minutes are relevant and that justice so demands, the court may disclose to the parties or admit in evidence part or all of the minutes.

§ 38-431.08. Exceptions; limitation

A. This article does not apply to:

1. Any judicial proceeding of any court or any political caucus of the legislature.

2. Any conference committee of the legislature, except that all such meetings shall be open to the public.

3. The commissions on appellate and trial court appointments and the commission on judicial qualifications.

4. Good cause exception and central registry exception determinations and hearings conducted by the board of fingerprinting pursuant to sections 41-619.55 and 41-619.57.

B. A hearing held within a prison facility by the board of executive clemency is subject to this article, except that the director of the state department of corrections may:

1. Prohibit, on written findings that are made public within five days of so finding, any person from attending a hearing whose attendance would constitute a serious threat to the life or physical safety of any person or to the safe, secure and orderly operation of the prison.

2. Require a person who attends a hearing to sign an attendance log. If the person is over sixteen years of age, the person shall produce photographic identification that verifies the person's signature.

3. Prevent and prohibit any articles from being taken into a hearing except recording devices, and if the person who attends a hearing is a member of the media, cameras.

4. Require that a person who attends a hearing submit to a reasonable search on entering the facility.

C. The exclusive remedies available to any person who is denied attendance at or removed from a hearing by the director of the state department of corrections in violation of this section shall be those remedies available in section 38-431.07, as against the director only.

D. Either house of the legislature may adopt a rule or procedure pursuant to article IV, part 2, section 8, Constitution of Arizona, to provide an exemption to the notice and agenda requirements of this article or to allow standing or conference committees to meet through technological devices rather than only in person.

§ 38-431.09. Declaration of public policy

A. It is the public policy of this state that meetings of public bodies be conducted openly and that notices and agendas be provided for such meetings which contain such information as is reasonably necessary to inform the public of the matters to be discussed or decided. Toward this end, any person or entity charged with the interpretations of this article shall construe this article in favor of open and public meetings.

B. Notwithstanding subsection A, it is not a violation of this article if a member of a public body expresses an opinion or discusses an issue with the public either at a venue other than at a meeting that is subject

to this article, personally, through the media or other form of public broadcast communication or through technological means if:

1. The opinion or discussion is not principally directed at or directly given to another member of the public body.

2. There is no concerted plan to engage in collective deliberation to take legal action.

APPENDIX C

Title 38. Public Officers and Employees

Chapter 3. Conduct of Office

Article 8. Conflict of Interest of Officers and Employees

§ 38-501. Application of article

A. This article shall apply to all public officers and employees of incorporated cities or towns, of political subdivisions and of the state and any of its departments, commissions, agencies, bodies or boards.

B. Notwithstanding the provisions of any other law, or the provisions of any charter or ordinance of any incorporated city or town to the contrary, the provisions of this article shall be exclusively applicable to all officers and employees of every incorporated city or town or political subdivision or the state and any of its departments, commissions, agencies, bodies or boards and shall supersede the provisions of any other such law, charter provision or ordinance.

C. Other prohibitions in the state statutes against any specific conflict of interests shall be in addition to this article if consistent with the intent and provisions of this article.

§ 38-502. Definitions

In this article, unless the context otherwise requires:

1. "Compensation" means money, a tangible thing of value or a financial benefit.

2. "Employee" means all persons who are not public officers and who are employed on a full-time, part-time or contract basis by an incorporated city or town, a political subdivision or the state or any of its departments, commissions, agencies, bodies or boards for remuneration.

3. "Make known" means the filing of a paper which is signed by a public officer or employee and which fully discloses a substantial interest or the filing of a copy of the official minutes of a public agency which fully discloses a substantial interest. The filing shall be in the special file established pursuant to section 38-509.

4. "Official records" means the minutes or papers, records and documents maintained by a public agency for the specific purpose of receiving disclosures of substantial interests required to be made known by this article.

5. "Political subdivision" means all political subdivisions of the state and county, including all school districts.

6. "Public agency" means:

   (a) All courts.

   (b) Any department, agency, board, commission, institution, instrumentality or legislative or

administrative body of the state, a county, an incorporated town or city and any other political subdivision.

(c) The state, county and incorporated cities or towns and any other political subdivisions.

7. "Public competitive bidding" means the method of purchasing prescribed by title 41, chapter 23, or procedures substantially equivalent to such method of purchasing, or as provided by local charter or ordinance.

8. "Public officer" means all elected and appointed officers of a public agency established by charter, ordinance, resolution, state constitution or statute.

9. "Relative" means the spouse, child, child's child, parent, grandparent, brother or sister of the whole or half blood and their spouses and the parent, brother, sister or child of a spouse.

10. "Remote interest" means:

(a) That of a nonsalaried officer of a nonprofit corporation.

(b) That of a landlord or tenant of the contracting party.

(c) That of an attorney of a contracting party.

(d) That of a member of a nonprofit cooperative marketing association.

(e) The ownership of less than three percent of the shares of a corporation for profit, provided the total annual income from dividends, including the value of stock dividends, from the corporation does not exceed five percent of the total annual income of such officer or employee and any other payments made to him by the corporation do not exceed five percent of his total annual income.

(f) That of a public officer or employee in being reimbursed for his actual and necessary expenses incurred in the performance of official duty.

(g) That of a recipient of public services generally provided by the incorporated city or town, political subdivision or state department, commission, agency, body or board of which he is a public officer or employee, on the same terms and conditions as if he were not an officer or employee.

(h) That of a public school board member when the relative involved is not a dependent, as defined in section 43-1001, or a spouse.

(i) That of a public officer or employee, or that of a relative of a public officer or employee, unless the contract or decision involved would confer a direct economic benefit or detriment on the officer, the employee or his relative, of any of the following:

(i) Another political subdivision.

(ii) A public agency of another political subdivision.

(iii) A public agency except if it is the same governmental entity.

(j) That of a member of a trade, business, occupation, profession or class of persons consisting of at least ten members which is no greater than the interest of the other members of that trade, business, occupation, profession or class of persons.

(k) That of a relative who is an employee of any business entity or governmental entity that employs at least twenty-five employees within this state and who, in the capacity as an employee, does not assert control or decision-making authority over the entity's management or budget decisions.

(l) The ownership of any publicly traded investments that are held in an account or fund, including a mutual fund, that is managed by one or more qualified investment professionals who are not employed or controlled by the officer or employee and that the officer or employee owns shares or interest together with other investors.

11. "Substantial interest" means any nonspeculative pecuniary or proprietary interest, either direct or indirect, other than a remote interest.

§ 38-503. Conflict of interest; exemptions; employment prohibition

A. Any public officer or employee of a public agency who has, or whose relative has, a substantial interest in any contract, sale, purchase or service to such public agency shall make known that interest in the official records of such public agency and shall refrain from voting upon or otherwise participating in any manner as an officer or employee in such contract, sale or purchase.

B. Any public officer or employee who has, or whose relative has, a substantial interest in any decision of a public agency shall make known such interest in the official records of such public agency and shall refrain from participating in any manner as an officer or employee in such decision.

C. Notwithstanding the provisions of subsections A and B of this section, no public officer or employee of a public agency shall supply to such public agency any equipment, material, supplies or services, unless pursuant to an award or contract let after public competitive bidding, except that:

1. A school district governing board may purchase, as provided in sections 15-213 and 15-323, supplies, materials and equipment from a school board member.

2. Political subdivisions other than school districts may purchase through their governing bodies, without using public competitive bidding procedures, supplies, materials and equipment not exceeding three hundred dollars in cost in any single transaction, not to exceed a total of one thousand dollars annually, from a member of the governing body if the policy for such purchases is approved annually.

D. Notwithstanding subsections A and B of this section and as provided in sections 15-421 and 15-1441, the governing board of a school district or a community college district may not employ a person who is a member of the governing board or who is the spouse of a member of the governing board.

§ 38-504. Prohibited acts

A. A public officer or employee shall not represent another person for compensation before a public agency by which the officer or employee is or was employed within the preceding twelve months or on which the officer or employee serves or served within the preceding twelve months concerning any matter with which the officer or employee was directly concerned and in which the officer or employee personally participated during the officer's or employee's employment or service by a substantial and material exercise of administrative discretion.

B. During the period of a public officer's or employee's employment or service and for two years thereafter, a public officer or employee shall not disclose or use for the officer's or employee's personal profit, without appropriate authorization, any information acquired by the officer or employee in the course of the officer's or employee's official duties which has been clearly designated to the officer or employee as confidential when such confidential designation is warranted because of the status of the proceedings or the circumstances under which the information was received and preserving its confidentiality is necessary for the proper conduct of government business. A public officer or employee shall not disclose or use, without appropriate authorization, any information that is acquired by the officer or employee in the course of the officer's or employee's official duties and that is declared confidential by law.

C. A public officer or employee shall not use or attempt to use the officer's or employee's official position to secure any valuable thing or valuable benefit for the officer or employee that would not ordinarily accrue to the officer or employee in the performance of the officer's or employee's official duties if the thing or benefit is of such character as to manifest a substantial and improper influence on the officer or employee with respect to the officer's or employee's duties.

§ 38-505. Additional income prohibited for services

A. No public officer or employee may receive or agree to receive directly or indirectly compensation other than as provided by law for any service rendered or to be rendered by him personally in any case, proceeding, application, or other matter which is pending before the public agency of which he is a public officer or employee.

B. This section shall not be construed to prohibit the performance of ministerial functions including, but not limited to, the filing, or amendment of tax returns, applications for permits and licenses, incorporation papers, and other documents.

§ 38-506. Remedies

A. In addition to any other remedies provided by law, any contract entered into by a public agency in violation of this article is voidable at the instance of the public agency.

B. Any person affected by a decision of a public agency may commence a civil suit in the superior court for the purpose of enforcing the civil provisions of this article. The court may order such equitable relief as it deems appropriate in the circumstances including the remedies provided in this section.

C. The court may in its discretion order payment of costs, including reasonable attorney's fees, to the prevailing party in an action brought under subsection B.

§ 38-507. Opinions of the attorney general, county attorneys, city or town attorneys and house and senate ethics committee

Requests for opinions from either the attorney general, a county attorney, a city or town attorney, the senate ethics committee or the house of representatives ethics committee concerning violations of this article shall be confidential, but the final opinions shall be a matter of public record. The county attorneys shall file opinions with the county recorder, the city or town attorneys shall file opinions with the city or town clerk, the senate ethics committee shall file opinions with the senate secretary and the house of representatives ethics committee shall file opinions with the chief clerk of the house of representatives.

§ 38-508. Authority of public officers and employees to act

A. If the provisions of section 38-503 prevent an appointed public officer or a public employee from acting as required by law in his official capacity, such public officer or employee shall notify his superior authority of the conflicting interest. The superior authority may empower another to act or such authority may act in the capacity of the public officer or employee on the conflicting matter.

B. If the provisions of section 38-503 prevent a public agency from acting as required by law in its official capacity, such action shall not be prevented if members of the agency who have apparent conflicts make known their substantial interests in the official records of their public agency.

§ 38-509. Filing of disclosures

Every political subdivision and public agency subject to this article shall maintain for public inspection in a special file all documents necessary to memorialize all disclosures of substantial interest made known pursuant to this article.

§ 38-510. Penalties

C. A person who:

1. Intentionally or knowingly violates any provision of sections 38-503 through 38-505 is guilty of a class 6 felony.

2. Recklessly or negligently violates any provision of sections 38-503 through 38-505 is guilty of a class 1 misdemeanor.

D. A person found guilty of an offense described in subsection A of this section shall forfeit his public office or employment if any.

E. It is no defense to a prosecution for a violation of sections 38-503 through 38-505 that the public officer or employee to whom a benefit is offered, conferred or agreed to be conferred was not qualified or authorized to act in the desired way.

F. It is a defense to a prosecution for a violation of sections 38-503 through 38-505 that the interest charged to be substantial was a remote interest.

16. F.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Consideration and Direction: Board and Commission Council Representative Assignments

STAFF RECOMMENDED ACTION:

Make Council Representative Assignments to the following Commissions:

1. Airport Commission
2. Beautification and Public Art Commission
3. Commission on Diversity Awareness
4. Commission on Inclusion and Adaptive Living
5. Heritage Preservation Commission
6. Housing Commission
7. Open Spaces Commission
8. Parks and Recreation Commission
9. Planning and Zoning Commission
10. Sustainability Commission
11. Tourism Commission
12. Transportation Commission
13. Water Commission
14. Any other commissions Council feels necessary

Executive Summary:

Interaction between the City Council and commissions is important and necessary to share information and recommendations. With a Councilmember assigned to various commissions it is believed that communication and information sharing can be improved. Each Councilmember assigned to a commission will be responsible for gathering information from the commission and reporting back to the Council during their meetings.

The commissions selected for appointment are based on the frequency in which they meet and if they already have a Council assignment statutorily. A list of all boards and commissions has been attached for review should Council wish to appoint a representative not included in the staff recommendation.

Financial Impact:

None

Policy Impact:

None

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

COMMUNITY OUTREACH

Enhance public transparency and accessibility.

Previous Council Decision on This:

On June 11, 2019 the City Council decided that having a Councilmember Representative assigned to a board or commission would improve the quality of interactions between the Council and its various boards and commissions. Council gave direction to bring back a list of boards and commissions for Council to discuss and make assignments.

Attachments: Boards and Commissions

APPENDIX A

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Airport Responsible for reporting to the Council on the development of the Airpark and matters affecting the operation and efficiency of the airport.	3 yrs	Council	City Code: Title 2, Chapter 2-11	Barney Helmick	7
Audit Committee Meets at least once a year, to review the Annual Financial and Single Audit reports.	Indef.	Council	Res Nos. 1320, 2029, 2002-59	Rick Tadder	6
Beautification and Public Art Recommends expenditures from the BBB, community beautification projects, the purchase and installation of public art projects.	3 yrs	Council	City Code: Title 2, Chapter 2-14	Mark DiLucido	7
Bicycle Advisory Committee Report to the City's Transportation Commission on issues related to planning for and accommodation of bicycles.	3 yrs	Transport Comm.	City Code: Title 2, Chapter 2-12	Martin Ince	7
Board of Adjustment Holds hearings on request for variances and appeals of decision by the Zoning Code Administrator.	3 yrs	Council	ARS § 9-462.06, City Code: Title 2, Chapter 2-10	Daniel Symer	7
Building and Fire Code Board of Appeals Holds hearings on appeals related to the application and interpretation of City building and fire codes.	5 yrs	Council	Res. 1565, 2001-42	Amy Palmer	7
Diversity Awareness Fosters mutual understanding, tolerance, respect, and awareness among all citizens; recognizing the different economic, cultural, social, religious, and ethnic groups within the City; cooperating in the development of educational programs dedicated to improving community relations and enlisting support of various groups to foster diversity awareness.	3 yrs	Council	City Code: Title 2, Chapter 2-08	Shannon Anderson	7
Flagstaff Housing Authority Oversees the functions of the Housing Authority. The Authority implements the public housing programs.	4 yrs	Mayor	ARS § 36-1404.B City Code: Title 1, Chapter 1-13	Sarah Darr	7
Flagstaff Metropolitan Planning Organization Federally mandated organization responsible for planning and programming federal transportation funds in the region	2 yrs	Council	Intergovernmental Agreement	Jeff Meilbeck	6

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Housing Commission Makes recommendations with respect to housing policies, needs, and programs in Flagstaff.	3 yrs	Council	City Code: Title 2, Chapter 2-25	Sarah Darr	15
Heritage Preservation Advises the City Council on all matters relating to historic preservation, and reviews development projects in designated historic districts.	3 yrs	Council	City Code: Title 2, Chapter 2-19	Tiffany Antol	7
Inclusion and Adaptive Living Expand educational opportunities; improve access to housing, buildings, and transportation; have greater participation in recreational, social, and cultural activities; encourage greater opportunity for employment and expand/strengthen rehabilitative programs and facilities	3 yrs	Council	City Code: Title 2, Chapter 2-18	Denise Thompson	7
Industrial Development Authority Independent authority established by State law. Issue revenue bonds to projects eligible for financing under State statute.	6 yrs	Council	Resolution No. 1636	Brandon Kavanagh	9
Library Board Serves as a citizen's advisory board to the Library Director.	3 yrs	Council	Intergovernmental Agreement	Mark Cesare	8
Open Spaces Advises the Council on the acquisition, management, use, restoration, enhancement, protection, and conservation of open space land within the City of Flagstaff.	3 yrs	Council	City Code: Title 2, Chapter 2-20	Robert Wallace	7
Parks and Recreation Makes recommendations to the Council regarding City parks and recreational programs, the annual budget and capital improvements for the Parks and Recreation Divisions.	3 yrs	Council	City Code: Title 2, Chapter 2-03	Rebecca Sayers	7
Pedestrian Advisory Committee Report to the City's Transportation Commission on issues related to planning for and accommodation of pedestrians.	3 yrs	Transport Comm.	Code, Title 2, Chapter 2-12	Martin Ince	7
Personnel Board Conducts hearing to ensure due process for regular, classified employees who are dismissed, demoted, or suspended without pay.	4 yrs	Council	Ord. No. 971, 1041, 1116, 1146, 1198	Shannon Anderson	7

NAME	TERMS	APP'D BY	AUTHORITY	STAFF LIAISON	# OF SEATS
Planning and Zoning Serves as an advisory board to the Council on matters relating to the growth and physical development of the City. Conduct hearings on amendments to the Zoning Map, tentative subdivision plats, Conditional Use Permits.	3 yrs	Council	ARS § 9-461.02 City Code: Title 2, Chapter 2-01	Tiffany Antol	7
PSPRS Board Processes membership and retirement applications from the Flagstaff police officers and firefighters.	4 yrs	Mayor	ARS § 38-847	Vivian Fennema Allison Hughes	7
Self-Insurance Trust Fund Board Administers the self-insurance program of the City.	2 yrs	Council	City Code: Title 1, Chapter 1-24	Dean Coughenour	5
Sustainability Recommend and coordinates activities in concert with the Flagstaff Sustainability Program. Promotes sustainable practices in all spheres of life and educating Flagstaff citizens	3 yrs	Council	City Code: Title 2, Chapter 2-17	Nicole Antonopoulos	7
Tourism Develops, promotes, and maintains Flagstaff as a year-round destination with professional visitor services that will benefit the community economically, environmentally, and socially.	3 yrs	Council	City Code: Title 2, Chapter 2-13	Trace Ward	7
Transportation Reviews requests for changes in traffic regulations and recommends traffic-related policies to the Council.	3 yrs	Council	City Code: Title 2, Chapter 2-12	Jeffrey Bauman	7
Water Reviews extensions of the water and sewer collection systems, treatment and use of water furnished by the City, treatment and disposal of the City's sewage system effluent, and water/sewer rates.	3 yrs	Council	City Code: Title 2, Chapter 2-04	Brad Hill	7

16. G.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To: The Honorable Mayor and Council

From: Neil Gullickson, Planning Development Manager

Date: 08/19/2019

Meeting Date: 08/27/2019

TITLE

Review of Conditional Use Permit No. PZ 18-00182-02: A request by Mayor Evans to place on a future agenda a review of a Conditional Use Permit (CUP) for a Rooming and Boarding facility located at 901 S O'Leary. The CUP as approved by the Planning and Zoning Commission allows the Commons at Sawmill, an existing apartment complex, to have individual leases with each tenant within a rental unit.

STAFF RECOMMENDED ACTION:

Council direction.

EXECUTIVE SUMMARY:

Zoning Code section 10-20.80.030.G, City Council Review of Conditional Use Permit:
Within 10 calendar days of the date of the Planning Commission's decision, any Councilmember may request of the City Manager that an action item to consider a review of the decision be brought before the Council. Upon receipt of a request to consider a review, the City Manager shall place the item on the next regular or special Council meeting agenda for consideration. If Council elects to review the decision by a majority vote of a quorum of the City Council, the Planning Commission's decision is stayed and such review will be treated as an appeal under this section and a hearing and decision must be rendered by City Council no later than 30 calendar days following the election to review.

INFORMATION:

N/A

Attachments: CUP Report

PLANNING AND DEVELOPMENT SERVICES REPORT
CONDITIONAL USE PERMIT

PUBLIC HEARING **DATE: July 26, 2019**
PZ-18-00182-02 **MEETING DATE: August 14, 2019**
REPORT BY: Neil Gullickson

REQUEST:

A request from NB SAWMILLTIC 1 LLC, for a Conditional Use Permit from the City of Flagstaff to allow a Rooming and Boarding Facility which permits each of the 448 bedrooms (194 garden style apartments) to be leased individually. The site is 6.71 acres in size and is located at 901 South O'Leary Street, within the High Density Residential (HR) Zone.

STAFF RECOMMENDATION:

In accordance with the findings as presented in this report, staff recommends the Planning and Zoning Commission approve Conditional Use Permit PZ-18-00182-02 with the following conditions:

1. The development complies with all the IDS site plan approval comments, dated February 25, 2019.
2. The site is developed in substantial conformance to the site plan, elevations, and technical documents approved by the Planning and Zoning Commission.
3. The applicant agrees to provide NAIPTA bus passes through the Bulk Purchase Program with each lease (one per bedroom) for a two-year period.

PRESENT LAND USE:

The site is occupied by fourteen (14) residential apartment buildings, one clubhouse building, and parking.

PROPOSED LAND USE:

The applicant would like to lease individual bedrooms with common cooking and living space instead of leasing by unit. Other than changes to the landscaping and parking areas, no physical changes to the existing buildings are proposed.

NEIGHBORHOOD DEVELOPMENT:

North:	Single and multi-family residential uses, HR, High Density Residential Zone;
West:	Cemetery and NAU, PF, Public Facilities Zone;
East:	Undeveloped City Property, FUTS and Lonetree Road, PF, Public Facilities Zone;
South:	Lonetree Road single and multi-family residential uses, MR, Medium Density Residential Zone.

REQUIRED FINDINGS:

The Planning Commission may approve the Conditional Use Permit only after making the findings, below, that the characteristics of the conditional use as proposed and as it may be conditioned are reasonably compatible with the types of uses permitted in the surrounding area. The Conditional Use Permit shall be

issued only when the Planning Commission finds that the applicant has considered and adequately addressed the following (Section 10-20.40.050.E of the City of Flagstaff Zoning Code):

1. That the conditional use is consistent with the objectives of the Zoning Code and the purpose of the zone in which the site is located.
2. That granting the conditional use will not be detrimental to the public health, safety, or welfare. The factors to be considered in making this finding shall include, but not be limited to:
    a) Property damage or nuisance arising from noise, smoke, odor, dust, vibration, or illumination.
    b) Hazard to persons or property from possible explosion, contamination, fire, or flood; and,
    c) Impact on surrounding areas arising from unusual volume or character of traffic.
3. That the characteristics of the conditional use as proposed and as it may be conditioned are reasonably compatible with the types of uses permitted in the surrounding area. The Conditional Use Permit shall be issued only when the Commission finds that the applicant has considered and adequately addressed the following to ensure that the proposed use will be compatible with the surrounding area:
    a) Access, traffic, and pedestrian, bicycle, and vehicular circulation;
    b) Adequacy of site and open space provisions, including resource protection standards, where applicable;
    c) Noise, light, visual, and other pollutants;
    d) Proposed style and siting of structure(s), and relationship to the surrounding neighborhood;
    e) Landscaping and screening provisions, including additional landscaping in excess of otherwise applicable minimum requirements;
    f) Impact on public utilities;
    g) Signage and outdoor lighting;
    h) Dedication and development of streets adjoining the property; and
    i) Impacts on historical, prehistoric, or natural resources.

Conditions of approval will only be imposed if they are necessary to ensure the intent and purpose of this Zoning Code are met; to ensure compatible and complementary development of the property; and to ensure the provision of appropriate off-site improvements will be fulfilled.

STAFF REVIEW:

INTRODUCTION AND DISCUSSION

The applicant, NB SAWMILLTIC 1 LLC, through their consultant Nick Wood, has applied for a Conditional Use Permit for a Rooming and Boarding Facility, an allowed use in the High-Density Residential Zone. Allowed uses in the residential districts are exhibited in Table 10-40.30.030.B of the Zoning Code. Rooming and Boarding is defined by the Code as:

Rooming and Boarding Facility: *A residence or dwelling, other than a hotel, wherein three or more rooms, with or without individual or group cooking facilities, are rented to individuals under separate rental agreements or leases, either written or oral, whether an owner, agent, or rental agent is in residence. Includes dormitories, single room occupancy, fraternities and sororities.*

The Commons at Sawmill is an existing apartment complex with 194 residential units, including 448 leasable bedrooms. Each of the 14 residential buildings on the site is roughly 10,000 square feet in size,

3-story, and roughly 48-feet tall. A mixture of one-, two- and three-bedroom units are located within the complex. A two story, approximately 5,000 square feet clubhouse/amenities facility is nearing completion and is located at the south end of the site. As noted earlier, no changes to the existing buildings are proposed as part of this Conditional Use Permit application. A Conditional Use Permit is required by the Zoning Code before using the Rooming and Boarding land use which, if approved, will allow the lease of individual bedrooms.

FINDINGS

As noted above in the Required Findings section of this report, the Commission may approve the CUP only after making the findings (listed above). The following provides information regarding the application either supporting or not supporting the findings:

1. The conditional use is consistent with the objectives of the Zoning Code and the purpose of the zone in which the site is located. *The HR Zone is intended to provide an environment having maximum living amenities on-site while providing affordable housing residential design flexibility, more efficient use of open space, and better separation of pedestrian and vehicular traffic. The existing development was constructed in compliance with the standards of the HR zone and has been found in compliance with the intent of the zone.*

2. The granting of the requested conditional use permit will not be detrimental to the public health, safety, or welfare so long as it is operated in compliance with this permit.

   a) Property damage or nuisance arising from noise, smoke, odor, dust, vibration, or illumination.
   b) Hazard to persons or property from possible explosion, contamination, fire, or flood.
   c) Impact on surrounding areas arising from unusual volume or character of traffic.

   This complex has been in existence since 1994; no changes to the site that would lead to nuisance is expected. No additional volume or change in traffic patterns are expected due to the proposed change of use.

   Attached is a memo from Emergency Services that identifies the frequency of calls to student housing developments/Rooming and Boarding uses. The memo indicates that .22 calls per bed is the average for student housing projects; this number tends to drop as the complex grows older. The data provide by the applicant in their attached Conditional Use Permit Findings indicates that the average at the Commons at Sawmill is .09 calls per bed (when towing related calls are removed, .24 with towing) less than the average number of calls. The applicant has indicated that currently there is no on-site private security at this site nor does the property participate in the Crime Free Housing Program.

3. The proposed use is reasonably compatible with the types of uses permitted in the surrounding area. The applicant has considered and adequately addressed the following to ensure that the proposed use will be compatible with the surrounding area:

Access, Traffic, and Pedestrian, Bicycle, and Vehicular Circulation
Vehicular access to the site is via a single driveway on to South O'Leary Street, which leads to South

Lonetree Road and West Franklin Avenue. Pedestrian and bicycle movement also use South O'Leary Street. Two informal trails systems exist: one at the south end of the site which accesses the adjacent FUTS system, and the second crosses the City property (Citizens Cemetery) to the west and on to the NAU campus. The City's Capital Improvements Division is working on the development of a formalized pedestrian connection adjacent to the north property line of this site that will access the NAU Campus.

In order to encourage transit use and support the requested reduction in parking. The applicant has agreed to provide an Eco Pass to all residents for a period of two (2) years. At the end of two years, the owner will evaluate the usage, interest, and economic impacts the program has on the site.

The Zoning Code requires Rooming and Boarding uses provide one parking space per each bedroom. This site would require 449 spaces; a 10% reduction for access to transit and a 5% reduction for bicycle parking brings the requirement to 383 spaces. Provided on this site are 387 spaces, which meets the requirement.

Adequacy of Site/Open Space/Resource Provisions

This application does not propose any additional open space. The previous owner-initiated construction of a new leasing office that includes an exercise room and common room for use by the residents. That building is presently being completed by the current property owner; occupancy is anticipated before the start of the school year this fall.

This site is located within the Resource Protection Overlay Zone and is subject to the Code requirements applicable to the Zone. This proposal does not involve the removal of any forest resources nor does it modify any qualifying slope areas. There is no floodplain located on this site.

Noise, Light, Visual, and Other Pollutants

The application does not propose any changes to the exterior of the buildings or current lighting.

Style and Siting of Structure and Relationship to Surrounding Neighborhood

No changes to the exterior of the building have been proposed; pictures of the buildings have been provided by the applicant and are attached to this report.

Landscaping and Screening

As part of the CUP application, the site's landscaping, which is currently deficient when compared to current code standards, will be brought up to current standards. Landscaping plans for the site have been attached to this report. The parking lots were not designed with parking lot or terminal islands; new parking lot planting will require the creation of diamond-shaped tree wells throughout the site. These islands will include curbs and new trees. New plantings are being provided around each of the buildings to meet the building perimeter requirement.

Impact on Public Utilities

No changes to the existing water delivery or waste removal systems are proposed in association with the CUP application.

Signage and Outdoor Lighting

No new signage or additional outdoor lighting is proposed as part of this request. The Zoning Code

sets a threshold of 25% increase of square footage at the site before current lighting must be brought into conformance with the current Code.

Any new signage will be required to apply for a Sign Permit and comply with the current Zoning Code.

Dedication and Development of Streets
No additional rights-of-way are required at this location. The existing street and pedestrian infrastructure are in place across the frontage of this property.

Impacts on Resources
There will be no impacts to historical, prehistoric, or natural resources. This site is located within the Resource Protection Overlay, no trees or other resources (slope or floodplain) are proposed to be modified by this application. Based on the scope of work, a Cultural Resource Study was not required.

After review of the application, staff believes that the findings as applicable to this application have been addressed by the applicant.

PUBLIC CONTACTS:

On November 14, 2018, the applicant held a neighborhood meeting at the Boys and Girls Club of Flagstaff. No members of the public attended the meeting. As of the date of this report, staff has received no written or phone comments regarding the application. The Neighborhood Meeting Notification letter is attached as part of the applicant's information packet.

RECOMMENDATION:

The Development Review staff approved the site plan for this project on February 25, 2019 (conditions attached). Staff recommends that the request for the CUP be granted by the Planning and Zoning Commission with the requirements included in Conditional Use Permit No. PZ-18-00182-02. The conditions for this CUP include:

1. The development complies with all the IDS site plan approval comments, dated February 25, 2019.
2. The site is developed in substantial conformance to the site plan, elevations, and technical documents approved by the Planning and Zoning Commission.
3. The applicant agrees to provide NAIPTA bus passes through the Bulk Purchase Program with each lease (one per bedroom) for a two-year period.

ATTACHMENTS

- Conditional Use Permit No. PZ-18-00182-02 and Proposition 207 waiver
- Conditional Use Permit Application
- Site Location & Zoning Map
- Conditions of Site Plan Approval, dated February 25, 2019
- Project Narrative and Developer Findings
- Applicant's supplemental information titled "Building Elevations"
- Site Plan and supplemental plan sheets

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Jeff Bauman, Traffic Engineer
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE

Street Lighting to Enhance Dark Skies (SLEDS) Project Update

STAFF RECOMMENDED ACTION:

This is a project update discussion, no action is requested or required.

EXECUTIVE SUMMARY:

The SLEDS Project's primary objective is to find a solution to Flagstaff's current street lighting replacement need while balancing dark skies, safety and maintenance/cost effectiveness objectives.

The SLEDS Project is the result of several years of discussions between the City and the local observatories (USNOFS and Lowell Observatory) and the Dark Skies Coalition that started in May 2012. At that time, the City found itself in a lighting predicament as Low Pressure Sodium (LPS), the preferred lighting source since 1989, was becoming increasingly more expensive to purchase, quality replacement parts were becoming more difficult to acquire and we were experiencing structural failures of the pole/mast arm connection due to the size and weight of the LPS fixture, especially in wind prone areas.

In June 2015, Council approved an Inter-Governmental Agreement (IGA) with ADOT to secure funding for the SLEDS Project. This was in the form of $100K (FY16) to hire a Consultant Team and $200K (FY16) for test fixtures to support the Consultant Team's work. With all of the funding coming from the Flagstaff Metropolitan Planning Organization's (FMPO) Surface Transportation Program (STP).

The following from the SLEDS Request for Proposals summarizes the projects direction and goals: "The City seeks cost effective replacement technologies that (1) maintain or approximate current lighting levels and (2) do not adversely impact the City's dark sky natural resource or the missions of the Lowell Observatory and the U.S. Naval Observatory. In consideration of cost effectiveness, the City seeks to utilize existing light pole infrastructure."

In September 2015, the Consultant Team, led by Monrad Engineering, was awarded a one year and $100K contract to conduct applied research in order to develop a replacement strategy for the City's increasingly obsolete LPS streetlights with newer technology (LED). This contract was previously modified to a total amount of $141K.

The SLEDS Project has been an opportunity for Flagstaff to demonstrate to other municipalities an innovative lighting solution for dark sky preservation with Light Emitting Diode (LED) technology that

achieves municipal objectives for safety and cost effectiveness and astronomical objectives for maintaining dark skies. This has helped guide the SLEDS team as we've worked towards a Flagstaff lighting solution.

INFORMATION:

The SLEDS Team has completed the following tasks:

- An assessment of the viability of continuing to use LPS, which is no longer available as of July 2019
- A structural analysis of existing light pole/mast arm assemblies and retrofit recommendations for existing poles/masts
- Test fixture specification and procurement
- Installation of test fixtures:
    - Arterial and select Major Collectors - NBALED @ 12k lumens
        - Butler Avenue - Milton to Sawmill
        - Fourth Street - Route 66 to Industrial
    - Arterial and select Major Collectors - Hybrid LED @ 9k lumens
        - Butler Avenue - Sawmill to Ponderosa Parkway
        - Route 66 - Arrowhead to Fourth Cedar at West signalized intersection
    - Residential Minor Collectors and Local Streets - NBALED @ 1500 lumens and 2500 lumens
        - Southern half of the Cheshire neighborhood
- Solicit public feedback on the test installations through survey and lighting tours
- Draft SLEDS Project Report
- Developed City Wide replacement scenarios – Retrofit

Final Steps:

- Finalize SLEDS Project Report
- Draft New Engineering Standards
- City Council Regular Meeting for consideration of Engineering Standards for New Construction adoption (by Ordinance).

Council Goals:

Section 8 - Environmental and Natural Resources - Align City Policies and Street Lighting to Enhance Dark Skies (SLEDS)

Attachments: SLEDS ppt

SLEDS Project Update

- Introductions
- Background / History
- Completed Tasks
- Final Step
- SLEDS Team - Discussion



Background / History

- Limited Field Testing – 89 North, West Street… - 2013
- Dark Skies Conference –'Blinded by the Light'– August 2014
- SLEDS
  - IGA with ADOT - June 2015
    - FMPO – Surface Transportation Program
      - FY 16 - $100K - Consultant Contract – October 2015
      - FY 16 - $200K – Test Fixtures – June 2017
      - FY 17 - $41k – Consultant Contract Change Order – April 2017

Highlights of RFP – Challenges and Opportunities

"We seek to identify how the City can affect a solution to this challenge. At the same time, we identify it as an opportunity for Flagstaff to demonstrate to other municipalities an innovative lighting solution for dark-sky preservation with LED technology.

This entails:

- A cost effective solution to long-term street lighting needs that achieves municipal objectives for safety and cost effectiveness and astronomical objectives for maintaining dark skies.
- Innovation that advances the industry or best practices for technology transfer that advances the purpose of preserving dark skies."

Highlights of RFP – Project Direction

- Maintain or approximate current lighting levels
- Do not adversely impact the City's dark sky natural resource or the missions of the Lowell Observatory and the U.S. Naval Observatory
- Utilize existing light pole infrastructure

Measures of Effectiveness may include:

- Light Uniformity
- Brightness and Spectrum Analysis from several perspectives
- Color rendition
- Wind loading (Effective Projected Area)
- Public commentary on lighting levels and color rendition
- Life cycle costs including, but not limited to, initial capital expense, energy use, and maintenance

Completed Tasks

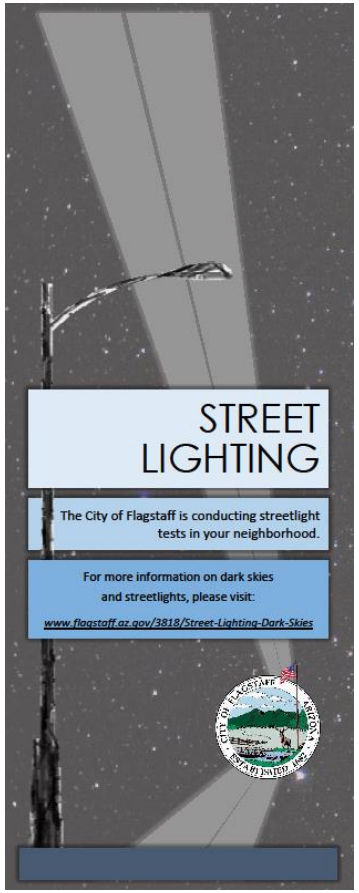
- Assessment of viability of LPS
- Structural Analysis of Mast Arms
- Installed and Evaluated Test Fixtures
- Public Survey and Lighting Tours
- Consultant Report
- Proposed Engineering Standards

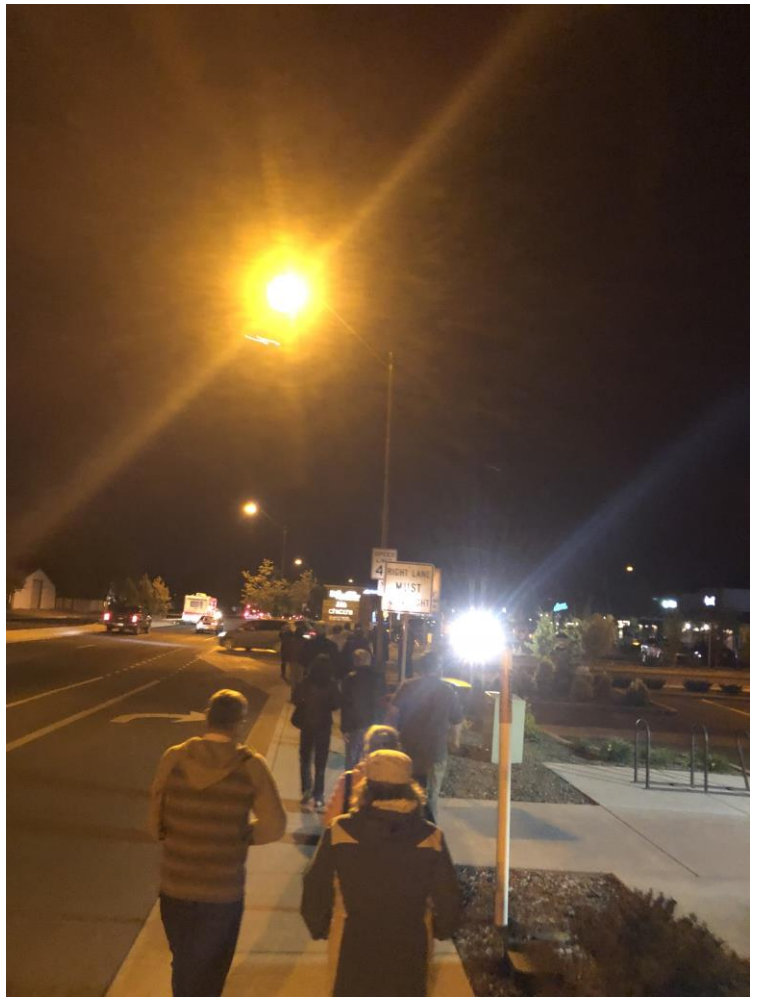
LPS – Low Pressure Sodium



Lighting Tour







Retrofit and New Construction Engineering Standards

- Retrofit Strategy
  - Lighting Fixture changeout (3500 fixtures)
    - Mixture of Narrow Band Amber (NBA) and Phosphor Converted Amber (PCA) for Major Streets
    - Narrow Band Amber for Collector and Local streets
  - Proposition 419 - $8,000,000 beginning CY 2020 ($1.33M for 6 years)

- New Construction
  - New underground, poles and fixtures
    - Narrow Band Amber



Final Step

- Develop Engineering Standards Ordinance for City Council consideration – Fall 2019

SLEDS Team

- Jeff Hall, Lowell Observatory
- Paul Shankland, US Naval Observatory
- Fred Vrba, US Naval Observatory
- Chris Luginbuhl, Dark Skies Coalition
- Chris Monrad, Monrad Engineering
- Jim Benya, Benya Burnette Consultancy

Discussion

17. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Nicole Antonopoulos, Sustainability Manager
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE:

Update on the City of Flagstaff's renewable energy goals and renewable energy project development.

STAFF RECOMMENDED ACTION:

Staff is seeking direction from City Council on next steps for advancing renewable energy for municipal operations.

Executive Summary:

In an effort to support the 2010 Energy Efficiency and Renewable Energy Resolution, the 2017 City Council goal to take meaningful climate action, and the goals set forth in 2018 Climate Action and Adaptation Plan, staff will provide an update on efforts currently underway to transition municipal operations to 100% renewable energy.

Staff will be requesting direction on next steps in advancing renewable energy development. Current options for consideration are:

1. Continue with solicitation for 19 MW solar project with Next Era
2. Elevate discussions with APS to explore projects:

    a) Solar development at Red Gap Ranch
    b) Solar and wind development at Red Gap Ranch and appropriate wind corridor locations
    c) Change renewable energy goal and work with APS to design an energy portfolio based on solar, wind and existing nuclear.

Financial Impact:

Financial impacts are unknown at this time. However, as project development advances staff will bring financial impacts to City Council for consideration.

Policy Impact:

Advancing renewable energy projects will support the goals set forth in the 2010 Renewable Energy Resolution and the 2018 Climate Action and Adaptation Plan.

Connection to Council Goal, Regional Plan and/or Team Flagstaff Strategic Plan:

Connection to Council Goal and/or Regional Plan:
Council Goals:
Take meaningful climate change action.

Regional Plan:
Goal E.1. Increase energy efficiency
Goal E.2. Expand production and use of renewable energy
Goal E&C.1. Proactively improve and maintain the region's air quality.
Goal E&C.2 Reduce Greenhouse gas emissions
Goal E&C.3 Strengthen community and natural environment resiliency through climate adaptation efforts.
Goal E&C.4. Integrate the best available science into all policies governing the use and conservation of Flagstaff's natural resources.

Climate Action and Adaptation Plan:
E-1-F Perform a full-scale energy audit and implement recommended energy retrofits for all City of Flagstaff facilities from this full-scale audit and the Airport Sustainability Plan.
E-2-A Move forward with City Council target of 100% renewable energy use for the municipality with a plan for achieving that target by 2025.
E-2-D Buy and produce local and regional renewable energy, including through partnerships with Arizona tribes.

Previous Council Decision on This:

Staff provided City Council an update on renewable energy development on 9/25/2018. City Council unanimously adopted the Climate Action and Adaptation Plan on 11/20/2018

Attachments: Presentation
APS Presentation

Renewable Energy Development

Nicole Antonopoulos

August 27, 2019

TEAM FLAGSTAFF

WE MAKE THE CITY BETTER

Discussion

Renewable energy commitments

Current efforts

- Energy efficiency
- Renewable energy solicitation
- Discussions with APS

Council Direction

Renewable Energy Commitments

2010 Energy Efficiency and Renewable Energy Resolution

- Long-term energy planning which incorporates preparedness for future energy needs and protects against rising energy costs
- Renewable energy projects and purchasing combined will meet 35% by 2020

2017 transition to 100% renewable energy

- City operations and Flagstaff community

2018 Climate Action and Adaptation Plan (CAAP)

- 80% reduction in greenhouse gas emissions by 2050

Current Efforts

1. Energy efficiency and reducing peak demand
2. Solicitation for 19 MW solar project
3. Discussions with APS
   - Solar development
   - Solar and wind development
   - Clean energy portfolio

Energy Efficiency

Simultaneous efforts:

1. Developing energy performance contract solicitation for city-wide energy audit and retrofits
2. Developing strategies to reduce peak demand
3. Electric rate structure analysis
4. Water Services ongoing efforts to upgrade water production and waste water equipment and operational processes
5. Employee education

Renewable Energy Solicitation

1. Exclusivity Agreement with NextEra approved 4/16/19
   - The Agreement provides NextEra authorization to work with APS on the City's behalf on a 19 MW solar project on a Hopi parcel through 4/16/20
   - Does not commit the City to a power purchase agreement with NextEra
   - NextEra and Hopi continue to explore options for advancing this project
   - NextEra's interconnect study with APS valid until 2025

Discussions with APS

1. Solar development at Red Gap Ranch

Potential to develop a 50 MW solar project at the ranch. Regional partners would be invited to participate. The energy premium would be partially offset by the use of Red Gap Ranch land (pricing to be determined).

2. Solar and wind development at various locations

Potential to develop solar energy systems at Red Gap Ranch and wind energy systems in yielding wind corridors. The energy premium would be partially offset by the use of Red Gap Ranch land (pricing to be determined).

3. Clean energy portfolio at various locations

Potential to diversify the City's energy portfolio with solar, wind, and nuclear. APS would monitor use and peak demand to provide a clean energy mix (pricing to be determined).

Path Forward

Seeking direction from City Council:

1. Work with APS to develop up to a 50 MW solar project at Red Gap Ranch
2. Work with APS develop a solar project at Red Gap Ranch and a wind project - location to be determined
3. Redefine renewable energy goal and work with APS to bring nuclear, solar, and or wind into the City's energy mix

Thank you.

Nicole Antonopoulos

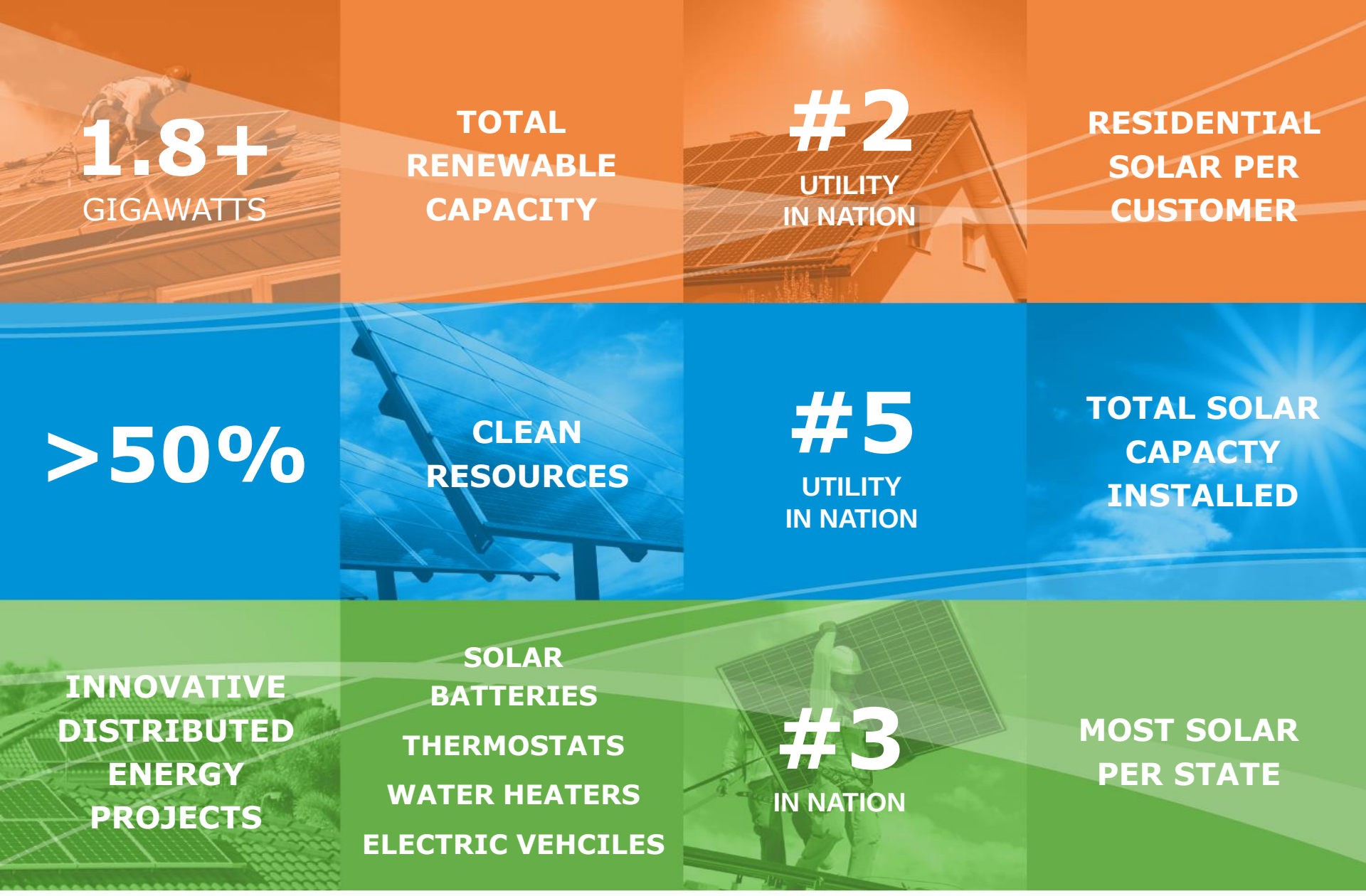
Sustainability Manager

nantonopoulos@flagstaffaz.gov

928.213.2149

The Future of Arizona Sustainability and Changing Grid Conditions

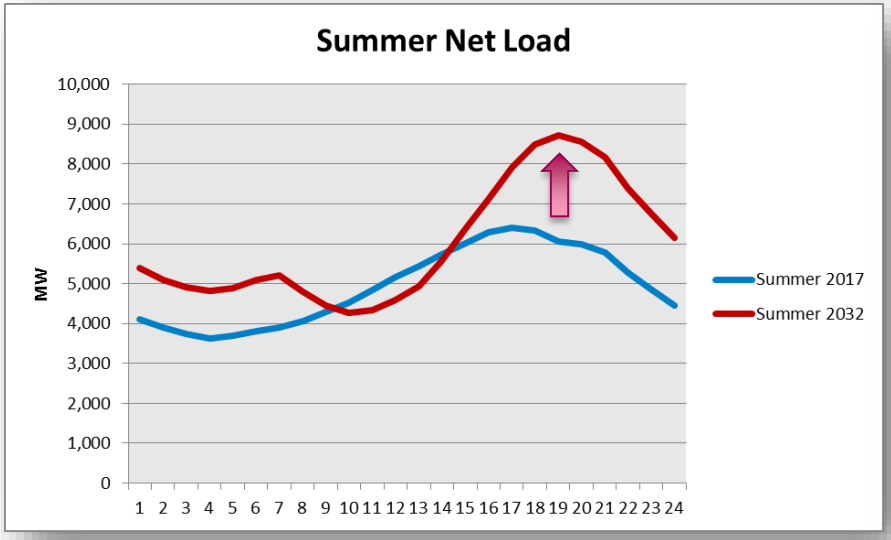


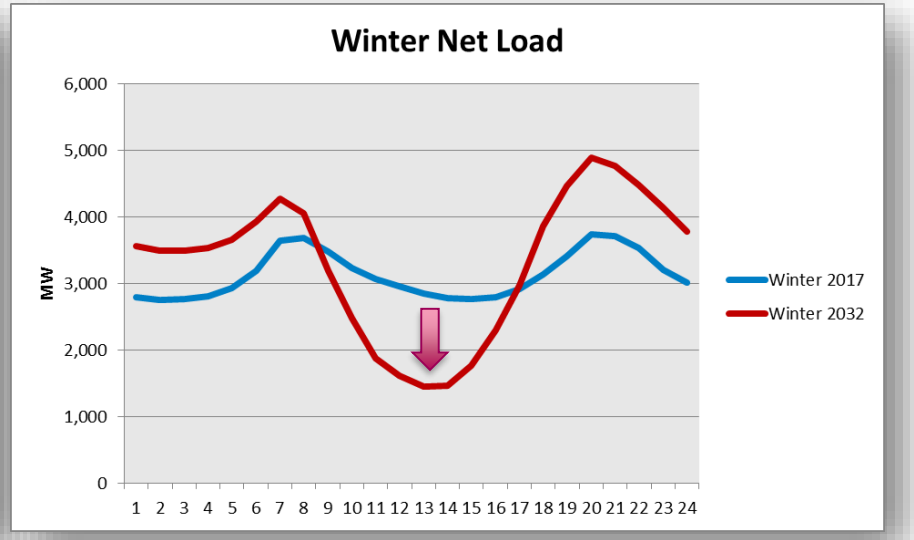

1.8+
GIGAWATTS
TOTAL RENEWABLE CAPACITY
#2
UTILITY IN NATION
RESIDENTIAL SOLAR PER CUSTOMER
>50%
CLEAN RESOURCES
#5
UTILITY IN NATION
TOTAL SOLAR CAPACTY INSTALLED
INNOVATIVE DISTRIBUTED ENERGY PROJECTS
SOLAR BATTERIES
THERMOSTATS
WATER HEATERS
ELECTRIC VEHCILES
#3
IN NATION
MOST SOLAR PER STATE

aps

Arizona Resource Needs are Changing

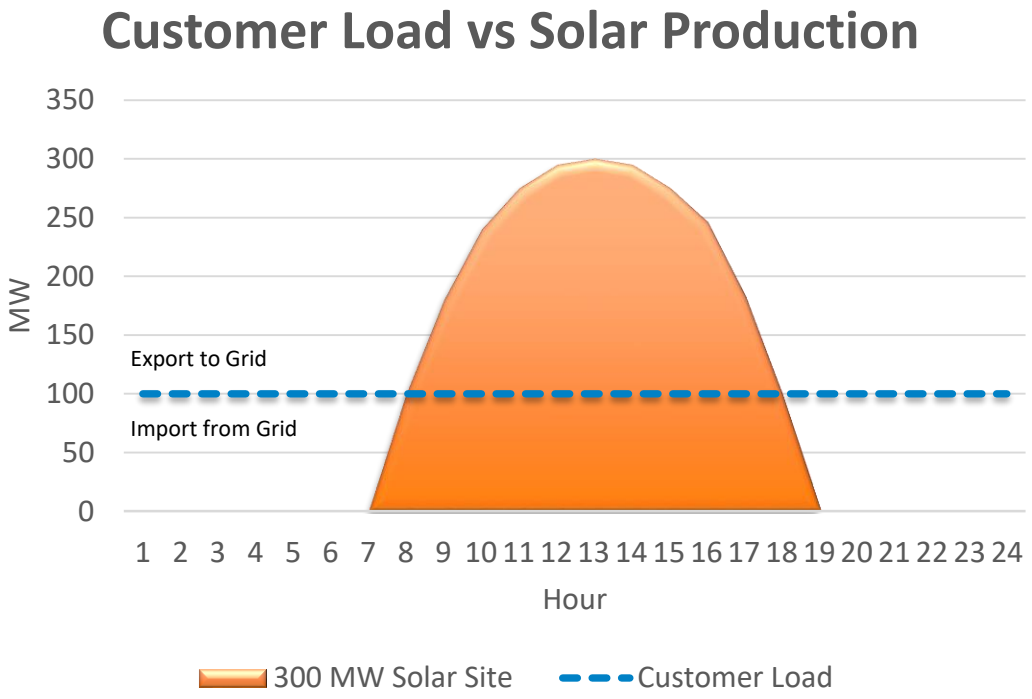
- Seasonal variation of resource needs
  - Continued evening growth during high load, summer periods
  - Continued reduction in net load during the daytime, non-summer periods





What does it take to reach 100% Solar Renewable Goals?

- **Grid** used to manage import & export energy flow
- Utility must **balance** the grid to maintain reliability
- High solar **penetration** causes operational difficulties



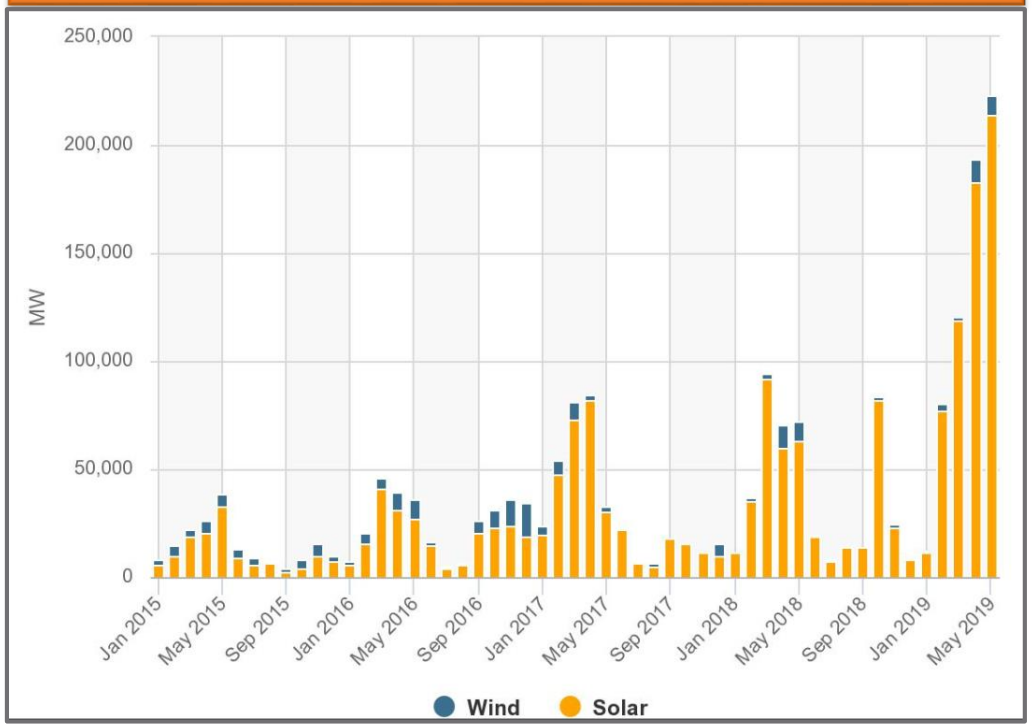
100% Renewable Solar Generation

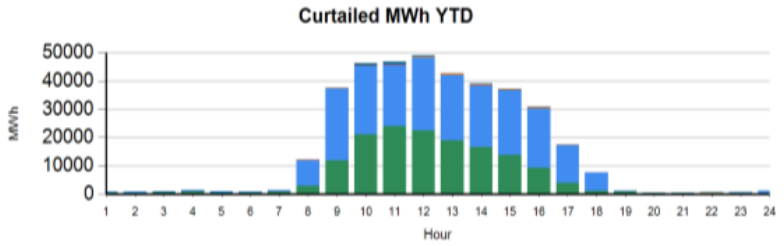
- Renewable goal increases mid-day production to nearly three times customer load
- Use of grid during all hours – for load service or export

Solar Overproduction

- Renewable resources economically curtailed to ensure grid stability
- Approximate renewable curtailment in CAISO
  - 2017: 380,000 MWH
  - 2018: 461,000 MWH
  - 2019 YTD May: **630,864** MWH
- Solutions to solar overproduction
  - Energy Imbalance Market
  - Storage
  - Solar + Storage
  - Demand response
  - TOU rates
  - Customer involvement

CAISO Wind and Solar Curtailment by Month





http://www.caiso.com/informed/Pages/ManagingOversupply.aspx

APS is taking leaps forward towards a Clean Energy Future

1. Modern Rates
2. Distributed Solar
3. Utility Scale Solar
4. Energy Storage
5. Rewards Program
6. Microgrids

19. A.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE

Removal of F.A.I.R. Items: Four previously requested F.A.I.R. items have been requested to be removed by Councilmember Whelan who made the initial requests.

STAFF RECOMMENDED ACTION:

Remove Councilmember Whelan's four requested F.A.I.R. items.

EXECUTIVE SUMMARY:

Councilmember Whelan has asked that the following F.A.I.R. items be removed;

1. Discuss developing a policy to prioritize water uses in times of shortage, in the context of public investment, and for community planning.
    - Supported by four Councilmembers on May 14, 2019.
2. Continue communicating with the Arizona Board of Regents & invite them to a meeting.
    - Supported by four Councilmembers on May 14, 2019.
3. Discussion about a plastic sled ordinance to stop the sale of plastic sleds or to attach a tariff to the sale of plastic sleds to pay for cleanup.
    - Supported by three Councilmembers on May 8, 2019
4. Discussion about a committee of two Councilmembers and staff to look at the I-40 corridor lands and Red Gap Ranch for economic development and give direction for our economic development and land use.
    - Supported by three Councilmembers on May 21, 2019

Because each of these items have already received the support of other Councilmembers, the Council Rules of Procedure require an action of Council to remove the items from the agenda.

INFORMATION:

Council Rules of Procedure, Rule 4.03 Removal of a F.A.I.R. Item states "Once [a F.A.I.R. item] it has been placed on the agenda as a F.A.I.R. item, and there are three or more Councilmembers who support moving it to a future agenda for discussion, an item may not be removed until it has been placed back on the agenda as a F.A.I.R. item to be Removed. Should there be no objection from Councilmembers, the item will be removed as a F.A.I.R. item. If at least three other Councilmembers wish to keep it on the F.A.I.R. list, it will be placed on a future agenda [as originally scheduled]."

Attachments:

19. B.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE

Future Agenda Item Request (F.A.I.R.): A request by Mayor Evans to place on a future agenda a discussion about possible regulations on new developments coming into town with a retail component for the benefit of higher density and not providing the retail.

STAFF RECOMMENDED ACTION:

Council direction.

EXECUTIVE SUMMARY:

Rule 4.01, Procedures for Preparation of Council Agendas, of the City of Flagstaff City Council Rules of Procedure outlines the process for bringing items forward to a future agenda. Mayor Evans has requested this item be placed on an agenda under Future Agenda Item Requests (F.A.I.R.) to determine if there are two other members of Council interested in placing it on a future agenda.

INFORMATION:

Attachments:

19. C.

CITY OF FLAGSTAFF

STAFF SUMMARY REPORT

To:	The Honorable Mayor and Council
From:	Stacy Saltzburg, City Clerk
Date:	08/20/2019
Meeting Date:	08/27/2019

TITLE

Future Agenda Item Request (F.A.I.R.): A request by Mayor Evans to place on a future agenda a discussion about a text amendment to the City Code allowing Council salaries to be considered by Council earlier than what is currently stated.

STAFF RECOMMENDED ACTION:

Council direction.

EXECUTIVE SUMMARY:

Rule 4.01, Procedures for Preparation of Council Agendas, of the City of Flagstaff City Council Rules of Procedure outlines the process for bringing items forward to a future agenda. Mayor Evans has requested this item be placed on an agenda under Future Agenda Item Requests (F.A.I.R.) to determine if there are two other members of Council interested in placing it on a future agenda.

INFORMATION:

Attachments: