

*****AMENDED*****
CITY COUNCIL REGULAR MEETING AGENDA

**REGULAR COUNCIL MEETING
TUESDAY
SEPTEMBER 15, 2026**

**COUNCIL CHAMBERS
211 WEST ASPEN AVENUE
3:00 P.M.**

**All City Council Meetings are live streamed on the city's YouTube page
(<https://www.youtube.com/@FlagstaffCityGovernment>)**

To provide online verbal comment on an item that appears on the posted agenda, use the link below.

[ONLINE VERBAL PUBLIC COMMENT](#)

Written comments may be submitted to publiccomment@flagstaffaz.gov.

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 discussion and consultation 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 through other technological means.

MAYOR DAGGETT
VICE MAYOR SWEET
COUNCILMEMBER ASLAN
COUNCILMEMBER GARCIA

COUNCILMEMBER HOUSE
COUNCILMEMBER MATTHEWS
COUNCILMEMBER SPENCE

3. PLEDGE OF ALLEGIANCE, MISSION STATEMENT, AND LAND ACKNOWLEDGEMENT

MISSION STATEMENT

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

LAND ACKNOWLEDGEMENT

The Flagstaff City Council humbly acknowledges the ancestral homelands of this area's Indigenous nations and original stewards. These lands, still inhabited by Native descendants, border mountains sacred to Indigenous peoples. We honor them, their legacies, their traditions, and their continued contributions. We celebrate their past, present, and future generations who will forever know this place as home.

4. OPEN CALL TO THE PUBLIC

Open Call to the Public enables the public to address the Council about an item that is not on the prepared agenda. Comments relating to items that are on the agenda will be taken at the time that the item is discussed. Open Call to the Public appears on the agenda twice, at the beginning and at the end. The total time allotted for the first Open Call to the Public is 30 minutes; any additional

comments will be held until the second Open Call to the Public.

If you wish to address the Council in person at today'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 Open Call to the Public and Public Comment. 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.

5. PROCLAMATIONS AND RECOGNITIONS

A. Proclamation: National IT Professionals Day

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

B. Proclamation: Constitution Week

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

C. Proclamation: National Service Dog Month

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

D. Recognition: Award for Marketing Initiative for Northern Region

6. COUNCIL LIAISON REPORTS

7. CONSENT AGENDA

All matters under Consent Agenda are considered by the City Council to be routine. Unless a member of City Council expresses a desire at the meeting to remove an item from the Consent Agenda for discussion, the Consent Agenda will be enacted by one motion approving the recommendations listed on the agenda. Unless otherwise indicated, expenditures approved by Council are budgeted items.

STAFF RECOMMENDED ACTION:

Approve the Consent Agenda as posted.

A. Consideration and Approval of Municipal Services Accounts, Miscellaneous Accounts Receivable, Transaction Privilege Tax, Insufficient Funds, and Library Accounts Write-offs: Delinquency and Uncollectible Accounts for Fiscal Year 2025-26.

STAFF RECOMMENDED ACTION:

Approve the write-off of delinquent and uncollectible Municipal Services accounts, Miscellaneous Accounts Receivable, Transaction Privilege Tax accounts and Insufficient Funds in the combined amount of \$54,674.44

- B. Consideration and Approval:** Confirming appointee selected by Mayor Daggett for the citizen position on the Public Safety Personnel Retirement System Board.

STAFF RECOMMENDED ACTION:

Confirm appointee selected by Mayor.

- C. Consideration and Approval of Contract:** Green Business Boot Camp - Local First Arizona

STAFF RECOMMENDED ACTION:

1. Authorize the contract with Local First AZ for the Green Business Boot Camp Cohort for 3 years with 1 potential renewal of 1 year. Contract shall not exceed \$30,000 per year, based on the number of businesses enrolled, with a total amount not to exceed \$120,000.
2. Authorize the City Manager to execute any documents.

8. ROUTINE ITEMS

- A. Consideration and Approval of Contract:** Cooperative Purchase Contract with Versaterm Public Safety Inc., using City of Mesa Contract/RFP No. 2017190, for a Computer-Aided Dispatch (CAD) and Records Management System (RMS) Software as a Service solution for the Flagstaff Police Department, Flagstaff Fire Department, and regional partner agencies, in an amount not to exceed \$1,232,977 for one-time implementation and \$829,629 plus applicable sales taxes annually thereafter.

STAFF RECOMMENDED ACTION:

1. Approve the Cooperative Purchase Contract with Versaterm Public Safety Inc., using City of Mesa Contract/RFP No. 2017190, for a Computer-Aided Dispatch (CAD) and Records Management System (RMS) Software as a Service solution for the Flagstaff Police Department, Flagstaff Fire Department, and regional partner agencies, in an amount not to exceed \$1,232,977 for one-time implementation services and \$829,629 annually thereafter for subscription fees, with annual subscription price increases capped at 5%; and
2. Authorize the City Manager to execute all necessary documents.

- B. ~~Consideration and possible action regarding Executive Session of September 15, 2026.~~**

~~RECOMMENDED ACTION:~~

~~Direct and authorize the City Attorney and/or designated city representative to proceed as discussed in the Executive Session of September 15, 2026, items 5Ai.~~

9. PUBLIC HEARING ITEMS

1. Open the Public Hearing
2. Presentations (Staff and/or Applicant)
3. Council Questions
4. Public Comment
5. Close the Public Hearing
6. Council Deliberation and Action

- A. Consideration and Adoption of Resolution No. 2026-46 and Ordinance No. 2026-20:** A Resolution of the City Council of the City of Flagstaff, Coconino County, Arizona, declaring as a public record that certain document filed with the City Clerk, entitled "PZ-25-00200 - Planned Community (PC) Zone" and an Ordinance of the City Council of the City of Flagstaff, Coconino County, Arizona, amending the Flagstaff City Code, Title 10, Flagstaff Zoning Code.

STAFF RECOMMENDED ACTION:

At the September 15, 2026, Council Meeting:

- 1) Read Resolution No. 2026-46 by title only
- 2) City Clerk reads Resolution No. 2026-46 by title only (if approved above)
- 3) Read Ordinance No. 2026-20 by title only for the first time
- 4) City Clerk reads Ordinance No. 2026-20 by title only (if approved above)

At the October 6, 2026 Council Meeting:

- 5) Adopt Resolution No. 2026-46
- 6) Read Ordinance No. 2026-20 by title only for the final time
- 7) City Clerk reads Ordinance No. 2026-20 by title only (if approved above)
- 8) Adopt Ordinance No. 2026-20

10. REGULAR AGENDA

- A. Consideration and Adoption of Resolution No. 2026-47 and Ordinance No. 2026-24:** A resolution declaring as a public record *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code"* and an ordinance adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code."*

STAFF RECOMMENDED ACTION:

At the September 15, 2026, Council Meeting:

1. Read Resolution No. 2026-47 by title only for the first time
2. City Clerk reads Resolution No. 2026-47 by title only (if approved above)
3. Read Ordinance No. 2026-24 by title only for the first time
4. City Clerk reads Ordinance No. 2026-24 by title only (if approved above)

At the October 6, 2026, Council Meeting:

1. Adopt Resolution No. 2026-47
2. Read Ordinance No. 2026-24 by title only for the final time
3. City Clerk reads Ordinance No. 2026-24 by title only (if approved above)
4. Adopt Ordinance No. 2026-24

- B. Consideration and Adoption of Resolution No. 2026-45:** A resolution of the Flagstaff City Council, approving the Curbside Management Plan; providing for delegation of authority; and establishing an effective date.

STAFF RECOMMENDED ACTION:

1. Read Resolution No. 2026-45 by title only
2. City Clerk reads Resolution No. 2026-45 by title only (if approved above)
3. Adopt Resolution No. 2026-45

- C. Consideration and Adoption of Ordinance No. 2026-21:** An ordinance of the City Council of the City of Flagstaff, ratifying the grant and reservation of easements; and formally accepting dedications and right-a-way and real property interests; providing for severability, authority for clerical corrections, and establishing an effective date.

STAFF RECOMMENDED ACTION:

At the September 15, 2026, Council Meeting:

- 1) Read Ordinance No. 2026-21 by title only for the first time
- 2) City Clerk reads Ordinance No. 2026-21 by title only (if approved above)

At the October 6, 2026 Council Meeting:

- 3) Read Ordinance No. 2026-21 by title only for the final time
- 4) City Clerk reads Ordinance No. 2026-21 by title only (if approved above)
- 5) Adopt Ordinance No. 2026-21

11. DISCUSSION ITEMS

A. Water Conservation Ordinance Revision Discussion

Council to provide feedback on several proposed changes to the Water Conservation Ordinance (7-03-001-0014)

12. OPEN CALL TO THE PUBLIC

13. ANNOUNCEMENTS AND UPDATES TO/FROM COUNCIL AND CITY MANAGER

14. ADJOURNMENT

THE CITY OF FLAGSTAFF ENDEAVORS TO MAKE ALL PUBLIC MEETINGS ACCESSIBLE TO PERSONS WITH DISABILITIES. With 48-hour advance notice, reasonable accommodations will be made upon request for persons with disabilities or non-English speaking residents. Please call the City Clerk (928) 213-2076 or email at stacy.saltzburg@flagstaffaz.gov to request an accommodation to participate in this public meeting.

NOTICE TO PARENTS AND LEGAL GUARDIANS: Parents and legal guardians have the right to consent before the City of Flagstaff makes a video or voice recording of a minor child, pursuant to A.R.S. § 1-602(A)(9). The Flagstaff City Council meetings are live-streamed and recorded and may be viewed on the City of Flagstaff's website. If you permit your child to attend/participate in a televised Council meeting, a recording will be made. You may exercise your right not to consent by not allowing your child to attend/participate in the meeting.

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Jessica Matias, Chief of Staff
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Proclamation: National IT Professionals Day

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

Executive Summary:

NA

Financial Impact:

NA

Policy Impact:

NA

Previous Council Decision or Community Discussion:

NS

Options and Alternatives to Recommended Action:

NA

Connection to PBB Priorities and Objectives:

NA

Connection to Regional Plan:

NA

Connection to Carbon Neutrality Plan:

NA

Connection to 10-Year Housing Plan:

NA

Attachments: [Proclamation](#)

CITY OF FLAGSTAFF — OFFICE OF THE MAYOR

PROCLAMATION

WHEREAS, Information Technology (IT) professionals are essential to the City of Flagstaff's ability to serve our community by ensuring employees have the technology, systems, and tools they need to perform their work effectively; and

WHEREAS, the IT professionals of the City of Flagstaff support all City departments by maintaining secure, reliable, and accessible devices, applications, networks, communications, and data systems; and

WHEREAS, these dedicated professionals protect City information, strengthen cybersecurity, respond to technical challenges, and support the continuity of critical City operations; and

WHEREAS, IT professionals continually adapt to evolving technology and implement innovative solutions that help City employees work efficiently, collaborate effectively, and better serve the Flagstaff community; and

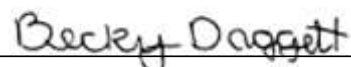
WHEREAS, much of their work takes place behind the scenes, yet their impact is felt every day across City operations and the services provided to our community.

WHEREAS, their behind-the-scenes contributions often go unrecognized, yet their impact is felt daily across every level of city operations.

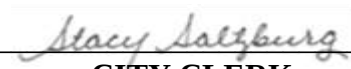
NOW, THEREFORE, I, Mayor Becky Daggett, Mayor of the City of Flagstaff, Arizona do hereby proclaim Tuesday, September 15th, 2026, as

IT PROFESSIONALS DAY,

in the City of Flagstaff and encourage all employees and residents to recognize and thank our IT professionals for their invaluable contributions to the success and resilience of our City Operations.


MAYOR

ATTEST:


CITY CLERK

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Jessica Matias, Chief of Staff
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Proclamation: Constitution Week

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

Executive Summary:

NA

Financial Impact:

NA

Policy Impact:

NA

Previous Council Decision or Community Discussion:

NA

Options and Alternatives to Recommended Action:

NA

Connection to PBB Priorities and Objectives:

NA

Connection to Regional Plan:

NA

Connection to Carbon Neutrality Plan:

NA

Connection to 10-Year Housing Plan:

NA

Attachments: [Proclamation](#)

CITY OF FLAGSTAFF — OFFICE OF THE MAYOR

PROCLAMATION

WHEREAS, September 17, 2026, marks the two hundred and thirty-ninth anniversary of the drafting of the Constitution of the United States of America by the Constitutional Convention; and

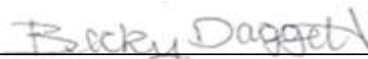
WHEREAS, it is fitting and proper to accord official recognition to this magnificent document and its memorable anniversary; and to the patriotic celebrations which will commemorate the occasion; and

WHEREAS, Public Law 915 guarantees the issuing of a proclamation each year by the President of the United States of America designating September 17 through 23 as Constitution Week,

NOW, THEREFORE, I, Mayor Becky Daggett, Mayor of the City of Flagstaff, Arizona do hereby proclaim the week of September 17th through the 23rd, 2026, as

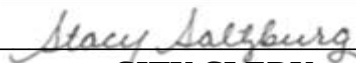
CONSTITUTION WEEK

and ask our citizens to reaffirm the ideals of the Framers of the constitution had in 1787 by vigilantly protecting the freedoms guaranteed to us through this guardian of our liberties, remembering that lost rights may never be regained.



MAYOR

ATTEST:



CITY CLERK

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Jessica Matias, Chief of Staff
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Proclamation: National Service Dog Month

STAFF RECOMMENDED ACTION:

Read and present the Proclamation.

Executive Summary:

NA

Financial Impact:

NA

Policy Impact:

NA

Previous Council Decision or Community Discussion:

NA

Options and Alternatives to Recommended Action:

NA

Connection to PBB Priorities and Objectives:

NA

Connection to Regional Plan:

NA

Connection to Carbon Neutrality Plan:

NA

Connection to 10-Year Housing Plan:

NA

Attachments: [Proclamation](#)

CITY OF FLAGSTAFF — OFFICE OF THE MAYOR

PROCLAMATION

WHEREAS, we believe in the joyful, transformative power of the human-canine bond and importance of inclusivity of all citizens; and

WHEREAS, in the United States, more than 70 million adults and children have a disability; however, only 16,000 service dogs from accredited training programs exist nationwide; and

WHEREAS, canine companions is a nonprofit organization that enhances the lives of people with disabilities by providing expertly trained service dogs and ongoing support to ensure quality partnerships; and

WHEREAS, canine companions and their service dogs empower people with disabilities to lead lives with greater independence by providing best-in-class training, ongoing follow up services and a deeply committed community of support; and

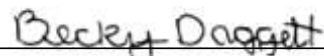
WHEREAS, National Service Dog Month aims to educate our community about the benefits of service dogs and the laws protecting them; and

WHEREAS, in the 250th year of our nation, the City of Flagstaff continues to work toward strengthening inclusivity in our community in which all citizens, and their trained service dogs, are embraced.

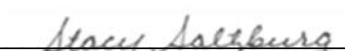
NOW, THEREFORE, I, Mayor Becky Daggett, Mayor of the City of Flagstaff, Arizona do hereby proclaim September 2026 as

NATIONAL SERVICE DOG MONTH

And encourage all citizens to celebrate service dogs and be respectful of the rights to safe access afforded to our adults, children and veterans who lead more independent lives because of their assistance.


MAYOR

ATTEST:


CITY CLERK

CITY OF FLAGSTAFF
STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Jessica Kittleson, Customer Service Director
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Approval of Municipal Services Accounts, Miscellaneous Accounts Receivable, Transaction Privilege Tax, Insufficient Funds, and Library Accounts Write-offs: Delinquency and Uncollectible Accounts for Fiscal Year 2025-26.

STAFF RECOMMENDED ACTION:

Approve the write-off of delinquent and uncollectible Municipal Services accounts, Miscellaneous Accounts Receivable, Transaction Privilege Tax accounts and Insufficient Funds in the combined amount of \$54,674.44

Executive Summary:

Staff requests Council approval for the annual write-off of \$54,674.44 in accounts receivable deemed uncollectible for the fiscal year ending June 30, 2026. This write-off encompasses Municipal Services accounts, Miscellaneous Accounts Receivable, Insufficient Fund, and Library Account charges. After exhausting all reasonable collection efforts, City staff has determined these accounts are no longer viable for active collection. The City follows generally accepted accounting principles by writing off uncollectible accounts annually to maintain accurate asset valuation. When feasible, outstanding amounts are reported to credit agencies, which occasionally results in later payment when customers seek to clear their credit history. In accordance with state law, individual utility account information remains confidential and is not subject to public disclosure.

This write-off represents sound fiscal management by ensuring the City's balance sheet accurately reflects collectible assets. The requested amount falls within the City's current established annual allowance of \$77,000 for uncollectible accounts. Write-offs are allocated back to their originating funds, maintaining proper accounting segregation.

Financial Impact:

The City maintains a proactive approach to managing uncollectible accounts by establishing annual reserves based on comprehensive analysis of aged accounts, historical write-off patterns, and anticipated procedural changes affecting collection rates. The requested write-off of \$54,674.44 remains below the established annual allowance, demonstrating effective financial forecasting and management.

Municipal Services Accounts Receivable	\$34,609.23
Miscellaneous Accounts Receivable	\$355.50
Insufficient Funds (NSF Checks)	\$8.00
Library Accounts	\$19,701.71
TOTAL	\$54,674.44

Policy Impact:

None

Previous Council Decision or Community Discussion:

None

Options and Alternatives to Recommended Action:

- Authorize the complete write-off of uncollectible Municipal Services, Miscellaneous Accounts Receivable, and Insufficient Funds as recommended.
- Reject the write-off authorization, maintaining outstanding receivables on the balance sheet and continuing collection efforts indefinitely.
- Authorize a partial write-off, approving a reduced amount while continuing collection efforts on remaining accounts.

Background and History:**Collection Process and Procedures**

Active Account Collections: The City employs a comprehensive collection strategy before considering any account for write-off. Initial contact begins with reminder postcards for past-due balances, followed by email notifications, phone calls, and physical notices at service locations. Staff actively works with customers to establish payment plans and connects them with available assistance programs. Service disconnection serves as the final collection tool for active accounts. In recent years Customer Service has seen an increase in the number of active accounts reaching delinquent status and has recently reclassified a position within the section to focus on collection activities.

Closed Account Management: Security deposits collected at service initiation typically cover final bill amounts for closed accounts. The City has implemented enhanced processes for timely mail forwarding, delinquency processing, and skip-tracing to ensure final bills reach customers at new addresses. Increased enrollment in autopay services and improved online payment options have simplified the final bill payment process.

Credit Reporting and Recovery: Unpaid accounts are reported to credit agencies with appropriate customer notification. Once reported, debts remain active for seven years from the delinquency date, often resulting in payment when customers apply for mortgages, car loans, or rental agreements. This passive collection method continues to generate recoveries on previously written-off amounts. Additionally, amounts are reported to the State's Debt Set Off Program, which can intercept income tax refunds for debt collection. Since implementing this program in 2023, the City has successfully collected \$203,160.47 in delinquent accounts, representing a combination of previously written-off accounts dating back to 2017 and closed accounts that may have otherwise required write-off. This enhanced collection tool has proven highly effective in recovering funds that traditional collection methods could not secure.

Total Municipal Services billings for FY 2025-26 were \$51.2 million with recommended write-off amounts of \$34,609.23, or 0.07% of total billings. Miscellaneous Accounts Receivable billings were \$9.4 million, with a recommended write-off amount of \$355.50, or 0.004% of total amounts billed. Below is a five-year history of the City's Municipal Services Bills and Miscellaneous Accounts Receivable write-off:

Fiscal Year	Total Write Offs	Prior Year Billed	% of Amount Billed
FY 2026	\$34,609.23	\$51,177,760	0.07%
FY 2025	\$21,204.70	\$50,716,995	0.04%
FY 2024	\$24,348.34	\$47,572,000	0.05%
FY 2023	\$64,711.38	\$44,260,000	0.15%
FY 2022	\$61,315.10	\$44,455,000	0.14%

Municipal Account Write-Offs: Breakdown Information

Fiscal Year	Total # of Accounts	Accounts Greater than \$1000	Accounts Between \$500-\$1000	Accounts Less Than \$500
FY 2026	104	4	17	83
FY 2025	77	2	6	69
FY 2024	84	4	7	73
FY 2023	144	17	24	103
FY 2022	137	11	20	106

Miscellaneous Accounts Receivable Write-Offs: 5-Year History

Fiscal Year	Total Write Offs	Prior Year Billed	% of Amount Billed
FY 2026	\$355.50	\$9,419,857	0.004%
FY 2025	\$1,242.76	\$11,989,404	0.01%
FY 2024	\$874.92	\$7,819,000	0.01%
FY 2023	\$1,110.57	\$9,970,000	0.01%
FY 2022	\$2,541.32	\$11,747,000	0.02%

Special Categories

Transaction Privilege Tax Management: Following the Arizona Department of Revenue's assumption of local Transaction Privilege Tax collection in January 2017, the City retained a receivable balance of \$928,293.06 for TPT accounts it had been collecting locally prior to the transition. Through diligent collection efforts, this balance has been reduced to \$59,097.84 as of June 30, 2026. During FY 2025-26, staff successfully collected \$12,071.15 through direct taxpayer engagement and payment plan arrangements. No write-offs are requested for this category as customers continue making payments on established plans, even though many related companies are no longer operational.

Library Account Management:

Staff is also requesting a total of \$19,701.71 in delinquent library accounts to be written off. These fees are maintained in separate library software and not included as receivables in the City's accounting ledger, thus do not have a direct impact on City financials. Rather, these fees represent accounts that would otherwise need to be paid prior to a citizen being able to check out library materials. Due to the length of time and low balances on the associated accounts, staff is recommending that a total of 1,152 accounts be cleared.

Key Considerations

This annual write-off request demonstrates the City's commitment to both fiscal responsibility and customer service excellence. The recommended write-off amount of \$34,972.73 represents an exceptionally low percentage of total billings across all categories—only 0.07% for Municipal Services and 0.004% for Miscellaneous Accounts Receivable. This performance reflects the effectiveness of the City's comprehensive collection processes, from proactive customer outreach and payment plan options to credit reporting and skip-tracing efforts. By maintaining accurate financial records through timely write-offs while continuing passive collection through credit reporting, the City balances sound accounting principles with ongoing revenue recovery opportunities. The request falls well within the established allowance, ensuring no unexpected impact to the City's financial position while supporting transparent and accountable financial management practices.

Connection to PBB Priorities and Objectives:

High Performing Governance: Enhance the organization's fiscal stability and increase efficiency and effectiveness.

Connection to Regional Plan:

None

Connection to Carbon Neutrality Plan:

None

Connection to 10-Year Housing Plan:

None

Connection to Division Specific Plan:

None

Attachments:

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Georganna Staskey, Deputy City Clerk
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Approval: Confirming appointee selected by Mayor Daggett for the citizen position on the Public Safety Personnel Retirement System Board.

STAFF RECOMMENDED ACTION:

Confirm appointee selected by Mayor.

Executive Summary:

The Public Safety Personnel Retirement System Board has two citizens elected to this board along with the Mayor and staff from each department. The Authority papers state the Mayor selects the citizen positions which needs to be confirmed by the governing body. There is one open citizen position and the chosen appointee is Seth Gregar (new Commissioner).

Financial Impact:

These are voluntary positions, there is no financial impact by selecting the appointments.

Policy Impact:

N/A

Previous Council Decision or Community Discussion:

N/A

Options and Alternatives to Recommended Action:

Not to select the candidates as chosen and review the applications.

Connection to PBB Priorities and Objectives:

Connection to Regional Plan:

Connection to Carbon Neutrality Plan:

Connection to 10-Year Housing Plan:

Attachments: Authority Papers

Arizona State Legislature

Bill Number Search: 

Fiftieth Legislature - Second Regular Session

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38-847. Local boards

A. The administration of the system and responsibility for making the provisions of the system effective for each employer are vested in a local board. The department of public safety, the Arizona game and fish department, the department of emergency and military affairs, the university of Arizona, Arizona state university, northern Arizona university, each county sheriff's office, each county attorney's office, each county parks department, each municipal fire department, each eligible fire district, each community college district, each municipal police department, the department of law, the department of liquor licenses and control, the Arizona department of agriculture, the Arizona state parks board, each Indian reservation police agency and each Indian reservation fire fighting agency shall have a local board. A nonprofit corporation operating pursuant to sections 28-8423 and 28-8424 shall have one local board for all of its members. Each local board shall be constituted as follows:

1. For political subdivisions or Indian tribes, the mayor or chief elected official or a designee of the mayor or chief elected official approved by the respective governing body as chairman, two members elected by secret ballot by members employed by the appropriate employer and two citizens, one of whom shall be the head of the merit system, or the head's designee from among the other members of the merit system, if it exists for the group of members, appointed by the mayor or chief elected official and with the approval of the governing body of the city or the governing body of the employer. The appointed two citizens shall serve on both local boards in a city or Indian tribes where both fire and police department employees are members.

2. For state agencies and nonprofit corporations operating pursuant to sections 28-8423 and 28-8424, two members elected by secret ballot by members employed by the appropriate employer and three citizens appointed by the governor. Each state agency local board shall elect a chairman.

3. For fire districts organized pursuant to section 48-804, the secretary-treasurer as chairman, two members elected by secret ballot by members employed by the fire district and two citizens appointed by the secretary-treasurer, one of whom is a resident of the fire district and one of whom has experience in personnel administration but who is not required to be a resident of the fire district.

B. On the taking effect of this system for an employer, the appointments and elections of local board members shall take place with one elective and appointive local board member serving a term ending two years after the effective date of participation for the employer and other local board members serving a term ending four years after the effective date. Thereafter, every second year, and as a vacancy occurs, an office shall be filled for a term of four years in the same manner as previously provided.

C. Each local board shall be fully constituted pursuant to subsection A of this section within sixty days after the employer's effective date of participation in the system. If the deadline is not met, on the written request of any member who is covered by the local board or the employer to the board of trustees, the board of trustees may appoint all vacancies of the local board pursuant to subsection A of this section and designate whether each appointive position is for a two year or four year term. If the board of trustees cannot find individuals to serve on the local board who meet the requirements of subsection A of this section, the board of trustees may appoint individuals to serve as interim local board members until qualified individuals are appointed or elected. Each local board shall meet at least twice a year. Each member of a local board, within ten days after the member's appointment or election, shall take an oath of office that, so far as it devolves on the member, the member shall diligently and honestly administer the affairs of the local board and that the member shall not knowingly violate or willingly permit to be violated any of the provisions of law applicable to the system.

D. Except as limited by subsection E of this section, a local board shall have such

powers as may be necessary to discharge the following duties:

1. To decide all questions of eligibility and service credits, and determine the amount, manner and time of payment of any benefits under the system.
 2. To prescribe procedures to be followed by claimants in filing applications for benefits.
 3. To make a determination as to the right of any claimant to a benefit and to afford any claimant or the board of trustees, or both, a right to a rehearing on the original determination. Except as otherwise required by law, unless all parties involved in a matter presented to the local board for determination otherwise agree, the local board shall commence a hearing on the matter within ninety days after the date the matter is presented to the local board for determination. If a local board fails to commence a hearing as provided in this paragraph, on a matter presented to the local board for determination, the relief demanded by the party petitioning the local board is deemed granted and approved by the local board. The granting and approval of this relief is considered final and binding unless a timely request for rehearing or appeal is made as provided in this article, unless the board of trustees determines that granting the relief requested would violate the internal revenue code or threaten to impair the system's status as a qualified plan under the internal revenue code. If the board of trustees determines that granting the requested relief would violate the internal revenue code or threaten to impair the system's status as a qualified plan, the board of trustees may refuse to grant the relief by issuing a written determination to the local board and the party petitioning the local board for relief. The decision by the board of trustees is subject to judicial review pursuant to title 12, chapter 7, article 6.
 4. To request and receive from the employers and from members such information as is necessary for the proper administration of the system and action on claims for benefits and to forward such information to the board of trustees.
 5. To distribute, in such manner as the local board determines to be appropriate, information explaining the system received from the board of trustees.
 6. To furnish the employer, the board of trustees and the legislature, on request, with such annual reports with respect to the administration of the system as are reasonable and appropriate.
 7. To receive and review the actuarial valuation of the system for its group of members.
 8. To receive and review reports of the financial condition and of the receipts and disbursements of the fund from the board of trustees.
 9. To appoint medical boards as provided in section 38-859.
 10. To sue and be sued to effectuate the duties and responsibilities set forth in this article.
- E. A local board shall have no power to add to, subtract from, modify or waive any of the terms of the system, change or add to any benefits provided by the system or waive or fail to apply any requirement of eligibility for membership or benefits under the system. Notwithstanding any limitations periods imposed in this article, including subsection D, paragraph 3 and subsections G and H of this section, if the board of trustees determines a local board decision violates the internal revenue code or threatens to impair the system's status as a qualified plan under the internal revenue code, the local board's decision is not final and binding and the board of trustees may refrain from implementing or complying with the local board decision.
- F. A local board, from time to time, shall establish and adopt such rules as it deems necessary or desirable for its administration. All rules and decisions of a local board shall be uniformly and consistently applied to all members in similar circumstances. If a claim or dispute is presented to a local board for determination but the local board has not yet adopted uniform rules of procedure for adjudication of the claim or dispute, the local board shall adopt and use the model uniform rules of local board procedure that are issued by the board of trustees' fiduciary counsel to adjudicate the claim or dispute.
- G. Except as otherwise provided in this article, any action by a majority vote of the members of a local board that is not inconsistent with the provisions of the system and the internal revenue code shall be final, conclusive and binding on all persons affected by it unless a timely application for a rehearing or appeal is filed as provided in this article. No later than twenty days after taking action, the local board shall submit to the board of trustees the minutes from the local board meeting that include the name of the member affected by its decision, a description of the action taken and an explanation of the reasons and all documents submitted to the local board for the action taken, including the reports of a medical board. The board of trustees may not implement and comply with any local board action that does not comply with the internal revenue code or that threatens to jeopardize the system's status as a qualified plan under the internal revenue code.
- H. A claimant or the board of trustees may apply for a rehearing before the local board within the time periods prescribed in this subsection, except that if a decision of a local board violates the internal revenue code or threatens to jeopardize the system's status as a qualified plan under the internal revenue code, no limitation period for the board of trustees to seek a rehearing of a local board decision applies. An application for a rehearing shall be filed in writing with a member of the local board or its secretary within sixty days after:
1. The applicant-claimant receives notification of the local board's original action by

certified mail, by attending the meeting at which the action is taken or by receiving benefits from the system pursuant to the local board's original action, whichever occurs first.

2. The applicant-board of trustees receives notification of the local board's original action as prescribed by subsection G of this section by certified mail.

I. A hearing before a local board on a matter remanded from the superior court is not subject to a rehearing before the local board.

J. Decisions of local boards are subject to judicial review pursuant to title 12, chapter 7, article 6.

K. When making a ruling, determination or calculation, the local board shall be entitled to rely on information furnished by the employer, a medical board, the board of trustees, independent legal counsel or the actuary for the system.

L. Each member of a local board is entitled to one vote. A majority is necessary for a decision by the members of a local board at any meeting of the local board.

M. The local board shall adopt such bylaws as it deems desirable. The local board shall elect a secretary who may, but need not, be a member of the local board. The secretary of the local board shall keep a record and prepare minutes of all meetings in compliance with chapter 3, article 3.1 of this title and forward the minutes and all necessary communications to the board of trustees as prescribed by subsection G of this section.

N. The fees of the medical board and of the local board's independent legal counsel and all other expenses of the local board necessary for the administration of the system shall be paid by the employer and not the board of trustees or system at such rates and in such amounts as the local board shall approve. Legal counsel that is employed by the local board is independent of the employer and any employee organization or member and owes its duty of loyalty only to the local board in connection with its representation of the local board.

O. The local board shall issue directions to the board of trustees concerning all benefits that are to be paid from the employer's account pursuant to the provisions of the fund. The local board shall keep on file, in such manner as it may deem convenient or proper, all reports from the board of trustees and the actuary.

P. The local board and the individual members of the local board shall be indemnified from the assets of the employer for any judgment against the local board or its members, including attorney fees and costs, arising from any act, or failure to act, made in good faith pursuant to the provisions of the system, including expenses reasonably incurred in the defense of any claim relating to the act or failure to act.

CITY OF FLAGSTAFF STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Creag Znetko, Economic Development Administrator
Co-Submitter: Creag Znetko
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Approval of Contract: Green Business Boot Camp - Local First Arizona

STAFF RECOMMENDED ACTION:

1. Authorize the contract with Local First AZ for the Green Business Boot Camp Cohort for 3 years with 1 potential renewal of 1 year. Contract shall not exceed \$30,000 per year, based on the number of businesses enrolled, with a total amount not to exceed \$120,000.
2. Authorize the City Manager to execute any documents.

Executive Summary:

This is a recurring line item for sustainable economic development in the amount of \$30,000. The Flagstaff Green Business Boot Camp is a seven-week program designed to equip locally owned and operated businesses and nonprofits with the knowledge and skills to reduce their utility and operational costs, advance their sustainability efforts, and connect with technical and financial resources. To date, 28 local businesses have graduated from the program across four cohorts. The City will pay Local First AZ \$3,000 per participating business, not to exceed \$30,000 annually. The number of openings will be capped at ten businesses each year. The initial contract amount was \$49,200 in FY24. Sustainability and Economic Development have amended the original contract for the subsequent fiscal years until present. The current amount for one year will be \$30,000, but with a 3-year option, it will necessitate Council approval at \$120,000.

Financial Impact:

Project Name: Green Business Boot Camp
 Cost: \$30,000
 Account Number Budgeted: 052-07-213-0830-4-4290
 FY Budgeted Amount: \$24,000 for Green Business Boot Camp and reallocating \$6,000 from Innovate Green Program.
 Grant Funded: No
 Funding Source: BBB- Economic Development

Policy Impact:

Connection to Key Community Priorities/Objectives & Regional Plan includes: High-performing governance, Robust and resilient economy and Livable Community.

Previous Council Decision or Community Discussion:

Previous contracts did not meet procurement requirements for Council approval. Economic Development, Sustainability, and Local First Arizona provided an update to City Council in May 2026.

Options and Alternatives to Recommended Action:

1. Approve the Green Business Boot Camp contract as submitted.
2. Approve the Green Business Boot Camp with conditions and provide staff guidance on those conditions.
3. Table the contract and provide staff with direction on the next steps.
4. Do not approve the contract.

Background and History:

The City of Flagstaff Sustainability and Economic Development teams partnered with Local First Arizona to offer the Flagstaff Green Business Boot Camp to local businesses and nonprofit organizations. Throughout the program, participants hear from local experts on topics including energy, water, waste, transportation, and financing as they develop cost-saving projects to make their operations more sustainable. The program culminates in participants “pitching” the projects they’ve developed. Graduates of the program also receive one year of free technical support from Local First Arizona, including grant writing assistance, and access to the low-interest Green Loan Fund. This year, participants had the opportunity to compete for Innovate Green funding from the City and Intuit Grants introduced by Local First Arizona to support the implementation of their projects. Local First AZ is a nonprofit organization that supports local business development and entrepreneurship across Arizona. Local First AZ has several sustainability initiatives in addition to the Green Business Boot Camp, including a Green Business Certification and Green Business Directory, and Local First AZ provides technical and logistical support for businesses that want to implement more sustainable practices. This includes access to a low-interest loan specifically for businesses that graduate through the program. Local First AZ has operated the Boot Camp for several years and has expertise in providing the Boot Camp virtually and in-person to businesses throughout the state. An LFA staff member lives and works in Flagstaff, and they possess intimate knowledge of the economic and business environment in the Flagstaff area. Local First AZ is the only organization in Arizona that operates a Green Business Boot Camp and provides up to one-year of no-cost technical assistance to support businesses in reducing their water, waste and energy usage and costs. Staff did a search for other entities and determined that no one else provides this service in Flagstaff. Businesses and Nonprofits from outside the city boundaries may participate but will not receive city funding through contract and does not count towards 10 business cap. Considering these factors and background, the Purchasing Director has approved this sole source procurement for Local First AZ.

Connection to PBB Priorities and Objectives:

High Performing Governance — Implement and communicate innovative and efficient programs. Green Business Boot Camp is one of those programs.

Sustainable and Innovative Infrastructure — Facilitate, develop and encourage carbon-neutral energy opportunities. There is an entire class dedicated to energy efficiency.

Environmental Stewardship — Implement and enhance sustainable practices. That program will teach local businesses sustainable techniques for reducing waste, carbon output and energy usage.

Connection to Regional Plan:

CA.1 Identify and pursue specific opportunities to reduce climate impacts. This program teaches businesses how to reduce climate impact.

HE.1 Attract and retain businesses and industries that complement the Region’s vision and priorities and support a stable and healthy workforce. Reducing costs by implementing energy efficient practices will help with retention of employees.

Connection to Carbon Neutrality Plan:

ES-2: Proactively engage the community.

CE-3: Support solar installations.

SC-2: Encourage sustainable consumption.

SC-3: Divert more waste from the landfill.

SC-4: Reduce organic waste.

WS-3 Continue to support water conservation efforts across the Flagstaff community.

Connection to 10-Year Housing Plan:

N/A

Connection to Division Specific Plan:

Pillar 3, Strategy 1.: Define What Sustainable Economic Development Means to Flagstaff.

Pillar 3, Strategy 2.: Establish Sustainable Economic Development Metrics That Support Climate Action Targets.

Pillar 3, Strategy 5.: Enhance Business Supports That Promote Sustainable Economic Development.

Pillar 4, Strategy 2.: Strengthen Community Partnerships.

Attachments: [Contract](#)

GENERAL SERVICES CONTRACT

Contract No. 2027-274

This Contract by and between the City of Flagstaff, a political subdivision of the State of Arizona ("City"), and Local First Arizona Foundation, a domestic non-profit ("Contractor"), shall be effective as of the date of the last signature below. The City and Contractor may be referred to as "Party" or jointly as "Parties."

RECITALS

WHEREAS, the City desires for the Contractor to implement the Green Business Boot Camp; and

WHEREAS, Contractor is able to provide the desired services; and

NOW, THEREFORE, in consideration for the mutual promises contained herein, the Parties agree as follows:

AGREEMENT

1. Scope of Work

1.1 General Description

Contractor will provide the services generally described as: Green Business Boot Camp.

1.2 Specific Purchase

The specific requirements of the services to be purchased are identified in the Scope of Work, attached hereto as Exhibit A.

2. Term and Renewal

2.1 Contract Term

The initial term is for a period of three (3) years unless terminated pursuant to the provisions of the Contract. The Contract will be effective as of the date signed by both Parties. The City Council has the authority to amend the term of the Contract.

2.2 Renewal

The Contract may be renewed for up to one additional one-year term by mutual written consent of the Parties. The City Manager or his/her designee (the Purchasing Director) shall have authority to approve renewal on behalf of the City.

3. Compensation

3.1 Compensation

Contractor shall be paid for satisfactory performance of the Contract in an amount not to exceed thirty thousand dollars and zero cents (\$30,000.00) annually, including fees and taxes, in accordance with the Scope of Work.

3.2 Formal Amendment Required

Any adjustments to compensation must be approved by mutual written consent of the Parties through a formal amendment. The City Manager or his/her designee may approve any amendment if the total amount of amendments is less than \$100,000; otherwise, City Council approval is required.

4. Termination and Cancellation Clauses

4.1 Non-Appropriation

The City may terminate the Contract due to budget constraints and non-appropriation of funds for the following fiscal year, without penalty or liability to Contractor.

4.2 For Convenience

Either Party may terminate the Contract for any reason by giving the other Party written notice of such termination no less than thirty (30) days prior to the date of termination. If the Contract is so terminated, the City's only payment obligation under the Contract shall be for those Services completed prior to the effective date of the termination.

4.3 Conflict of Interest

The Contract is subject to the terms of A.R.S. § 38-511.

4.4 Payment Upon Termination

Upon termination of the Contract, the City shall pay Contractor for satisfactory performance up until the effective date of termination. The City shall make final payment within thirty (30) days from receipt of the Contractor's final invoice.

5. Insurance

5.1 Minimum Scope and Limits of Insurance

The following insurance requirements are minimum requirements for the Contract and in no way limit the indemnity covenants contained in the Contract. The City does not represent or warrant that the minimum limits set forth in the Contract are sufficient to protect Contractor from liabilities that might arise out of the Contract, and Contractor is free to purchase such additional insurance as Contractor may determine is necessary.

5.2 Commercial General Liability - Occurrence Form

General Aggregate	\$2,000,000
Products/Completed Operations	\$1,000,000
Each Occurrence	\$1,000,000

5.3 Umbrella Coverage

Umbrella Coverage	\$2,000,000
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5.4 Automobile Liability

Any Automobile or Owned, Hired, and Non-owned Vehicles	\$1,000,000
Combined Single Limit Per Accident for Bodily Injury & Property Damage	

5.5 Workers' Compensation and Employer's Liability

Workers' Compensation	Statutory
Employer's Liability: Each Accident	\$1,000,000
Disease - Each Employee	\$1,000,000
Disease - Policy Limit	\$1,000,000

5.6 Other Insurance Requirements

The insurance 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, employees, and/or subcontractors shall be named and endorsed as additional insureds with respect to liability arising out of the Contract and activities performed by or on behalf of Contractor, including products and completed operations of Contractor, and automobiles owned, leased, hired, or borrowed by Contractor.
- B. Broad Form: Contractor's insurance policy shall contain broad form contractual liability coverage.
- C. Primary Insurance: Contractor's insurance coverage shall be primary insurance with respect to the City, its officers, officials, agents, employees, and/or subcontractors. Any insurance or self-insurance maintained by the City, its officers, officials, agents, employees, and/or subcontractors shall be in excess of the coverage of Contractor's insurance and shall not contribute to it.
- D. Each Insured: Contractor's insurance policies 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 Contractor shall not be limited to the liability assumed under the indemnification provisions of the Contract.
- F. Waiver of Subrogation: The insurance policies shall contain a waiver of subrogation against the City, its officers, officials, agents, employees, and/or subcontractors for losses arising from work performed by Contractor for the City.

6. Indemnity

6.1 Indemnity

Contractor agrees to indemnify, defend, save, and hold harmless the City, its officers, officials, agents, and employees from and against any and all claims, demands, actions, liabilities, damages, losses, or expenses, including court costs, attorneys' fees, and costs of claim processing, investigation and litigation (hereinafter collectively referred to as "Claims") that arise out of any actual or alleged bodily injury to any person (including death) or property damage caused or alleged to have been caused, in whole or in part, by the acts, errors, omissions, or negligence of the Contractor or any of Contractor's directors, officers, agents, employees, or volunteers in connection with or incident to this Contract. This indemnity provision shall survive the termination, cancellation, or revocation, whether in whole or in part, of this Contract.

6.2 Intellectual Property Indemnification

Contractor shall indemnify and hold the City, and its officers, agents, employees, and subcontractors, harmless from and against any third-party claims, actions, liabilities, costs, including reasonable attorneys' fees and other costs of defense arising out of the alleged infringement of any patent, trademark or copyright or other proprietary rights of any third-parties arising out of Contract performance or use by the City of materials furnished or work performed under the Contract. In the event any such action or claim is brought against the City, Contractor shall, if the City so elects and upon tender by the City: (a) defend the same at Contractor's sole cost and expense; and/or (b) promptly satisfy any judgment adverse to the City; or (c) reimburse the City for any loss, cost, damage, or expense, including attorneys' fees, suffered or incurred by the City. The City shall notify Contractor, within a reasonable time, of any claim, threat of claim, or legal action as it relates to the responsibilities identified in the Contract. This indemnification shall survive termination or expiration of the Contract.

6.3 Network Security and Privacy Liability

Contractor shall indemnify and hold the City, and its officers, agents, employees, and subcontractors, harmless from an against any third-party claims, actions, liabilities, costs, including reasonable attorneys' fees and other costs of defense arising out of all acts, errors, omissions, negligence, infringement of intellectual property (except patent and trade secret); network security and privacy risks, including but not limited to unauthorized access, failure of security, breach of privacy perils, wrongful disclosure, collection, or other negligence in the handling of confidential information, privacy perils, and including coverage for related regulatory defense and penalties; data breach expenses, including but not limited to, consumer notification, whether or not required by law, computer forensic investigations, public relations and crisis management firm fees, credit file or identity monitoring or remediation services in the performance of services for the City. In the event any such action or claim is brought against the City, Contractor shall, if the City so elects and upon tender by the City: (a) defend the same at Contractor's sole cost and expense; and/or (b) promptly satisfy any judgment adverse to the City; or (c) reimburse the City for any loss, cost, damage, or expense, including attorneys' fees, suffered or incurred by the City. The City shall notify Contractor, within a reasonable time, of any claim, threat of claim, or legal action as it relates to the responsibilities identified in the Contract. This indemnification shall survive termination or expiration of the Contract.

7. Warranty

All work shall be performed in a diligent and professional manner.

8. Employees, Assignment, and Subcontractors

8.1 Assignment/Subcontracting

Contractor was selected for its special knowledge, skills, and expertise and shall not assign, sell, transfer, or subcontract rights, or delegate responsibilities of this Contract, in whole or in part, without the City's prior written approval which may be withheld.

8.2 Independent Contractor

Contractor shall be an independent contractor for purposes of all laws, including but not limited to the Fair Labor Standards Act, Federal Insurance Contribution Act, Social Security Act, Federal Unemployment Tax Act, Internal Revenue Code, Immigration and Naturalization Act; Arizona revenue and taxation, compulsory Workers' Compensation laws of the State of Arizona under A.R.S. § 23-901 (et. seq.) and/or unemployment insurance laws.

8.3 Nondiscrimination

Contractor shall not discriminate against any employee or applicant for employment or person to whom it provides Services because of race, color, religion, sex, national origin, disability, genetic information, veteran's

status, pregnancy, and/or familial status and represents and warrants that it complies with all applicable federal, state, and local laws, ordinances and executive orders regarding employment.

8.4 Drug Free Workplace

The City has adopted a Drug Free Workplace policy for itself and those doing business with the City to ensure the safety and health of all persons working on City contracts and projects. Contractor's personnel shall abstain from use or possession of illegal drugs while engaged in performance of the Contract.

8.5 Immigration Laws

Pursuant to A.R.S. § 41-4401, Contractor hereby warrants that it and each of its subcontractors shall comply with all state and federal immigration laws and regulations that relate to its employees and A.R.S. § 23-214(A). A breach of state and/or federal immigration laws and regulations shall constitute a material breach of the Contract.

8.6 Forced Labor of Ethnic Uyghurs

Contractor hereby certifies that it does not use the forced labor of ethnic Uyghurs in the People's Republic of China as defined in A.R.S. § 35-394, et seq.

9. Invoicing and Payment After Delivery

9.1 Payment

Unless otherwise stated in the Scope of Work, payment is due within thirty (30) days of the date of the Contractor's delivery of the materials and/or services conforming to the Contract and receipt of the Contractor's invoice, whichever is later.

9.2 Invoice

Contractor should invoice the City by an itemized list of charges. The City's Purchase Order Number and/or the Contract Number should be referenced on each invoice. Invoices shall include the Contract and/or Purchase Order number and dates when the work has been performed. Invoices shall be sent within thirty (30) days following performance. Payment will only be made for satisfactory Services received and accepted by City.

9.3 Taxes

Contractor shall be responsible for payment of all taxes including federal, state, and local taxes related to or arising out of performance of the Contract. Such taxes include but are not limited to federal and state income tax, social security tax, unemployment insurance taxes, transaction privilege taxes, use taxes, and any other taxes or business license fees.

9.4 Exception

The City will pay any taxes which are specifically identified as a line-item dollar amount in Contractor's bid, proposal, or quote, and which were considered and approved by the City as part of the award process. Such taxes shall be identified as a separate line item in Contractor's invoices.

10. General Terms

10.1 Governing Law and Venue

The Contract shall be governed by and construed in accordance with the laws of the State of Arizona. In the event of litigation, exclusive venue arising under this Contract is Coconino County, Arizona.

10.2 Attorneys' Fees

If any action at law or in equity is necessary to enforce the terms of the Contract, the prevailing party shall be entitled to recover its reasonable attorneys' fees, costs, professional fees, and expenses.

10.3 Public Records

The Contract 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 Contractor has clearly marked its proprietary information as "confidential," the City will endeavor to notify Contractor prior to release of such information.

10.4 Inspection

The City shall have the right to inspect and audit all Contractor books and records related to the Contract for up to five (5) years after completion of the Contract.

10.5 No Boycott of Israel

Pursuant to A.R.S. §§ 35-393 and 35-393.01, if a Party has over ten (10) employees and the Contract is worth at least one-hundred thousand dollars and no cents (\$100,000), the Party shall certify that it is not currently engaged in, and agrees, for the duration of the Contract, will not engage in a boycott of Israel.

10.6 Compliance with Laws

Contractor shall comply with all applicable federal, state, and local laws, regulations, standards, codes, and ordinances, including acquiring the requisite insurance, licenses, permits, and approvals, required to perform the Contract, and provide copies to City upon request.

11. Amendment

The Contract is intended to be the complete and final agreement of the Parties. The Contract may be amended through a formal written amendment Parties. A "change order" is not a sufficient mechanism for amending the Contract.

12. Notice

Any formal notice under the Contract shall be in writing via certified mail and email as follows:

To the City:

Danae Presler
Management Services - Purchasing
City of Flagstaff
211 W. Aspen Ave.
Flagstaff, AZ 86001
Email: danae.presler@flagstaffaz.gov
Phone: (928) 213-2141

To the Contractor:

Jason Lowry
Local First Arizona Foundation

407 E. Roosevelt St.

Phoenix, AZ 85004
Email: jason@localfirstaz.com
Phone: 602-956-0909

With a copy to:

Teddy Callan

City of Flagstaff

211 W. Aspen Ave.

Flagstaff, AZ 86001

Email: teddy.callan@flagstaffaz.gov

IN WITNESS WHEREOF, the City and Contractor, by their duly authorized representatives, have executed this Contract effective as of the date of the last signature below.

CONTRACTOR

CITY OF FLAGSTAFF

SIGNATURE

FULL NAME

TITLE

DATE SIGNED

SIGNATURE

FULL NAME

TITLE

DATE SIGNED

ATTEST:

SIGNATURE

Stacy Saltzburg

FULL NAME

City Clerk

TITLE

DATE SIGNED

APPROVED AS TO FORM:

SIGNATURE

FULL NAME

City Attorney's Office

TITLE

DATE SIGNED

CITY OF FLAGSTAFF STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Shawn Armour, IT Manager
Co-Submitter: Allison Hughes
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Approval of Contract: Cooperative Purchase Contract with Versaterm Public Safety Inc., using City of Mesa Contract/RFP No. 2017190, for a Computer-Aided Dispatch (CAD) and Records Management System (RMS) Software as a Service solution for the Flagstaff Police Department, Flagstaff Fire Department, and regional partner agencies, in an amount not to exceed \$1,232,977 for one-time implementation and \$829,629 plus applicable sales taxes annually thereafter.

STAFF RECOMMENDED ACTION:

1. Approve the Cooperative Purchase Contract with Versaterm Public Safety Inc., using City of Mesa Contract/RFP No. 2017190, for a Computer-Aided Dispatch (CAD) and Records Management System (RMS) Software as a Service solution for the Flagstaff Police Department, Flagstaff Fire Department, and regional partner agencies, in an amount not to exceed \$1,232,977 for one-time implementation services and \$829,629 annually thereafter for subscription fees, with annual subscription price increases capped at 5%; and
2. Authorize the City Manager to execute all necessary documents.

Executive Summary:

The Flagstaff Police Department and Flagstaff Fire Department currently rely on a Hexagon Computer-Aided Dispatch (CAD) and Records Management System (RMS) to receive and dispatch 911 calls for service and to document, store, and manage law enforcement and fire/EMS incident, arrest, and case records. The platform operates as a shared regional system serving both City departments and regional partner agencies, including the Coconino County Sheriff's Office, Northern Arizona University Police Department, Flagstaff Airport Emergency Services, Summit Fire and Medical District, Highlands Fire District, Blueridge Fire District, Forest Lakes Fire District, Pinewood Fire Department, Terros Health, and Solari Crisis and Human Services, supporting 396 CAD/Mobile Authorized Users and 218 RMS/Mobile Authorized Users. The Hexagon system is a legacy platform, and its replacement is part of the City's Application Modernization initiative.

This Agreement is limited to that dispatch and records functionality. It does not include automated license plate recognition (ALPR) technology, and it does not authorize or establish any new data sharing arrangements. The system replaces existing functionality and does not expand the categories of data the City collects.

The current system is an on-premises deployment that the City hosts and maintains directly. Public safety vendors industry-wide are shifting development and support toward cloud platforms, and agencies remaining on legacy architecture face a slower pace of capability improvement over time. Replacement also positions the region for next-generation 911 capability and improved interoperability among participating agencies. Deferring the transition does not avoid it, and cost and complexity increase the longer it is postponed.

Prior to selection, the platform underwent a rigorous security and compliance review by the City's

Information Security team, including evaluation of the vendor's CJIS compliance, data encryption and access controls, hosting environment, and incident response obligations, and has been approved for use. As a cloud-hosted solution, it provides continuous vendor-managed security updates, contractually defined incident response and breach notification obligations, independently audited security controls, redundancy, and uptime commitments that the current on-premises architecture was not designed to deliver, strengthening the City's overall security posture.

An evaluation committee representing Police, Fire, Information Technology, and regional partner agencies scored proposals on functional fit, security posture, interoperability, implementation approach, references, and total cost of ownership. Versaterm ranked highest. Versaterm serves agencies nationally, including the Mesa, Chandler, Gilbert, and Phoenix police departments, and the proposed solution covers the City and all partner agencies under a single agreement. The City is the sole contracting party. Partner agency participation is governed by separate intergovernmental agreements (IGAs) between the City and each agency.

Financial Impact:

Project Name: Versaterm CAD/RMS Implementation

Cost: \$1,232,977 one-time (implementation) and \$829,629 annually (initial subscription), for a total of \$2,062,606 in year one plus applicable taxes, with subsequent annual subscription increases capped at 5%. The total cost is shared with Coconino County Sheriff's Office and Northern Arizona University.

Account Number Budgeted: 001-01-014-0047-1-4231

FY Budgeted Amount: \$3,644,502 for Software Modernization. Police Department's ongoing budget is insufficient to cover the annual \$829,629 needed for this contract. Additional funding or a reallocation of budget will be required in the FY2026-27 and FY2027-28 budgets.

Grant Funded: No

Funding Source: General Fund

Policy Impact:

None

Previous Council Decision or Community Discussion:

None

Options and Alternatives to Recommended Action:

1. Approve the Cooperative Purchase Contract with Versaterm Public Safety Inc., using City of Mesa Contract/RFP No. 2017190, in an amount not to exceed \$1,232,977 for implementation and \$829,629 annually thereafter, for a CAD/RMS Software as a Service solution for the Flagstaff Police Department, Flagstaff Fire Department, and regional partner agencies; or
2. Do not approve; the City continues on its current Hexagon CAD/RMS system, a legacy platform that poses increased risk to public safety operations, employee retention, information security, and customer service response times.

Background and History:

The City of Flagstaff has operated its Computer Aided Dispatch (CAD) and Records Management System (RMS) on the Hexagon (formerly Intergraph) Safety and Infrastructure platform for over 20 years. The system serves the Flagstaff Police Department, Flagstaff Fire Department, and 10 regional partner agencies.

The current environment is an on-premises deployment. The City owns, hosts, patches, and maintains the underlying servers, database, and supporting infrastructure, and dedicates a meaningful share of Information Technology staff capacity to sustaining the platform. Version upgrades are infrequent, as each one requires substantial cost, project effort, and coordinated downtime across all participating agencies. As a result, the City has limited access to new capabilities and modern features.

Several conditions have converged to bring this system to a natural decision point:

- The on-premises architecture is reaching the end of its life cycle. Public safety software vendors industry-wide, including the City's current provider, are shifting development investment, support resources, and new capabilities toward cloud-delivered platforms. Agencies that remain on legacy on-premises architecture can expect a slower pace of improvement and a narrowing support path over time. Continuing to invest in the City's existing environment defers rather than avoids this transition, and the cost and complexity of migration generally increase the longer it is postponed.
- The system predates the City's current technology strategy. City Executive Leadership has supported a strategic direction toward cloud-hosted, vendor-maintained systems that reduce the City's infrastructure footprint, shorten update cycles, strengthen disaster recovery posture, and redirect internal IT capacity from server maintenance toward service delivery. CAD and RMS are among the remaining mission-critical systems on legacy on-premises infrastructure.
- Total cost of ownership extends beyond vendor software maintenance. In addition to annual maintenance, which has risen steadily over the life of the agreement, the City carries hardware refresh cycles, database licensing, disaster recovery infrastructure, and internal staff time. These costs are distributed across several budget areas.
- Operational experience has informed the timing. Over the life of the current deployment, the City has accumulated a backlog of enhancement and configuration requests that remain unaddressed, and support cases affecting daily operations have frequently required extended time to resolve. Staff have developed workarounds and manual processes to compensate. These are the ordinary consequences of a maturing on-premises system, but they are also a reasonable signal that the platform is no longer the best fit for the City's operational needs.
- Regional interoperability and Next-Generation 911 (NG911) readiness. Public safety operations increasingly depend on NG911 capability, including text and multimedia intake. Meeting these requirements on the current platform would require significant additional investment in an architecture the City intends to move away from.

Following a competitive evaluation, an evaluation committee comprising representatives from Police, Fire, Information Technology, and regional partner agencies scored proposals against functional fit, cloud architecture and security posture, interoperability, implementation approach, references from comparable agencies, and total cost of ownership.

The City's current vendor offers a cloud-delivered product, which was evaluated. The committee determined that it represented a migration of the existing application to a hosted environment rather than a modernization of the underlying platform, and that it would not resolve the functional and capability limitations described above.

Versaterm was selected as the highest-ranked proposal. Versaterm is an established public safety vendor serving agencies nationally, including Mesa, Chandler, Gilbert, and Phoenix in Arizona. The proposed solution is a cloud-hosted, CJIS-compliant platform delivering CAD, RMS, and mobile capability to the City and its regional partner agencies under a single agreement.

Procurement Notes:

- Does Mesa contract requirements for free and open competition? **YES**
- Is it currently in force? **YES**
- Does it have cooperative language (is it able to be piggybacked on)? **YES**
- Does the Scope of Work (SOW) apply to the project? **YES**. The original Mesa contract was specific to RMS (and excluded CAD), with CAD being added in Amendment 1.

Connection to PBB Priorities and Objectives:

- Safe and Healthy Community: Provide high-quality law enforcement and fire/EMS dispatch and records services by equipping the Flagstaff Police Department, Flagstaff Fire Department, and regional public safety partners with a modern, reliable Computer-Aided Dispatch and Records Management System.
- High Performing Governance: Maintain the organization's technology infrastructure and fiscal stability by replacing a legacy system through the City's Application Modernization initiative and by using an existing, competitively bid cooperative contract rather than duplicating a formal solicitation.

Connection to Regional Plan:

- Goal PF.3. Provide high-quality emergency response and public safety services including law enforcement, fire, medical, and ambulance transport service.

Connection to Carbon Neutrality Plan:

None

Connection to 10-Year Housing Plan:

None

Connection to Division Specific Plan:

Application Modernization

Attachments: [Versaterm Contract Packet](#)

COOPERATIVE PURCHASE CONTRACT

Contract No. 2026-880

This Contract by and between the City of Flagstaff, a political subdivision of the State of Arizona, and Versaterm Public Safety Inc., a British Columbia corporation ("Contractor") shall be effective as of the date of the last signature below. The City and Contractor may be referred to as "Party" or jointly as "Parties."

RECITALS

WHEREAS, Contractor is a fully authorized vendor of Police Department Records Management and Field-Based Reporting System Solution;

WHEREAS, a competitive and open procurement process was conducted through City of Mesa RFP #2017190 that resulted in City of Mesa Contract #2017190 with Contractor ("Agency Contract"); and

WHEREAS, the City has authority to enter into a cooperative purchase contract with Contractor utilizing the Agency Contract.

NOW, THEREFORE, effective on the last date of execution, and in consideration for the mutual promises contained herein, the Parties agree as follows:

AGREEMENT

1. Materials and/or Services Purchased

Contractor shall provide to the City the materials and/or services, as specified in the Service Schedule, attached hereto as Exhibit 1 and in accordance with the Agency Contract. A general description of the materials and/or services being purchased is:

CAD, Mobile, RMS SaaS Solutions for Police Department

2. Terms and Conditions of Agency Contract Apply

- A. All provisions of the Agency Contract documents contained within City of Mesa Contract #2017190, attached hereto as Exhibit(s) 2, 3, and 4 including any amendments, are incorporated in, and shall apply to this Contract, as though fully set forth herein; provided, however, that all matters relating to implementation and operational details shall be governed by Exhibit A.
- B. Contractor is responsible for promptly notifying City in writing of any changes to the Agency Contract related to price for materials and/or services.

3. Compensation

3.1 Payment

Contractor shall be paid for satisfactory performance of the Contract in the amount of one million two hundred thirty-two thousand nine hundred and seventy-seven (\$1,232,977) one-time (implementation) and eight

hundred twenty-nine thousand six hundred and twenty-nine \$829,629 annually (initial subscription), for a total of two million sixty-two thousand six hundred and six dollars (\$2,062,606) in year one, with subsequent annual subscription increases capped at 5%; made in accordance with the Service Schedule. Total payment amount includes installation and two annual subscriptions for the initial term of the contract.

3.2 Formal Amendment Required

Any price adjustment must be approved by mutual written consent of the parties through a formal amendment. The City Manager or his/her designee may approve an amendment if the total amount of any amendments is less than \$100,000; otherwise, City Council approval is required.

4. Term and Renewal

4.1 Contract Term

A. The underlying Agency Contract expires on October 31, 2028.

B. The Contract will be effective as of the date signed by both parties and will terminate on October 31, 2028 unless terminated pursuant to the provisions of the contract. The City Council has the authority to amend the term of the Contract.

4.2 Renewal

This Contract may be renewed for additional terms by mutual written consent of the parties consistent with any renewals of the Agency Contract. The City Manager or his/her designee (the Purchasing Director) shall have authority to approve renewal on behalf of the City.

5. Insurance

All insurance provisions of the Agency Contract shall apply, including any requirement to name the City as an additional insured. Upon request, Contractor shall furnish City with a copy of the current Certificate of Insurance required by the Agency Contract.

6. Notice

Any formal notice under the Contract shall be in writing via certified mail and email as follows:

To the City:

Allison Hughes
Police - Administration
City of Flagstaff
211 W. Aspen Ave.
Flagstaff, AZ 86001
Email: ahughes@flagstaffaz.gov
Phone: (928) 556-2305

To the Contractor:

Legal Department
Versaterm Public Safety Inc.
400-1331 Clyde Ave

Ottawa, Ontario K2C 3G4
Email: legal@versaterm.com
Phone: 613-820-0311

With a copy to:

Josh Linam
City of Flagstaff
211 W. Aspen Ave.
Flagstaff, AZ 86001
Email: joshua.linam@flagstaffaz.gov

7. Termination for Convenience

City reserves the right to terminate this Agreement, in part or in whole, for its sole convenience upon thirty (30) calendar days' written notice. Contractor acknowledges that, as with any termination permitted under this Agreement, in the event of a termination for convenience, Contractor is only entitled to payment in accordance with Section 8 (Payment to Contractor Upon Termination); Contractor will not be entitled to any anticipated lost profits had the Agreement been performed to completion.

8. Payment to Contractor Upon Termination

Upon termination of this Agreement for any reason, Contractor will be entitled only to payments authorized under the Agreement for those services performed or materials provided in accordance with the Agreement up to the date of termination, and any authorized expenses already incurred up to such date of termination. City will make final payment within thirty (30) calendar days after City has both completed its appraisal of the materials and services provided and received Contractor's properly prepared final invoice.

9. Termination for Non-Appropriation and Modification for Budgetary Constraint

City is a governmental agency which relies upon the appropriation of funds by its governing body to satisfy its obligations. If City reasonably determines it does not have funds to meet its obligations under this Agreement, City will have the right to terminate the Agreement without penalty on the last day of the fiscal period for which funds were legally available. In the event of such termination, City agrees to provide written notice of its intent to terminate thirty (30) calendar days prior to the stated termination date.

10. Termination for Non-Appropriation of Federal Funds

This Agreement may rely on federal funding. If federal funds are, in whole or in part, withdrawn, suspended, or unavailable, the City reserves the right to terminate this Agreement upon forty-eight (48) hours' written notice to Contractor. The City shall pay to Contractor only such compensation, including reimbursable expenses, due for services properly performed or materials purchased before the termination date. The lack of federal funds and any termination that results therefrom shall not be a default by the City under this Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed Contract as of the date hereinbefore indicated.
CITY OF FLAGSTAFF CONTRACTOR

SIGNATURE

FULL NAME

TITLE

DATE SIGNED

Attest:

SIGNATURE

Stacy Saltzburg

FULL NAME

City Clerk

TITLE

DATE SIGNED

SIGNATURE

FULL NAME

TITLE

DATE SIGNED

SIGNATURE

FULL NAME

TITLE

DATE SIGNED

Approved as to form:

SIGNATURE

FULL NAME

City Attorney's Office

TITLE

DATE SIGNED

Contract Exhibit 1

Service Schedule – CAD RMS vCloud (SaaS)

The terms and conditions that are specific to this Service Schedule are set forth herein. In the event of a conflict between the provisions of this Service Schedule and the Contract or the Agency Contract, the provisions of this Service Schedule shall prevail to the extent of the inconsistency, but only for the purposes of this Service Schedule. Capitalized terms herein will have the meanings set forth in the Agency Contract or the "Definitions" as further defined below.

1. Definitions

Any capitalized word or term used in this Service Schedule but not otherwise defined herein shall have the meaning given to it in the Agency Contract.

- 1.1. "Authorized Users" has the meaning given in the Agency Contract. For the purposes of calculating Subscription Fees under this Service Schedule, the number of Authorized Users shall be determined by reference to the total Number of Sworn Officers ("NSO") across all participating agencies, as certified by the personnel orders of each agency.
- 1.2. "Critical Priority Error" means complete system failure where the Subscription Service is not available for use.
- 1.3. "High Priority Error" means a serious problem that materially affects the operational use of the Subscription Service.
- 1.4. "Major Enhancement Release" means a change or new release of the Subscription Service then in use by the Customer containing new functions, features and enhancements that have become part of the standard system.
- 1.5. "Minor Enhancement Release" means a change or new release of the Subscription Service then in use by the Customer designed to correct Problem(s) and/or provide minor functionality additions.
- 1.6. "On-Site Software" means Software, as defined in the Agency Contract, that are installed and used on Customer's own systems or premises, on the license terms set out herein.
- 1.7. "Problem" means a failure of the Subscription Service to function substantially in accordance with the Documentation.
- 1.8. "Production Use" means the use of one or more functional application components to collect and manage real customer information for the purpose of serving actual customer needs; this is in contrast to "testing mode", where real customer information may be used, but only for the purpose of evaluation and testing.
- 1.9. "Support Authority" means the Customer's designated employee(s) authorized to approve additional, separately billable time & materials support work, beyond that included in this Service Schedule.
- 1.10. "Support Contact" means Customer's designated employee, a consultant providing services directly to the Customer, or another designated Customer representative with whom Versaterm will communicate when providing Support. The Support Contact must be knowledgeable about how the Subscription Service is being used and must be familiar with the operating environment under which it is being used.
- 1.11. "Source Code" means a collection of computer instructions written using a human-readable programming language. Source Code includes all material including, but not

limited to, design documentation, User Documentation, reference manuals, libraries for the Software, and interface software, in any form (printed, electronic, or magnetic).

- 1.12. "Third Party Application" means a third-party service by a Third-Party Provider(s) approved by Versaterm to which the Customer and any Authorized User facilitates Versaterm's access to, and use of the Subscription Service, via an application programming interface or other means.
- 1.13. "Third Party Providers" means third parties, including other vendors, federal agencies, state/provincial agencies, and local agencies that control products and/or databases with which the Subscription Service are to be interfaced but for the avoidance of doubt shall not include any Third Party Suppliers.
- 1.14. "Versaterm Certified Browsers" means acceptable browsers on which Versaterm shall operate its Software. This internal list shall be maintained by Versaterm.

2. Service Schedule Information

2.1. Software and Authorized Users:

- CAD/Mobiles Authorized Users: 396
- RMS/Mobiles Authorized Users: 218
- Regional Partner Agencies
 - Flagstaff Police Department
 - Flagstaff Fire Department
 - Coconino County Sheriff's Office
 - Northern Arizona University Police Department
 - Flagstaff Airport Emergency Services
 - Summit Fire and Medical District
 - Highlands Fire District
 - Blueridge Fire District
 - Forrest Lakes Fire District
 - Pinewood Fire Department
 - Terros Health
 - Solari Crisis and Human Services

- Software:

CAD, Mobiles & RMS

- vCAD
- AVRR
- vMonitor
- RemoteCAD/webCAD
- vMDT
- vMRE
- vMobile
- vRMS
- Versaterm Message Controller (VMC)
- VGI GIS Maintenance Tool
- Data Mart (VDM)
- Replicated CAD & RMS Database
- Customer is granted read-only access to the complete Customer dataset through supported programmatic access methods

- Mindbase
- Third Party Components**
- 2 sets of VPN tunnels

CAD Interfaces

- Motorola Vesta 911
- Evidence.com AXON
- ESO Fire RMS
- Prepared 911- NIEM Add Call
- GIS Interface
- NCIC/JWI
- FlowMSP
- Versaterm CommunityConnect Integration
- Versaterm vCAD to DroneSense Integration
- vMonitor CAD API

RMS Interfaces

- County JMS Arrest Transfer
- Karpel
- Mugshot
- NCIC/JWI
- vRMS API – Peregrine
- eCitation to Court Upload
- ADOT Crash
- CARFAX
- vRMS API - Pragmatica

2.2. Initial Subscription Term: CAD Subscription Start Date to October 31, 2028

The Subscription Term for vCAD shall commence upon completion of Configure vCloud Servers (CAD SOW Task #6) (the "CAD Subscription Start Date"). The Subscription Term for vRMS shall commence upon completion of Configure vCloud Servers (RMS SOW Task #6) (the "RMS Subscription Start Date"). Versaterm shall be entitled to invoice the applicable Subscription Fee on and from each respective Subscription Start Date. The subscription term for vRMS shall be pro-rated so that the anniversary date of the vRMS subscription term aligns with the anniversary date of the vCAD subscription term.

2.3. Fees:

- a. One-time Professional Services Fees: \$1,232,977 USD, invoiced in accordance with the table below.

Customer agrees that the implementation of vCAD and vRMS shall occur in two phases. Versaterm shall first deploy vCAD, followed by the deployment of vRMS.

Professional Services for CAD

Milestone Event	CAD SOW Task #	Fees Subtotal	Invoicing
Project Kick-off	2	\$120,377	20% of the CAD Professional Services Fees invoiced upon completion of SOW task.
Configure vCloud Servers	6	\$120,377	20% of the CAD Professional Services Fees invoiced upon completion of SOW task.
Conduct Implementation Workshop and Working Sessions	9	\$120,377	20% of the CAD Professional Services Fees invoiced upon completion of SOW task.
Ready For Training	16	\$120,377	20% of the CAD Professional Services Fees invoiced upon completion of SOW task.
Production Use	19	\$120,377	20% of the CAD Professional Services Fees invoiced upon completion of SOW task.

Professional Services for vRMS

Milestone Event	RMS SOW Task #	Fees Subtotal	Invoicing
Project Kick-off	1	\$126,219	20% of the RMS Professional Services Fees invoiced upon completion of SOW task.
Configure vCloud Servers	6	\$126,219	20% of the RMS Professional Services Fees invoiced upon completion of SOW task.
Conduct Implementation Workshop and Working Sessions	9	\$126,219	20% of the RMS Professional Services Fees invoiced upon completion of SOW task.
Ready For Training	17	\$126,219	20% of the RMS Professional Services Fees invoiced upon completion of SOW task.
Production Use	20	\$126,219	20% of the RMS Professional Services Fees invoiced upon completion of SOW task.

b. Initial Subscription Fee: \$829,629 USD, invoiced in accordance with the table below.

Subscription Service	Fees Subtotal	Invoicing
CAD Cloud Subscription	\$504,378	100% of the Fees invoiced upon Configure vCloud Servers, CAD SOW Task #6 ("vCAD Subscription Payment Date")

RMS Cloud Subscription	\$325,251	100% of the Fees invoiced upon Configure vCloud Servers, RMS SOW Task #6 ("vRMS Subscription Payment Date")
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c. Subsequent Subscription Fees (Renewal)

The annual Subscription Fee for subsequent years of the Subscription Service (each a "Subscription Renewal Term") shall be paid in full on each anniversary of the vCAD Subscription Start Date (the "Subscription Renewal Date"). The initial vRMS Subscription Fee shall be pro-rated in accordance with Section 2.2 so that all subsequent vCAD and vRMS renewal payments fall on the same Subscription Renewal Date.

i. Calculation of Subscription Fees

The annual Subscription Fee shall be based on the total number of Authorized Users across all participating agencies, determined ninety (90) days prior to the Subscription Renewal Date. Additional agencies may be added during the Subscription Term, and the number of Authorized Users shall be adjusted accordingly.

Should sworn personnel be recategorized into non-sworn roles, Versaterm reserves the right to establish an appropriate User Class and associated fee.

2.4. Egress and Connectivity

Versaterm will provision redundant Customer VPN end points for up to 2 connections. Each VPN connection has two tunnels that should be configured by Customer to provide redundancy. Customer is responsible for providing and configuring the required Customer Gateway VPN hardware and software.

Customer Data shall be made available for egress for a total of 650 gigabytes per month. Any egress connectivity beyond this rate shall be charged periodically at prevailing rates at the time and shall be paid in full when and as required, and also according to the termination provisions set forth in Section 18 (Termination) of the Agency Contract.

2.5. Database / Disk Storage

Initial Database Storage

a. The initial database storage shall be made available as follows:

- a maximum of 300 gigabytes for the RMS Production Databases;
- a maximum of 300 gigabytes for the RMS Production Read-Replica Databases;
- a maximum of 100 gigabytes (combined) for the RMS Test/Implementation and Training Databases.
- a maximum of 300 gigabytes for the CAD Production Databases;
- a maximum of 300 gigabytes for the CAD Production Read-Replica Databases;
- a maximum of 100 gigabytes (combined) for the CAD Test/Implementation and Training Databases.

- b. For each Subscription Renewal Term, an automatic database storage increase of 10% of the initial database storage maximums, as listed in this subsection, will be provided to accommodate storage growth over time. For example, if it's an increase of 10%: Year 1 - 300GB, Year 2 - 330GB, Year 3 - 360 GB, Year 4 - 390 GB, Year 5 - 420 GB.

Initial Disk Storage

- a. The initial disk storage (for multimedia attachments and logs) shall be made available for a total maximum of 650 Gigabytes.
- b. For each Subscription Renewal Term, an automatic disk storage increase of 10% of the initial disk storage maximum, as listed in this subsection, will be provided to accommodate storage growth over time. For example, if it's an increase of 10%: Year 1 – 650GB, Year 2 – 715 GB, Year 3 – 780 GB, Year 4 – 845 GB, Year 5 – 910 GB

Any storage use beyond these allocations will be charged at the current prevailing rates, and shall be paid in full when and as required and in accordance with Section 18 (Termination) of the Agency Contract.

Versaterm will notify Customer of current database/disk storage consumption prior to the annual subscription renewal to allow Customer can take appropriate action (e.g., increase storage).

3. Invoices

Versaterm shall send invoices to Customer at the following e-mail address: ahughes@flagstaffaz.gov

Should invoice email address change, Customer shall promptly notify Versaterm.

4. Onboarding

- 4.1. Exhibits A, B and C to this Service Schedule shall include the following documentation detailing each party's roles and responsibilities for the onboarding of the Subscription Service and as applicable additional terms and conditions regarding the Subscription Service:

CAD

Exhibit A.1 – Statement of Work

Exhibit A.2 – Project Implementation Schedule

Exhibit A.3 – Interface Control Document

Exhibit A.4 – Acceptance Test Plan

Exhibit A.5 – Training Course Outlines

Exhibit A.6 – Documentation

Exhibit A.7 – Customer Supplied Hardware and Third Party Software

Exhibit A.8 – Change Control Log

RMS

Exhibit B.1 – Statement of Work
Exhibit B.2 – Project Implementation Schedule
Exhibit B.3 – Interface Control Document
Exhibit B.4 – Acceptance Test Plan
Exhibit B.5 – Training Course Outlines
Exhibit B.6 – Documentation
Exhibit B.7 – Customer Supplied Hardware and Third Party Software
Exhibit B.8 – Change Control Log
Exhibit B.9 – Data Conversion Plan

Mindbase

Exhibit C.1 – Mindbase Platform Terms and Conditions
Exhibit C.2 – Statement of Work

5. License

5.1. Compliance

The Customer will be responsible to Versaterm for compliance by Customer and all its Authorized Users of the terms of this Section 5 of this Service Schedule.

5.2. License for Use - Subscription Service

Subject to the terms and conditions of the Contract, the Agency Contract and this Service Schedule, and the payment of the applicable Fees, Versaterm hereby grants to Customer, for use by its Authorized Users, a non-exclusive, non-transferable, non-sublicensable license to access the Subscription Service, as further detailed in Section 2. The Subscription Service shall be accessible through a designated secure internet platform during the Term solely for the Customer's use in conjunction with the Customer's operations, and not for resale, access by third-parties, or for other commercial purposes. Apart from the rights enumerated herein, the Subscription Service do not include a grant to the Customer of any right to use, nor any ownership right, title, or other interest, in or relating to Subscription Service, nor in any copy of any part of the Subscription Service.

5.3. License for Use - On-Site Software, if applicable

Subject to the terms and conditions of the MSA and this Service Schedule, and the payment of the applicable Fees, and where applicable, Versaterm hereby grants to the Customer, for use by its Authorized Users, a non-exclusive license to use the On-Site Software, as further detailed in Section 2. The On-Site Software may only be used solely for the Customer's use in conjunction with the Customer's operations. Apart from the rights enumerated herein, the license does not include a grant to the Customer, of any right to use, nor any ownership right, title or other interest, in or relating to the On-Site Software, nor in any copy of any part of the On-Site Software.

5.4. Copies of User Documentation

Versaterm will provide Customer with access to the User Documentation, as may be updated from time to time. The Customer may use the User Documentation solely in connection with the use of Subscription Service, and may reproduce the User Documentation, provided that each copy thereby produced shall be marked with Versaterm's proprietary markings as delivered to the Customer. The Customer shall not use, print, copy, translate or display the User Documentation in whole or part for any reason other than those expressly authorized herein.

5.5. Restrictions on Use

In addition to the license restrictions set forth in Section 6 (Restriction on Use), Exhibit E of the Agency Contract, the Customer and its Authorized Users will not and will not knowingly permit any third party to: (i) share the Customer's or any Authorized User's login credentials; (ii) copy, modify, adapt, translate, or make derivative works of the Subscription Service, Third Party Data, or Third Party Components, or otherwise make any use, resell, distribute or sublicense the Subscription Service, Third Party Data or Third Party-Supplied Components other than as permitted herein; (iv) create or augment any mapping-related dataset including a mapping or navigation dataset, business listings database, mailing list, or telemarketing list for use in an implementation that is not connected to the services; (v) hide or obscure any Authorized User's location with malicious intent or purpose; (ix) permit access or use of the Subscription Service for any activities other than to enhance the Customer's own services, where reliance solely on or failure to use the Software could lead to death, personal injury, or property damage. The Customer and its Authorized Users will not access the Subscription Service if in direct competition with Versaterm and will not allow access to the Subscription Service by any party who is in direct competition with Versaterm and/or its Affiliates, except with Versaterm's prior written consent.

5.6. Third Party Applications

If Customer installs or enables a Third Party Application for use with the Subscription Service, Customer grants Versaterm permission to access Customer Data stored on that Third Party Application as required for the interoperability of that Third Party Application with the Subscription Service. In no event will Versaterm be responsible for any Third Party Application, or any failure of a Third Party Application to properly interoperate with the Subscription Service. If Versaterm receives information that a Third Party Application may violate any applicable laws or third-party rights, Customer will, promptly upon receiving notice of the foregoing from Versaterm, disable any connection between such Third Party Application and the Subscription Service to resolve the potential violation (and if Customer fails to promptly disable such connection, Versaterm shall have the right to do so).

5.7. Third Party Components

Where there are any inconsistencies or conflict between the terms and conditions of Third Party Components and the terms herein, such additional terms shall govern the Customer's use of the applicable Third-Party Component. Third Party Component license(s) are restricted for use solely with Subscription Service.

VERSATERM, NOT BEING THE PROVIDER OR MANUFACTURER OF THE THIRD PARTY COMPONENTS, NOR THE PROVIDERS' OR MANUFACTURERS' AGENT, MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND WHATSOEVER WITH RESPECT TO THE THIRD PARTY COMPONENTS AND DISCLAIMS ANY SUCH WARRANTIES THAT MIGHT OTHERWISE EXIST.

5.8. Third-Party Data

Customer shall access and use the Third-Party Data in accordance with the terms and conditions of the agreement between the Customer and the provider of such Third Party Data. VERSATERM, NOT BEING THE PROVIDER OR MANUFACTURER OF THE THIRD PARTY DATA, NOR THE PROVIDERS OR MANUFACTURERS' AGENT, MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND WHATSOEVER WITH RESPECT TO THE THIRD-PARTY DATA AND DISCLAIMS ANY SUCH WARRANTIES THAT MIGHT OTHERWISE EXIST.

5.9. Customer Data

As between Versaterm and Customer, Customer owns and shall retain all rights, title, and interest, including, without limitation, all Intellectual Property Rights, in and to Customer Data. Customer shall have the sole responsibility for the accuracy, quality, and legality of the Customer Data, including obtaining all rights and consents necessary to share the Customer Data with Versaterm as set forth in this Agreement. Versaterm shall not access Customer user accounts or Customer Data except: (i) in the course of data center operations, (ii) in response to services or technical issues, (iii) as required by the express terms of this Agreement, or (iv) at Customer's written request. Versaterm shall not collect, access, or use user-specific Customer information except as strictly necessary to provide the Subscription Service to the Customer. Notwithstanding the foregoing, and consistent with the MSA, Versaterm may analyze Customer Data, and the data of other customers, to create aggregated or anonymized statistics or data that do not identify Customer or any individual, and Versaterm may, during and after the Term, use and disclose such aggregated or anonymized statistics or data in its discretion.

5.10. Software Enhancements and Optional Modules

Versaterm shall supply the following, subject to the Customer's payment of applicable Fees, and subject to and in accordance with the license rights, restrictions, terms, covenants, conditions, warranties, limitations, exclusions, and other provisions set forth herein:

- a. Major Enhancement Release(s) and/or Minor Enhancement Release(s) if any, to the Customer at no additional charge.
 - i. In the event of a Major Enhancement Release, Versaterm will deploy such upgrades to the Customer's systems, as scheduled in advance, with appropriate notification to the Customer. Customer shall have 60 days to test the Major Enhancement Release, after which, it becomes part of the Software.
 - ii. In the event of a Minor Enhancement Release, Versaterm will deploy such updates to the Customer's system, as scheduled in advance, with appropriate notification to the Customer. With the goal of keeping such environments reasonably current, the Customer shall have 5 days to test the update, after which, the update shall become part of the Software.
- b. Interface modules that are developed by Versaterm for interfacing the Subscription Service to other software products; provided, that such modules are specifically included herein.

- c. Changes to Subscription Service. Versaterm software operates on a variety of common web browser types. Versaterm reserves the right to provide the Subscription Service using only Versaterm Certified Browsers.

5.11. Disclaimer on Use

THE AUTOMATIC VEHICLE ROUTING RECOMMENDATION COMPONENT (“AVRR COMPONENT”), IF LICENSED UNDER THIS AGREEMENT, IS INTENDED FOR USE AS ONE FACTOR IN DETERMINING THE BEST VEHICLE ROUTING FOR THE CUSTOMER AND IS NOT INTENDED TO BE USED AS THE SOLE SOURCE FOR DETERMINING ROUTING, NOR WHICH VEHICLES TO DEPLOY TO ADDRESS ANY EMERGENCY SITUATION. THE AVRR COMPONENT IS HEAVILY DEPENDENT ON THE QUALITY OF THE SOURCE MAPPING INFORMATION INPUTTED BY OR ON BEHALF OF CUSTOMER AND VERSATERM WILL HAVE NO RESPONSIBILITY OR LIABILITY FOR ANY ROUTING ERRORS AND/OR DELAYS, NOR ANY RESULTANT DAMAGE OR LOSS ARISING AS A RESULT OF THE MAPPING DATA OR FOR ANY DAMAGES OR LOSS CAUSED BY ANY DECISION MADE OR ACTION TAKEN IN RELIANCE ON THE AVRR COMPONENT.

6. Subscription Support

6.1. Site Access

Versaterm shall coordinate any on-site visits in advance with the Customer as needed to fulfill the obligations of this Service Schedule. The Customer shall provide reasonable access to its premises, staff, and authorities, provided Versaterm staff meet the security requirements defined in Section 8 of this Service Schedule.

6.2. Product Support

During production use, Versaterm may make Support available through access to Versaterm’s designated internet platform and direct contact with the Customer. Such Support may consist of the periodic review of current outstanding questions and usage issues, new and upcoming releases of Major Enhancement Releases and Minor Enhancement Releases, and the periodic review of potential environment changes that could impact the use of the Subscription Service.

6.3. Regular Telephone Support

During Production Use, Versaterm will make Support available by telephone to the Support Contact at substantially all times from 7:30 a.m. (EST) until 5:30 p.m. (Customer local time) each day except Saturdays, Sundays, and legal holidays in the jurisdiction of the Customer. To the extent possible by telephone, email, and remote communication, Versaterm will attempt to identify and provide a workaround for the Problem and will use reasonable efforts to provide a final solution for the Problem, if applicable. Versaterm will respond to telephone requests in accordance with the response times set forth in the Defect Level Response Table in Section 6.6 below.

6.4. 7x24 Emergency Telephone Support

Versaterm will provide 7x24 Telephone Support that extends Support for problems identified as Level 1 or Level 2 Defects (as defined in Section 6.6) to include all hours not already provided for within Regular Telephone Support. 7x24 Telephone Support allows the Customer's internal support staff that are technically capable and who first troubleshoot the problem, to authorize Versaterm to provide 7x24 Telephone Support.

6.5. Termination of Corrective Action

Versaterm may, but need not, terminate its corrective efforts under this Service Schedule at any time if, in its business judgment:

- a. The Customer fails to perform its obligations under this Service Schedule; or
- b. The Customer is not using the then current unmodified version of the Subscription Service or other versions of the Subscription Service then supported by Versaterm; or
- c. Versaterm and/or the Customer is not able to reproduce the Problem in the applicable operating environment and verify that the Problem is in fact in the Subscription Service and not elsewhere; or
- d. The Problem is not material; or
- e. Further corrective efforts are not appropriate because the Problem has been identified and is caused by an external factor not within Versaterm's control; or
- f. Versaterm has declared the Problem as probably being caused by something external to the supplied Subscription Service, such as aberrations within the Customer's network (LAN and/or WAN and/or related network equipment). Versaterm will terminate work on this Problem unless the Customer authorizes further diagnosis effort that may be billable separately under this Service Schedule when and if the suspected external problem source is confirmed. If confirmed as being caused by an external source, then such work will be billed on a time and materials basis at the then prevailing hourly rates for Support (whether within or outside normal support hours) and can be authorized by e-mail by the designated Support Authority or other as designated in writing to Versaterm as having that authority.

6.6. Priority Level Response Table

Priority Level	Definition /User Impact (Severity)	Example	Response Time	Versaterm Response	Close-Out	Communications	After Action Report
Level 1- Urgent	System Down / Unusable - A significant feature or core workflow is impaired or non-functional, causing meaningful disruption to business operations. No alternative process or workaround is	• Full application outage • Inability to log in across the user base • Critical data loss or corruption • Security breach actively impacting the system.	< 30 Minutes	Versaterm immediately provides expert personnel to resolve the issue remotely, aiming to resolve within 4 hours of notification.	Support maintained until resolved or viable workaround provided, or if issue is due to non-Versaterm component/soft ware.	Status updates will be provided at reasonable intervals, typically hourly during active service restoration efforts.	Post-resolution summary of root cause, actions taken, and prevention measures, provided upon written request by the Customer.

	available to maintain normal service delivery.						
Level 2-High	High priority problem impacting operational use of the entire Subscription Service or a component, without an available workaround (e.g., system-wide slowness).	• Critical report that cannot be generated • Key integration that has failed, or a workflow that is entirely blocked for a user group. • Efficiency/Performance/Throughput: System is functional but does not match the performance criteria. • Functions are not executing correctly and are stopping cases from being processed. No workaround available.	Response within 4 hours, escalation as required.	Expert assistance provided, aiming for a 12-hour resolution.	Support maintained until resolved or workaround provided, or if issue is due to non-Versaterm component/software.	Status updates as necessary, typically every 4 hours during active service restoration efforts.	Post-resolution summary of root cause, actions taken, and prevention measures, provided upon written request by the Customer.
Level 3-Normal	Component of Subscription Service does not work as expected, with available workaround and minimal impact on productive use.	• UI element not behaving correctly but accessible via another path, or an export function failing while data can still be retrieved another way. Resolution is important but not urgent. • Decrease system's efficiency/performance/throughput • Decreases user/department's efficiency in completing tasks	Response within one Business Day.	Addressed and fix scheduled in upcoming patch.	N/A	Updates as necessary.	N/A
Level 4-Low	Minor issue with no effect on productive use	• User Error: Problem reported by user that was a	Response within 5	Fix scheduled in future patch or upgrade.	N/A	Updates as necessary.	N/A

	(e.g., minor formatting issues).	result of user error or misunderstanding. • Isolated workstation failure.	Business Days.				
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7. System Performance and Availability Standards

This Section 7 sets forth the performance and availability standards to which the Versaterm vCAD and vRMS Software is expected to perform, provided Customer meets Versaterm's recommended hardware and network specifications, including server, desktop workstation and mobile configurations, and that the Customer uses the Software according to its intended design. Server hardware and software requirements, minimum workstation configurations, and network requirements are detailed in this Service Schedule. Specifications and requirements are subject to change to support future Major Enhancement Releases.

The measured times exclude any factors that may be caused by factors outside of Versaterm's control, such as, but not limited to, the network.

7.1. vCAD Transaction Response Times

The vCAD Software performance is based on transaction response times, which are measured from operator action until visual response is observed or until the operation is completed. Expected response times are not for data-dependent transactions, such as, but not limited to, displaying data lists, displaying dashboards, querying external interfaces, attaching files, printing, or performing browse searches. For such types of data-dependent transactions, the response time results may vary depending on the amount of data involved, the sizes of the files involved, or the types of search criteria entered.

Below defined response times do not include dispatch recommendations/dispatching using AVL or AVRR, unless specified.

The approach taken will be to measure the performance of a series of identified transactions from a vCAD call-taker/dispatcher workstation while the Subscription Service is under normal and reasonable workload within the Production Use environment. Delays caused by the network will not be included in the response times.

When measuring response time, no browse transactions (ad-hoc queries against the database using the browse functions) or vCAD reports will be processed. The response times will be measured from vCAD workstations that meet the recommended workstation requirements as defined herein.

Running a vCAD session (i.e. signed on as a dispatcher), the following times should not be exceeded:

Transaction #1	Display "Add Call" form. Measured from the time the 'add call' function key is pressed until the form is displayed. Excludes first time the 'Add Call' form is invoked (form is being cached).	1 second 95% of the time
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Transaction #2	Display call in queue - measured from when "ENTER" is pressed on completed call screen and the call is displayed in the pending queue.	2 seconds 99% of the time
Transaction #3	Validate address (from time last character entered to the display of district/beat/grid or invalid location form or display of matching street list). From time user tabs out of location field until successful geocoding occurs. Assumes full street name is entered or 2 full street names are entered for intersections.	2 seconds 99% of the time
Transaction #4	Status change for single unit (enroute, onscene) - measured from when "ENTER" is pressed and unit status results are displayed on unit status.	2 seconds 95% of the time
Transaction #5	Retrieve Call using call number as a parameter. - measured from when call number is entered and "ENTER" is pressed until call is displayed.	2 seconds 99% of the time
Transaction #6	Display the recommended response units for the incident, measured from when the user enters the DP (Dispatch Recommendation) command to when the recommended units are displayed on the dispatcher screen. Assumes non-AVRR dispatch recommendation of 10 units or under.	2 seconds 99% of the time

Navigational Transactions

Navigational transactions involve the ease of movement from screen to screen or field to field. The response time for navigational transactions is expected to usually take one second (or less).

Examples include:

- Tabbing from field to field in any screen within the Software
- Looking up valid values for a coded field

7.2. vRMS Transaction Response Times

The vRMS Software performance is based on transaction response times, which are measured from operator action until visual response is observed or until the operation is completed. The types of transactions that have predictable response times include the majority of navigational and maintenance transactions.

Versaterm does not provide expected response times for data-dependent transactions, such as, but not limited to, displaying data lists, displaying dashboards, uploading MRE reports from the MDT, querying external interfaces, attaching files, printing reports, or performing browse searches. For such types of data-dependent transactions, the response time results may vary depending on the amount of data involved, the sizes of the files involved, or the types of search criteria entered.

Navigational Transactions

Navigational transactions involve the ease of movement from screen to screen or field to field. The response time for navigational transactions is expected to usually take one second (or less). Examples include:

- Tabbing from field to field in any screen within the Software

- Looking up valid values for a coded field

Module Load Transactions

Module load transactions involve the loading of a program module/feature that requires loading an application and initializing the functions. The response time for module load transactions is expected to usually take two second (or less). Examples include

- Loading of programs to access modules within the Software (e.g. loading the General Offense (GO) Report program from the main Records menu (of the vRMS application)

Maintenance Transactions

Maintenance transactions involve add/update transactions in the backend database tables. The response time for maintenance transactions is expected to take three seconds or less. Examples include:

- Saving new or updated information entered into the Software screens, such as adding or updating a General Offense screen (note: transaction response time does not include the time required for the end-user to make a decision if prompted by the vRMS)

7.3. Availability Standards

During Production Use of the Subscription Service, the vCAD or vRMS Software shall be available in the production environment 99.99% of the time. The following specifications define both availability and the method by which it is calculated:

Availability is expressed as a percentage of the maximum expected availability over a given period. The Software shall be available seven days per week, 24 hours per day.

The percentage availability for any period will be calculated as follows:

$$(\text{Total Hours in Period} - \text{Hours System Unavailable}) \times 100 / \text{Total Hours in Period}$$

"Unavailability" is where the vCAD and/or vRMS Software is completely and generally unavailable for the Customer's use (but not the use of any one Authorized User, or subset/group of users; or access from any one vCAD desktop, or group of vCAD desktops), and does not include any unavailability attributable to:

- Scheduled downtime for maintenance;
- Scheduled downtime for Major Enhancement Releases and Minor Enhancement Releases;
- scheduled downtime for operating system patch updates;
- downtime for upgrades or updates to system software components and tools integrated as part of the Subscription Services;
- downtime for upgrades or updates to cloud-based Third-Party Software Components and services integrated as part of the Subscription Services;
- downtime related to connectivity issues resulting from Customer or third-party-provided or managed Direct Connect or VPN access to hosted server or Customer internal network problems; Customer will be responsible for immediately notifying Versaterm of all third-party-managed VPN access and internal or external (e.g. internet service provider) network problems that arise;

- g. an incident resulting from data or infrastructure or network provided and/or performed by the Customer;
- h. acts or omissions of Customer or any Customer user, Authorized User, or any employee, agent or independent contractor of the Customer;
- i. lack of availability or untimely response from the Customer that require the Customer's participation for resolution;
- j. the Customer's negligence or breach of the Customer's material obligations under the MSA or Service Schedule;
- k. any other cause(s) beyond Versaterm's reasonable control, including but not limited to those caused by Third Party Data, Third Party Applications, Third Party Provider, or Third Party Components or other third party software, as well as overall internet congestion, denial of service attack, or a force majeure event.

8. Security

- 8.1. All personnel Versaterm employees pursuant to this Service Schedule shall be subject to Versaterm's background and security checks and screening (collectively "Background Screening") at Versaterm's sole cost and expense as set forth in this paragraph. The Background Screening shall include, as a minimum, criminal record checks, local police record checks, and credit checks. Any additional Background Screening required by the Customer must be agreed to by Versaterm and may be at additional cost.
- 8.2. FBI CJIS Security Addendum. Versaterm agrees to the terms and requirements set forth in the Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) Security Addendum for the Term of this Service Schedule.

9. Transition Assistance

- 9.1. Upon termination of the MSA or this Service Schedule for any reason, and subject to Fees due being paid in full, Versaterm will return Customer's data in a CSV or other mutually agreed upon format for each record ("Record") and provide them to the Customer for download. Records can be uploaded to Customer's new system by the Customer or its new vendor. The transition assistance described in this Section 9.1 is included in the Fees. All other Fees are due and payable up to the cut-off date of the Subscription Service.
- 9.2. As an optional Transition Assistance, Versaterm shall provide, at an additional fee, the database and other managed-services, as mutually agreed upon.
- 9.3. Notwithstanding the foregoing, Versaterm reserves the right to retain Customer Data on audit logs and server system logs and in support tickets, support requests, and direct communications with Versaterm.

10. Additional Terms

- 10.1. The Subscription Services for vCAD and vRMS include access to the Mindbase platform. Customer acknowledges that (a) use of the Mindbase platform is subject to the additional terms set forth in Exhibit C-1, and (b) implementation of Mindbase will occur following the go-live of vCAD, as further described in Exhibit C-2. Versaterm shall make the Mindbase platform available to Customer upon Provisioning.

Service Schedule Attachments
CAD Exhibits A.1 to A.8

STATEMENT OF WORK

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1 OVERVIEW

This document is the Statement of Work defining the principal tasks, activities and responsibilities of the Customer and Versaterm for the implementation of the Versaterm System.

This Project is a collaboration between the Customer and Versaterm and is contingent upon both entities fulfilling their respective responsibilities as defined in the Contract and this Statement of Work.

1.1 PROJECT SUMMARY, OBJECTIVES, AND COMPLETION CRITERIA

This objective of this Project is to implement the Versaterm System for the Customer in accordance with the Contract and this Statement of Work. The Project includes the activities necessary to configure, implement, test, train, and place the System into production.

Each task identified in this Statement of Work includes completion criteria. Upon determining that the completion criteria for a task have been satisfied, the Versaterm Project Manager will provide written notification (via email) to the Customer Project Manager. The Customer will review the completed task and provide written acceptance, where applicable for project tracking and any associated contractual milestone payments.

The Parties acknowledge that successful completion of the Project is dependent upon each Party fulfilling its respective responsibilities and completing assigned activities in a timely manner, as described in the Contract and this Statement of Work.

2 ROLES AND RESPONSIBILITIES

2.1 PROJECT MANAGEMENT OVERVIEW

The Customer and Versaterm shall each appoint a Project Manager for the Project with the authority, knowledge and availability to make decisions and fulfill the responsibilities assigned in this Statement of Work and the Project Implementation Schedule. The Project Managers will serve as the primary points of contact between the Parties throughout the Project.

The Customer and Versaterm Project Managers are jointly responsible for providing overall project leadership, coordinating their respective Project Teams, maintaining effective communication, monitoring project progress, and working collaboratively to achieve the Project Objectives. Each Project Manager will have access to the personnel, information, and resources necessary to fulfill their responsibilities and facilitate timely administrative and technical decisions throughout the Project.

2.2 PROJECT MANAGEMENT TOOLS

The following project management artifacts will be maintained on Versaterm's SharePoint site:

- Schedule (will be in Excel spreadsheet format)
- Issues List
- Task List/Action Items
- Change/Decision log

The Customer and Versaterm Project Teams will be provided access to the agreed project collaboration site and the project management artifacts necessary to support the implementation.

If, for whatever reason, the SharePoint site becomes less than effective method for sharing this information (mutually agreed upon by Customer and Versaterm), an alternative may be created/provided.

2.3 VERSATERM PROJECT MANAGER

The Versaterm Project Manager is responsible for the overall coordination and management of the Project on behalf of Versaterm. Throughout the Project, the Versaterm Project Manager will work collaboratively with the Customer's Project Manager to coordinate implementation activities, monitor project progress, facilitate communication, resolve issues, and support the successful delivery of the Project.

The Versaterm Project Manager is responsible for, but not limited to, the following:

2.3.1 PLANNING AND EXECUTION

- Maintain the Project Implementation Schedule
- Coordinate Versaterm implementation activities to support successful execution of the Project Implementation Schedule.
- Monitor the completion of the Versaterm project tasks and work collaboratively with the Customer to resolve issues or dependencies that may impact the Project.
- Coordinate implementation activities related to the deployment of the Versaterm System.

2.3.2 COMMUNICATIONS

- Prepare and distribute regular status reports summarizing project progress, accomplishments, open issues, risks, action items and upcoming activities.
- Maintain regular communication with Customer's Project Manager, providing responses to project-related inquiries within five (5) Business Days.
- Conduct or participate in weekly project status meetings to review project progress, action items, open issues, and risks, and upcoming activities. Calls may be waived by mutual agreement.
- Prepare and distribute meeting minutes within 48 hours following each project meeting.
- Work collaboratively with the Customer to resolve project issues, mitigate identified risks, and maintain project momentum.
- Facilitate communication between Customer personnel and Versaterm resources, as required.

2.3.3 RESOURCE MANAGEMENT

- Manage and coordinate Versaterm resources throughout the Project
- Coordinate implementation activities with the Customer Project Manager

2.3.4 IMPLEMENTATION WORKSHOP AND WORKING SESSIONS

- Coordinate Versaterm resources and project activities to support the workshop and working Sessions
- Monitor action items and project decisions resulting from the workshop and working sessions.

2.3.5 TRAINING

- Coordinate Versaterm resources to support Trainer Training and End-User Training activities
- Monitor training activities and work collaboratively with the Customer to resolve issues that may impact training delivery

2.3.6 TESTING

- Coordinate Versaterm resources to support Functional Acceptance Testing activities.
- Monitor testing progress and work collaboratively with the Customer to resolve issues.
- Coordinate with the Customer and third-party stakeholders, as required, to support issue resolution during testing.

2.3.7 ROLLOUT

- Coordinate Versaterm resources during Production Cutover
- Monitor post-cutover activities and work collaboratively with the Customer to resolve implementation issues during the stabilization period.

2.3.8 OTHER

- Prepare Change Order in accordance with the Contract, as required
- Coordinate project invoicing activities

2.4 CUSTOMER PROJECT MANAGER

The Customer's Project Manager is responsible for the overall coordination and management of the Project on behalf of the Customer. Throughout the Project, the Customer Project Manager will work collaboratively with the Versaterm Project Manager to coordinate implementation activities, monitor project progress, facilitate communications, resolve issues, and support the successful delivery of the Project.

The Customer Project Manager is responsible for, but not limited to, the following:

- Maintaining regular communication with the Versaterm Project Manager and participate in scheduled project meetings.
- Manage and coordinate Customer Project Team resources throughout the Project.
- Coordinate Customer activities in accordance with the Project Implementation Schedule.
- Ensure timely completion of Customer action items, project decisions, approvals, and deliverables.
- Coordinate the review and approval and execution of Change Orders, Contract Amendments, and other Project approvals, as required.
- Work collaboratively with Versaterm to resolve project issues, mitigate risks, and maintain project momentum.

2.5 ROLES AND RESPONSIBILITIES DURING THE PROJECT

This section describes the roles and responsibilities of key Project resources throughout the duration of the Project.

2.5.1 VERSATERM RESPONSIBILITIES

Versaterm's overall responsibility is to establish a designated Project Team for the duration of this project that have the expertise to carry out the assigned Project tasks and responsibilities. The team will use its expertise to guide the Customer through the implementation. Versaterm is also responsible for ensuring that the team members have ample time and resources to fulfill their responsibilities according to the Project Implementation Schedule.

When appropriate, Versaterm will connect to Customer infrastructure, workstation(s), and/or MDT(s) via VPN access. (The Customer will provide VPN for Versaterm at no cost.)

2.5.2 VERSATERM PROJECT TEAM

The Versaterm Project Team will consist of a Project Manager, Implementation Specialists, and a Technical Lead.

The **Versaterm Implementation Specialist** is responsible for delivering the remote Working Sessions and in-person Implementation Workshop to the Customer Project Team, assisting the Customer in configuring the System.

The **Versaterm Technical Lead** is responsible for delivering the technical aspects of the project and providing technical support to the project.

2.5.3 CUSTOMER RESPONSIBILITIES

The Customer's overall responsibility is to establish a designated Project Team for the duration of this project. Project Team members should have the authority, knowledge, and availability to fulfill the responsibilities assigned to them in this Statement of Work. The Customer is responsible for ensuring that appropriate personnel are available throughout the Project to support implementation activities, provide timely decisions, complete assigned action items, and participate in scheduled project activities.

The Customer is responsible for providing workstations, network connectivity to support the Project Team throughout the Configuration phase. Customer-provided workstations must meet the minimum specifications identified in Exhibit A.7 Customer Supplied Hardware and Third-Party Software. The Customer will provide Versaterm with VPN connectivity and remote desktop access to designated Customer workstations, as required, to support troubleshooting activities related to Customer-supplied workstations. When appropriate, Versaterm will connect to Customer infrastructure, workstation(s), and/or MDT(s) via a VPN connection using a client provided by Customer.

2.5.4 CUSTOMER PROJECT TEAM

The Customer will establish a Project Team consisting of personnel with the knowledge, authority, and availability necessary to support the implementation. The Project Team should include representatives for operational, technical, administrative, infrastructure, and project management functions, as appropriate for the scope of the implementation.

The Project Team may include, but is not limited to:

- Project Manager
- Technical Lead
- System Administrator

- Application Administrator
- GIS Specialist
- Infrastructure / Network Specialist
- Operational Representative(s)
- Reporting / Analytics Representative
- Training Coordinator
- Other subject matter experts, as required

Versaterm will work with the Customer during Project Initiation to identify the appropriate Project Team roles and subject matter experts required to support the implementations.

2.6 PROJECT SCHEDULE

The Project Implementation Schedule will be maintained by Versaterm's Project Manager and updated as necessary over the course of the Project. All changes to the schedule will be mutually agreed upon and, if required, documented via the mutually agreed upon Change Order Process.

2.7 CHANGE ORDERS

When a significant change to the Project occurs – as defined by the Customer and Versaterm Project Managers, a Change Order will be logged in Exhibit A.8 – Change Control Log. The Versaterm Project Manager will be responsible for updating the Project Schedule as needed to reflect the change, as agreed upon with the Customer Project Manager.

3 SOFTWARE DELIVERABLES

This section describes the Project's software deliverables to be provided by Versaterm. Detail information regarding some deliverables may be found elsewhere [Interface Control Document (Exhibit A.3)].

3.1 SOFTWARE

- Exhibit A Service Schedule

3.2 INTERFACES

- See Exhibit A.3 - Interface Control Document

3.3 REDUNDANCY AND BACKUP DELIVERABLES

The Versaterm cloud solution utilizes multiple backend application instances in an active-active configuration, load balanced across Amazon Web Services (AWS) Availability Zones (AZs). Availability Zones are physically separate datacenters connected by low latency network links and independent infrastructure. This architecture provides high availability and fault tolerance, ensuring that an outage of a single node or availability zone (datacenter), will not cause an extended outage to the end user (users will be automatically re-directed to the surviving datacenter/nodes where

they may have to re-authenticate/login to the application). While the Versaterm vCloud architecture provides resiliency across datacenters/AZs, it does not protect against an outage of the entire AWS GovCloud Region.

System users connect to the application through a highly available AWS load balancer, which authenticates users against the Customer's identity provider before directing them to an available application instance within one of the AWS availability zones (datacenters). Versaterm is responsible for configuring and integrating the Versaterm solution, including the AWS load balancer, and supporting industry standard Security Assertion Markup Language (SAML) authentication to ADFS. The Customer is responsible for configuring and managing multi-factor authentication required for the client and mobile workstations.

Application components and data files are deployed across multiple AZs to provide resiliency. Multiple copies of the files and database are maintained across the environment. This architecture is designed to provide 99.99% availability and 99.999999999% (11 nines) durability for data stored in and backed up to AWS S3.

All System data, including databases, data files, and backups, is encrypted both at rest and in transit. Versaterm maintains a backup strategy that includes daily and monthly snapshot backups to support recovery in the event of an unexpected failure. A rotation of daily and monthly snapshot backups is stored in AWS's S3 file storage system, which is encrypted and highly resilient (a minimum of 3 copies of the data is kept).

4 STATEMENT OF WORK TASKS

This section describes the Project's major implementation tasks, including the responsibilities of the Customer and Versaterm, task prerequisites, Versaterm deliverables, and task completion criteria.

Task sequencing, planned start dates, durations, dependencies, and assigned resources are maintained in Exhibit A.2 Project Implementation Schedule.

4.1 PLANNING PHASE

TASK #1 PROJECT INITIATION

The Project officially begins on the Effective Date of the Contract. As part of this task, the Customer and Versaterm Project Managers will conduct one or more remote meetings to initiate the Project. During the meeting(s), the Project Managers will review and confirm the Project Implementation Schedule, establish the project management artifacts, confirm the Communication Plan, and verify implementation readiness.

VERSATERM RESPONSIBILITIES

- Schedule and facilitate the meeting(s) with the Customer.
- Establish the project management artifacts, including the Action Item Log, Issues List, Change/Decision log, Risk Register, and Change Management Log.
- Review and confirm the Project Implementation Schedule with the Customer.
- Collaborate with the Customer to establish and confirm the Communication Plan.

CUSTOMER RESPONSIBILITIES

- Participate in the meeting(s).

- Collaborate with Versaterm to establish and maintain the project management artifacts.
- Collaborate with Versaterm to establish and confirm the Communication Plan.

PREREQUISITES

- Contract Execution.

VERSATERM DELIVERABLES

- Initial project management artifacts.

TASK COMPLETION CRITERIA

- The meeting(s) have been completed.
- The project management artifacts have been established.
- The Customer and Versaterm have confirmed the Communication Plan.
- The Project Implementation Schedule has been reviewed and confirmed.

TASK #2 PROJECT KICKOFF

Versaterm and the Customer will conduct a remote Project Kickoff meeting to introduce the Project to Customer's Project Team and key stakeholders. The Project Kickoff establishes a shared understanding of the Project objectives, implementation approach, roles and responsibilities, project schedule, communication process. It also confirms Customer participation expectations and prepares the Project Team for the implementation activities that follow.

The Project Kickoff presentation will include, at a minimum, the following topics:

- Project objectives and scope
- Contract overview
- Customer Project Team introduction, roles, and responsibilities
- Versaterm Project Team introduction and roles
- Project Implementation Schedule
- Project governance, including communication, risk, issues, action items, and change management
- Next steps and immediate implementation activities

VERSATERM RESPONSIBILITIES

- Prepare and deliver the Project Kickoff presentation.
- Present the implementation approach, project implementation schedule, and key project expectations.
- Participate in the Project Kickoff meeting and address Customer questions.

CUSTOMER RESPONSIBILITIES

- Invite appropriate Project Team members and key stakeholders to participate in the Project Kickoff meeting.
- Confirm the Project Team's understanding of the implementation approach, project schedule, roles and responsibilities and Customer participation expectations.

PREREQUISITES

- Project Implementation Schedule has been finalized.

TASK COMPLETION CRITERIA

- Project Kickoff Meeting concluded.

TASK #3 IMPLEMENTATION PREPARATION

The purpose of this task is to initiate implementation activities that require Customer, third-party, or internal coordination and may require extended lead times. By identifying, requesting, and initiating these activities early in the Project, the Parties can reduce implementation delays and support the timely completion of subsequent project tasks.

VERSATERM RESPONSIBILITIES

- Coordinate the Implementation preparation activities with the Customer Project Manager.
- Identify implementation prerequisites requiring Customer or third-party participation.
- Identify required third-party Non-Disclosure Agreements (NDAs) and provide the applicable NDA(s) for execution by the third-party vendor.
- Provide GIS data specifications, including the required shapefiles, map packages, file formats, and supporting documentation.
- Request available interface documentation and technical specifications from third-party vendors.
- Provide technical prerequisites required to support the implementation, including network connectivity, authentication, workstation, and security requirements, as applicable.
- Identify Customer configuration data that can be prepared in advance to support initial system configuration and pre-loading, such as unit identifiers, personnel information, and other configuration data.

CUSTOMER RESPONSIBILITIES

- Assign resources to support implementation activities.
- Provide third-party vendor contact information and facilitate execution of the required NDAs with the applicable third-party vendors.
- Initiate internal activities requiring participation by Customer departments or third-party vendors that may impact the Project Schedule.
- Provide remote VPN access capability to two (2) implementation Windows based computer images running on the Customer network – provisioned exclusively for Versaterm implementation support.
- Provide GIS shapefiles and map packages as required to create the Master Street Index file and initial map configuration.
- Provide available interface documentation and coordinate third-party participation, where applicable.
- Provide available configuration information and supporting documentation required for implementation.
- Identify the anticipated training facilities and implementation workspace to support future project activities.
- Provide available configuration data identified by Versaterm to support initial system configuration and pre-loading, such as unit identifiers, personnel information, and other requested configuration data.

- Confirm completion of required background checks for Versaterm project team members.

PREREQUISITES

- Project Initiation completed.

VERSATERM DELIVERABLES

- Implementation preparation action list.
- List of outstanding preparation items, if applicable.

TASK COMPLETION CRITERIA

- Implementation prerequisites have been identified.
- Customer and third-party contacts have been identified.
- Required NDAs have been initiated, where applicable.
- Requests for interface documentation and technical information have been submitted.
- Requested GIS data and supporting documentation have been received or are in progress.
- Outstanding implementation preparation items have been documented.
- Available configuration data for pre-loading has been received and outstanding items have been documented.

4.2 CONFIGURATION PHASE

The purpose of the Configuration Phase is to configure the System for the Customer's operational requirements.

During this phase, Versaterm will complete the technical configuration of the System, develop and configure interfaces, and conduct the Implementation Workshop and Working Sessions to review system functionality, validate configuration, and support implementation activities.

The Implementation Workshop will be delivered in person. Additional Working Sessions will be conducted remotely, as required, to review implementation topics, validate system configuration, and support the implementation.

The Customer will provide a suitable classroom or meeting facility for the Implementation Workshop, including a projector, instructor workstation, and participant workstations, as identified in the Project Schedule.

TASK #4 ESTABLISH COMMUNICATION TO AWS

This task is to establish connectivity between Customer and the Product installed in the Versaterm VPC (Virtual Private Cloud) in the AWS GovCloud (US) Region.

Two (2) separate VPCs are utilized. The "NonProd" account contains one VPC housing the Test environment, and a second account is used for Production that houses the Production and Training environments.

A secure redundant connection (tunnel) shall be established between Customer and the Versaterm VPC in the AWS GovCloud (US). All customer access to the Product will be done through the secure connection. A Customer's user must first authenticate and connect to the local Customer's network before gaining access to the Product. This

applies to all users, including any remote or external users. Users will not be able to access the Product without coming through the established secure tunnel between Customer and the Versaterm VPC.

All exchanges between the Product applications in the AWS GovCloud (US) and any onsite servers or services (interface servers, FTP servers, etc.) will communicate through the secure connection (tunnel) established between Customer and Versaterm VPC in AWS. There is an exception to this communication protocol, currently the Product allows SFTP file transfer interfaces to reach vCloud via an internet facing SFTP service that is locked down to whitelisted public IP sources.

Customer can connect to AWS via either a secure Customer Gateway IPSec VPN tunnel (routable through the Internet), or a Direct Connect connection to AWS. Versaterm recommends a VPN over an AWS Direct Connect for the best user experience and reliability. Costs and requirements will differ for each.

VERSATERM RESPONSIBILITIES

- Work with Customer to review and finalize connectivity to AWS, including reviewing Customer's connectivity requirements, security and privacy requirements, data transfer and network bandwidth requirements, and level of service required (redundancy requirements).
- Work with Customer to confirm how Customer will connect to AWS (Customer Gateway IPSec VPN tunnel (routable through the Internet), or Direct Connect connection to AWS, or combination of both).
- Provide a list of network ports and services that need to be enabled (opened) between Customer's local network and AWS (both ways) required by Versaterm application and interfaces.
- Versaterm will provide a list of supported IPSec VPN hardware to Customer (for the local customer VPN hardware) to confirm compatibility with AWS.
- Versaterm will create a Customer Gateway (VPN) Configuration File (for the specific customer VPN hardware) for the Customer to load on their VPN Gateway. The Configuration File includes configuration/connectivity details to connect to the Versaterm VPC in AWS GovCloud (US).
- Enable Customer access to the Versaterm VPC(s) in the AWS GovCloud (US) Region.
- Define routing rules for Customer provided IP ranges, on the Versaterm core AWS VPN tunnel, for access to any Customer on premise servers/services that the Product will need access to (for interfaces, etc.).
- Provide a Private IP range that all traffic between Customer and vCloud will be NATed to.
- Test connectivity with Customer.

CUSTOMER RESPONSIBILITIES

- Provide a local network specialist that can work with Customer and Versaterm to establish required network connectivity.
- Review network bandwidth requirements with Versaterm to determine how Customer will connect to AWS (Customer Gateway IPSec VPN tunnel, or Direct Connect connection to AWS).
- Identify onsite servers/services/interfaces the System to connect to.
- Provide connectivity to AWS,
 - provide a secure connection for access to the AWS GovCloud (US) Region; the connection must be capable of supporting the Customer's bandwidth requirements identified above.
 - to minimize service interruptions, separate, redundant connections are required; dedicated circuits are preferred.
 - if Direct Connect connection(s) to AWS is to be supported (as determined by local bandwidth and other requirements), work with Customer's local telco provider, AWS, AWS Direct Connect Partner,

and Versaterm to finalize detailed requirements and establish required Direct Connection(s) to the Versaterm VPC(s) in the AWS GovCloud Region

- Provide Customer Gateway VPN(s), (for clarity, a Customer Gateway is a physical device or software application on Customer's side of the VPN connection)
 - provide Customer Gateway VPNs capable of meeting the Customer connectivity and bandwidth requirements; Customer Gateway VPNs compatible with the AWS supported platform (as provided by Versaterm) are required; redundant Gateways/VPNs are also required to minimize service interruption.
 - IPSec Customer Gateway VPNs must support and be certified for FIPS 140-2.
 - provide Customer Gateway VPN hardware (e.g. Cisco), platform (e.g. ISR Series Routers), and software version (IOS 12.4) to Versaterm.
 - provide internet-routable IP address for the Customer Gateway VPN(s)' external interface which Versaterm will use when creating the Customer Gateway (VPN) Configuration File (value must be static; the Customer Gateway may reside behind a device performing network address translations (NAT)).
 - provide the Customer BGP ASN (Border Gateway Protocol, Autonomous System Number) to use, to Versaterm, if any, which Versaterm will use when creating the Customer Gateway (VPN) Configuration File; otherwise, Versaterm will configure a default value of 65000 for the Customer Gateway BGP ASN.
 - identify IP range (IP subnet pre-fixes) for any of Customer's onsite servers that the System will need access to (for interfaces, etc.).
 - enable NATing of data between the internal Customer network and vCloud as well as provide some static NATed IPs for servers and interfaces that Versaterm vCloud needs to communicate with.
 - load the Customer VPN Gateway Configuration File provided by Versaterm, on Customer's Gateway VPN device(s).
- Provide a method of local auditing of connections on a per user basis.
- Work with Versaterm to resolve any IP subnet overlap issues, and other as required.
- Test connectivity with Versaterm (for the Customer, remote/external users, and Remote Partner Agencies).
- Provide 7x24 technical network support to the Customer.

PREREQUISITES

- Task #1 Project Start

DELIVERABLES

- List of IPSec VPN Customer Gateway hardware supported by AWS.
- Customer Gateway (VPN) Configuration File (for the specific Customer Gateway hardware) for Customer to load on their VPN Gateway.
- Enable Customer access to the Versaterm VPC in the AWS GovCloud (US) Region.

TASK COMPLETION CRITERIA

The task will be complete when

- Customer connectivity is installed, configured, and
- Customer is able to connect to the Versaterm VPC in the AWS GovCloud (US) Region.

TASK #5 CONDUCT SCOPING SESSIONS

The purpose of scoping sessions is for Versaterm to review the Customer's operational, technical, and interface requirements in order to complete the initial configuration of the implementation system. Scoping Sessions will be conducted remotely.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the scoping sessions with the Customer's Project Manager.
- Provide an agenda with objectives and topics to review prior to the scoping session.
- Lead discussions with the customer to understand current business processes.
- Review the Customer's operational requirements and document the information required to configure the System.
- Identify any Customer-specific configuration requirements requiring additional review.
- Review interface requirements, dependencies, and implementation responsibilities.
- Document project assumptions, action items, and implementation decisions.

CUSTOMER RESPONSIBILITIES

- Coordinate the scheduling of the Scoping Sessions with the Versaterm Project Manager.
- Assign the appropriate project and subject matter resources to participate in the Scoping Session.
- Ensure that designated Scoping Session participants attend the scheduled sessions.
- Participate in the review of operational, technical, and interface requirements identified in the agenda.

PREREQUISITES

- Project Kickoff Meeting concluded.

VERSATERM DELIVERABLES

- Scoping Session agenda
- Scoping Session facilitation

TASK COMPLETION CRITERIA

- Scoping Sessions completed.
- Information required to complete the initial configuration of the System has been documented.
- Interface requirements and responsibilities have been reviewed
- Project assumptions, action items, and implementation decisions have been documented.

TASK #6 CONFIGURE VCLLOUD SERVERS

Versaterm will provision the AWS Cloud environment. The environment consists of two tiers:

- Production ("prod") – Contains the Training and Production systems.
- Non-Production ("non-prod") – Contains the Test system.

As part of this task, Versaterm will provision the Test, Training and Production systems.

VERSATERM RESPONSIBILITIES

- Provide the AWS Cloud computing system containing the System Test, Training and Production systems.
- Assist the Customer with AWS networking configurations and ensuring access to the AWS Cloud non-prod and prod environments.
- Provide details on required ports that must be opened or configured.

CUSTOMER RESPONSIBILITIES

- Configure networking for access from the Customer network to the AWS Cloud non-prod and prod environments.

PREREQUISITES

- Project Kickoff Meeting concluded.

VERSATERM DELIVERABLES

- Configure implementation system (Test, Training and Production systems) in the AWS Cloud.

TASK COMPLETION CRITERIA

- The Test, Training and Production systems have been installed and configured in the AWS Cloud.
- The Customer has established network connectivity to the AWS Cloud non-prod and prod environments.

TASK #7 PREPARE TRAINING CLASSROOM

This task covers preparation of the training classroom facility, including workstations, equipment, and network access, in advance of the Implementation Sessions.

VERSATERM RESPONSIBILITIES

- Provide guidance during classroom facility setup

CUSTOMER RESPONSIBILITIES

- Provide a suitable classroom facility, workstations and equipment that meet minimum specifications as set out in Exhibit A.7 Customer Supplied Hardware and Third-Party Software and confirm networking access to the AWS Cloud non-prod and prod environments.

PREREQUISITES

- Project Kickoff Meeting concluded.

VERSATERM DELIVERABLES

- Guidance during classroom facility setup

TASK COMPLETION CRITERIA

- The Customer has setup the training classroom.

TASK #8 CONFIGURE IMPLEMENTATION SYSTEM

Versaterm will configure the Application Software. The Customer will install the Versaterm client software on the designated Implementation Team workstations.

Implementation activities will be performed in the AWS Production environment, which serves as the primary environment for system configuration, interface implementation, testing and training. Upon approval of the system configuration, the approved configuration will be applied to the Test and Training environments. Interfaces will be deployed to the Test and Training environments, as required, prior to Production Cutover.

VERSATERM RESPONSIBILITIES

- Configure the Versaterm server Application Software installed in the AWS Cloud.
- Apply System Configurations based on Customer's workflows and processes discovered during Scoping Sessions.
- Load the street files, if available.
- Provide the Customer with the Versaterm client software for installation on the classroom workstations and the implementation team's workstations.

CUSTOMER RESPONSIBILITIES

- Assist Versaterm as needed.
- Create user accounts required by the Customer's Implementation Team to access the Versaterm application suites.
- Install and configure client Application Software on designated workspace and implementation team workstations.
- Provide remote VPN access capability to two (2) implementation Windows based computer images running on the Customer network – provisioned exclusively for Versaterm implementation support.

PREREQUISITES

- Configure vCloud servers concluded.

VERSATERM DELIVERABLES

- Versaterm-provided documentation on how to install and configure the client modules on Customer workstations and mobile devices.

TASK COMPLETION CRITERIA

- The Application Software is configured in the AWS Cloud; and
- The client software installed on the workspace and Implementation Team's workstations and is fully functional.
- VPN access has been provided to Versaterm by the Customer.

TASK #9 CONDUCT IMPLEMENTATION WORKSHOP AND WORKING SESSIONS

Following completion of the Scoping Sessions, Versaterm will configure the System through a combination of remote Working Sessions and a single on-site Implementation Workshop conducted at a Customer-provided classroom facility. Selected configuration activities will be completed by the Customer with guidance from Versaterm to promote familiarity with the System and support future administration.

During the remote Working Sessions, Versaterm will review configured functionality, validate system configuration with the Customer, make configuration adjustments as required, and guide the Customer through selected configuration activities. The Working Sessions will also familiarize the Customer Project Team with the System and prepare them to participate in testing and future system administration.

Following each Working Session, Versaterm will provide action items and exercises for the Customer Project Team to complete prior to the next Working Session.

The purpose of the on-site Implementation Workshop is to validate the configured System in a model office environment, confirm operational workflows, and identify any remaining configuration refinements. The workshop will also confirm readiness for Functional Acceptance Testing, review the training approach, and confirm the target production deployment schedule.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the remote Working Sessions and in-person Implementation Workshop with the Customer's Project Managers.
- Provide an agenda with objectives and business processes to review prior to the scheduled sessions and workshop.
- Provide the Documentation and any required materials (User and Configuration guides) prior to the scheduled Working Session or Implementation Workshop.
- Conduct in-depth demonstrations of the Application Software, identifying functionality and features supported.
- Provide hands-on exercises for the Project Team members to get familiar with the Systems.
- Adjust system configurations based on Customer feedback.
- Review project plan and status of upcoming implementation tasks, and document assignments made, target completion dates, and any issues yet to be resolved.
- Review approach and objectives of the next project phase (Testing) with the Project Team and Project Managers
- Review target go-live date, training schedule, and materials required to prepare training courses.

CUSTOMER RESPONSIBILITIES

- Coordinate the scheduling of the remote Working Sessions and in-person implementation Workshop with the Versaterm Project Manager.
- Identify and schedule the Working Session and Implementation Workshop attendees.
- Provide the required Documentation and materials (User and Configuration guides) for Working Session and Implementation Workshop participants.

- Ensure that designated Working Session and Implementation Workshop participants participate in the scheduled workshop.
- Participate in discussions of the Customer's existing business processes identified in the workshop agenda.
- Identify known/potential workflow, process, job, and/or report changes and assign an owner and rollout plan for each.

PREREQUISITES

- Scoping Sessions have been completed.
- Implementation environment has been set up.
- Application Software has been delivered and installed.

VERSATERM DELIVERABLES

- Working Session and Implementation Workshop material (User and Configuration guides).
- Delivery of Working Sessions and Implementation Workshop.

TASK COMPLETION CRITERIA

- Working Sessions and Implementation Workshop completed.
- The System is configured and the customer team has received sufficient training to navigate and begin the System Testing.

TASK #10 VERSATERM GIS INTERFACE INSTALLATION AND TRAINING

The System utilizes the Customer-provided geographic information system (GIS) data. The Customer is responsible for providing and maintaining the GIS data used by the System. The ESRI Geofile Interface Control Document in Exhibit A.3 defines the requirements.

The Versaterm GIS Interface (VGI) extracts the required information from the Customer-provided ESRI shapefiles or map services to create the GIS data used by the System. The successful deployment of the System depends on the Customer providing complete and accurate GIS data in the required format.

As part of this task, Versaterm will train designated members of the Customer's Implementation team on the System's GIS structure, GIS data requirements, and the use of the VGI tool to generate and maintain the GIS data required by the System. Training will include instruction on configuring and operating the VGI tool to extract geo-related information, including street names, address ranges, intersections, addresses, landmarks, and common place names for loading into the System's master street index.

Throughout the Project, Versaterm will provide guidance as required to the Customer in obtaining, preparing, processing, loading, validating, and maintaining the required GIS data for use by the System, including assistance with resolving issues related to the Customer-provided GIS data.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the VGI Training Session with the Customer's Project Manager.
- Provide VGI Training Session prerequisites and requirements to the Customer.
- Provide VGI training materials in electronic format prior to the scheduled Training Sessions.

- Provide the Customer with the VGI URL and access credentials.
- Deliver the remote VGI Training Session, including an overview of the System's GIS structure, a review of the GIS data requirements, and instruction on configuring and operating the VGI tool.
- Provide guidance and assistance to the Customer in obtaining, preparing, processing, validating, and loading the GIS data into the System.
- Assist the Customer in resolving VGI processing issues related to the Customer-provided GIS data.

CUSTOMER RESPONSIBILITIES

- Prepare the GIS data for the Training Session in accordance with the ESRI Geofile Interface Control Document.
- Coordinate the scheduling of the remote VGI Training Session with Versaterm's Project Manager.
- Identify and ensure the attendance of the designated Customer personnel.
- Distribute the training materials to designated trainees.
- Generate, validate, and load GIS data using the VGI tool following completion of the Training Session.
- Work with Versaterm to resolve issues related to Customer-provided GIS data, as required.

PREREQUISITES

- Scoping Sessions
- Required GIS data available in the required format and with the proper content.

VERSATERM DELIVERABLES

- Operational VGI Software tool and Customer access credentials.
- VGI training materials.
- Completed VGI Training Session.

TASK COMPLETION CRITERIA

- The VGI Training Session has been completed.
- Designated Customer personnel are able to successfully generate GIS data using the VGI tool and load the resulting data into the System.

TASK #11 INTERFACE IMPLEMENTATION

The Interfaces identified in Exhibit A.3 Interface Control Document will be developed, installed, and tested.

Interface development follows an iterative approach that allows mutually agreed refinements during implementation. Significant changes affecting the scope of an interface will be documented in accordance with the Change Control process and approved prior to implementation.

Versaterm will configure and perform initial testing of each interface in accordance with the applicable ICD before supporting Customer validation and testing.

VERSATERM RESPONSIBILITIES

- Develop, configure, install, and test the Interfaces in accordance with the applicable Interface Control Document (ICD).
- Coordinate interface implementation activities with the Customer and applicable third-party stakeholders.
- Document mutually agreed changes to an Interface Control Document and prepare Change Orders, as required.
- Schedule Interface tests.
- Perform interface testing and provide the Customer with verification of functionality.
- Provide training to the Customer on interface setup, configuration, administration and usage.

CUSTOMER RESPONSIBILITIES

- Participate with Versaterm and other applicable third-party stakeholders in the implementation and testing of the Interfaces in accordance with the applicable Interface Control Document (ICDs).
- Review and approve mutually agreed changes to an Interface ICD, as required.
- Facilitate execution of approved ICD Change Orders, as required.
- Provide the current interface documentation available from appropriate third-party Interface stakeholders as required by Versaterm.
- Coordinate communications and activities with third party Interface stakeholders as required to support interface implementation and testing.
- Ensure that the designated Customer resources are available to participate in interface implementation and testing.
- Complete the Customer responsibilities identified in Exhibit A.3.
- Coordinate with Versaterm and third-party Interface stakeholders to schedule Interface tests.
- Participate in interface testing and verify interface functionality in accordance with the applicable ICDs.

PREREQUISITES

- Set up Production Environment

VERSATERM DELIVERABLES

- Updated Interface Control Documents reflecting mutually agreed changes, where applicable.
- Implemented and tested Interfaces in accordance with the Interface Control Documents.
- Customer training on interface administration and usage, as applicable.

TASK COMPLETION CRITERIA

- Any approved changes have been documented in accordance with the Project Change Control process.
- All interfaces have been implemented and verified to operate in according with the applicable ICDs.

4.3 TESTING PHASE

TASK #12 FUNCTIONAL ACCEPTANCE TEST DEVELOPMENT

Versaterm will prepare an initial Acceptance Test Plan suitable for verifying the solution's functionality. The Acceptance Test Plan will be reviewed with the Customer during the Working Sessions and Implementation Workshop and finalized based on Customer input. The Customer may supplement the Acceptance Test Plan with additional test scenarios specific to its operational requirements.

Upon completion of this task, the Customer may use the Acceptance Test Plan, together with any Customer-developed test scenarios, to perform independent testing of the System prior to the formal Functional Acceptance Testing task.

VERSATERM RESPONSIBILITIES

- Prepare the initial Acceptance Test Plan.
- Review the Acceptance Test plan with the Customer during the Working Sessions and Implementation Workshop.
- Incorporate agreed-upon Customer input and finalize the Acceptance Test Plan.

CUSTOMER RESPONSIBILITIES

- Review the Acceptance Test Plan and provide input.

PREREQUISITES

- Configuration Phase

VERSATERM DELIVERABLES

- Acceptance Test Plan.

TASK COMPLETION CRITERIA

- This task is considered complete when Versaterm and the Customer have finalized the Acceptance Test Plan.

TASK #13 FUNCTIONAL ACCEPTANCE TESTING

The purpose of Functional Acceptance Testing is to verify that the fully configured System, including the interfaces specified in the Interface Control Document, and the configured workflows, reports, notifications, tasks, and other functionality, meets the requirements of the Contract and applicable system documentation. Functional Acceptance Testing also provides the Customer with the opportunity to verify that the System performs in accordance with the transaction response times and performance requirements specified in the Contract, where applicable.

Functional Acceptance Testing will be conducted in-person, with Versaterm present to facilitating execution of the Acceptance Test Plan.

The Functional Acceptance Testing is conducted following completion of the Configuration Phase and prior to the End-User Training Phase.

Exhibit A.4 Acceptance Test Plan describes the testing strategy, test schedule, test environment, defect management process, and roles and responsibilities for Functional Acceptance Testing.

An Interface will be excluded from the Functional Acceptance Testing should the Customer be unable to meet the related Interface Customer responsibilities specified in the ICD. A Change Order or Amendment, whichever is appropriate, will be generated to document any changes.

VERSATERM RESPONSIBILITIES

- Facilitate execution of Functional Acceptance Testing.
- Review and investigate reported errors.
- Correct confirmed Application Software errors in accordance with the Contract and Statement of Work.
- Support Customer retesting of corrected errors.

CUSTOMER RESPONSIBILITIES

- Provide representative test data required for Functional Acceptance Testing.
- Execute the Functional Acceptance Test plan with facilitation from Versaterm.
- Report errors identified during Functional Acceptance Testing to Versaterm.
- Work with Versaterm to review reported errors and verify corrective actions.
- Verify corrected errors by re-executing the applicable test scenarios.
- Notify Versaterm in writing upon completion of Functional Acceptance Testing.

PREREQUISITES

- Configuration Phase
- Functional Acceptance Test Development

VERSATERM DELIVERABLES

- Functional Acceptance Test facilitation.

TASK COMPLETION CRITERIA

- This task is considered complete when the Customer has successfully executed the Acceptance Test Plan and all reported errors have either been corrected or an agreed corrective action plan has been accepted by the Customer.

4.4 TRAINING PHASE

TASK #14 SETUP TRAINING SCHEDULE AND FACILITIES

Versaterm will assist the Customer's Training Team in developing the Trainer-training schedule and will provide a recommended training schedule identifying the duration required to train the Customer's personnel.

The Customer will prepare the necessary training facilities to support the Training.

VERSATERM RESPONSIBILITIES

- Provide the Customer's Training Team with a proposed training schedule.

- Identify the facility, equipment and technical requirements for the training facilities.

CUSTOMER RESPONSIBILITIES

- Collaborate with Versaterm on finalizing the recommended training schedule.
- Schedule and coordinate the final Trainer-training schedule with Customer personnel.
- Collaborate with Versaterm on identifying the required equipment and technical requirements.
- Ensure that the training facilities, equipment and technical requirements are ready for the start of the planned training schedule.

VERSATERM DELIVERABLES

- Recommended training schedule.

TASK COMPLETION CRITERIA

- Versaterm has provided a recommended training schedule, and; the Customer has incorporated any required changes, and; a final training schedule is published; and the Customer's training facilities, equipment and technical requirements are ready for the Trainer-training.

TASK #15 TRAINER TRAINING

Versaterm will provide hands-on training to the Customer's Trainers. Refer to Exhibit A.5 Training Course Outline which includes details related to the training approach, course outlines and training packages.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the Trainer Training with the Customer's Project Managers.
- Provide a proposed training agenda and schedule to the Customer.
- Provide training facility requirements to the Customer's Project Managers.
- Provide required skills and any pre-requisite training required by Trainer-Training participants.
- Prepare training manuals based on the system configuration and the Customer's workflows discovered during scoping and Implementation sessions, in electronic format.
- Work with the Customer to review and finalize the Training Documents.
- Conduct the Trainer-Training sessions.

CUSTOMER RESPONSIBILITIES

- Assist in adapting the training scenarios to make use of familiar data and to include site-specific policy and/or process flow information.
- Provide a suitable training facility that meets the needs of the Trainer-Training courses.
- Provide the required documentation to training participants.
- Ensure that the designated participants attend the scheduled training sessions.

PREREQUISITES

- Setup Training Schedule and Facilities.

- Production system access tested and available.
- Functional Acceptance Testing

VERSATERM DELIVERABLES

- Training facility requirements.
- Train-the-trainer participants pre-requisite training and required skill set.
- Training documentation prepared with the Customer.
- Trainer-Training courses.

TASK COMPLETION CRITERIA

- Delivery of Trainer-Training, per the Training Plan.
- Participants have been adequately trained on the agreed-upon training topics, are able to complete the training assignments/scenarios.

TASK #16 READY FOR TRAINING

This task signifies that Versaterm has delivered all required software, interfaces and Trainer-Training, and remedied all errors for the Customer to start End-User training.

VERSATERM RESPONSIBILITIES

- Issue written notice to the Customer that the System is Ready for Training.
- Correct any defects mutually identified by the Customer and Versaterm as having to be corrected prior to the System being ready for the end-user training.

CUSTOMER RESPONSIBILITIES

- Upon receiving a Versaterm's "Ready for Training" notification, review the System's status and outstanding issues list and mutually identify with Versaterm any defects that must be corrected prior to its being used for end-user training.
- Issue a written notice to Versaterm that the System has been verified to be ready for End-User training.

PREREQUISITES

- Functional Acceptance Testing
- Train-the-Trainer Training

VERSATERM DELIVERABLES

- Written notice to the Customer that the System is Ready for Training, once all defects mutually identified by the Customer and Versaterm have been corrected.

TASK COMPLETION CRITERIA

- This task is complete when Versaterm and the Customer mutually agree the System is ready for end user training.

TASK #17 END-USER TRAINING

Customer expert trainers will provide just-in-time training to end-users.

VERSATERM RESPONSIBILITIES

- Provide remote support as needed during end user training period.

CUSTOMER RESPONSIBILITIES

- Provide adequate training facilities including screen projection resources and enough workstation positions for up to twenty (20) students.
- Train additional trainers as necessary to staff the end-user training.
- Schedule and organize the end-user training schedule.
- Assign end-users to training classes at each facility.
- Assign trainers to training facilities so that at least one qualified trainer is present at each end-user training class.
- Prepare required training documentation and material for each end-user attending a training session.
- Ensure that the designated trainers and end-users attend their scheduled end-user training classes.

PREREQUISITES

- Functional Acceptance Testing.
- Setup Training Schedule.
- Setup Training Facility.
- Trainer-training.
- System declared Ready for Training

VERSATERM DELIVERABLES

- Provide remote support during the training period.

TASK COMPLETION CRITERIA

- Completion of end-user training classes (prior to Production Use).

4.5 PRODUCTION PHASE

TASK #18 PRODUCTION CUTOVER PREPARATION

Versaterm performs a Production environment cleanup to remove data entered during configuration, testing, and training activities. A final synchronization is then executed to propagate finalized configuration settings from Production to the Test and Training environments.

The Customer is responsible for installing Versaterm client software on all desktop and mobile computers and ensuring all users have URLs to access web-based Versaterm applications.

VERSATERM RESPONSIBILITIES

- Clean up Production system to remove data entered during system configuration, testing and training.
- Propagate configuration settings from Production to Test and Training systems

CUSTOMER RESPONSIBILITIES

- Install Versaterm client software on desktop and mobile computers.
- Provide URLs for web-based Versaterm applications to all end users.

PREREQUISITES

- End-User training

VERSATERM DELIVERABLES

- Clean Production environment ready for Production Cutover

TASK COMPLETION CRITERIA

- Production environment has been cleaned up.
- Versaterm client software is installed on Customer's desktop and mobile computers.
- All end users have URLs required to access web-based Versaterm applications.

TASK #19 PRODUCTION USE

- Versaterm will assist and support the Customer in placing the System into Production Use.

VERSATERM RESPONSIBILITIES

- Collaborate with the Customer to determine the date and time of the System cutover for Production Use.
- Assist the Customer in placing the system into a Production Use.
- Monitor the initial operation of the System and answer any operational questions raised by the Customer.
- Provide at least one (1) onsite resource to support System cutover for up to two (2) days after the cutover.

CUSTOMER RESPONSIBILITIES

- Collaborate with Versaterm to determine the System Cutover date and time.
- Provide trained personnel to be the first line of Support.
- Set up and staff a "Go-Live Support Room" to act as a central coordination point for Go-Live issues and support.
- Coordinate with Versaterm to schedule the onsite Versaterm resources as needed to support the first two (2) calendar days of Production Use.

PREREQUISITES

- End-User training
- Production Cutover Preparation

VERSATERM DELIVERABLES

- Onsite Versaterm resource(s) in support of the System cutover to Production Use.

TASK COMPLETION CRITERIA

- The System is successfully operating in Production Use.

TASK #20 CLOSE SUPPORT

Following Production Cutover, Versaterm will provide a Close Support period of two (2) weeks to assist the Customer in stabilizing System operations. The Close Support period will be extended until all Level 1 and Level 2 issues identified during the Close Support period have been resolved to the Customer's satisfaction.

VERSATERM RESPONSIBILITIES

- Provide dedicated remote resources to the Customer during the Close Support period to address System issues in a timely manner.
- Investigate, prioritize, and resolve all Level 1 and Level 2 issues reported by the Customer during the Close Support period.
- Participate in a discussion with the Customer to identify remaining action items, open or incomplete tasks, next steps and any pertinent maintenance responsibilities.
- Work with the Customer for a post-close support communication plan and workflow for future contacts.
- Identify dates for completing remaining tasks.
- Notify the Customer in writing upon confirmation that all outstanding Level 1 and Level 2 issues have been resolved and the Close Support period has concluded.

CUSTOMER RESPONSIBILITIES

- Report all System issues to Versaterm promptly during the Close Support period, including priority classification.
- Make available the appropriate Customer resources to assist Versaterm in reproducing, investigating, and verifying resolution of reported issues.
- Participate in a discussion with Versaterm to identify remaining action items, open or incomplete tasks, next steps and any pertinent maintenance responsibilities.
- Identify dates for completing remaining tasks.

PREREQUISITES

- Production Use of the System

VERSATERM DELIVERABLES

- Review and correct or provide workarounds and plan for corrections for any level 1 and level 2 issues.

TASK COMPLETION CRITERIA

The Close Support period is considered complete when

- The minimum two (2) week duration has elapsed, and all Level 1 and Level 2 issues reported during the Close Support period have been resolved; or the Customer has approved a Versaterm-proposed workaround or plan for corrections.
- Dates, mutually agreed upon by the Customer and Versaterm have been identified for resolving outstanding issues.
- The Customer has committed to creating a sustainment team
- Procedures for the Versaterm/Customer post-implementation relationship have been established.

Project Implementation Schedule

WBS	Name	Type	Start	Finish	Duration
1	Execute Contract	Milestone	2026-09-25	2026-09-25	1 day
2	Payment Milestones	Milestone	2026-12-07	2027-07-07	153 days
2.1	Payment Milestone #1 - SOW Task #2 Project Kickoff	Milestone	2026-12-07	2026-12-07	1 day
2.2	Payment Milestone #2 - SOW Task #6 Configure vCloud Servers	Milestone	2027-01-11	2027-01-11	1 day
2.3	Payment Milestone #3 - SOW Task #9 Conduct Implementation Workshop and Working Sessions	Milestone	2027-02-26	2027-02-26	1 day
2.4	Payment Milestone #4 - SOW Task #16 Ready for Training	Milestone	2027-05-05	2027-05-05	1 day
2.5	Payment Milestone #5 - SOW Task #19 Production Use	Milestone	2027-07-07	2027-07-07	1 day
2.6	ARR Start - SOW Task #6 Configure vCloud Servers	Task	2027-01-11	2027-01-11	1 day
3	Project Management	Deliverable	2026-10-12	2027-07-30	210 days
3.1	Project Management	Task	2026-10-12	2027-07-30	210 days
3.2	Kickoff	Task	2026-11-23	2026-11-27	5 days
4	Implementation Support	Deliverable	2026-11-30	2027-07-30	175 days
4.1	Implementation Support	Task	2026-11-30	2027-07-30	175 days
4.2	Implementation Assistance (non-billable)	Task	2026-11-30	2027-07-30	175 days
5	Networking	Deliverable	2026-09-28	2026-11-20	40 days
5.1	AWS Connectivity	Task	2026-09-28	2026-11-20	40 days
5.2	Technical scoping (ports, connectivity, etc)	Task	2026-09-28	2026-10-09	10 days
5.3	Purchase Perle device	Task	2026-09-28	2026-10-09	10 days
5.4	AWS Connectivity for RPAs (For MJ implementations)	Task	2026-09-28	2026-10-16	15 days
6	Cloud Tenant Configuration	Task	2026-10-12	2026-12-04	40 days
6.1	Create Tenant Foundation	Task	2026-10-12	2026-10-16	5 days
6.2	Cloud Tenant Service Config	Task	2026-10-19	2026-10-23	5 days
6.3	Create Attachment S3 environment/Redis/Database	Task	2026-10-26	2026-10-30	5 days
6.4	Review SFTP based Interfaces and request S3/SFTP areas	Task	2026-11-30	2026-12-04	5 days
7	Implementation Preparation	Task	2026-11-30	2026-12-25	20 days
7.1	Identify required NDAs	Task	2026-11-30	2026-12-04	5 days
7.2	Provide GIS data	Task	2026-11-30	2026-12-25	20 days
7.3	Provide AVRR (routing) data	Task	2026-11-30	2026-12-25	20 days
7.4	Provide initial configuration data	Task	2026-11-30	2026-12-18	15 days
7.5	Provide technical requirements	Task	2026-11-30	2026-12-04	5 days
8	Build Test, Trn and Prod Environments	Deliverable	2026-11-30	2027-01-01	25 days
8.1	Create Databases	Task	2026-11-30	2026-12-04	5 days
8.2	Configure Application, AD	Task	2026-11-30	2026-12-18	15 days
8.3	Open/configure required network ports/validation	Task	2026-12-21	2026-12-25	5 days
8.4	Prepare a Configuration Lab	Task	2026-12-14	2027-01-01	15 days
8.5	Checkout Dev/Test, Trn and Prod Envs	Task	2026-12-21	2027-01-01	10 days
9	GIS	Deliverable	2026-11-30	2027-03-02	67 days

9.1	Configure VGI	Task	2026-11-30	2026-12-04	5 days
9.2	Load initial GIS files	Task	2026-12-28	2027-01-08	10 days
9.3	Test and Refine GIS	Task	2027-01-11	2027-03-02	37 days
10	AVRR	Task	2026-12-21	2027-02-05	35 days
10.1	Configure AVRR	Task	2026-12-21	2026-12-25	5 days
10.2	Load AVRR files	Task	2026-12-28	2027-01-01	5 days
10.3	Test and refine AVRR	Task	2027-01-04	2027-02-05	25 days
11	Implementation / Configuration	Deliverable	2026-11-30	2027-02-19	60 days
11.1	Scoping Sessions	Task	2026-11-30	2027-01-08	30 days
11.2	Scoping Workshop	Task	2026-12-14	2026-12-18	5 days
11.3	Apply system configurations to Prod environment	Task	2027-01-04	2027-01-22	15 days
11.4	Implementation Sessions	Task	2027-01-04	2027-02-12	30 days
11.5	Implementation Workshop	Task	2027-01-25	2027-01-29	5 days
11.6	Agency Assignments	Task	2026-11-30	2027-02-19	60 days
12	Interfaces	Deliverable	2026-12-28	2027-03-25	64 days
12.1	Interface Configuration	Deliverable	2026-12-28	2027-01-04	6 days
12.2	NCIC/JWI	Deliverable	2026-12-28	2027-01-19	17 days
12.2.1	Provide connectivity	Task	2026-12-28	2027-01-01	5 days
12.2.2	Install and test interface	Task	2027-01-04	2027-01-15	10 days
12.2.3	Informing customer of testing results (attach email)	Task	2027-01-18	2027-01-18	1 day
12.2.4	Customer testing complete and ready for production (attach email)	Task	2027-01-19	2027-01-19	1 day
12.3	Vesta E911	Deliverable	2027-01-20	2027-02-04	12 days
12.3.1	Provide connectivity	Task	2027-01-20	2027-01-26	5 days
12.3.2	Install and test interface	Task	2027-01-27	2027-02-02	5 days
12.3.3	Informing customer of testing results (attach email)	Task	2027-02-03	2027-02-03	1 day
12.3.4	Customer testing complete and ready for production (attach email)	Task	2027-02-04	2027-02-04	1 day
12.4	FUSUS vMonitor API	Deliverable	2027-02-05	2027-02-11	5 days
12.4.1	Provide connectivity	Task	2027-02-05	2027-02-08	2 days
12.4.2	Provide vMonitor API credentials	Task	2027-02-09	2027-02-09	1 day
12.4.3	Informing customer of testing results (attach email)	Task	2027-02-10	2027-02-10	1 day
12.4.4	Customer testing complete and ready for production (attach email)	Task	2027-02-11	2027-02-11	1 day
12.5	Evidence.com (Axon)	Deliverable	2027-02-12	2027-02-23	8 days
12.5.1	Provide connectivity	Task	2027-02-12	2027-02-16	3 days
12.5.2	Install and test interface	Task	2027-02-17	2027-02-19	3 days
12.5.3	Informing customer of testing results (attach email)	Task	2027-02-22	2027-02-22	1 day
12.5.4	Customer testing complete and ready for production (attach email)	Task	2027-02-23	2027-02-23	1 day
12.6	ESO Fire RMS	Deliverable	2027-02-24	2027-03-09	10 days
12.6.1	Provide connectivity	Task	2027-02-24	2027-02-26	3 days
12.6.2	Install and test interface	Task	2027-03-01	2027-03-05	5 days

12.6.3	Informing customer of testing results (attach email)	Task	2027-03-08	2027-03-08	1 day
12.6.4	Customer testing complete and ready for production (attach email)	Task	2027-03-09	2027-03-09	1 day
12.7	Prepared 911	Deliverable	2027-03-10	2027-03-25	12 days
12.7.1	Provide connectivity	Task	2027-03-10	2027-03-16	5 days
12.7.2	Install and test interface	Task	2027-03-17	2027-03-23	5 days
12.7.3	Informing customer of testing results (attach email)	Task	2027-03-24	2027-03-24	1 day
12.7.4	Customer testing complete and ready for production (attach email)	Task	2027-03-25	2027-03-25	1 day
12.8	Flow MSP	Deliverable	2027-03-10	2027-03-25	12 days
12.8.1	Provide connectivity	Task	2027-03-10	2027-03-16	5 days
12.8.2	Install and test interface	Task	2027-03-17	2027-03-23	5 days
12.8.3	Informing customer of testing results (attach email)	Task	2027-03-24	2027-03-24	1 day
12.8.4	Customer testing complete and ready for production (attach email)	Task	2027-03-25	2027-03-25	1 day
12.9	CommunityConnect	Deliverable	2027-02-12	2027-03-01	12 days
12.9.1	Provide connectivity	Task	2027-02-12	2027-02-18	5 days
12.9.2	Install and test interface	Task	2027-02-19	2027-02-25	5 days
12.9.3	Informing customer of testing results (attach email)	Task	2027-02-26	2027-02-26	1 day
12.9.4	Customer testing complete and ready for production (attach email)	Task	2027-03-01	2027-03-01	1 day
12.10	DorneSense	Deliverable	2027-02-12	2027-03-01	12 days
12.10.1	Provide connectivity	Task	2027-02-12	2027-02-18	5 days
12.10.2	Install and test interface	Task	2027-02-19	2027-02-25	5 days
12.10.3	Informing customer of testing results (attach email)	Task	2027-02-26	2027-02-26	1 day
12.10.4	Customer testing complete and ready for production (attach email)	Task	2027-03-01	2027-03-01	1 day
13	Functional Acceptance Testing	Deliverable	2027-01-22	2027-03-31	49 days
13.1	Provide Initial Acceptance Test Plan	Task	2027-01-22	2027-01-22	1 day
13.2	Finalize Acceptance Test Plan	Task	2027-02-01	2027-02-12	10 days
13.3	Conduct Acceptance Testing	Task	2027-03-26	2027-03-30	3 days
13.4	Attach functional acceptance testing acceptance email	Task	2027-03-31	2027-03-31	1 day
14	Configure interfaces in Test and Training Environments (as needed)	Task	2027-04-01	2027-04-14	10 days
15	Training	Deliverable	2027-01-11	2027-06-21	116 days
15.1	Prepare for vGIS Training	Task	2027-01-25	2027-01-29	5 days
15.2	vGIS Training (webinar)	Task	2027-02-01	2027-02-01	1 day
15.3	Prepare for DB Internals Training	Task	2027-02-01	2027-02-05	5 days
15.4	Database Internals Training	Task	2027-02-08	2027-02-08	1 day
15.5	Train the Trainer Training	Deliverable	2027-01-11	2027-04-26	76 days
15.5.1	Prepare TTT Scenarios	Task	2027-01-11	2027-01-24	11 days
15.5.2	Finalize TTT Scenarios	Task	2027-02-01	2027-02-05	5 days
15.5.3	Prepare TTT Course	Task	2027-02-08	2027-02-12	5 days
15.5.4	CAD TTT	Task	2027-04-14	2027-04-16	3 days

15.5.5	Police MDT TTT	Task	2027-04-19	2027-04-20	2 days
15.5.6	Fire MDT TTT	Task	2027-04-21	2027-04-22	2 days
15.5.7	vMobile TTT	Task	2027-04-23	2027-04-23	1 day
15.5.8	RemoteCAD TTT	Task	2027-04-26	2027-04-26	1 day
15.6	Ready for Training	Milestone	2027-04-27	2027-04-27	1 day
15.7	Agency End User Training Prep	Task	2027-04-27	2027-05-24	20 days
15.8	Agency End User Training	Task	2027-05-25	2027-06-21	20 days
16	Production Cutover and Close Support	Deliverable	2027-06-15	2027-07-19	25 days
16.1	Prepare Desktops and Mobile Computers	Task	2027-06-22	2027-07-05	10 days
16.2	Prepare Production Cutover Plan	Task	2027-06-15	2027-06-28	10 days
16.3	Final Production Preparation	Task	2027-06-22	2027-06-28	5 days
16.4	Update Test and Training with Prod Configurations	Task	2027-06-22	2027-06-22	1 day
16.5	Production Cutover	Deliverable	2027-06-29	2027-06-29	1 day
16.6	On Site Cutover Support	Task	2027-06-29	2027-07-05	5 days
16.7	Production Close Support	Task	2027-07-06	2027-07-19	10 days

CAD INTERFACES	2
MOTOROLA VESTA 911.....	2
AXON EVIDENCE.COM.....	8
ESO FIRE RMS INTERFACE	15
PREPARED 911 - NIEM ADD CALL INTERFACE.....	19
GIS INTERFACE.....	21
FLOWMSP - SMTP PAGING INTERFACE	41
NCIC/JWI.....	46
FUSUS INTERFACE.....	61

CAD INTERFACES

The CAD interfaces have been divided into 2 categories:

- Required for Production Cutover
- Not Required for Production Cutover

The following table lists interfaces along with the category they belong to:

Interface	Category
Motorola Vesta 911	Required for Production Cutover
Evidence.com AXON	Required for Production Cutover
ESO – Fire RMS	Required for Production Cutover
Prepared 911	Required for Production Cutover
GIS & AVRR	Required for Production Cutover
FlowMSP	Required for Production Cutover
NCIC/JWI	Required for Production Cutover
FUSUS	Required for Production Cutover

MOTOROLA VESTA 911

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File Edit Call Related Unit Query Utilities Configuration Windows Help

Add Call E911 Alarm Retrieve Queued Calls Active Calls Query Logs Unit Status

Select E911 Call (Empty) (Empty)

SEQ# 88616 Tue, Jun-26-18 20:42

E911

(503) 284-9988 RESD
JULIUS, MOORE
2414 NE 10TH AVE
PORTLAND

POLICE	(503) - 944-3388
FIRE	(503) - 487-3394
EMS	(503) - 899-3321
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	()

Police Fire Back Print

Transfer Dismiss Update Copy

E911 Prefill Options

E911

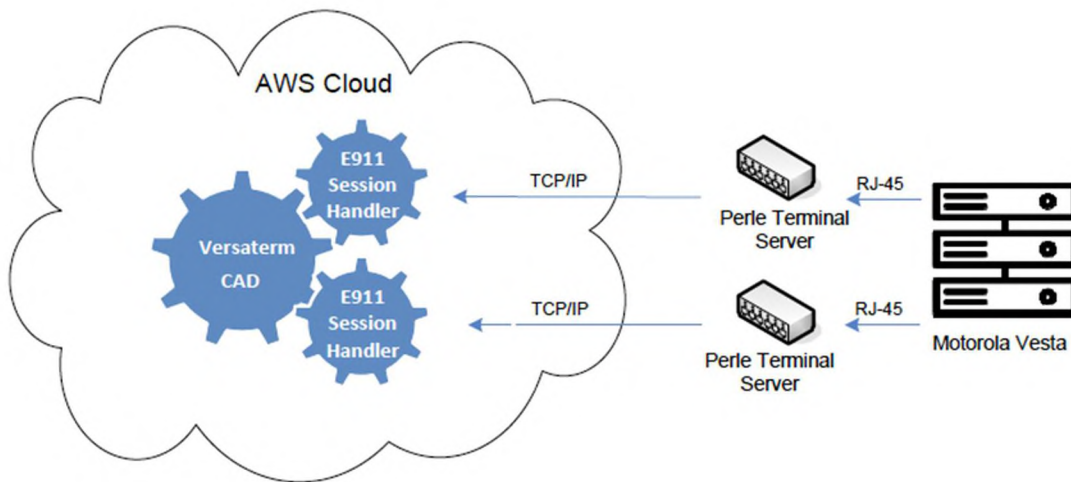
503 555-0119

ATT MOBILITY

9801 NE SANDY BLVD

Cancel All Caller Location None

Click to prefill both Complainant and Location information



Wireless Phase II Call Processing

Rebidding

surname, first middle

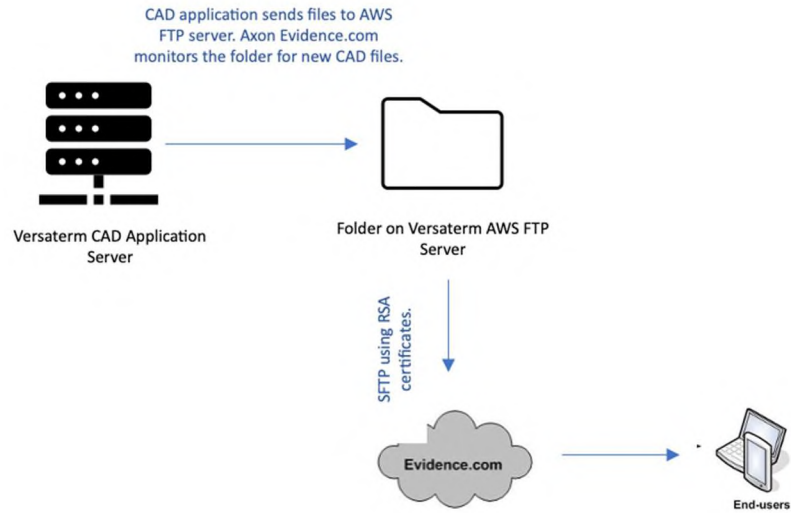
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- Configure the vCAD E911 interface.
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AXON EVIDENCE.COM

PROCESS FLOW



CONFIGURATION

Configuration Screen or File	Configuration Setting	Possible Values	Recommended Setting
	RSA Public Keys		
Vdxiii.cadsvc.cron	Cron scripts that generate files for Axon Evidence.com and transfer them to AWS FTP server		

COMMUNICATION

AUTHENTICATION

DATA FORMAT REQUIREMENTS

AXON Field Name	AXON Description	Required or Optional by AXON	Versaterm Field Name	Versaterm Comments
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Event ID	The unique ID of the event. The data in the column may reflect INCIDENT#, CADIncidentNumber, or a similar field.	Required	Cc_data.jur + cc_data.occ_year + cc_data.occ_num	Format: JJYY- NNNNNNNNNN Where JJ is jurisdiction such as PP for Santa Monica Police. NNN is unique incident number
Officer Badge ID	The unique badge ID assigned to the officer. This ID must exactly match the officer badge ID assigned to the Axon camera in Evidence.com. If badge IDs differ between systems, this must be resolved during the implementation process.	Required	Dc_data.officer_no Or dc_data.officer_no 2	For two officer units, a separate row is generated using officer_no2 database field
Officer Dispatched DateTime	The start time of the officer event. Used to define the beginning of the time range that the start time of the officer's video evidence file must be within. Dispatched times must be in ISO 8610-compliant format, either using UTC or timezone offset. - UTC format example — 2015-11-13T21:35:42Z - Timezone offset format example — 2015-11-13T21:35:42-08:00 The difference between the dispatched and cleared times must to be	Required	dc.data.dispatch_time	Date and time of officer dispatched.

	greater than 0 (zero) but less than 8 hours.			
Officer Cleared DateTime	The end time of the officer event. Used to define the end of the time range that the start time of the officer's video evidence file must be within. Cleared times must be in ISO 8610-compliant format, either using UTC or timezone offset. - UTC format example — 2015-11-13T21:35:42Z - Timezone offset format example — 2015-11-13T21:35:42-08:00	Required	Dc_data.inservice_time	Date and time of officer going in-service.
Report Number	The RMS ID of the report about the CAD event. If no RMS ID is available, this field can be empty.	Optional		Unavailable
Title	A title for the event.	Optional		Unavailable
Tag	Text labels that apply to the event. If you include more than one Tag field, the heading should be "Tag" for each of them.	Optional		Unavailable
Category	The CAD event type code of the event. Evidence.com uses the event type provided in this column to determine which retention category is assigned to matching video evidence files.	Optional	Cc_summary.final_case_type	CAD's incident final case type code

Category2	Incident clearance code	Optional	Cc_summary.cleared_by	CAD's cleared by code (1 character in length)
Street	Street address or intersection of the event. This information should be recognizable by Bing Maps; otherwise, location based Evidence.com features will be unavailable for video evidence files matched to the event.	Optional	Cc_seen_at.address or cc_data.address	In addition to the location where the call occurred on, if an incident response location is present the cc_seen_at table is used (e.g. c_seen_at.address), representing the location where the units responded to. Otherwise, if no response location is present, cc_data table is used.
City	The full name of the City in which the event occurred.	Optional	cc_seen_at.municipality or cc_data.municipality	Translation of the municipality code is sent.
State	State in which the event occurred.	Optional	Hardcoded	"WA"
ZIP Code	The postal code within which the event occurred.	Optional	Addres_history.zip	

BUSINESS CONTINUITY

INTERFACE TESTING

FUNCTIONAL AND COMPLETENESS TEST

OPERATIONAL TESTS

PERFORMANCE TESTS

EXCEPTION TESTS

DATA INTEGRITY TESTS

It is the responsibility of the Customer to conduct in-depth testing of the interface to ensure overall data integrity, that data is processed appropriately and that the interfaces function as required

RESPONSIBILITIES

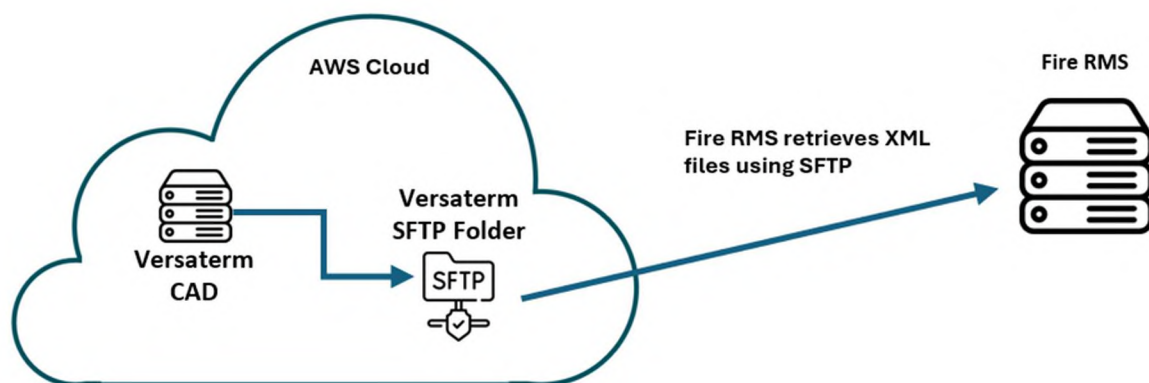
CUSTOMER RESPONSIBILITIES

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VERSATERM RESPONSIBILITIES

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ESO FIRE RMS INTERFACE



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SaaS Agreement #

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PREPARED 911 - NIEM ADD CALL INTERFACE

NIEM Add

Call Web Service
vCAD

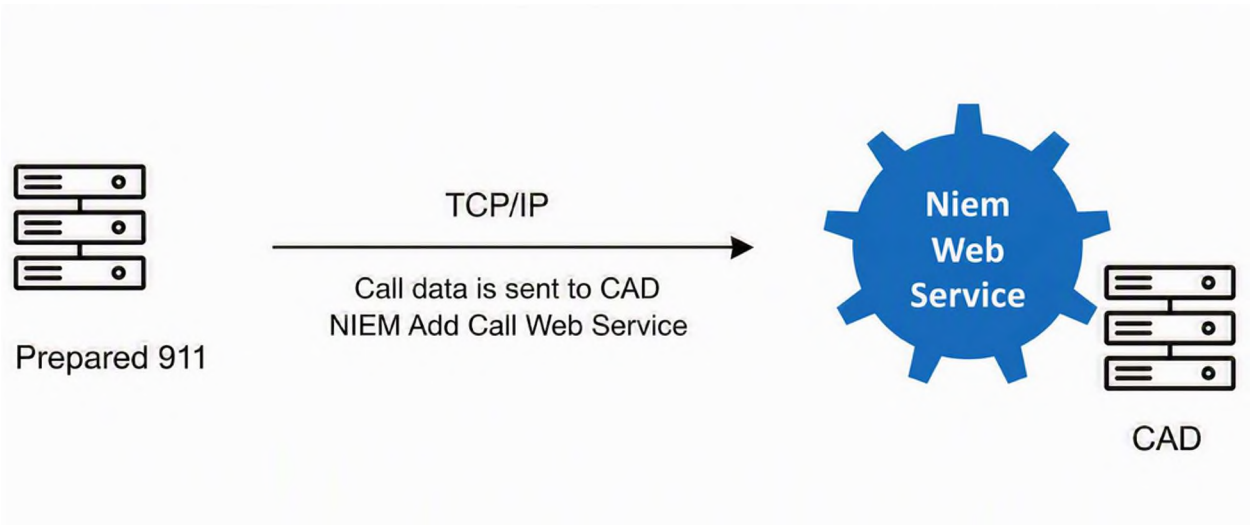
vCAD system

location call type code

zone value

queue

dispatch

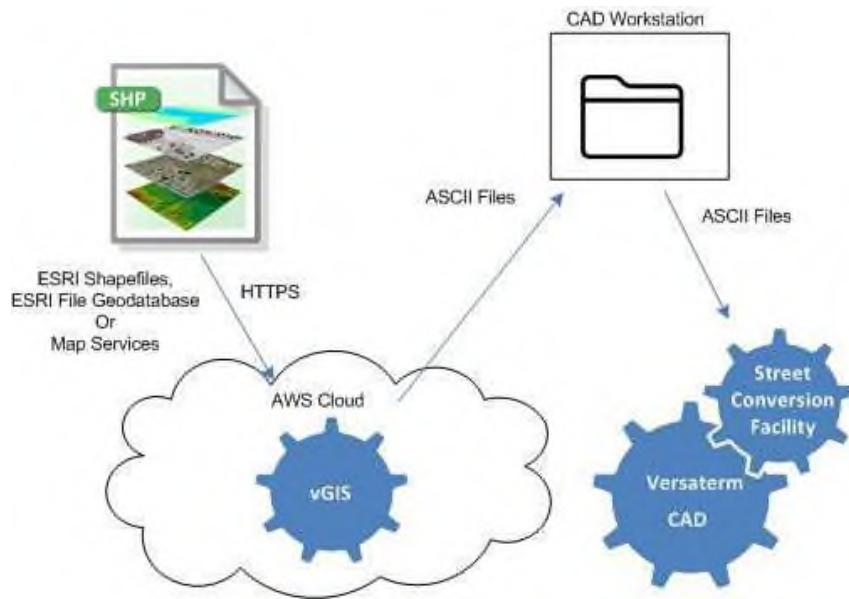


Cad_interfaces.xcf	SERVICE_APPLICATION_EXECUTION_COMPONENT Id		cpn.ws_niemaddcall.execution.local
	DVM		\$(res.dvm.wa)
	START		1
	MIN_AVAILABLE		1
	MAX_AVAILABLE		1

	APPLICATION ID		ws.niemaddcall
	PROXY		\$(res.gwsproxy)
	EXECUTION		cpn.ws_niemaddcall.execution.local
	TIMEOUT		cpn.ws_cad.timeout.set1
VWSNIEMADDCAL L.xcf			TBD
Cws.list			TBD

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1. VERSATERM GIS INTERFACE (VGIS)



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	Field Name	Data Type	Req?	Remarks

	Field Name	Data Type	Req?	Remarks

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	Field Name	Data Type	Req?	Remarks

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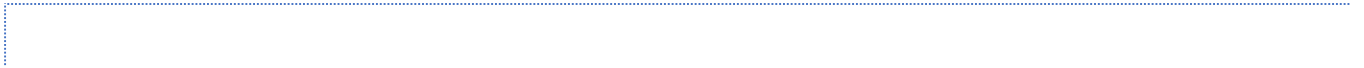
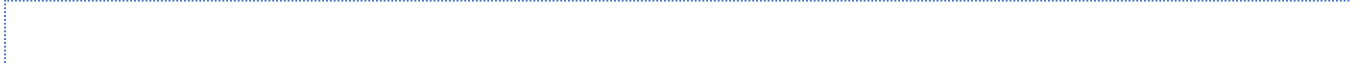
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2. VERSATERM CAD AND MDT MAPS

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Field	Data Type	Mandatory	Notes
Shape	Geometry (Point) or Feature Geometry (Point)	Mandatory	
Common Place Name	Text	Mandatory	Contains the common place name or business name.

Full Address		Mandatory	Contains the full address. This is the column that contains the address the map validates against (e.g., 1 E MAIN ST W). Note the following rules: Must not have special characters such as dashes (-). It is recommended to use abbreviated street types. Should only have a single space separating each word.
Municipality code	Text	Mandatory	Contains the municipality codes that the site uses for address validation. Note the following rules: The code values should match the CAD municipality codes table (e.g., PORT for Portland). The municipal codes should be unique system wide.

MapView feature layers contain operational information that is overlaid on top of the base map. While a base map determines how a map should look, features display operational data that changes frequently such as traffic cameras, current events, and geographic events. Feature layers can be configured to display images as well as static videos and live streams. These videos can be played from any feature layer that defines a location linking to the video. Any standard video format (e.g. MP4, WAV, etc.) is supported for static video. RTMP/RTSP formats are supported for streaming video.

RESPONSIBILITIES

CUSTOMER RESPONSIBILITIES

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VERSATERM RESPONSIBILITIES

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3. AUTOMATED VEHICLE ROUTING AND RECOMMENDATION (AVRR)

RESPONSIBILITIES

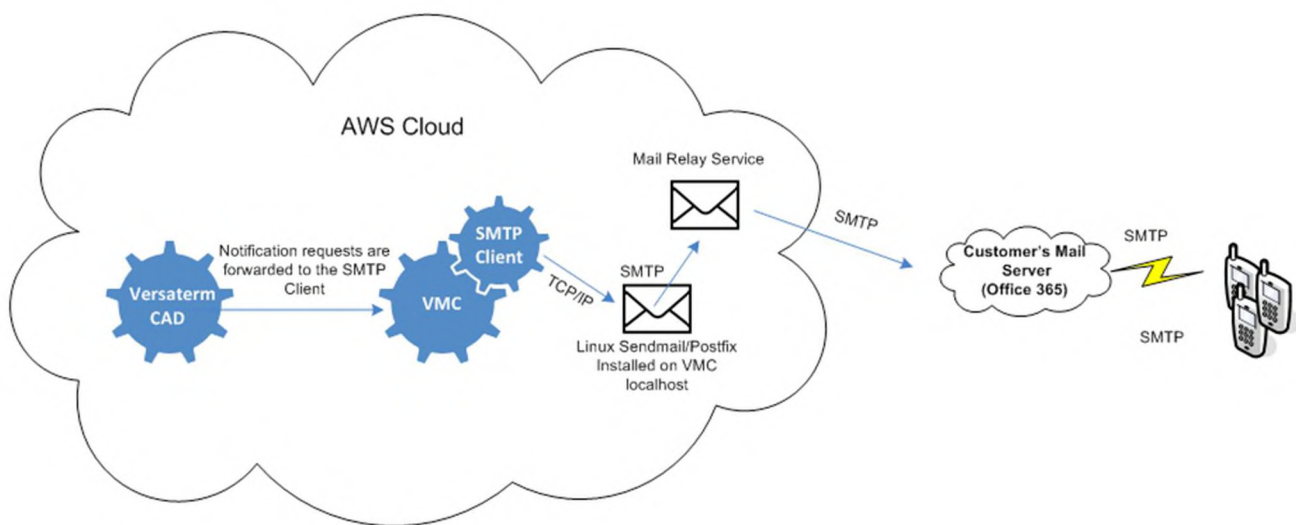
CUSTOMER RESPONSIBILITIES

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VERSATERM RESPONSIBILITIES

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FLOWMSP - SMTP PAGING INTERFACE



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NCIC/JWI

The ACJIS interface will provide a query/maintenance transaction interface from Versaterm CAD, Versaterm RMS, Versaterm Mobile Data Terminal (MDT) and vMobile. These transactions are delivered to state databases (DPS, ACIC, MVD), national databases (NCIC, NLETS) and processed appropriately. The Versaterm NCIC Gateway is used to manage and administer the interface.

The CAD user interface consists of a set of DPS and NCIC forms that can be used to process query and maintenance transactions. Additionally, a number of transactions (query and maintenance) may be automatically triggered by transactions within the RMS or by special CAD command line requests.

Query transactions from the MDT/vMobile are spawned using the appropriate query form (Query Person, Query Vehicle, etc.). Once a query had been processed, the response is returned to the “response” window/area.

PROCESS FLOW

CAD

The screenshot displays a web browser window titled 'Versaterm NCIC' with the URL 'https://usrms-test.versaterm.cloud/az-mesa/webrms/ua/v/vdx/rms'. The browser's address bar and menu bar are visible. Below the browser window, a form titled 'WANTED PERSON INQUIRY' is shown. The form includes a 'BOG' field with a dropdown menu set to 'vdx1'. The form fields are organized as follows:

- ACQ#
- ORI
- NAM (highlighted in orange)
- DOB
- SEX
- RAC
- FBI
- MNU
- SOC
- OLN
- LIC
- LIS
- VIN
- VHA
- OCA
- NIC
- RSH
- ENS
- EBS
- COMPENT

CAD AUTO INITIATED ACIC/NCIC TRANSACTIONS

The following transactions are included with the delivery of the Versaterm CAD:

CAD Function	Generated ACIC/NCIC Transaction
Person name identified in remarks	QW (Wanted Person)
Vehicle plate identified in remarks	QV, QRO (Registered Owner)
Command Line Person Name	QW
Command Line Driver's License	QDL
Command Line Vehicle Plate	QV,QRO
Command Line Vehicle VIN	QV by VIN

RMS



RMS AUTO INITIATED ACIC/NCIC TRANSACTIONS

The following transactions are included with the delivery of the Versaterm RMS:

RMS Function	Generated ACIC/NCIC Transaction
Query Person	Person Multi Query ³
Query Vehicle	ACQV, RO (registered owner)
Add Warrant ¹	ACEW
Add Seized/Towed Vehicle	NEI
Add Recovered/Seized Articles	ACQA (generated as a by-product of the add)
Add Recovered/Seized Guns	ACEG
Add Stolen Articles ²	ACEA
Add Stolen Guns ²	ACEG
Add Missing Person ²	ACEM
Add Stolen Vehicle ²	ACEV

1. Note that given the complexity of auto-maintaining Warrants on the State/NCIC databases, the transaction to add/modify/cancel the warrant may not be supported. It is assumed that each warrant, for a person, can be added as a unique record to DPS with a resulting record id (similar to the NIC #) returned. If not, then adding warrants may not be supported.
2. For information added automatically, the Versaterm application will attempt to implement “auto-clear” and “update” transactions. For example, when the property is recovered, the system will allow the user to clear or update, as appropriate, the details from ACIC/NCIC based on the NIC# and other associated “stamps” returned from the original add.
3. A “Person Multi-Query” is executed whenever a Person auto-query is run (i.e. query by name). This transaction will encompass the following query transactions:
 - ACQW – Arizona State and NCIC Wanted Person Query
 - DQP – AZ Drivers License Query
 - DQ – Non-AZ Drivers License Query

Note: The listed values are the defaults but these values are all configurations which can be adjusted during implementation. Versaterm will assist with configuration of multi-query setup.

INITIAL SUPPORTED FORMS/TRANSACTIONS

MDT

MDT Function	Generated ACIC/NCIC Transaction
Person query	Person Multi-Query
Vehicle query	ACQV, RQ
Property item query	ACQA, ACQG (Query Gun), ACQB (Query Boat)

Query Person

Send and Close Reget Pin Form Exit

Surname G1 G2

DOB Age Sex

Race

DL State

Records ☒ NCIC/State ☒ RO ☒

DRL ☒ City

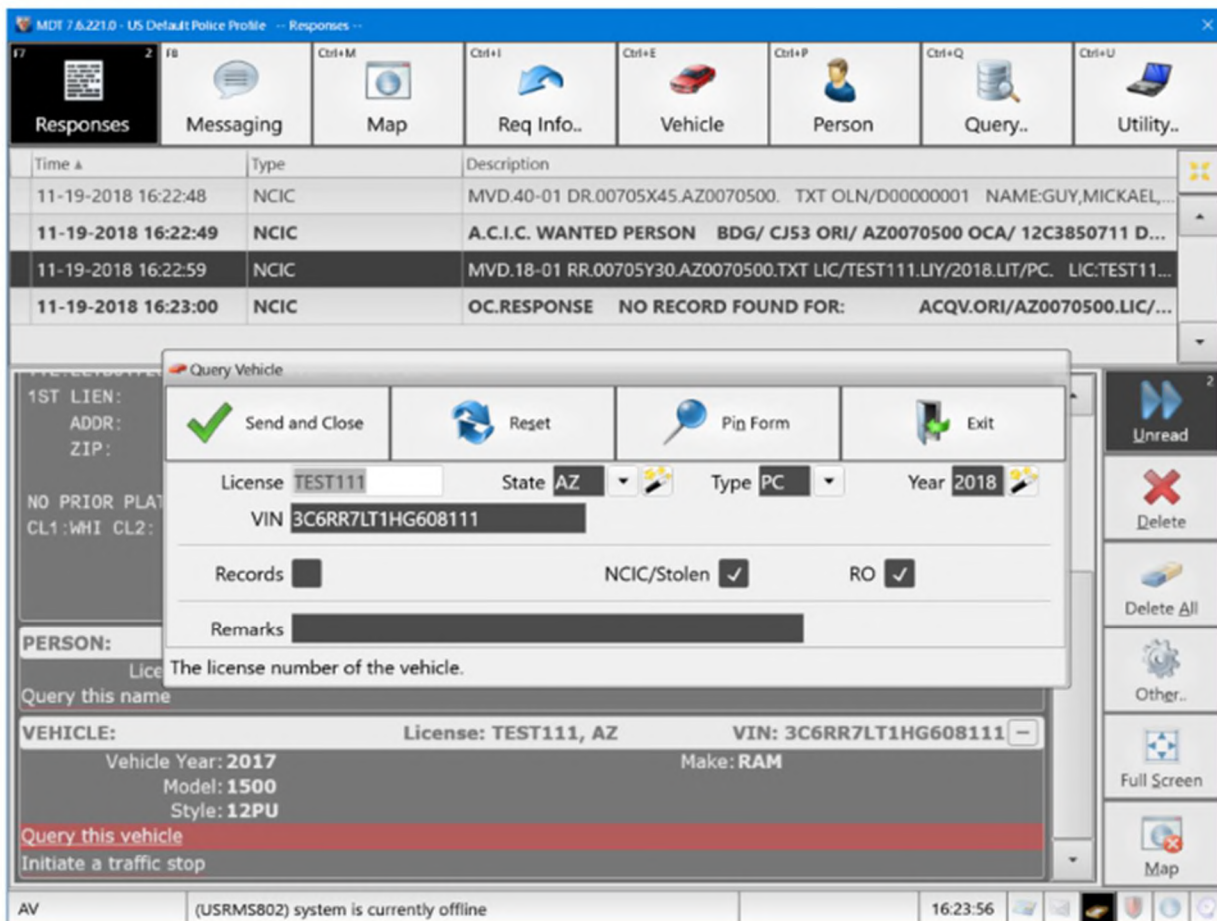
Remarks

Person's surname.

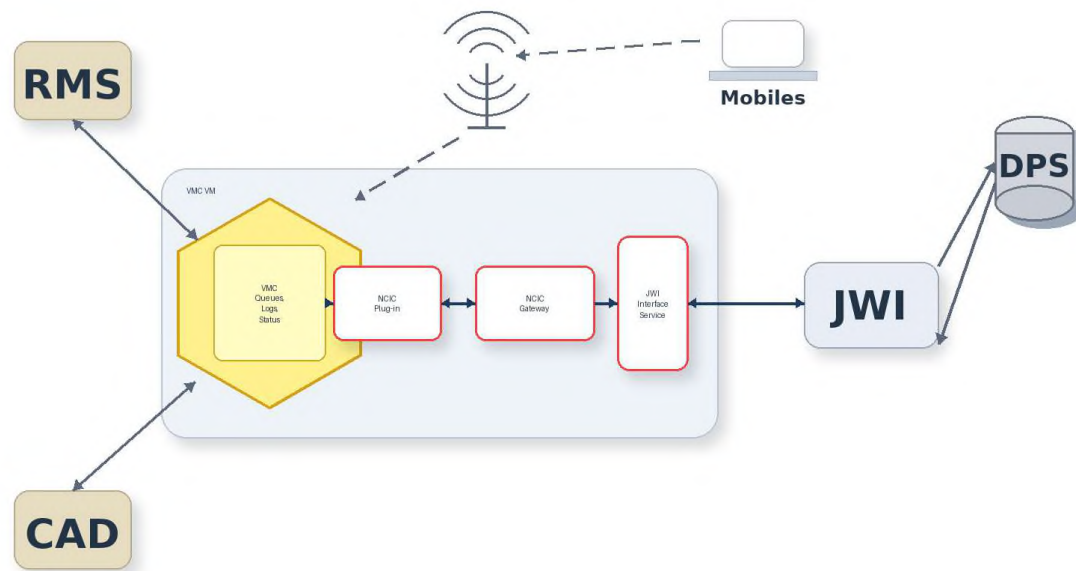
ARIZONA PARSING SCOPE

Enhanced Visual Display

Re-spawning queries



Reuse of parsed data into the MRE reports:



CONFIGURATION

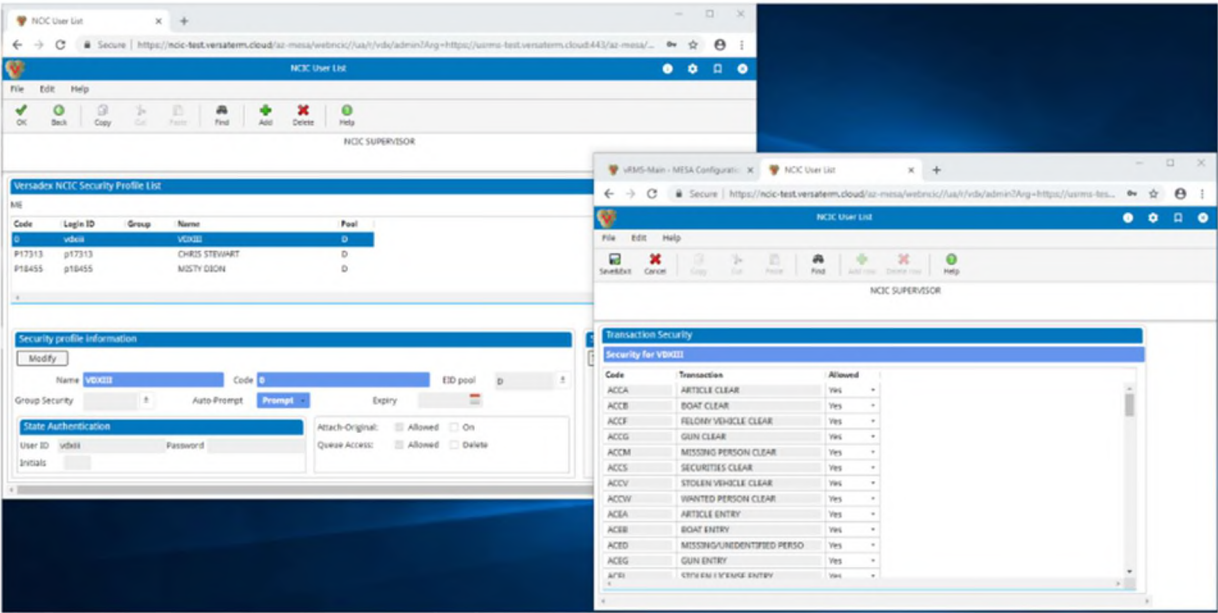
OVERVIEW OF FORMS/TRANSACTIONS

DATA FORMAT REQUIREMENTS

COMMUNICATION

AUTHENTICATION

SECURITY AND RESTRICTING ACCESS

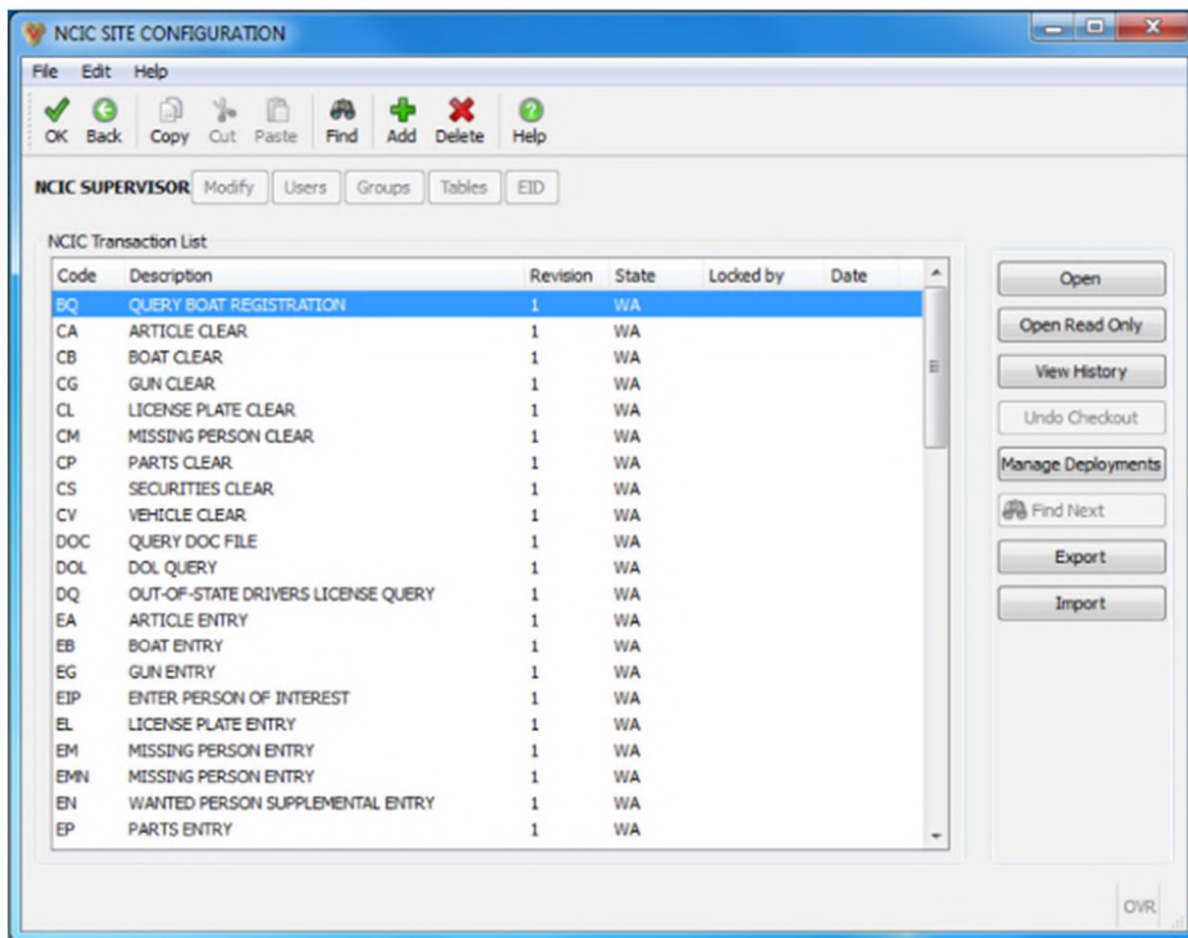


RESPONSE DESCRIPTION

AUDITING AND LOGGING

VERSATERM NCIC SITE CONFIGURABLE TRANSACTION (SCT) FACILITY OVERVIEW

SCT FACILITY TRANSACTION DEFINITION



The screenshot displays the 'RMS - NCIC Supervisor' application window. The interface includes a menu bar (File, Edit, Help) and a toolbar with icons for Save&Exit, Cancel, Copy, Cut, Paste, Find, Add row, Delete row, and Help. The main workspace is titled 'NCIC Transaction' and contains a 'Transaction Profile' section with fields for Code, Version (2), Status (D), Description (QUERY BOAT REGISTRATION), Type (QRY), and Security (Y). To the right of this section are buttons for Modify Form, Preview, Save/Commit, and Deploy. Below the profile section is a 'Destination' section with tabs for Rules and Help. It contains a 'Destination List' table with columns Code and Interface, showing 'NLETS' and 'STATE'. Below the table is the 'Destination Details' section, which includes fields for Destination Code (NLETS), Interface (STATE), and a checked 'Send by default' checkbox. A large text area below these fields contains the transaction code: 'BQ.(ORI).(ST).TXTREG/[REG].BHN/[BHN].NAM/[NAM].DOB/[DOB]'. At the bottom of the window, a status bar shows 'Transaction code - example QV for query stolen vehicle' and 'OVR'.

RMS - NCIC Supervisor

File Edit Help

Save&Exit Cancel Copy Cut Paste Find Add row Delete row Help

NCIC Transaction

Transaction Profile

Code Version 2 Status D

Description QUERY BOAT REGISTRATION

Type QRY Security Y

Destination Rules Help

Destination List

Code	Interface
NLETS	STATE

Destination Details

Destination Code NLETS Interface STATE ☒ Send by default

BQ.(ORI).(ST).TXTREG/[REG].BHN/[BHN].NAM/[NAM].DOB/[DOB]

Transaction code - example QV for query stolen vehicle

OVR

The screenshot displays the Form Designer application window. The title bar reads "Form Designer - ac_acq:281.20181119165446.xml (ac_acq:281.20181119165446.xml)". The menu bar includes: Save, Save and Exit, Cancel, Add Row, Add Label, Add Checkbox, Add Textbox, Add Date, Add Lookup, Add Text Area, Add File Import, Undo, Redo, Cut, Copy, Paste.

The main workspace, labeled "Form Workspace", contains a form titled "A.C.I.C. STOLEN VEHICLE INQUIRY". The form fields are as follows:

- ACQ: ORI (dropdown menu)
- LIC (dropdown menu)
- LIR (dropdown menu)
- REN (dropdown menu)
- VIN (text input)
- WMA (dropdown menu)
- NTC (text input)
- COMMENT (text input)

On the right side, the "Properties" panel is open, showing settings for the selected "ORI" field:

- Tag: ORI
- Tab Order: 1
- Screen Length: 9
- Maximum Length: 9
- Default Value: CUR,ORI
- Description: Agency ORI
- Color: Reverse Blue
- Include: ☐
- Input Picture:
- Send Picture:
- No Entry: ☐
- Invisible: ☐
- Mandatory: ☐
- Case Sensitive: ☐
- Numeric: ☐
- Period Allowed: ☐

At the bottom of the Properties panel is a "Rules" section with an empty box. The status bar at the bottom left says "Field Identifier (must be unique)" and the bottom right shows "ORI".

FORM-LEVEL RULES

The screenshot displays the 'RMS - NCIC Supervisor' application window. The interface includes a menu bar (File, Edit, Help) and a toolbar with icons for Save&Exit, Cancel, Copy, Cut, Paste, Find, Add row, Delete row, and Help. The main area is titled 'NCIC Transaction' and contains a 'Transaction Profile' section with the following fields: Code (ACQW), Version (2), Status (A), Description (WANTED PERSON QUERY), Type (QRY), and Security (Y). To the right of this section are buttons for 'Modify Form', 'Preview', 'Save/Commit', and 'Deploy'. Below the profile section are tabs for 'Destination', 'Rules', and 'Help'. The 'Rules' tab is active, showing a text area with the following logic: 'IF MINU_TYPE IS NOT NULL AND MINU_NUM IS NOT NULL THEN LET MINU=MINU_TYPE,"-";MINU_NUM ELSE LET MINU=NULL END IF'. At the bottom of the window, there is a status bar with the text 'After input transaction rules' on the left and 'OVR' on the right.

RMS - NCIC Supervisor

File Edit Help

Save&Exit Cancel Copy Cut Paste Find Add row Delete row Help

NCIC Transaction

Transaction Profile

Code ACQW Version 2 Status A

Description WANTED PERSON QUERY

Type QRY Security Y

Destination Rules Help

IF MINU_TYPE IS NOT NULL AND MINU_NUM IS NOT NULL THEN
LET MINU=MINU_TYPE,"-";MINU_NUM
ELSE
LET MINU=NULL
END IF

Modify Form
Preview
Save/Commit
Deploy

After input transaction rules OVR

RMS - NCIC Supervisor

File Edit Help

Save&Exit Cancel Copy Cut Paste Find Add row Delete row Help

NCIC Transaction

Transaction Profile

Code ACQV Version 2 Status A

Description STOLEN VEHICLE QUERY

Type QRY Security Y

Destination Rules Help

Destination List

Code	Interface
ACQV	STATE

Destination Details

Destination Code ACQV Interface STATE ☒ Send by default

ACQV.ORI/[ORI].BDG/[BDG].LIC/[LIC].LIS/[LIS].RSH/[RSH].VIN/[VIN].VMA/[VM/

Transaction prototype to send to the remote system

Transaction prototype to send to the remote system

OVR

BUSINESS CONTINUITY/INTERFACE AVAILABILITY

INTERFACE TESTING

FUNCTIONAL AND COMPLETENESS TEST

OPERATIONAL TESTS

PERFORMANCE TESTS

EXCEPTION TESTING

DATA INTEGRITY TESTING

RESPONSIBILITIES

CUSTOMER RESPONSIBILITIES

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VERSATERM RESPONSIBILITIES

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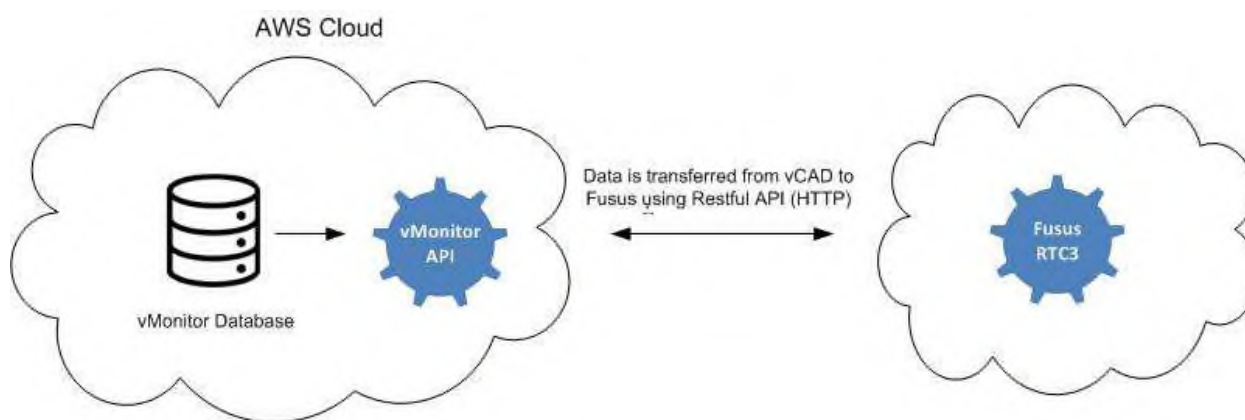
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FUSUS INTERFACE

Versaterm vMonitor REST API is leveraged by the Fusus Real-Time Crime Center in the Cloud (RTC3) solution for a one-way integration. This integration allows the Fusus RTC3 software to extract call and unit status information from vCAD.

The vCAD publishes all active and pending call as well as unit status information to the vMonitor (BSS) database in real time. This interface uses a Restful API hosted on the Versaterm server called from the Fusus RTC3 application allowing Fusus access to call and unit status data.

The following diagram illustrates data flow between vCAD and Fusus RTC3:



Transaction format is provided in "vMonitor (BSS) REST API" document.

The communication between Fusus application and the vMonitor will be through a Restful based API following the Versaterm vMonitor BSS REST API SDK.

Authentication is done using the predefined client ID and secret provided by Versaterm. API token is returned by the vMonitor API if credentials are verified successfully

This interface can be made available, or not, from the Test, Training and Production environments. The interface may be “turned off” with the appropriate configuration changes.

These tests are intended to ensure the interface is completely functional as designed. Below are descriptions of the tests to be performed for the specified interface functionality.

FUNCTIONAL AND COMPLETENESS TEST

This test ensures that the vMonitor (BSS) database is populated with active/pending call and unit status information.

OPERATIONAL TESTS

This test ensures the Fusus application is able to reconnect to the vMonitor API and pull data after system reboots. The vMonitor application will be shutdown/re-started and ensure vMonitor services are started as well as communications between Fusus to the vMonitor API is established.

PERFORMANCE TESTS

The performance tests will consist of ensuring that updates to calls and unit status changes performed within vCAD are published to the vMonitor database within 2 seconds.

EXCEPTION TESTING

The exception testing consists of disconnecting the Fusus connectivity to the vMonitor API and after reconnecting, ensure Fusus is able to re-establish its connection to the vMonitor API.

DATA INTEGRITY TESTING

It is the responsibility of the Customer to conduct in-depth testing of the interface to ensure overall data integrity, that data is processed appropriately and that the interfaces function as required.

RESPONSIBILITIES

CUSTOMER RESPONSIBILITIES

- Facilitate and/or configure a test environment to support testing activity.
- Coordinate with Fusus technical authorities to assist in the interface development and testing.
- Provide public IP address of the Fusus application that will be used to access vMonitor API.
- Assist Versaterm as required as they perform the initial integration testing.
- Review the results from Versaterm’s initial integration testing.
- Perform integration testing as described in the Interface Testing section above and confirm that the interface works as required.

VERSATERM RESPONSIBILITIES

- Provide the Customer with the Versaterm vMonitor BSS REST API SDK.
- Add Public IP of Fusus application to the list of IP addresses allowed to access vMonitor API.

- Provide Client ID and secret used for vMonitor API authentication.
- Perform initial integration testing as described in the Interface Testing section above and review test results with the Customer.

ACCEPTANCE TEST PLAN

TABLE OF ONTENTS

1. PURPOSE	—
2. TESTING STRATEGY	—
3. TEST SCHEDULE	
4. TEST ENVIRONMENT	—
5. DEFECT MANAGEMENT	—
6.ROLES AND RESPONSIBILITIES	—

1. PURPOSE

The purpose of this Functional Acceptance Test Plan is to define the approach for conducting Functional Acceptance Testing of the Versaterm System.

Functional Acceptance Testing provides the Customer with the opportunity to verify that the configured System, including applicable interfaces, operates in accordance with the requirements of the Contract, the Statement of Work, and applicable system documentation. Functional Acceptance Testing also provides the Customer with the opportunity to verify that the System performs in accordance with the contract.

Functional Acceptance Testing is conducted following completion of the Configuration Phase and prior to End-User Training. It serves as the formal verification that the configured System is ready to proceed to the next phase of the implementation.

2. TESTING STRATEGY

Versaterm will prepare an initial Acceptance Test Plan identifying the functional test scenarios to be executed during Functional Acceptance Testing. The Acceptance Test Plan will be reviewed with the Customer and finalized based on Customer input. The Customer may supplement the Acceptance Test Plan with additional agency-specific test scenarios.

The Acceptance Test Plan will verify the functionality of the configured System, including applicable interfaces, approved software enhancements, and operational workflows. Test scenarios will be executed using representative operational data and business processes to confirm that the System operates in accordance with the requirements of the Contract, the Statement of Work, and applicable system documentation.

Functional Acceptance Testing is a collaborative process. The Customer will execute the agreed-upon test scenarios while Versaterm facilitates the testing process, investigates reported defects, implements confirmed corrections, and supports retesting as required.

Defects identified during Functional Acceptance Testing will be documented, corrected, and retested until the testing activities are complete.

3. TEST SCHEDULE

Functional Acceptance Testing will be conducted following completion of the Configuration Phase and prior to End-User Training, in accordance with the Project Implementation Schedule.

Functional Acceptance Testing is scheduled as a three (3) consecutive Business Day on-site activity. The Customer will ensure that designated testing personnel are available throughout the scheduled testing period.

Versaterm will facilitate execution of the Acceptance Test Plan, investigate reported defects, implement confirmed corrections where practical during the testing period, and support retesting of corrected items.

Should significant issues be identified that materially impact completion of Functional Acceptance Testing, Versaterm and the Customer will mutually determine any adjustments required to the Project Implementation Schedule.

4. TEST ENVIRONMENT

Functional Acceptance Testing will be conducted using the configured System in the production environment.

Prior to the start of Functional Acceptance Testing, the System shall be configured in accordance with the Statement of Work, including applicable interfaces. The Acceptance Test Plan shall be finalized, and the Customer shall provide representative operational data required to execute the test scenarios.

The Customer is responsible for ensuring that designated testing workstations, network connectivity, and other required equipment are available and operational throughout Functional Acceptance Testing.

5. DEFECT MANAGEMENT

Errors identified during Functional Acceptance Testing shall be documented by the Customer and reported to Versaterm. Each reported error should include sufficient information to allow Versaterm to reproduce and investigate the issue.

Versaterm will review each reported error to confirm the reported behavior, determine the cause, and assign the appropriate Error Level in accordance with the definitions below. Confirmed Application Software errors will be corrected by Versaterm in accordance with the Contract and Statement of Work. Errors resulting from Customer configuration, Customer data, third-party systems, or the Customer's operating environment will be reviewed jointly by Versaterm and the Customer to determine the appropriate corrective action.

Following implementation of a confirmed correction, the Customer will re-execute the applicable Acceptance Test Plan scenario to verify satisfactory resolution.

Errors identified during Functional Acceptance Testing will be classified using the following Error Levels:

Error Level 1 Critical errors that are defined as Loss of Data, Corruption of Data, or Loss of Productive Use of the Application.

Error Level 2 Non-critical errors defined by incomplete operation of a single system application where a procedural workaround is available, and productive use of the system is impacted.

Err r L 3 Cosmetic errors that are defined as configuration issues that can be corrected by Customer, data integrity issues that must be addressed by Customer, Help file documentation errors, or enhancements that can be made in the future to the presently released version.

Err r L 4 Minor issue relating to a specific component of the System that does not affect the productive use of the System or component. Examples include a field that is right-justified rather than left-justified or the usage of an inconsistent font.

6.ROLES AND RESPONSIBILITIES

VERSATERM RESPONSIBILITIES

Prepare the initial Acceptance Test Plan.

Review and finalize the Acceptance Test Plan with Customer input.

Facilitate execution of the Acceptance Test Plan during Functional Acceptance Testing.

Review and investigate reported errors.

Correct confirmed Application Software errors in accordance with the Contract and Statement of Work.

Support Customer retesting of corrected errors.

CUSTOMER RESPONSIBILITIES

Review and provide input to the Acceptance Test Plan.

Identify any additional agency-specific test scenarios, if desired.

Execute the Acceptance Test Plan.

Report errors identified during Functional Acceptance Testing.

Verify correction of reported errors by re-executing the applicable test scenarios.

Provide written notification upon completion of Functional Acceptance Testing.

TRAINING COURSE OUTLINES

TABLE OF CONTENTS

Training overview.....	
. Training Facilities	
. Training Approach	
Training courses.....	
. All-Taker/ Dispatcher Training (P)	
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. Police mobile (vmdt,vmobile) nstructor Training (M T P).....	4
.4 Fire mobile (vmdt,vmobile) nstructor Training (M T F)	
. Mobile Administrator Training (M T A M)	
. Remote A and vMonitor Training (R A)	

1 TRAINING OVERVIEW

This document describes Versaterm's recommended training approach for the implementation of the Versaterm applications. The training program is designed to prepare Customer trainers, system administrators, and end users to confidently operate and support the System following production deployment.

Knowledge transfer begins throughout the implementation as designated Customer project team members participate in working sessions and the on-site implementation workshop. Through these activities, the Customer project team becomes familiar with the configured System, validates operational workflows, and develops the knowledge needed to support user training and ongoing system administration.

Building upon this foundation, Versaterm delivers instructor-led trainer training using the configured System and training environment. These sessions provide the Customer's designated trainers and administrators with the knowledge and practical experience needed to conduct end-user training and support the System following implementation.

Following trainer training, the Customer delivers end-user training using the configured training environment and training materials provided by Versaterm. Versaterm recommends delivering end-user training as close to the production deployment date as practical to maximize knowledge retention and ensure users are prepared to immediately operate the System upon go-live.

The course outlines contained in this document describe the standard training courses available. Course content, duration, and delivery may be tailored during the Project to reflect the Customer's configured solution, operational workflows, deployment scope, and training requirements.

1.1 TRAINING FACILITIES

The Customer is responsible for providing one or more training facilities that supports the delivery of trainer and end-user training. Each facility should be configured prior to the start of the training and provide access to the configured System.

During the scheduled training period, each training facility should remain dedicated to Versaterm training and should not be repurposed or reconfigured between training sessions.

Unless otherwise agreed, each training facility should provide:

- Up to twenty (20) dedicated workstations that meet the minimum System requirements.

- One additional workstation for the training instructor.

- Network connectivity between the workstations and the vCloud environment.

- A projector or display that is visible to all attendees and capable of displaying the contents of the instructor's workstation, including multiple monitors

- A whiteboard or equivalent presentation surface.

- A network printer, if required.

- Seating and workspace appropriate for the planned class size

Each training facility should meet the Customer's applicable security requirements, including any CJIS requirements, where applicable.

1.2 TRAINING APPROACH

Versaterm provides trainer training for each of the courses described in this document. Customer trainers may attend one or more courses based on their assigned training responsibilities, although agencies commonly designate a small group of trainers who attend the full curriculum to support end-user training across multiple user groups.

Following trainer training, the Customer, with guidance from Versaterm, develops the end-user training plan by identifying the affected user groups and determining which courses are required for each role. Depending on their job responsibilities, end users may attend one or more training courses.

The end-user training plan typically includes:

- Identify user groups – Identify the various user groups that will require training (for example, call-takers, dispatchers, supervisors, mobile users, and system administrators).

- Assign training courses – Determine the appropriate training courses for each user group based on their responsibilities.

- Develop the training schedule – Establish the training schedule, class sizes, facilities, instructors, and logistics to support production deployment.

Versaterm recommends delivering end-user training within five (5) weeks of the planned production deployment date. This just-in-time approach maximizes knowledge retention and allows users to immediately apply what they have learned when the System goes live.

2 TRAINING COURSES

This section describes the standard training courses available for the System. Each course includes the intended audience, recommended duration, delivery approach, and learning objectives.

During implementation, the Customer and Versaterm will determine which training courses are applicable based on the configured solution, user roles, and operational requirements. Depending on their responsibilities, users may attend one or more training courses.

Course content, duration, and delivery may be tailored during implementation to reflect the Customer's configured System, operational workflows, and training requirements.

2.1 CALL-TAKER/DISPATCHER TRAINING (DP)

Course Duration	2 days
Prerequisite	None
Intended Audience	Communication center call-takers, dispatchers, and supervisors responsible for receiving requests for service and dispatching the appropriate emergency response resources.
Course Approach	This training uses a standard set of training scenarios that are adapted to reflect the Customer's configured System and operational workflows. Where appropriate, sample data and representative business processes provided by the Customer may be incorporated into the training scenarios. The Customer will provide a training classroom with one workstation for each participant.
Course Objectives	The CAD call-taker/dispatch operators will: A. Know how to sign on and sign off units B. Know how to add, dispatch and clear calls C. Know how to add calls via E-911, alarm number D. Know how to maintain unit activity information (both case-related, and when not on a case) E. Know how to retrieve calls (by number, by date or from the active or dispatch queues) F. Know how to move calls between queues G. Know how to view history at a particular address H. Know how to retrieve hazard, alarm, itinerary and contact records on an address I. Know how to obtain a hardcopy (printout) of a call J. Know how to navigate the status screen K. Know how to navigate the mapviewer L. Know how to set and stop unit timers M. Know how to query against NCIC N. Know how to use the vMail facility O. Know how to use the Notepad facility to view lists P. Know how to use the on-line help facility Q. Know how to add calls retro-actively

2.2 MAP ADMINISTRATION & VGI (MAP)

Course Duration	Up to 1.5 days
Prerequisite	None
Intended Audience	Users responsible for maintaining maps within the System, including GIS personnel or other staff responsible for providing and maintaining street and mapping data.
Course Approach	This course is delivered remotely. Due to the technical nature of the material, instruction is primarily topic-based rather than scenario-based. Demonstrations are supplemented with hands-on exercises to reinforce key concepts. Participants should have basic computer skills and familiarity with Microsoft Windows. Maximum of 1 person per workstation.
Course Objectives	The students will: A. Create custom views (based on event location, specific X,Y coordinate, current viewing area, etc.) B. Create custom themes (based on map packages required for specific Police/Fire user groups) C. Set 'info bar' display properties D. Define and setup icons for the dynamic layers (queued calls, active calls) E. Setting display properties for the tracking layer (AVL) F. Learn to configure and use the VGI tool to produce street load files for the CAD

2.3 POLICE MOBILE (VMDT,VMOBILE) INSTRUCTOR TRAINING (MDT_P)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	Users who will use the Police mobile application as part of their day-to-day responsibilities. Supervisors and administrators should also attend this course.
Course Approach	This training uses a standard set of training scenarios that are adapted to reflect the Customer's configured System and operational workflows. Where appropriate, sample data and representative business processes provided by the Customer may be incorporated into the training scenarios. The course includes demonstrations, hands-on exercises, and opportunities for repeated practice to reinforce key concepts and operational workflows. Maximum of 1 student per laptop computer
Course Objectives	The student will:

	A. Know how to sign on and sign off B. Know how to receive a dispatch C. Know how to change status D. Know how to perform an on-view (self initiated) E. Know how to perform NCIC queries for persons, vehicles and property F. Know how to query addresses G. Know how to query CAD for unit status and pending queue H. Know how to lock/unlock the vMDT and vMobile I. Know how to send messages to CAD and to other devices J. Know how to review logs
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2.4 FIRE MOBILE (VMDT,VMOBILE) INSTRUCTOR TRAINING (MDT_F)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	Users who will use the Fire mobile application as part of their day-to-day responsibilities. Supervisors and administrators should also attend this course.
Course Approach	This training uses a standard set of training scenarios that are adapted to reflect the Customer's configured System and operational workflows. Where appropriate, sample data and representative business processes provided by the Customer may be incorporated into the training scenarios. The course includes demonstrations, hands-on exercises, and opportunities for repeated practice to reinforce key concepts and operational workflows. Maximum of 1 student per laptop computer
Course Objectives	The student will: A. Know how to sign on and sign off B. Know how to receive a dispatch C. Know how to change status D. Know how to query addresses E. Know how to query CAD for unit status and pending queue F. Know how to lock/unlock the vMDT and vMobile G. Know how to send messages to CAD and to other devices H. Know how to review logs

2.5 MOBILE ADMINISTRATOR TRAINING (MDT_ADMIN)

Course Duration	.5 day
Prerequisite	None
Intended Audience	Administrators responsible for configuring, supporting, and maintaining the mobile software, including troubleshooting mobile communications.
Course Approach	This course is delivered remotely. The course covers configuration, deployment and administration of the mobile solution. One installed MDT and vMobile is required.
Course Objectives	The students will: A. Know how to install/upgrade and configure software on the mobile devices B. Know how to adjust configuration parameters C. Know how to use the MDT designer to configure the layout of the MDT

2.6 REMOTE CAD AND VMONITOR TRAINING (RCAD)

Course Duration	.5 day
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Prerequisite	None
Intended Audience	Users who use Remote CAD and vMonitor to monitor CAD calls and operational activity.
Course Approach	This training combines demonstrations with hands-on exercises to familiarize participants with the functions and features of the System. Participants will have the opportunity to practice key tasks throughout the course. Maximum of 1 student per workstation.
Course Objectives	The student will: A. Know how to view a unit status listing B. Know how to view a listing and details of active and pending incidents C. Know how to query activity logs D. Know how to maintain address related records

DOCUMENTATION

OVERVIEW

Versaterm provides documentation to support the implementation, administration, training, and ongoing use of the System. Documentation is intended to assist Customer administrators and end users with configuring, operating, and maintaining the System throughout its lifecycle.

Documentation is provided electronically and includes the guides applicable to the Customer's licensed solution and configured functionality. As the System is configured during implementation, Versaterm will identify the documentation relevant to the Customer's implementation and make it available to the Customer.

Documentation may include, as applicable:

- User guides
- Administrator guides
- Training guides
- Installation guides
- Release notes

Following implementation, updated base product documentation and release notes are provided with major product releases to reflect new functionality, enhancements, and significant product changes. If desired, the Customer will be responsible for tailoring the base documentation with any agency specific configurations.

CUSTOMER SUPPLIED HARDWARE AND THE REQUIRED SOFTWARE

1. CAD 7.6 CLIENT REQUIREMENTS (CALL TAKER / DISPATCHER / SUPERVISOR)

The below requirements assume no other applications are running on the desktops (e.g., Outlook, etc.),

Computer: An IBM-compatible computer running a minimum of the Windows 10 Anniversary Update (version 1803 or later) or Windows 11.

Video:

1024 x 768 resolution, 256 colors (High color 16-bit or higher recommended)

Higher resolution – CAD will adjust to higher resolutions but may appear small

Multiple monitors (two or more) per desktop are recommended

Graphics card with DirectX support

If running multiple monitors, a graphic card capable of driving multiple monitors is required

Software Required for CAD client install:

Microsoft .NET Framework 4.7.2

Visual Studio 2017 redistributable for 32 bits

Other Software:

HTML5 compatible web browser (e.g., Chrome, Firefox, Edge)

Adobe Reader

Windows Media Player for MapViewer animation (optional)

Operation System:

Windows 10 (32 or 64 bits) with the Windows 10 Anniversary Update (version 1607 or later) or Windows 11 (32 or 64 bits).

	CAD No Map	CAD + Map
Memory	4 GB minimum 6 GB recommended	6 GB minimum 8 GB recommended
CPU	2.5 Ghz minimum 2.5 Ghz+ recommended	2.5 Ghz minimum 2.5Ghz+ Dual CPU recommended
Hard Drive	5GB	50 GB or higher depending on size of Map Package.

Browsers: modern web browser (Versatarm has certified Chrome; Edge will also work, as should Safari Mobile)

Operating System: Windows / iOS / Android

Memory: 8GB recommended

Other Software: a PDF Viewer is also needed to preview PDFs

2. MDT 8.0

Computer: a laptop/mobile computer with full Windows Desktop Operating System (e.g. Panasonic Toughbook)

Peripherals: Mouse or pointing device, COMM port, USB ports. Touchscreen recommended

Video:

1440 x 900 or better recommended

Higher resolution – MDT will adjust

MDT can be configured for displaying on non-standard screen aspect ratios

Multi-touch display with gesture support is recommended

Accelerated graphics card

- 1GB recommended. 512MB minimum
-
- Shader Model 2.0 minimum
- Updated with latest drivers from manufacturer

Operating System:

Windows 10 (ver 2004 or later)

Windows 11 21H2 or later

Memory: 16GB recommended, 4GB minimum

CPU: i5 or i7 recommended, i3 or 2.2 GHz minimum

Hard Drive: 200GB recommended, 80GB minimum

Other Software:

WebView2 (Evergreen Standalone Installer, x64 version).

.NET 8 (x64).

Microsoft Visual C++ 2015-2022 Redistributable (x64).

Windows Media Player for audio.

GPS Protocols: TAIP and NMEA

Network Requirements: LTE, 3G and lower bandwidth wireless data networks

3. VMOBILE 2.0

Operating System: Android 8.0 or higher, iOS 16 or higher smartphone or tablet device

Additional requirements:

VPN software to allow secure communication between the devices and the VMC server. Communication between devices and the VMC is through WebSockets on port 7681 and HTTPS on port 1916.

Mobile Device Management software for deploying the application

Server certificates may need to be installed on the device in order to establish a secure connection with the VMC server (IOS has strict certificate requirements. For more information see <https://support.apple.com/en-ca/102028>).

vMobile uses the ESRI geocoding service to prefill locations of onview calls and traffic stops to the closest address. Agencies should note that using this prefill feature will consume credit with ESRI - agencies may want to contact ESRI for pricing information. To implement this feature, note the following:

- Refer to <https://developers.arcgis.com/rest/geocode/> for ESRI documentation for the ArcGIS geocoding service that vMobile uses.
- Refer to <https://developers.arcgis.com/rest/geocode/reverse-geocode/> for more information about the request vMobile uses to access the service (vMobile uses stored geocoding).

R

This Exhibit contains the form to be used to track Change Orders made to the Agreement as agreed to by the Customer and Versaterm. It is understood by both parties that documenting changes in project status reports including, but not limited to, changes in schedule and staffing, as agreed to by both parties, do not require a Contract Change Log. Any change that has a financial impact must be documented using the form within this Exhibit.

Change Order Form

The following Change Order form is to be used when adding a new entries to the Change Control Log.

Change Order Identification			
Change Order Name		Change Order ID #	
Date Submitted		Priority/Impact (Low/Moderate/High/Critical)	
Description of Change			
Impact Assessment - List the project areas that will be affected by the change as well as the impacts on the schedule and budget.			
Areas Affected	Schedule Impact	Budget Impact	
Acceptance			
Customer Approved By			
Name	Title		
Date	Signature		
VERSATERM Approved By			
Name	Title		
Date	Signature		

Service Schedule Attachments

RMS Exhibits B.1 to B.9

STATEMENT OF WORK

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1 OVERVIEW

This document is the Statement of Work defining the principal tasks, activities and responsibilities of the Customer and Versaterm for the implementation of the Versaterm System.

This Project is a collaboration between the Customer and Versaterm and is contingent upon both entities fulfilling their respective responsibilities as defined in the Contract and this Statement of Work.

1.1 PROJECT SUMMARY, OBJECTIVES, AND COMPLETION CRITERIA

This objective of this Project is to implement the Versaterm System for the Customer in accordance with the Contract and this Statement of Work. The Project includes the activities necessary to configure, implement, test, train, and place the System into production.

Each task identified in this Statement of Work includes completion criteria. Upon determining that the completion criteria for a task have been satisfied, the Versaterm Project Manager will provide written notification (via email) to the Customer Project Manager. The Customer will review the completed task and provide written acceptance, where applicable for project tracking and any associated contractual milestone payments.

The Parties acknowledge that successful completion of the Project is dependent upon each Party fulfilling its respective responsibilities and completing assigned activities in a timely manner, as described in the Contract and this Statement of Work.

2 ROLES AND RESPONSIBILITIES

2.1 PROJECT MANAGEMENT OVERVIEW

The Customer and Versaterm shall each appoint a Project Manager for the Project with the authority, knowledge and availability to make decisions and fulfill the responsibilities assigned in this Statement of Work and the Project Implementation Schedule. The Project Managers will serve as the primary points of contact between the Parties throughout the Project.

The Customer and Versaterm Project Managers are jointly responsible for providing overall project leadership, coordinating their respective Project Teams, maintaining effective communication, monitoring project progress, and working collaboratively to achieve the Project Objectives. Each Project Manager will have access to the personnel, information, and resources necessary to fulfill their responsibilities and facilitate timely administrative and technical decisions throughout the Project.

2.2 PROJECT MANAGEMENT TOOLS

The following project management artifacts will be maintained on Versaterm's SharePoint site:

- Schedule (will be in Excel spreadsheet format)
- Issues List
- Task List/Action Items
- Change/Decision log

The Customer and Versaterm Project Teams will be provided access to the agreed project collaboration site and the project management artifacts necessary to support the implementation.

If, for whatever reason, the SharePoint site becomes less than effective method for sharing this information (mutually agreed upon by Customer and Versaterm), an alternative may be created/provided.

2.3 VERSATERM PROJECT MANAGER

The Versaterm Project Manager is responsible for the overall coordination and management of the Project on behalf of Versaterm. Throughout the Project, the Versaterm Project Manager will work collaboratively with the Customer's Project Manager to coordinate implementation activities, monitor project progress, facilitate communication, resolve issues, and support the successful delivery of the Project.

The Versaterm Project Manager is responsible for, but not limited to, the following:

2.3.1 PLANNING AND EXECUTION

- Maintain the Project Implementation Schedule
- Coordinate Versaterm implementation activities to support successful execution of the Project Implementation Schedule.
- Monitor the completion of the Versaterm project tasks and work collaboratively with the Customer to resolve issues or dependencies that may impact the Project.
- Coordinate implementation activities related to the deployment of the Versaterm System.

2.3.2 COMMUNICATIONS

- Prepare and distribute regular status reports summarizing project progress, accomplishments, open issues, risks, action items and upcoming activities.
- Maintain regular communication with Customer's Project Manager, providing responses to project-related inquiries within five (5) Business Days.
- Conduct or participate in weekly project status meetings to review project progress, action items, open issues, and risks, and upcoming activities. Calls may be waived by mutual agreement.
- Prepare and distribute meeting minutes within 48 hours following each project meeting.
- Work collaboratively with the Customer to resolve project issues, mitigate identified risks, and maintain project momentum.
- Facilitate communication between Customer personnel and Versaterm resources, as required.

2.3.3 RESOURCE MANAGEMENT

- Manage and coordinate Versaterm resources throughout the Project
- Coordinate implementation activities with the Customer Project Manager

2.3.4 IMPLEMENTATION WORKSHOP AND WORKING SESSIONS

- Coordinate Versaterm resources and project activities to support the workshop and working Sessions
- Monitor action items and project decisions resulting from the workshop and working sessions.

2.3.5 TRAINING

- Coordinate Versaterm resources to support Trainer Training and End-User Training activities
- Monitor training activities and work collaboratively with the Customer to resolve issues that may impact training delivery

2.3.6 TESTING

- Coordinate Versaterm resources to support Functional Acceptance Testing activities.
- Monitor testing progress and work collaboratively with the Customer to resolve issues.
- Coordinate with the Customer and third-party stakeholders, as required, to support issue resolution during testing.

2.3.7 ROLLOUT

- Coordinate Versaterm resources during Production Cutover
- Monitor post-cutover activities and work collaboratively with the Customer to resolve implementation issues during the stabilization period.

2.3.8 OTHER

- Prepare Change Order in accordance with the Contract, as required
- Coordinate project invoicing activities

2.4 CUSTOMER PROJECT MANAGER

The Customer's Project Manager is responsible for the overall coordination and management of the Project on behalf of the Customer. Throughout the Project, the Customer Project Manager will work collaboratively with the Versaterm Project Manager to coordinate implementation activities, monitor project progress, facilitate communications, resolve issues, and support the successful delivery of the Project.

The Customer Project Manager is responsible for, but not limited to, the following:

- Maintaining regular communication with the Versaterm Project Manager and participate in scheduled project meetings.
- Manage and coordinate Customer Project Team resources throughout the Project.
- Coordinate Customer activities in accordance with the Project Implementation Schedule.
- Ensure timely completion of Customer action items, project decisions, approvals, and deliverables.
- Coordinate the review and approval and execution of Change Orders, Contract Amendments, and other Project approvals, as required.
- Work collaboratively with Versaterm to resolve project issues, mitigate risks, and maintain project momentum.

2.5 ROLES AND RESPONSIBILITIES DURING THE PROJECT

This section describes the roles and responsibilities of key Project resources throughout the duration of the Project.

2.5.1 VERSATERM RESPONSIBILITIES

Versaterm's overall responsibility is to establish a designated Project Team for the duration of this project that have the expertise to carry out the assigned Project tasks and responsibilities. The team will use its expertise to guide the Customer through the implementation. Versaterm is also responsible for ensuring that the team members have ample time and resources to fulfill their responsibilities according to the Project Implementation Schedule.

When appropriate, Versaterm will connect to Customer infrastructure, workstation(s), and/or MDT(s) via VPN access. (The Customer will provide VPN for Versaterm at no cost.)

2.5.2 VERSATERM PROJECT TEAM

The Versaterm Project Team will consist of a Project Manager, Implementation Specialists, and a Technical Lead.

The **Versaterm Implementation Specialist** is responsible for delivering the remote Working Sessions and in-person Implementation Workshop to the Customer Project Team, assisting the Customer in configuring the System.

The **Versaterm Technical Lead** is responsible for delivering the technical aspects of the project and providing technical support to the project.

2.5.3 CUSTOMER RESPONSIBILITIES

The Customer's overall responsibility is to establish a designated Project Team for the duration of this project. Project Team members should have the authority, knowledge, and availability to fulfill the responsibilities assigned to them in this Statement of Work. The Customer is responsible for ensuring that appropriate personnel are available throughout the Project to support implementation activities, provide timely decisions, complete assigned action items, and participate in scheduled project activities.

The Customer is responsible for providing workstations, network connectivity to support the Project Team throughout the Configuration phase. Customer-provided workstations must meet the minimum specifications identified in Exhibit B.7 Customer Supplied Hardware and Third-Party Software. The Customer will provide Versaterm with VPN connectivity and remote desktop access to designated Customer workstations, as required, to support troubleshooting activities related to Customer-supplied workstations. When appropriate, Versaterm will connect to Customer infrastructure, workstation(s), and/or MDT(s) via a VPN connection using a client provided by Customer.

2.5.4 CUSTOMER PROJECT TEAM

The Customer will establish a Project Team consisting of personnel with the knowledge, authority, and availability necessary to support the implementation. The Project Team should include representatives for operational, technical, administrative, infrastructure, and project management functions, as appropriate for the scope of the implementation.

The Project Team may include, but is not limited to:

- Project Manager
- Technical Lead
- System Administrator

- Application Administrator
- GIS Specialist
- Infrastructure / Network Specialist
- Operational Representative(s)
- Reporting / Analytics Representative
- Training Coordinator
- Other subject matter experts, as required

Versaterm will work with the Customer during Project Initiation to identify the appropriate Project Team roles and subject matter experts required to support the implementations.

2.6 PROJECT SCHEDULE

The Project Implementation Schedule will be maintained by Versaterm's Project Manager and updated as necessary over the course of the Project. All changes to the schedule will be mutually agreed upon and, if required, documented via the mutually agreed upon Change Order Process.

2.7 CHANGE ORDERS

When a significant change to the Project occurs – as defined by the Customer and Versaterm Project Managers, a Change Order will be logged in Exhibit B.8 – Change Control Log. The Versaterm Project Manager will be responsible for updating the Project Schedule as needed to reflect the change, as agreed upon with the Customer Project Manager.

3 SOFTWARE DELIVERABLES

This section describes the Project's software deliverables to be provided by Versaterm. Detail information regarding some deliverables may be found elsewhere [Interface Control Document (Exhibit B.3)].

3.1 SOFTWARE

- Exhibit B Service Schedule

3.2 INTERFACES

- See Exhibit B.3 - Interface Control Document

3.3 REDUNDANCY AND BACKUP DELIVERABLES

The Versaterm cloud solution utilizes multiple backend application instances in an active-active configuration, load balanced across Amazon Web Services (AWS) Availability Zones (AZs). Availability Zones are physically separate datacenters connected by low latency network links and independent infrastructure. This architecture provides high availability and fault tolerance, ensuring that an outage of a single node or availability zone (datacenter), will not cause an extended outage to the end user (users will be automatically re-directed to the surviving datacenter/nodes where

they may have to re-authenticate/login to the application). While the Versaterm vCloud architecture provides resiliency across datacenters/AZs, it does not protect against an outage of the entire AWS GovCloud Region.

System users connect to the application through a highly available AWS load balancer, which authenticates users against the Customer's identity provider before directing them to an available application instance within one of the AWS availability zones (datacenters). Versaterm is responsible for configuring and integrating the Versaterm solution, including the AWS load balancer, and supporting industry standard Security Assertion Markup Language (SAML) authentication to ADFS. The Customer is responsible for configuring and managing multi-factor authentication required for the client and mobile workstations.

Application components and data files are deployed across multiple AZs to provide resiliency. Multiple copies of the files and database are maintained across the environment. This architecture is designed to provide 99.99% availability and 99.999999999% (11 nines) durability for data stored in and backed up to AWS S3.

All System data, including databases, data files, and backups, is encrypted both at rest and in transit. Versaterm maintains a backup strategy that includes daily and monthly snapshot backups to support recovery in the event of an unexpected failure. A rotation of daily and monthly snapshot backups is stored in AWS's S3 file storage system, which is encrypted and highly resilient (a minimum of 3 copies of the data is kept).

4 STATEMENT OF WORK TASKS

This section describes the Project's major implementation tasks, including the responsibilities of the Customer and Versaterm, task prerequisites, Versaterm deliverables, and task completion criteria.

Task sequencing, planned start dates, durations, dependencies, and assigned resources are maintained in Exhibit B.2 Project Implementation Schedule.

4.1 PLANNING PHASE

TASK #1 PROJECT INITIATION

The Project officially begins on the Effective Date of the Contract. As part of this task, the Customer and Versaterm Project Managers will conduct one or more remote meetings to initiate the Project. During the meeting(s), the Project Managers will review and confirm the Project Implementation Schedule, establish the project management artifacts, confirm the Communication Plan, and verify implementation readiness.

VERSATERM RESPONSIBILITIES

- Schedule and facilitate the meeting(s) with the Customer.
- Establish the project management artifacts, including the Action Item Log, Issues List, Change/Decision log, Risk Register, and Change Management Log.
- Review and confirm the Project Implementation Schedule with the Customer.
- Collaborate with the Customer to establish and confirm the Communication Plan.

CUSTOMER RESPONSIBILITIES

- Participate in the meeting(s).

- Collaborate with Versaterm to establish and maintain the project management artifacts.
- Collaborate with Versaterm to establish and confirm the Communication Plan.

PREREQUISITES

- Contract Execution.

VERSATERM DELIVERABLES

- Initial project management artifacts.

TASK COMPLETION CRITERIA

- The meeting(s) have been completed.
- The project management artifacts have been established.
- The Customer and Versaterm have confirmed the Communication Plan.
- The Project Implementation Schedule has been reviewed and confirmed.

TASK #2 PROJECT KICKOFF

Versaterm and the Customer will conduct a remote Project Kickoff meeting to introduce the Project to Customer's Project Team and key stakeholders. The Project Kickoff establishes a shared understanding of the Project objectives, implementation approach, roles and responsibilities, project schedule, communication process. It also confirms Customer participation expectations and prepares the Project Team for the implementation activities that follow.

The Project Kickoff presentation will include, at a minimum, the following topics:

- Project objectives and scope
- Contract overview
- Customer Project Team introduction, roles, and responsibilities
- Versaterm Project Team introduction and roles
- Project Implementation Schedule
- Project governance, including communication, risk, issues, action items, and change management
- Next steps and immediate implementation activities

VERSATERM RESPONSIBILITIES

- Prepare and deliver the Project Kickoff presentation.
- Present the implementation approach, project implementation schedule, and key project expectations.
- Participate in the Project Kickoff meeting and address Customer questions.

CUSTOMER RESPONSIBILITIES

- Invite appropriate Project Team members and key stakeholders to participate in the Project Kickoff meeting.
- Confirm the Project Team's understanding of the implementation approach, project schedule, roles and responsibilities and Customer participation expectations.

PREREQUISITES

- Project Implementation Schedule has been finalized.

TASK COMPLETION CRITERIA

- Project Kickoff Meeting concluded.

TASK #3 IMPLEMENTATION PREPARATION

The purpose of this task is to initiate implementation activities that require Customer, third-party, or internal coordination and may require extended lead times. By identifying, requesting, and initiating these activities early in the Project, the Parties can reduce implementation delays and support the timely completion of subsequent project tasks.

VERSATERM RESPONSIBILITIES

- Coordinate the Implementation preparation activities with the Customer Project Manager.
- Identify implementation prerequisites requiring Customer or third-party participation.
- Identify required third-party Non-Disclosure Agreements (NDAs) and provide the applicable NDA(s) for execution by the third-party vendor.
- Provide GIS data specifications, including the required shapefiles, map packages, file formats, and supporting documentation.
- Request available interface documentation and technical specifications from third-party vendors.
- Provide technical prerequisites required to support the implementation, including network connectivity, authentication, workstation, and security requirements, as applicable.
- Identify Customer configuration data that can be prepared in advance to support initial system configuration and pre-loading, such as unit identifiers, personnel information, and other configuration data.

CUSTOMER RESPONSIBILITIES

- Assign resources to support implementation activities.
- Provide third-party vendor contact information and facilitate execution of the required NDAs with the applicable third-party vendors.
- Initiate internal activities requiring participation by Customer departments or third-party vendors that may impact the Project Schedule.
- Provide remote VPN access capability to two (2) implementation Windows based computer images running on the Customer network – provisioned exclusively for Versaterm implementation support.
- Provide GIS shapefiles and map packages as required to create the Master Street Index file and initial map configuration.
- Provide available interface documentation and coordinate third-party participation, where applicable.
- Provide available configuration information and supporting documentation required for implementation.
- Identify the anticipated training facilities and implementation workspace to support future project activities.
- Provide available configuration data identified by Versaterm to support initial system configuration and pre-loading, such as unit identifiers, personnel information, and other requested configuration data.

- Confirm completion of required background checks for Versaterm project team members.

PREREQUISITES

- Project Initiation completed.

VERSATERM DELIVERABLES

- Implementation preparation action list.
- List of outstanding preparation items, if applicable.

TASK COMPLETION CRITERIA

- Implementation prerequisites have been identified.
- Customer and third-party contacts have been identified.
- Required NDAs have been initiated, where applicable.
- Requests for interface documentation and technical information have been submitted.
- Requested GIS data and supporting documentation have been received or are in progress.
- Outstanding implementation preparation items have been documented.
- Available configuration data for pre-loading has been received and outstanding items have been documented.

4.2 CONFIGURATION PHASE

The purpose of the Configuration Phase is to configure the System for the Customer's operational requirements.

During this phase, Versaterm will complete the technical configuration of the System, develop and configure interfaces, and conduct the Implementation Workshop and Working Sessions to review system functionality, validate configuration, and support implementation activities.

The Implementation Workshop will be delivered in person. Additional Working Sessions will be conducted remotely, as required, to review implementation topics, validate system configuration, and support the implementation.

The Customer will provide a suitable classroom or meeting facility for the Implementation Workshop, including a projector, instructor workstation, and participant workstations, as identified in the Project Schedule.

TASK #4 ESTABLISH COMMUNICATION TO AWS

This task is to establish connectivity between Customer and the Product installed in the Versaterm VPC (Virtual Private Cloud) in the AWS GovCloud (US) Region.

Two (2) separate VPCs are utilized. The "NonProd" account contains one VPC housing the Test environment, and a second account is used for Production that houses the Production and Training environments.

A secure redundant connection (tunnel) shall be established between Customer and the Versaterm VPC in the AWS GovCloud (US). All customer access to the Product will be done through the secure connection. A Customer's user must first authenticate and connect to the local Customer's network before gaining access to the Product. This

applies to all users, including any remote or external users. Users will not be able to access the Product without coming through the established secure tunnel between Customer and the Versaterm VPC.

All exchanges between the Product applications in the AWS GovCloud (US) and any onsite servers or services (interface servers, FTP servers, etc.) will communicate through the secure connection (tunnel) established between Customer and Versaterm VPC in AWS. There is an exception to this communication protocol, currently the Product allows SFTP file transfer interfaces to reach vCloud via an internet facing SFTP service that is locked down to whitelisted public IP sources.

Customer can connect to AWS via either a secure Customer Gateway IPsec VPN tunnel (routable through the Internet), or a Direct Connect connection to AWS. Versaterm recommends a VPN over an AWS Direct Connect for the best user experience and reliability. Costs and requirements will differ for each.

VERSATERM RESPONSIBILITIES

- Work with Customer to review and finalize connectivity to AWS, including reviewing Customer's connectivity requirements, security and privacy requirements, data transfer and network bandwidth requirements, and level of service required (redundancy requirements).
- Work with Customer to confirm how Customer will connect to AWS (Customer Gateway IPsec VPN tunnel (routable through the Internet), or Direct Connect connection to AWS, or combination of both).
- Provide a list of network ports and services that need to be enabled (opened) between Customer's local network and AWS (both ways) required by Versaterm application and interfaces.
- Versaterm will provide a list of supported IPsec VPN hardware to Customer (for the local customer VPN hardware) to confirm compatibility with AWS.
- Versaterm will create a Customer Gateway (VPN) Configuration File (for the specific customer VPN hardware) for the Customer to load on their VPN Gateway. The Configuration File includes configuration/connectivity details to connect to the Versaterm VPC in AWS GovCloud (US).
- Enable Customer access to the Versaterm VPC(s) in the AWS GovCloud (US) Region.
- Define routing rules for Customer provided IP ranges, on the Versaterm core AWS VPN tunnel, for access to any Customer on premise servers/services that the Product will need access to (for interfaces, etc.).
- Provide a Private IP range that all traffic between Customer and vCloud will be NATed to.
- Test connectivity with Customer.

CUSTOMER RESPONSIBILITIES

- Provide a local network specialist that can work with Customer and Versaterm to establish required network connectivity.
- Review network bandwidth requirements with Versaterm to determine how Customer will connect to AWS (Customer Gateway IPsec VPN tunnel, or Direct Connect connection to AWS).
- Identify onsite servers/services/interfaces the System to connect to.
- Provide connectivity to AWS,
 - provide a secure connection for access to the AWS GovCloud (US) Region; the connection must be capable of supporting the Customer's bandwidth requirements identified above.
 - to minimize service interruptions, separate, redundant connections are required; dedicated circuits are preferred.
 - if Direct Connect connection(s) to AWS is to be supported (as determined by local bandwidth and other requirements), work with Customer's local telco provider, AWS, AWS Direct Connect Partner,

and Versaterm to finalize detailed requirements and establish required Direct Connection(s) to the Versaterm VPC(s) in the AWS GovCloud Region

- Provide Customer Gateway VPN(s), (for clarity, a Customer Gateway is a physical device or software application on Customer's side of the VPN connection)
 - provide Customer Gateway VPNs capable of meeting the Customer connectivity and bandwidth requirements; Customer Gateway VPNs compatible with the AWS supported platform (as provided by Versaterm) are required; redundant Gateways/VPNs are also required to minimize service interruption.
 - IPSec Customer Gateway VPNs must support and be certified for FIPS 140-2.
 - provide Customer Gateway VPN hardware (e.g. Cisco), platform (e.g. ISR Series Routers), and software version (IOS 12.4) to Versaterm.
 - provide internet-routable IP address for the Customer Gateway VPN(s)' external interface which Versaterm will use when creating the Customer Gateway (VPN) Configuration File (value must be static; the Customer Gateway may reside behind a device performing network address translations (NAT)).
 - provide the Customer BGP ASN (Border Gateway Protocol, Autonomous System Number) to use, to Versaterm, if any, which Versaterm will use when creating the Customer Gateway (VPN) Configuration File; otherwise, Versaterm will configure a default value of 65000 for the Customer Gateway BGP ASN.
 - identify IP range (IP subnet pre-fixes) for any of Customer's onsite servers that the System will need access to (for interfaces, etc.).
 - enable NATing of data between the internal Customer network and vCloud as well as provide some static NATed IPs for servers and interfaces that Versaterm vCloud needs to communicate with.
 - load the Customer VPN Gateway Configuration File provided by Versaterm, on Customer's Gateway VPN device(s).
- Provide a method of local auditing of connections on a per user basis.
- Work with Versaterm to resolve any IP subnet overlap issues, and other as required.
- Test connectivity with Versaterm (for the Customer, remote/external users, and Remote Partner Agencies).
- Provide 7x24 technical network support to the Customer.

PREREQUISITES

- Task #1 Project Start

DELIVERABLES

- List of IPSec VPN Customer Gateway hardware supported by AWS.
- Customer Gateway (VPN) Configuration File (for the specific Customer Gateway hardware) for Customer to load on their VPN Gateway.
- Enable Customer access to the Versaterm VPC in the AWS GovCloud (US) Region.

TASK COMPLETION CRITERIA

The task will be complete when

- Customer connectivity is installed, configured, and
- Customer is able to connect to the Versaterm VPC in the AWS GovCloud (US) Region.

TASK #5 CONDUCT SCOPING SESSIONS

The purpose of scoping sessions is for Versaterm to review the Customer's operational, technical, and interface requirements in order to complete the initial configuration of the implementation system. Scoping Sessions will be conducted remotely.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the scoping sessions with the Customer's Project Manager.
- Provide an agenda with objectives and topics to review prior to the scoping session.
- Lead discussions with the customer to understand current business processes.
- Review the Customer's operational requirements and document the information required to configure the System.
- Identify any Customer-specific configuration requirements requiring additional review.
- Review interface requirements, dependencies, and implementation responsibilities.
- Document project assumptions, action items, and implementation decisions.

CUSTOMER RESPONSIBILITIES

- Coordinate the scheduling of the Scoping Sessions with the Versaterm Project Manager.
- Assign the appropriate project and subject matter resources to participate in the Scoping Session.
- Ensure that designated Scoping Session participants attend the scheduled sessions.
- Participate in the review of operational, technical, and interface requirements identified in the agenda.

PREREQUISITES

- Project Kickoff Meeting concluded.

VERSATERM DELIVERABLES

- Scoping Session agenda
- Scoping Session facilitation

TASK COMPLETION CRITERIA

- Scoping Sessions completed.
- Information required to complete the initial configuration of the System has been documented.
- Interface requirements and responsibilities have been reviewed
- Project assumptions, action items, and implementation decisions have been documented.

TASK #6 CONFIGURE VCLLOUD SERVERS

Versaterm will provision the AWS Cloud environment. The environment consists of two tiers:

- Production ("prod") – Contains the Training and Production systems.
- Non-Production ("non-prod") – Contains the Test system.

As part of this task, Versaterm will provision the Test, Training and Production systems.

VERSATERM RESPONSIBILITIES

- Provide the AWS Cloud computing system containing the System Test, Training and Production systems.
- Assist the Customer with AWS networking configurations and ensuring access to the AWS Cloud non-prod and prod environments.
- Provide details on required ports that must be opened or configured.

CUSTOMER RESPONSIBILITIES

- Configure networking for access from the Customer network to the AWS Cloud non-prod and prod environments.

PREREQUISITES

- Project Kickoff Meeting concluded.

VERSATERM DELIVERABLES

- Configure implementation system (Test, Training and Production systems) in the AWS Cloud.

TASK COMPLETION CRITERIA

- The Test, Training and Production systems have been installed and configured in the AWS Cloud.
- The Customer has established network connectivity to the AWS Cloud non-prod and prod environments.

TASK #7 PREPARE TRAINING CLASSROOM

This task covers preparation of the training classroom facility, including workstations, equipment, and network access, in advance of the Implementation Sessions.

VERSATERM RESPONSIBILITIES

- Provide guidance during classroom facility setup

CUSTOMER RESPONSIBILITIES

- Provide a suitable classroom facility, workstations and equipment that meet minimum specifications as set out in Exhibit A.7 Customer Supplied Hardware and Third-Party Software and confirm networking access to the AWS Cloud non-prod and prod environments.

PREREQUISITES

- Project Kickoff Meeting concluded.

VERSATERM DELIVERABLES

- Guidance during classroom facility setup

TASK COMPLETION CRITERIA

- The Customer has setup the training classroom.

TASK #8 CONFIGURE IMPLEMENTATION SYSTEM

Versaterm will configure the Application Software. The Customer will install the Versaterm client software on the designated Implementation Team workstations.

Implementation activities will be performed in the AWS Production environment, which serves as the primary environment for system configuration, interface implementation, testing and training. Upon approval of the system configuration, the approved configuration will be applied to the Test and Training environments. Interfaces will be deployed to the Test and Training environments, as required, prior to Production Cutover.

VERSATERM RESPONSIBILITIES

- Configure the Versaterm server Application Software installed in the AWS Cloud.
- Apply System Configurations based on Customer's workflows and processes discovered during Scoping Sessions.
- Load the street files, if available.
- Provide the Customer with the Versaterm client software for installation on the classroom workstations and the implementation team's workstations.

CUSTOMER RESPONSIBILITIES

- Assist Versaterm as needed.
- Create user accounts required by the Customer's Implementation Team to access the Versaterm application suites.
- Install and configure client Application Software on designated workspace and implementation team workstations.
- Provide remote VPN access capability to two (2) implementation Windows based computer images running on the Customer network – provisioned exclusively for Versaterm implementation support.

PREREQUISITES

- Configure vCloud servers concluded.

VERSATERM DELIVERABLES

- Versaterm-provided documentation on how to install and configure the client modules on Customer workstations and mobile devices.

TASK COMPLETION CRITERIA

- The Application Software is configured in the AWS Cloud; and
- The client software installed on the workspace and Implementation Team's workstations and is fully functional.
- VPN access has been provided to Versaterm by the Customer.

TASK #9 CONDUCT IMPLEMENTATION WORKSHOP AND WORKING SESSIONS

Following completion of the Scoping Sessions, Versaterm will configure the System through a combination of remote Working Sessions and a single on-site Implementation Workshop conducted at a Customer-provided classroom facility. Selected configuration activities will be completed by the Customer with guidance from Versaterm to promote familiarity with the System and support future administration.

During the remote Working Sessions, Versaterm will review configured functionality, validate system configuration with the Customer, make configuration adjustments as required, and guide the Customer through selected configuration activities. The Working Sessions will also familiarize the Customer Project Team with the System and prepare them to participate in testing and future system administration.

Following each Working Session, Versaterm will provide action items and exercises for the Customer Project Team to complete prior to the next Working Session.

The purpose of the on-site Implementation Workshop is to validate the configured System in a model office environment, confirm operational workflows, and identify any remaining configuration refinements. The workshop will also confirm readiness for Functional Acceptance Testing, review the training approach, and confirm the target production deployment schedule.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the remote Working Sessions and in-person Implementation Workshop with the Customer's Project Managers.
- Provide an agenda with objectives and business processes to review prior to the scheduled sessions and workshop.
- Provide the Documentation and any required materials (User and Configuration guides) prior to the scheduled Working Session or Implementation Workshop.
- Conduct in-depth demonstrations of the Application Software, identifying functionality and features supported.
- Provide hands-on exercises for the Project Team members to get familiar with the Systems.
- Adjust system configurations based on Customer feedback.
- Review project plan and status of upcoming implementation tasks, and document assignments made, target completion dates, and any issues yet to be resolved.
- Review approach and objectives of the next project phase (Testing) with the Project Team and Project Managers
- Review target go-live date, training schedule, and materials required to prepare training courses.

CUSTOMER RESPONSIBILITIES

- Coordinate the scheduling of the remote Working Sessions and in-person implementation Workshop with the Versaterm Project Manager.
- Identify and schedule the Working Session and Implementation Workshop attendees.
- Provide the required Documentation and materials (User and Configuration guides) for Working Session and Implementation Workshop participants.

- Ensure that designated Working Session and Implementation Workshop participants participate in the scheduled workshop.
- Participate in discussions of the Customer's existing business processes identified in the workshop agenda.
- Identify known/potential workflow, process, job, and/or report changes and assign an owner and rollout plan for each.

PREREQUISITES

- Scoping Sessions have been completed.
- Implementation environment has been set up.
- Application Software has been delivered and installed.

VERSATERM DELIVERABLES

- Working Session and Implementation Workshop material (User and Configuration guides).
- Delivery of Working Sessions and Implementation Workshop.

TASK COMPLETION CRITERIA

- Working Sessions and Implementation Workshop completed.
- The System is configured and the customer team has received sufficient training to navigate and begin the System Testing.

TASK #10 DATA CONVERSION

Versaterm and the Customer will collaborate to prepare, validate, and execute the data conversion activities described in the Data Conversion Plan (Exhibit B.9). The Customer is responsible for extracting and preparing the legacy data in accordance with the Versaterm data conversion specifications, while Versaterm is responsible for executing the conversion loads and supporting the validation process.

VERSATERM RESPONSIBILITIES

- Facilitate data source review and field mapping sessions.
- Provide data conversion file specifications and technical guidance to support the Customer's data extraction and transformation activities.
- Develop or modify existing data conversion modules and load APIs, if required to fulfill Versaterm's obligations.
- Execute pre-production data conversion loads in accordance with the Data Conversion Plan.
- Provide conversion reports and assist the Customer in validating converted data and resolving data quality issues.
- Execute the final production data conversion prior to System Go-Live.

CUSTOMER RESPONSIBILITIES

- Complete the activities identified in the Data Conversion Plan for which the Customer is responsible.

- Extract and transform legacy data into the formats defined by the Versaterm data conversion specifications.
- Review and validate the results of each conversion load and resolve data quality or mapping issues identified during testing.
- Provide final production extract files for the production data conversion prior to System Go-Live.
- Identify, extract, set up, convert, and load standalone databases, if required, for data sources that will not be converted into the System.

PREREQUISITES

- Conduct Project Kick Off.

VERSATERM DELIVERABLES

- Data conversion file layout specifications.
- Data conversion load routines and processes.
- Field mapping sessions.
- Final production data conversion.

TASK COMPLETION CRITERIA

- The Customer has validated the converted data and confirmed that it is acceptable for production use.
- Versaterm has completed the final production data conversion in accordance with the Data Conversion Plan.

TASK #11 VERSATERM GIS INTERFACE INSTALLATION AND TRAINING

The System utilizes the Customer-provided geographic information system (GIS) data. The Customer is responsible for providing and maintaining the GIS data used by the System. The ESRI Geofile Interface Control Document in Exhibit B.3 defines the requirements.

The Versaterm GIS Interface (VGI) extracts the required information from the Customer-provided ESRI shapefiles or map services to create the GIS data used by the System. The successful deployment of the System depends on the Customer providing complete and accurate GIS data in the required format.

As part of this task, Versaterm will train designated members of the Customer's Implementation team on the System's GIS structure, GIS data requirements, and the use of the VGI tool to generate and maintain the GIS data required by the System. Training will include instruction on configuring and operating the VGI tool to extract geo-related information, including street names, address ranges, intersections, addresses, landmarks, and common place names for loading into the System's master street index.

Throughout the Project, Versaterm will provide guidance as required to the Customer in obtaining, preparing, processing, loading, validating, and maintaining the required GIS data for use by the System, including assistance with resolving issues related to the Customer-provided GIS data.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the VGI Training Session with the Customer's Project Manager.

- Provide VGI Training Session prerequisites and requirements to the Customer.
- Provide VGI training materials in electronic format prior to the scheduled Training Sessions.
- Provide the Customer with the VGI URL and access credentials.
- Deliver the remote VGI Training Session, including an overview of the System's GIS structure, a review of the GIS data requirements, and instruction on configuring and operating the VGI tool.
- Provide guidance and assistance to the Customer in obtaining, preparing, processing, validating, and loading the GIS data into the System.
- Assist the Customer in resolving VGI processing issues related to the Customer-provided GIS data.

CUSTOMER RESPONSIBILITIES

- Prepare the GIS data for the Training Session in accordance with the ESRI Geofile Interface Control Document.
- Coordinate the scheduling of the remote VGI Training Session with Versaterm's Project Manager.
- Identify and ensure the attendance of the designated Customer personnel.
- Distribute the training materials to designated trainees.
- Generate, validate, and load GIS data using the VGI tool following completion of the Training Session.
- Work with Versaterm to resolve issues related to Customer-provided GIS data, as required.

PREREQUISITES

- Scoping Sessions
- Required GIS data available in the required format and with the proper content.

VERSATERM DELIVERABLES

- Operational VGI Software tool and Customer access credentials.
- VGI training materials.
- Completed VGI Training Session.

TASK COMPLETION CRITERIA

- The VGI Training Session has been completed.
- Designated Customer personnel are able to successfully generate GIS data using the VGI tool and load the resulting data into the System.

TASK #12 INTERFACE IMPLEMENTATION

The Interfaces identified in Exhibit B.3 Interface Control Document will be developed, installed, and tested.

Interface development follows an iterative approach that allows mutually agreed refinements during implementation. Significant changes affecting the scope of an interface will be documented in accordance with the Change Control process and approved prior to implementation.

Versaterm will configure and perform initial testing of each interface in accordance with the applicable ICD before supporting Customer validation and testing.

VERSATERM RESPONSIBILITIES

- Develop, configure, install, and test the Interfaces in accordance with the applicable Interface Control Document (ICD).
- Coordinate interface implementation activities with the Customer and applicable third-party stakeholders.
- Document mutually agreed changes to an Interface Control Document and prepare Change Orders, as required.
- Schedule Interface tests.
- Perform interface testing and provide the Customer with verification of functionality.
- Provide training to the Customer on interface setup, configuration, administration and usage.

CUSTOMER RESPONSIBILITIES

- Participate with Versaterm and other applicable third-party stakeholders in the implementation and testing of the Interfaces in accordance with the applicable Interface Control Document (ICDs).
- Review and approve mutually agreed changes to an Interface ICD, as required.
- Facilitate execution of approved ICD Change Orders, as required.
- Provide the current interface documentation available from appropriate third-party Interface stakeholders as required by Versaterm.
- Coordinate communications and activities with third party Interface stakeholders as required to support interface implementation and testing.
- Ensure that the designated Customer resources are available to participate in interface implementation and testing.
- Complete the Customer responsibilities identified in Exhibit B.3.
- Coordinate with Versaterm and third-party Interface stakeholders to schedule Interface tests.
- Participate in interface testing and verify interface functionality in accordance with the applicable ICDs.

PREREQUISITES

- Set up Production Environment

VERSATERM DELIVERABLES

- Updated Interface Control Documents reflecting mutually agreed changes, where applicable.
- Implemented and tested Interfaces in accordance with the Interface Control Documents.
- Customer training on interface administration and usage, as applicable.

TASK COMPLETION CRITERIA

- Any approved changes have been documented in accordance with the Project Change Control process.
- All interfaces have been implemented and verified to operate in according with the applicable ICDs.

4.3 TESTING PHASE

TASK #13 FUNCTIONAL ACCEPTANCE TEST DEVELOPMENT

Versaterm will prepare an initial Acceptance Test Plan suitable for verifying the solution's functionality. The Acceptance Test Plan will be reviewed with the Customer during the Working Sessions and Implementation Workshop and finalized based on Customer input. The Customer may supplement the Acceptance Test Plan with additional test scenarios specific to its operational requirements.

Upon completion of this task, the Customer may use the Acceptance Test Plan, together with any Customer-developed test scenarios, to perform independent testing of the System prior to the formal Functional Acceptance Testing task.

VERSATERM RESPONSIBILITIES

- Prepare the initial Acceptance Test Plan.
- Review the Acceptance Test plan with the Customer during the Working Sessions and Implementation Workshop.
- Incorporate agreed-upon Customer input and finalize the Acceptance Test Plan.

CUSTOMER RESPONSIBILITIES

- Review the Acceptance Test Plan and provide input.

PREREQUISITES

- Configuration Phase

VERSATERM DELIVERABLES

- Acceptance Test Plan.

TASK COMPLETION CRITERIA

- This task is considered complete when Versaterm and the Customer have finalized the Acceptance Test Plan.

TASK #14 FUNCTIONAL ACCEPTANCE TESTING

The purpose of Functional Acceptance Testing is to verify that the fully configured System, including the interfaces specified in the Interface Control Document, and the configured workflows, reports, notifications, tasks, and other functionality, meets the requirements of the Contract and applicable system documentation. Functional Acceptance Testing also provides the Customer with the opportunity to verify that the System performs in accordance with the transaction response times and performance requirements specified in the Contract, where applicable.

Functional Acceptance Testing will be conducted in-person, with Versaterm present to facilitating execution of the Acceptance Test Plan.

The Functional Acceptance Testing is conducted following completion of the Configuration Phase and prior to the End-User Training Phase.

Exhibit B.4 Acceptance Test Plan describes the testing strategy, test schedule, test environment, defect management process, and roles and responsibilities for Functional Acceptance Testing.

An Interface will be excluded from the Functional Acceptance Testing should the Customer be unable to meet the related Interface Customer responsibilities specified in the ICD. A Change Order or Amendment, whichever is appropriate, will be generated to document any changes.

VERSATERM RESPONSIBILITIES

- Facilitate execution of Functional Acceptance Testing.
- Review and investigate reported errors.
- Correct confirmed Application Software errors in accordance with the Contract and Statement of Work.
- Support Customer retesting of corrected errors.

CUSTOMER RESPONSIBILITIES

- Provide representative test data required for Functional Acceptance Testing.
- Execute the Functional Acceptance Test plan with facilitation from Versaterm.
- Report errors identified during Functional Acceptance Testing to Versaterm.
- Work with Versaterm to review reported errors and verify corrective actions.
- Verify corrected errors by re-executing the applicable test scenarios.
- Notify Versaterm in writing upon completion of Functional Acceptance Testing.

PREREQUISITES

- Configuration Phase
- Functional Acceptance Test Development

VERSATERM DELIVERABLES

- Functional Acceptance Test facilitation.

TASK COMPLETION CRITERIA

- This task is considered complete when the Customer has successfully executed the Acceptance Test Plan and all reported errors have either been corrected or an agreed corrective action plan has been accepted by the Customer.

4.4 TRAINING PHASE

TASK #15 SETUP TRAINING SCHEDULE AND FACILITIES

Versaterm will assist the Customer's Training Team in developing the Trainer-training schedule and will provide a recommended training schedule identifying the duration required to train the Customer's personnel.

The Customer will prepare the necessary training facilities to support the Training.

VERSATERM RESPONSIBILITIES

- Provide the Customer's Training Team with a proposed training schedule.
- Identify the facility, equipment and technical requirements for the training facilities.

CUSTOMER RESPONSIBILITIES

- Collaborate with Versaterm on finalizing the recommended training schedule.
- Schedule and coordinate the final Trainer-training schedule with Customer personnel.
- Collaborate with Versaterm on identifying the required equipment and technical requirements.
- Ensure that the training facilities, equipment and technical requirements are ready for the start of the planned training schedule.

VERSATERM DELIVERABLES

- Recommended training schedule.

TASK COMPLETION CRITERIA

- Versaterm has provided a recommended training schedule, and; the Customer has incorporated any required changes, and; a final training schedule is published; and the Customer's training facilities, equipment and technical requirements are ready for the Trainer-training.

TASK #16 TRAINER TRAINING

Versaterm will provide hands-on training to the Customer's Trainers. Refer to Exhibit B.5 Training Course Outline which includes details related to the training approach, course outlines and training packages.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the Trainer Training with the Customer's Project Managers.
- Provide a proposed training agenda and schedule to the Customer.
- Provide training facility requirements to the Customer's Project Managers.
- Provide required skills and any pre-requisite training required by Trainer-Training participants.
- Prepare training manuals based on the system configuration and the Customer's workflows discovered during scoping and Implementation sessions, in electronic format.
- Work with the Customer to review and finalize the Training Documents.
- Conduct the Trainer-Training sessions.

CUSTOMER RESPONSIBILITIES

- Assist in adapting the training scenarios to make use of familiar data and to include site-specific policy and/or process flow information.
- Provide a suitable training facility that meets the needs of the Trainer-Training courses.
- Provide the required documentation to training participants.
- Ensure that the designated participants attend the scheduled training sessions.

PREREQUISITES

- Setup Training Schedule and Facilities.
- Production system access tested and available.
- Functional Acceptance Testing

VERSATERM DELIVERABLES

- Training facility requirements.
- Train-the-trainer participants pre-requisite training and required skill set.
- Training documentation prepared with the Customer.
- Trainer-Training courses.

TASK COMPLETION CRITERIA

- Delivery of Trainer-Training, per the Training Plan.
- Participants have been adequately trained on the agreed-upon training topics, are able to complete the training assignments/scenarios.

TASK #17 READY FOR TRAINING

This task signifies that Versaterm has delivered all required software, interfaces and Trainer-Training, and remedied all errors for the Customer to start End-User training.

VERSATERM RESPONSIBILITIES

- Issue written notice to the Customer that the System is Ready for Training.
- Correct any defects mutually identified by the Customer and Versaterm as having to be corrected prior to the System being ready for the end-user training.

CUSTOMER RESPONSIBILITIES

- Upon receiving a Versaterm's "Ready for Training" notification, review the System's status and outstanding issues list and mutually identify with Versaterm any defects that must be corrected prior to its being used for end-user training.
- Issue a written notice to Versaterm that the System has been verified to be ready for End-User training.

PREREQUISITES

- Functional Acceptance Testing
- Train-the-Trainer Training

VERSATERM DELIVERABLES

- Written notice to the Customer that the System is Ready for Training, once all defects mutually identified by the Customer and Versaterm have been corrected.

TASK COMPLETION CRITERIA

- This task is complete when Versaterm and the Customer mutually agree the System is ready for end user training.

TASK #18 END-USER TRAINING

Customer expert trainers will provide just-in-time training to end-users.

VERSATERM RESPONSIBILITIES

- Provide remote support as needed during end user training period.

CUSTOMER RESPONSIBILITIES

- Provide adequate training facilities including screen projection resources and enough workstation positions for up to twenty (20) students.
- Train additional trainers as necessary to staff the end-user training.
- Schedule and organize the end-user training schedule.
- Assign end-users to training classes at each facility.
- Assign trainers to training facilities so that at least one qualified trainer is present at each end-user training class.
- Prepare required training documentation and material for each end-user attending a training session.
- Ensure that the designated trainers and end-users attend their scheduled end-user training classes.

PREREQUISITES

- Functional Acceptance Testing.
- Setup Training Schedule.
- Setup Training Facility.
- Trainer-training.
- System declared Ready for Training

VERSATERM DELIVERABLES

- Provide remote support during the training period.

TASK COMPLETION CRITERIA

- Completion of end-user training classes (prior to Production Use).

4.5 PRODUCTION PHASE

TASK #19 PRODUCTION CUTOVER PREPARATION

Versaterm performs a Production environment cleanup to remove data entered during configuration, testing, and training activities. A final synchronization is then executed to propagate finalized configuration settings from Production to the Test and Training environments.

The Customer is responsible for installing Versaterm client software on all desktop and mobile computers and ensuring all users have URLs to access web-based Versaterm applications.

VERSATERM RESPONSIBILITIES

- Clean up Production system to remove data entered during system configuration, testing and training.
- Propagate configuration settings from Production to Test and Training systems

CUSTOMER RESPONSIBILITIES

- Install Versaterm client software on desktop and mobile computers.
- Provide URLs for web-based Versaterm applications to all end users.

PREREQUISITES

- End-User training

VERSATERM DELIVERABLES

- Clean Production environment ready for Production Cutover

TASK COMPLETION CRITERIA

- Production environment has been cleaned up.
- Versaterm client software is installed on Customer's desktop and mobile computers.
- All end users have URLs required to access web-based Versaterm applications.

TASK #20 PRODUCTION USE

- Versaterm will assist and support the Customer in placing the System into Production Use.

VERSATERM RESPONSIBILITIES

- Collaborate with the Customer to determine the date and time of the System cutover for Production Use.
- Assist the Customer in placing the system into a Production Use.
- Monitor the initial operation of the System and answer any operational questions raised by the Customer.
- Provide at least one (1) onsite resource to support System cutover for up to two (2) days after the cutover.

CUSTOMER RESPONSIBILITIES

- Collaborate with Versaterm to determine the System Cutover date and time.
- Provide trained personnel to be the first line of Support.

- Set up and staff a “Go-Live Support Room” to act as a central coordination point for Go-Live issues and support.
- Coordinate with Versaterm to schedule the onsite Versaterm resources as needed to support the first two (2) calendar days of Production Use.

PREREQUISITES

- End-User training
- Production Cutover Preparation

VERSATERM DELIVERABLES

- Onsite Versaterm resource(s) in support of the System cutover to Production Use.

TASK COMPLETION CRITERIA

- The System is successfully operating in Production Use.

TASK #21 CLOSE SUPPORT

Following Production Cutover, Versaterm will provide a Close Support period of two (2) weeks to assist the Customer in stabilizing System operations. The Close Support period will be extended until all Level 1 and Level 2 issues identified during the Close Support period have been resolved to the Customer’s satisfaction.

VERSATERM RESPONSIBILITIES

- Provide dedicated remote resources to the Customer during the Close Support period to address System issues in a timely manner.
- Investigate, prioritize, and resolve all Level 1 and Level 2 issues reported by the Customer during the Close Support period.
- Participate in a discussion with the Customer to identify remaining action items, open or incomplete tasks, next steps and any pertinent maintenance responsibilities.
- Work with the Customer for a post-close support communication plan and workflow for future contacts.
- Identify dates for completing remaining tasks.
- Notify the Customer in writing upon confirmation that all outstanding Level 1 and Level 2 issues have been resolved and the Close Support period has concluded.

CUSTOMER RESPONSIBILITIES

- Report all System issues to Versaterm promptly during the Close Support period, including priority classification.
- Make available the appropriate Customer resources to assist Versaterm in reproducing, investigating, and verifying resolution of reported issues.
- Participate in a discussion with Versaterm to identify remaining action items, open or incomplete tasks, next steps and any pertinent maintenance responsibilities.
- Identify dates for completing remaining tasks.

PREREQUISITES

- Production Use of the System

VERSATERM DELIVERABLES

- Review and correct or provide workarounds and plan for corrections for any level 1 and level 2 issues.

TASK COMPLETION CRITERIA

The Close Support period is considered complete when

- The minimum two (2) week duration has elapsed, and all Level 1 and Level 2 issues reported during the Close Support period have been resolved; or the Customer has approved a Versaterm-proposed workaround or plan for corrections.
- Dates, mutually agreed upon by the Customer and Versaterm have been identified for resolving outstanding issues.
- The Customer has committed to creating a sustainment team
- Procedures for the Versaterm/Customer post-implementation relationship have been established.

Project Implementation Schedule

WBS	Name	Type	Start	Finish	Duration
1	Execute Contract	Milestone	2026-09-18	2026-09-18	1 day
2	Payment Milestones	Milestone	2027-01-29	2027-09-22	169 days
2.1	Payment Milestone #1 - SOW Task #2 Project Kickoff	Milestone	2027-01-29	2027-01-29	1 day
2.2	Payment Milestone #2 - SOW Task #6 Configure vCloud Servers	Milestone	2027-03-05	2027-03-05	1 day
2.3	Payment Milestone #3 - SOW Task #9 Conduct Implementation Workshop and Working Sessions	Milestone	2027-05-07	2027-05-07	1 day
2.4	Payment Milestone #4 - SOW Task #17 Ready for Training	Milestone	2027-07-14	2027-07-14	1 day
2.5	Payment Milestone #5 - SOW Task #20 Production Use	Milestone	2027-09-22	2027-09-22	1 day
2.6	ARR Start - SOW Task #6 Configure vCloud Servers	Milestone	2027-03-05	2027-03-05	1 day
3	Project Management	Deliverable	2026-10-05	2027-08-20	230 days
3.1	Project Management	Task	2026-10-05	2027-08-20	230 days
3.2	Kickoff	Task	2027-01-18	2027-01-22	5 days
4	Implementation Support	Deliverable	2027-01-25	2027-10-22	195 days
4.1	Implementation Support	Task	2027-01-25	2027-10-22	195 days
4.2	Implementation Assistance (non-billable)	Task	2027-01-25	2027-10-22	195 days
5	Networking	Deliverable	2026-09-21	2026-11-13	40 days
5.1	AWS Connectivity	Task	2026-09-21	2026-11-13	40 days
5.2	Technical scoping (ports, connectivity, etc)	Task	2026-09-21	2026-10-02	10 days
5.3	AWS Connectivity for RPAs (For MJ implementations)	Task	2026-09-21	2026-10-09	15 days
6	Cloud Tenant Configuration	Task	2026-10-05	2027-01-29	85 days
6.1	Create Tenant Foundation	Task	2026-10-05	2026-10-09	5 days
6.2	Cloud Tenant Service Config	Task	2026-10-12	2026-10-16	5 days
6.3	Create Attachment S3 environment/Redis/Database	Task	2026-10-19	2026-10-23	5 days
6.4	Review SFTP based Interfaces and request S3/SFTP areas	Task	2027-01-25	2027-01-29	5 days
7	Implementation Preparation	Task	2027-01-25	2027-02-19	20 days
7.1	Complete Interface Scoping	Task	2027-01-25	2027-02-05	10 days
7.2	Schedule Interface Development	Task	2027-02-08	2027-02-12	5 days
7.3	Provide Initial GIS Data	Task	2027-01-25	2027-02-19	20 days
7.4	Provide Initial Configuration Data	Task	2027-01-25	2027-02-12	15 days
7.5	Provide Technical Requirements	Task	2027-01-25	2027-01-29	5 days
8	Build Test, Trn and Prod Environments	Deliverable	2027-01-25	2027-02-26	25 days
8.1	Create Databases	Task	2027-01-25	2027-01-29	5 days
8.2	Configure Application, AD	Task	2027-01-25	2027-02-12	15 days
8.3	Open/configure required network ports/validation	Task	2027-02-15	2027-02-19	5 days
8.4	Prepare a Configuration Lab	Task	2027-02-08	2027-02-26	15 days

8.5	Checkout Dev/Test, Trn and Prod Envs	Task	2027-02-15	2027-02-26	10 days
9	GIS	Deliverable	2027-02-22	2027-05-04	52 days
9.1	Configure VGI	Task	2027-02-22	2027-02-26	5 days
9.2	Load initial GIS files	Task	2027-03-01	2027-03-12	10 days
9.3	Test and Refine GIS	Task	2027-03-15	2027-05-04	37 days
10	Implementation / Configuration	Deliverable	2027-01-25	2027-04-30	70 days
10.1	Scoping Sessions	Task	2027-01-25	2027-03-05	30 days
10.2	Scoping Workshop	Task	2027-02-08	2027-02-12	5 days
10.3	Apply system configurations to Prod environment	Task	2027-03-01	2027-04-02	25 days
10.4	Implementation Sessions	Task	2027-03-01	2027-04-09	30 days
10.5	Implementation Workshop	Task	2027-04-19	2027-04-23	5 days
10.6	Agency Assignments	Task	2027-01-25	2027-04-30	70 days
11	Interfaces	Deliverable	2027-02-22	2027-05-27	69 days
11.1	Interface Configuration	Deliverable	2027-02-22	2027-04-16	40 days
11.2	County JMS Arrest Transfer	Deliverable	2027-02-22	2027-03-09	12 days
11.2.1	Provide Connectivity	Task	2027-02-22	2027-02-26	5 days
11.2.2	Install and test interface	Task	2027-03-01	2027-03-05	5 days
11.2.3	Informing customer of testing results (attach email) Customer testing complete and ready for production	Task	2027-03-08	2027-03-08	1 day
11.2.4	(attach email)	Task	2027-03-09	2027-03-09	1 day
11.3	KARPEL	Deliverable	2027-03-10	2027-03-25	12 days
11.3.1	Provide Connectivity	Task	2027-03-10	2027-03-16	5 days
11.3.2	Install and test interface	Task	2027-03-17	2027-03-23	5 days
11.3.3	Informing customer of testing results (attach email) Customer testing complete and ready for production	Task	2027-03-24	2027-03-24	1 day
11.3.4	(attach email)	Task	2027-03-25	2027-03-25	1 day
11.4	Mugshot Interface	Deliverable	2027-03-26	2027-04-12	12 days
11.4.1	Provide Connectivity	Task	2027-03-26	2027-04-01	5 days
11.4.2	Install and test interface	Task	2027-04-02	2027-04-08	5 days
11.4.3	Informing customer of testing results (attach email) Customer testing complete and ready for production	Task	2027-04-09	2027-04-09	1 day
11.4.4	(attach email)	Task	2027-04-12	2027-04-12	1 day
11.5	Peregrine vRMS API	Deliverable	2027-03-26	2027-04-07	9 days
11.5.1	Provide Connectivity	Task	2027-03-26	2027-03-26	1 day
11.5.2	Provide vRMS API credentials	Task	2027-03-29	2027-03-29	1 day
11.5.3	Install and test interface	Task	2027-03-30	2027-04-05	5 days
11.5.4	Informing customer of testing results (attach email) Customer testing complete and ready for production	Task	2027-04-06	2027-04-06	1 day
11.5.5	(attach email)	Task	2027-04-07	2027-04-07	1 day
11.6	Pragmatica vRMS API	Deliverable	2027-03-26	2027-04-07	9 days
11.6.1	Provide Connectivity	Task	2027-03-26	2027-03-26	1 day
11.6.2	Provide vRMS API credentials	Task	2027-03-29	2027-03-29	1 day
11.6.3	Install and test interface	Task	2027-03-30	2027-04-05	5 days

11.6.4	Informing customer of testing results (attach email)	Task	2027-04-06	2027-04-06	1 day
11.6.5	Customer testing complete and ready for production (attach email)	Task	2027-04-07	2027-04-07	1 day
11.7	eCitation to Court Upload	Deliverable	2027-04-08	2027-04-23	12 days
11.7.1	Provide Connectivity	Task	2027-04-08	2027-04-14	5 days
11.7.2	Install and test interface	Task	2027-04-15	2027-04-21	5 days
11.7.3	Informing customer of testing results (attach email)	Task	2027-04-22	2027-04-22	1 day
11.7.4	Customer testing complete and ready for production (attach email)	Task	2027-04-23	2027-04-23	1 day
11.8	ADOT Crash Reporting Interface	Deliverable	2027-04-26	2027-05-11	12 days
11.8.1	Provide Connectivity	Task	2027-04-26	2027-04-30	5 days
11.8.2	Install and test interface	Task	2027-05-03	2027-05-07	5 days
11.8.3	Informing customer of testing results (attach email)	Task	2027-05-10	2027-05-10	1 day
11.8.4	Customer testing complete and ready for production (attach email)	Task	2027-05-11	2027-05-11	1 day
11.9	CARFAX Interface	Deliverable	2027-05-12	2027-05-27	12 days
11.9.1	Provide Connectivity	Task	2027-05-12	2027-05-18	5 days
11.9.2	Install and test interface	Task	2027-05-19	2027-05-25	5 days
11.9.3	Informing customer of testing results (attach email)	Task	2027-05-26	2027-05-26	1 day
11.9.4	Customer testing complete and ready for production (attach email)	Task	2027-05-27	2027-05-27	1 day
12	Data Conversion	Deliverable	2027-01-25	2027-06-18	105 days
12.1	Data Source Review	Task	2027-01-25	2027-01-29	5 days
12.2	Develop and provide specifications, load programs	Task	2027-02-01	2027-02-19	15 days
12.3	Field Mapping Sessions	Task	2027-02-22	2027-03-05	10 days
12.4	Conversion support	Task	2027-03-08	2027-06-18	75 days
12.5	Develop legacy extracts	Task	2027-03-08	2027-04-02	20 days
12.6	Initial Data extraction and loading iterations	Task	2027-04-05	2027-04-30	20 days
12.7	Data Extraction and Loading Iterations	Task	2027-05-03	2027-06-11	30 days
12.8	Final Data Conversion Run	Task	2027-06-14	2027-06-18	5 days
13	Functional Acceptance Testing	Deliverable	2027-04-16	2027-06-02	34 days
13.1	Provide Initial Acceptance Test Plan	Task	2027-04-16	2027-04-16	1 day
13.2	Finalize Acceptance Test Plan	Task	2027-04-26	2027-05-07	10 days
13.3	Conduct Acceptance Testing	Task	2027-05-28	2027-06-01	3 days
13.4	Attach functional acceptance testing acceptance email	Task	2027-06-02	2027-06-02	1 day
14	Configure interfaces in Test and Training Environments (as needed)	Task	2027-06-03	2027-06-16	10 days
15	Training	Deliverable	2027-03-22	2027-09-07	122 days
15.1	Prepare for vGIS Training	Task	2027-03-22	2027-03-26	5 days
15.2	vGIS Training (webinar)	Task	2027-03-29	2027-03-29	1 day
15.3	Prepare for DB Internals Training	Task	2027-03-29	2027-04-02	5 days
15.4	Database Internals Training	Task	2027-04-05	2027-04-05	1 day

15.5	Train the Trainer Training	Deliverable	2027-04-05	2027-07-06	67 days
15.5.1	Prepare TTT Scenarios	Task	2027-04-05	2027-04-16	10 days
15.5.2	Finalize TTT Scenarios	Task	2027-04-26	2027-04-30	5 days
15.5.3	Prepare TTT Course	Task	2027-05-03	2027-05-07	5 days
15.5.4	RMS TTT	Task	2027-06-16	2027-07-02	13 days
15.5.5	MRE TTT	Task	2027-07-05	2027-07-06	2 days
15.6	Ready for Training	Milestone	2027-07-07	2027-07-07	1 day
15.7	Agency End User Training Prep	Task	2027-07-07	2027-08-03	20 days
15.8	Agency End User Training	Task	2027-08-04	2027-09-07	25 days
16	Production Cutover and Close Support	Deliverable	2027-09-01	2027-10-05	25 days
16.1	Prepare Desktops and Mobile Computers	Task	2027-09-08	2027-09-21	10 days
16.2	Prepare Production Cutover Plan	Task	2027-09-01	2027-09-14	10 days
16.3	Final Production Preparation	Task	2027-09-08	2027-09-14	5 days
16.4	Update Test and Training with Prod Configurations	Task	2027-09-08	2027-09-08	1 day
16.5	Production Cutover	Deliverable	2027-09-15	2027-09-15	1 day
16.6	On Site Cutover Support	Task	2027-09-15	2027-09-21	5 days
16.7	Production Close Support	Task	2027-09-22	2027-10-05	10 days

RMS INTERFACES	2
COUNT JMS ARREST TRANSFER.....	2
ARPEL INTERFACE	6
MUGS OT INTERFACE	8
VRMS API - PEREGRINE	1
FILEON PROPERT EXPORT.....	1
ECITATION TO COURT UPLOAD.....	1
ADOT CRAS INTERFACE	16
CARFAX.....	19
PRAGMATICA DATA EXTRACT	22

RMS INTERFACES

The RMS interfaces have been divided into 2 categories:

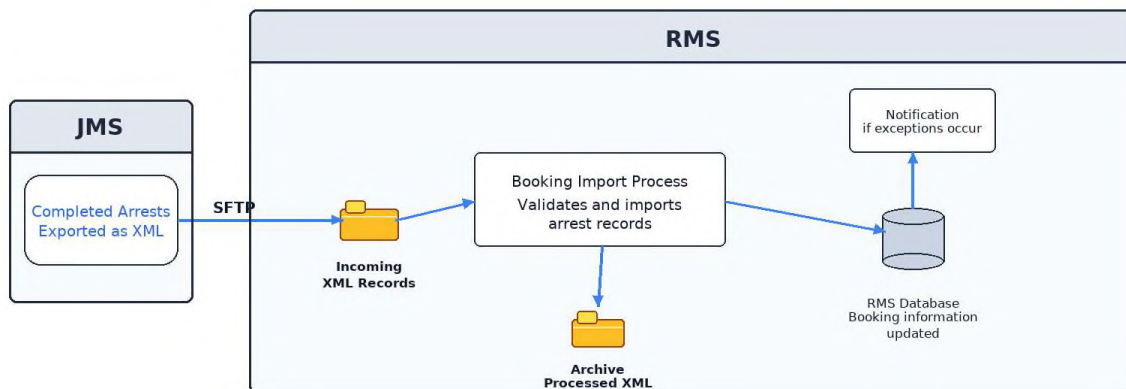
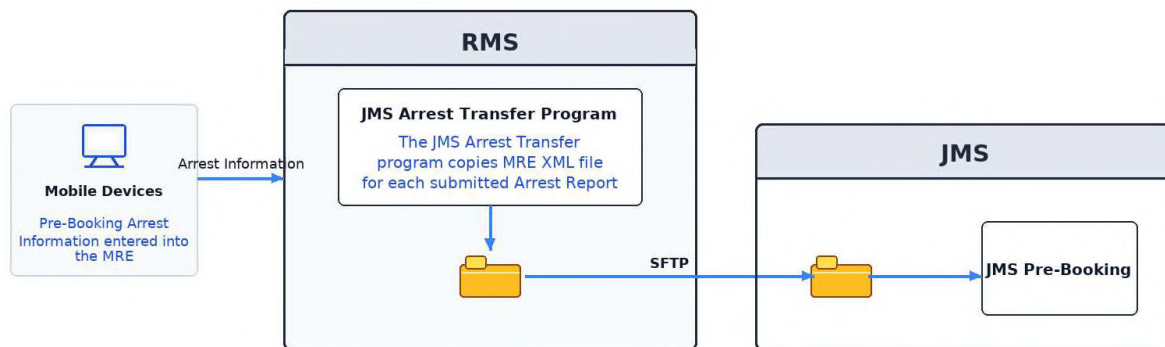
Required for Production Cutover

Not Required for Production Cutover

The following table lists interfaces along with the category they belong to:

Interface	Category
County JMS Transfer	Required for Production Cutover
Karpel (PBK)	Not Required for Production Cutover
Mugshot	Required for Production Cutover
vRMS API (Peregrine)	Required for Production Cutover
NCIC/JWI	Required for Production Cutover
eCitation to Court Upload	Required for Production Cutover
ADOT Crash Report	Required for Production Cutover
CARFAX Accident Data Unload	Required for Production Cutover
Pragmatica Data Extract	Required for Production Cutover

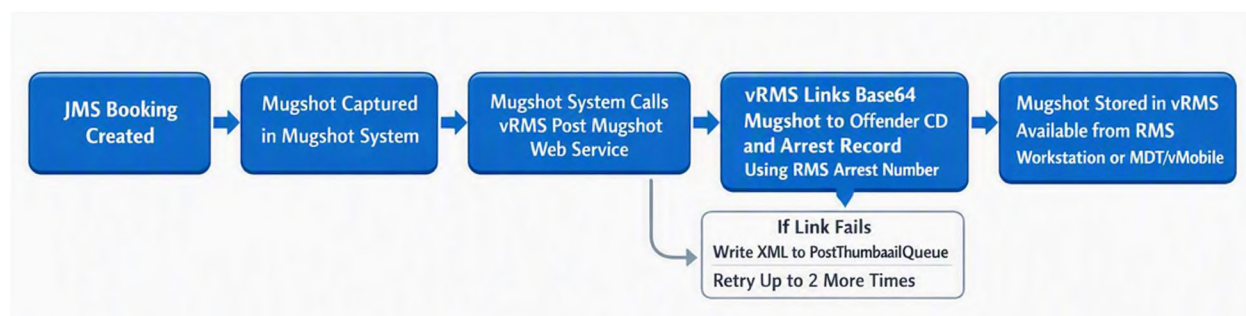
COUNT JMS ARREST TRANSFER

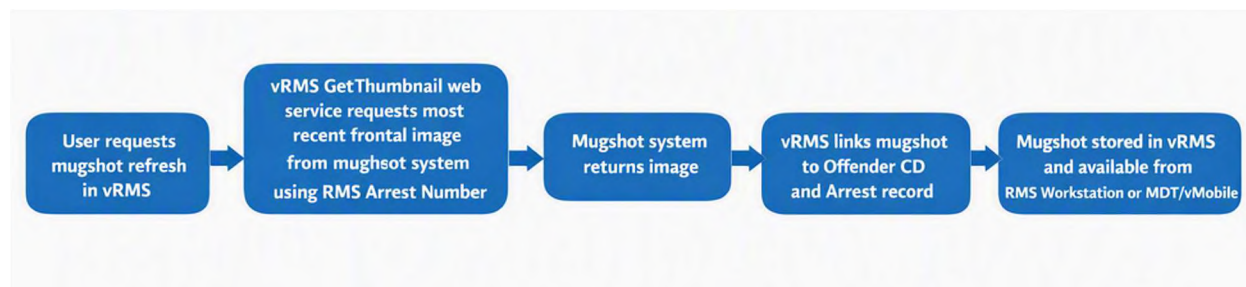


ARPEL INTERFACE



MUGS OT INTERFACE





DATA FORMAT REQUIREMENTS

INTERFACE TESTING

FUNCTIONAL AND COMPLETENESS TEST

OPERATIONAL TESTS

PERFORMANCE TESTS

EXCEPTION TESTS

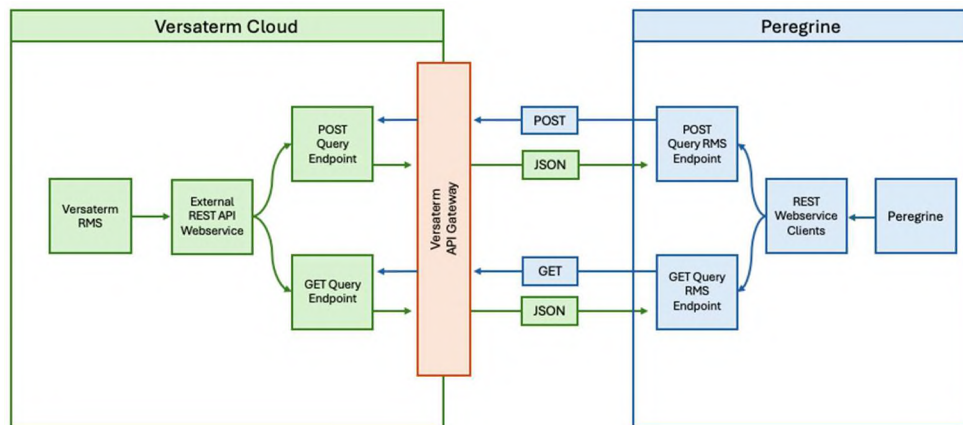
DATA INTEGRITY TESTS

RESPONSIBILITIES

CUSTOMER RESPONSIBILITIES

VERSATERM RESPONSIBILITIES

VRMS API - PEREGRINE



RMS CAD Call

RMS Records

Customer

ACCEPTANCE TESTING

○

A Customer

○

DATA INTEGRITY TESTING

CUSTOMER RESPONSIBILITIES

Customer

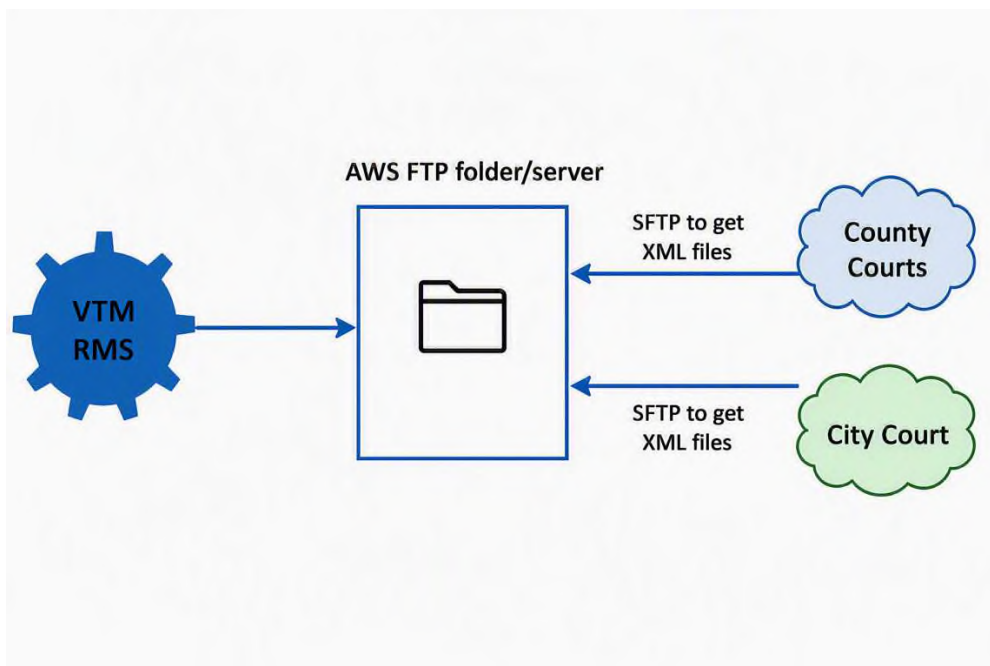
Customer

VERSATERM RESPONSIBILITIES

PEREGRINE RESPONSIBILITIES

FILEON PROPERT EXPORT

ECITATION TO COURT UPLOAD



The can be made available on all servers (production and test).

ADOT CRAS INTERFACE

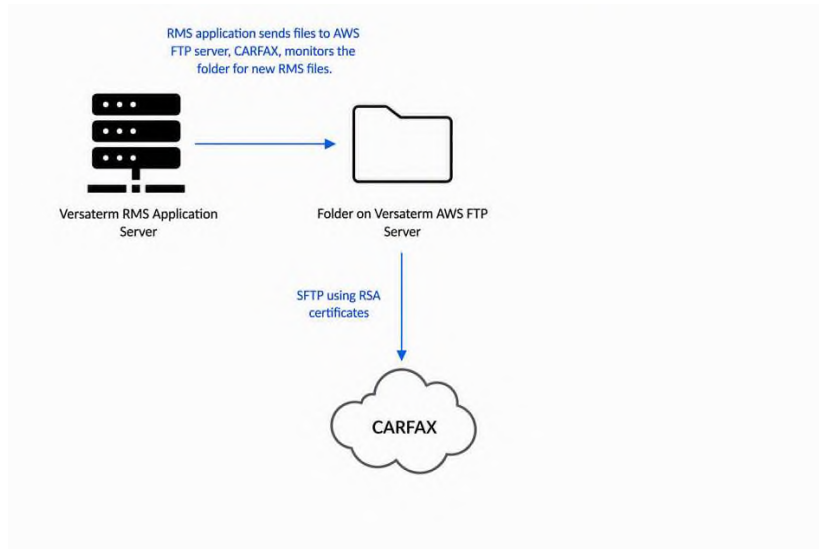
BUSINESS CONTINUITY

This interface will be available regardless of which availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones, the RMS will reconnect automatically to for this interface to submit the XML files.

DATA INTEGRITY TESTING

Enable and configure required networking to allow the vRMS hosted in vCloud to connect to the required end point, via the local Customer network.

CARFAX



INTERFACE TESTING

FUNCTIONAL AND COMPLETENESS TEST

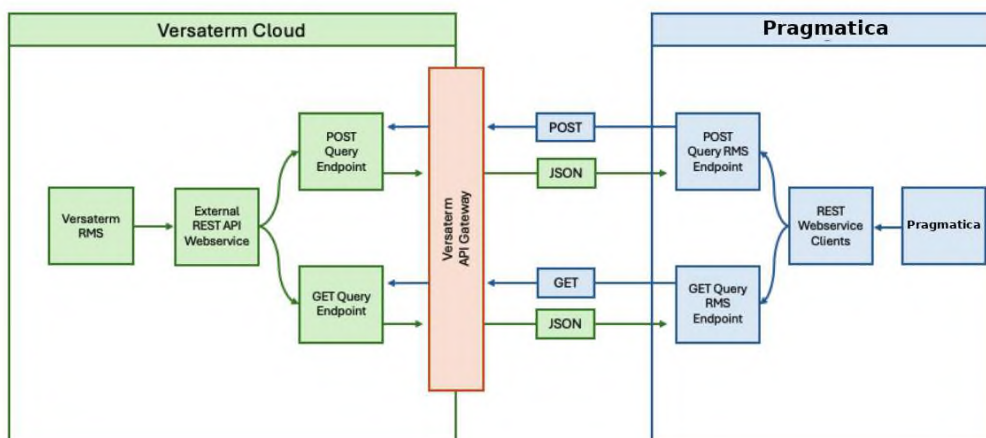
OPERATIONAL TESTS

PERFORMANCE TESTS

EXCEPTION TESTS

DATA INTEGRITY TESTS

PRAGMATICA DATA EXTRACT



RMS CAD Call

RMS Records

Customer

ACCEPTANCE TESTING

○

A Customer

○

DATA INTEGRITY TESTING

CUSTOMER RESPONSIBILITIES

Customer

Customer

VERSATERM RESPONSIBILITIES

PRAGMATICA RESPONSIBILITIES

ACCEPTANCE TEST PLAN

TABLE OF ONTENTS

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2. TESTING STRATEGY	—
3. TEST SCHEDULE	
4. TEST ENVIRONMENT	—
5. DEFECT MANAGEMENT	—
6.ROLES AND RESPONSIBILITIES	—

1. PURPOSE

The purpose of this Functional Acceptance Test Plan is to define the approach for conducting Functional Acceptance Testing of the Versaterm System.

Functional Acceptance Testing provides the Customer with the opportunity to verify that the configured System, including applicable interfaces, operates in accordance with the requirements of the Contract, the Statement of Work, and applicable system documentation. Functional Acceptance Testing also provides the Customer with the opportunity to verify that the System performs in accordance with the contract.

Functional Acceptance Testing is conducted following completion of the Configuration Phase and prior to End-User Training. It serves as the formal verification that the configured System is ready to proceed to the next phase of the implementation.

2. TESTING STRATEGY

Versaterm will prepare an initial Acceptance Test Plan identifying the functional test scenarios to be executed during Functional Acceptance Testing. The Acceptance Test Plan will be reviewed with the Customer and finalized based on Customer input. The Customer may supplement the Acceptance Test Plan with additional agency-specific test scenarios.

The Acceptance Test Plan will verify the functionality of the configured System, including applicable interfaces, approved software enhancements, and operational workflows. Test scenarios will be executed using representative operational data and business processes to confirm that the System operates in accordance with the requirements of the Contract, the Statement of Work, and applicable system documentation.

Functional Acceptance Testing is a collaborative process. The Customer will execute the agreed-upon test scenarios while Versaterm facilitates the testing process, investigates reported defects, implements confirmed corrections, and supports retesting as required.

Defects identified during Functional Acceptance Testing will be documented, corrected, and retested until the testing activities are complete.

3. TEST SCHEDULE

Functional Acceptance Testing will be conducted following completion of the Configuration Phase and prior to End-User Training, in accordance with the Project Implementation Schedule.

Functional Acceptance Testing is scheduled as a three (3) consecutive Business Day on-site activity. The Customer will ensure that designated testing personnel are available throughout the scheduled testing period.

Versaterm will facilitate execution of the Acceptance Test Plan, investigate reported defects, implement confirmed corrections where practical during the testing period, and support retesting of corrected items.

Should significant issues be identified that materially impact completion of Functional Acceptance Testing, Versaterm and the Customer will mutually determine any adjustments required to the Project Implementation Schedule.

4. TEST ENVIRONMENT

Functional Acceptance Testing will be conducted using the configured System in the production environment.

Prior to the start of Functional Acceptance Testing, the System shall be configured in accordance with the Statement of Work, including applicable interfaces. The Acceptance Test Plan shall be finalized, and the Customer shall provide representative operational data required to execute the test scenarios.

The Customer is responsible for ensuring that designated testing workstations, network connectivity, and other required equipment are available and operational throughout Functional Acceptance Testing.

5. DEFECT MANAGEMENT

Errors identified during Functional Acceptance Testing shall be documented by the Customer and reported to Versaterm. Each reported error should include sufficient information to allow Versaterm to reproduce and investigate the issue.

Versaterm will review each reported error to confirm the reported behavior, determine the cause, and assign the appropriate Error Level in accordance with the definitions below. Confirmed Application Software errors will be corrected by Versaterm in accordance with the Contract and Statement of Work. Errors resulting from Customer configuration, Customer data, third-party systems, or the Customer's operating environment will be reviewed jointly by Versaterm and the Customer to determine the appropriate corrective action.

Following implementation of a confirmed correction, the Customer will re-execute the applicable Acceptance Test Plan scenario to verify satisfactory resolution.

Errors identified during Functional Acceptance Testing will be classified using the following Error Levels:

Error Level 1 Critical errors that are defined as Loss of Data, Corruption of Data, or Loss of Productive Use of the Application.

Error Level 2 Non-critical errors defined by incomplete operation of a single system application where a procedural workaround is available, and productive use of the system is impacted.

Err r L 3 Cosmetic errors that are defined as configuration issues that can be corrected by Customer, data integrity issues that must be addressed by Customer, Help file documentation errors, or enhancements that can be made in the future to the presently released version.

Err r L 4 Minor issue relating to a specific component of the System that does not affect the productive use of the System or component. Examples include a field that is right-justified rather than left-justified or the usage of an inconsistent font.

6.ROLES AND RESPONSIBILITIES

VERSATERM RESPONSIBILITIES

Prepare the initial Acceptance Test Plan.

Review and finalize the Acceptance Test Plan with Customer input.

Facilitate execution of the Acceptance Test Plan during Functional Acceptance Testing.

Review and investigate reported errors.

Correct confirmed Application Software errors in accordance with the Contract and Statement of Work.

Support Customer retesting of corrected errors.

CUSTOMER RESPONSIBILITIES

Review and provide input to the Acceptance Test Plan.

Identify any additional agency-specific test scenarios, if desired.

Execute the Acceptance Test Plan.

Report errors identified during Functional Acceptance Testing.

Verify correction of reported errors by re-executing the applicable test scenarios.

Provide written notification upon completion of Functional Acceptance Testing.

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TRAINING OVERVIEW

This document describes Versaterm's recommended training approach for the implementation of the Versaterm applications. The training program is designed to prepare Customer trainers, system administrators, and end users to confidently operate and support the System following production deployment.

Knowledge transfer begins throughout the implementation as designated Customer project team members participate in working sessions and the on-site implementation workshop. Through these activities, the Customer project team becomes familiar with the configured System, validates operational workflows, and develops the knowledge needed to support user training and ongoing system administration.

Building upon this foundation, Versaterm delivers instructor-led trainer training using the configured System and training environment. These sessions provide the Customer's designated trainers and administrators with the knowledge and practical experience needed to conduct end-user training and support the System following implementation.

Following trainer training, the Customer delivers end-user training using the configured training environment and training materials provided by Versaterm. Versaterm recommends delivering end-user training as close to the production deployment date as practical to maximize

knowledge retention and ensure users are prepared to immediately operate the System upon go-live.

The course outlines contained in this document describe the standard training courses available. Course content, duration, and delivery may be tailored during the Project to reflect the Customer's configured solution, operational workflows, deployment scope, and training requirements.

1.1 TRAINING FACILITIES

The Customer is responsible for providing one or more training facilities that supports the delivery of trainer and end-user training. Each facility should be configured prior to the start of the training and provide access to the configured System.

During the scheduled training period, each training facility should remain dedicated to Versaterm training and should not be repurposed or reconfigured between training sessions.

Unless otherwise agreed, each training facility should provide:

- Up to twenty (20) dedicated workstations that meet the minimum System requirements.
- One additional workstation for the training instructor.
- Network connectivity between the workstations and the vCloud environment.
- A projector or display that is visible to all attendees and capable of displaying the contents of the instructor's workstation, including multiple monitors
- A whiteboard or equivalent presentation surface.
- A network printer, if required.
- Seating and workspace appropriate for the planned class size

Each training facility should meet the Customer's applicable security requirements, including any CJIS requirements, where applicable.

1.2 TRAINING APPROACH

Versaterm provides trainer training for each of the courses described in this document. Customer trainers may attend one or more courses based on their assigned training responsibilities, although agencies commonly designate a small group of trainers who attend the full curriculum to support end-user training across multiple user groups.

Following trainer training, the Customer, with guidance from Versaterm, develops the end-user training plan by identifying the affected user groups and determining which courses are required for each role. Depending on their job responsibilities, end users may attend one or more training courses.

The end-user training plan typically includes:

Identify user groups – Identify the various user groups that will require training (for example, call-takers, dispatchers, supervisors, mobile users, and system administrators).

Assign training courses – Determine the appropriate training courses for each user group based on their responsibilities.

Develop the training schedule – Establish the training schedule, class sizes, facilities, instructors, and logistics to support production deployment.

Versaterm recommends delivering end-user training within five (5) weeks of the planned production deployment date. This just-in-time approach maximizes knowledge retention and allows users to immediately apply what they have learned when the System goes live.

TRAINING COURSES

This section describes the standard training courses available for the System. Each course includes the intended audience, recommended duration, delivery approach, and learning objectives.

During implementation, the Customer and Versaterm will determine which training courses are applicable based on the configured solution, user roles, and operational requirements. Depending on their responsibilities, users may attend one or more training courses.

Course content, duration, and delivery may be tailored during implementation to reflect the Customer's configured System, operational workflows, and training requirements.

2.1 RMS INTRODUCTION (RMS INTRO)

Course Duration	½ day
Prerequisite	None
Intended Audience	General audience is users who will retrieve information from the System, use the built-in System mail facility and other tools such as notepad and assets.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Understand the organization (menu layout) of the System

	B. Know how to use the query functionality within the System including property C. Understand how information is related and how to print a hardcopy D. Know how to use the browse (ad-hoc query) facility E. Know how to use System Mail (attach Mail, etc.) F. Know how to use the NCIC interface G. Know how to use the notepad facility H. Know how to use the online help facility
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2.2 RECORDS DATA-ENTR (RMS DATAENTR)

Course Duration	Up to 2 days
Prerequisite	None
Intended Audience	General audience is users who will be responsible for entering a case and subsequent maintenance of case(s). Typically, this course is designed for the records section/division personnel.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to enter and maintain events (general offense reports, accidents, tickets, street checks, flag records) B. Know how to retrieve a cleared complaint to start a report C. Know how to access NCIC for query and maintenance D. Know how to index entities (persons, vehicles, businesses) to events E. Know how to relate text (including word-processor functions), detail pages, clearance blocks to events F. Know how to maintain summons and charges G. Know how to maintain the criminal description record H. Know how to enter property (stolen, lost, etc.)

	I. Know how to enter and maintain follow-ups (and related text) J. Know how to maintain master person name information (including particulars, aliases) K. Know how to maintain vehicle information (including particulars) L. Know how to maintain business information (including particulars, aliases) M. Know how to scan documents, attach scanned documents and/or files to a report, and how to retrieve and view scanned images and attachments N. Know how to use the Notepad facility to maintain or view lists O. Know how to run reports P. Understand workflow management concepts through discussion
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2.3 DETECTIVE (RMS DET)

Course Duration	1 day
Prerequisite	None
Intended Audience	General audience is users who will add and update cases, add supplemental reports, clear cases and manage follow up reports.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to add, retrieve and update General Offense (GO) reports B. Know how to add a supplemental to the General Offense (GO) report C. Know how to index entities (persons, vehicles, businesses) to events and understand the implications of the master name file including SOUNDEX D. Know how to relate text (including word-processor functions), detail pages, and clearance blocks to events E. Know how to assign cases (index follow-ups and related text)

	F. Know how to view/read a case online and how to print it G. Know how to manage workflow queues H. Understand workflow management concepts through discussion
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2.4 AIL MANAGEMENT/ ARRESTS (RMS AR)

Course Duration	Up to 2 days
Prerequisite	None
Intended Audience	General audience are Corrections Officers and users who will maintain arrest information including criminal description.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to transcribe an arrest via the data transcription queue B. Know how to update an arrest including charges and narratives C. Know how to index a person to the arrest understanding implications of the master name file including SOUNDEX D. Understand how the information is merged with the General Offense (GO) report E. Understand how charges are maintained F. Know how to add/update Booking records G. Understand the JMS/Livescan interface H. Know how to manage the JMS Cell List I. Know how to manage Inmate Movements J. Know how to manage Inmate Property and Medical records K. Understand how Inmate releases are performed

2.5 PROPERT EVIDENCE (RMS PROP)

Course Duration	Up to 2 days
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Prerequisite	None
Intended Audience	General audience is users who process evidence and other items stored in property rooms.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to enter property into the System's property module and understand property item categories B. Know how to record location, owner/finder information C. Know how disposal process works D. Know how to record evidence continuity (chain-of-custody) records E. Know how to use bar-coding F. Understand available property reports G. Know how to perform group (batch) transactions

2.6 DATA TRANSCRIPTION UEUE (RMS TRANS)

Course Duration	Up to ½ day
Prerequisite	None
Intended Audience	General audience is Records supervisors who will then instruct/train other Records personnel on transcribing a report sent from the Mobile Data Computer (MDC)
Course Approach	Reports entered on the mobile report entry (MRE) will be used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to select a report from the transcription queue B. Know how to merge a General Offense (GO) report C. Know how to transcribe a report D. Know how to retrieve a backup copy from the MDC

2.7 RECORDS SUPERVISOR TRAINING (RMS SUP)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	General audience is users who are responsible for maintaining table codes, security, User access, run reports, and other Records functions.
Course Approach	Due to the material to be covered, this course will be topic-based, as opposed to scenario-based. Most records related modules and functions will be demonstrated although trainees may be provided with hands-on activities and functions to complete during the training session. The trainees for this course are expected to be familiar with personal computers and the principles of a Records management system. Maximum of 1 person per workstation.
Course Objectives	The trainees will: A. Know how to maintain the System's Configuration record B. Know how to maintain the System's various translation code tables

	C. Know how to maintain the System's street files D. Know how to run the various reports E. Know how to run and interpret NIBRS edit reports F. Know how to run the NIBRS extract Software module G. Become familiar with Versaterm's problem reporting procedures, and be equipped to perform first-level System problem analysis
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2.8 MOBILE REPORT ENTR TRAINING (MRE)

Course Duration	1-2 days
Prerequisite	General knowledge of the System and report entry.
Intended Audience	General audience is users who will use the Mobile Data Terminal module (vMDT) and the Mobile Report Entry module (vMRE) on a Mobile Data Computer (MDC) on a day-to-day basis. Supervisors and/or System administrators are expected to be in this course. This course will not train on data entry but will illustrate entering reports on MDCs versus desktop workstations.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective, because familiar and realistic situations are used. This course will permit hands-on and “refreshers” as necessary (i.e., much of it is iterative and includes practice sessions). Maximum of 2 trainees per Mobile Data Computer (MDC) or desktop workstations.
Course Objectives	The trainee will: A. Know how to sign on and sign off vMDT (Mobile Data Terminal) B. Know how to perform NCIC and System Queries for persons, vehicles and property C. Know how to query addresses D. Know how to lock/unlock the vMDT E. Know how to send messages to other vMDTs F. Know how to review logs

	G. Know how to enter a general offense (GO) reports and GO Crash reports in Mobile Report Entry (vMRE) H. Know how to query a name from the System and pre-fill into a report I. Know how to enter street checks (field contact reports/interviews) J. Know how to enter property K. Know how to add supplemental or Follow-Up reports L. Know how to send the report to the System's Report Approval queue for review and approval M. Know how to manage the System's Report Approval queue from the MRE N. Know how to use the smartphone scanning app and use the resulting data
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2.9 MRE ADMINISTRATOR TRAINING (MRE ADMIN)

Course Duration	0.5 day
Prerequisite	None
Intended Audience	Administrators responsible for setting up and maintaining the Mobile Report Entry (MRE).
Course Approach	The trainer will “walk through” the various System and programming components of the MRE. Emphasis will be placed on the Equipment and Software Configuration. One installed vMRE and vRMS is required.
Course Objectives	The trainees will: A. Know how to Configure and customize the MRE using the Mobile Configuration Application (MCA) B. Know how to generate the MRE installation setup files using the MCA C. Know how to install the vMRE installation on MDCs

OVERVIEW

Versaterm provides documentation to support the implementation, administration, training, and ongoing use of the System. Documentation is intended to assist Customer administrators and end users with configuring, operating, and maintaining the System throughout its lifecycle.

Documentation is provided electronically and includes the guides applicable to the Customer's licensed solution and configured functionality. As the System is configured during implementation, Versaterm will identify the documentation relevant to the Customer's implementation and make it available to the Customer.

Documentation may include, as applicable:

- User guides
- Administrator guides
- Training guides
- Installation guides
- Release notes

Following implementation, updated base product documentation and release notes are provided with major product releases to reflect new functionality, enhancements, and significant product changes. If desired, the Customer will be responsible for tailoring the base documentation with any agency specific configurations.

Customer Supplied Hardware and Third Party Software

CONTENTS

- Overview 2**
- Client Device Recommendations 3**
 - 1.1 RMS Client Computers 3
 - 1.2 Mobile Data Computers (with Maps)..... 4
 - 1.3 vMobile 5
- 2 Hardware Peripherals 6**
 - 2.1 Property Bar Code Label Printers..... 6
 - 2.2 Property Bar Code Scanners 6
 - 2.3 Drivers License Card Swipe Readers
 - 2.4 Document Scanners

OVERVIEW

This document identifies the minimum client and peripheral specifications to be supplied by the Customer, to run the Application Software and adhere to the System Performance and Availability Standards specified in the Contract.

The specifications included in this document are subject to change to support future Product Upgrades. When applicable, Versaterm will provide the Customer with updated specifications and recommendations.

CLIENT DEVICE RECOMMENDATIONS

The following provides the recommended workstation configurations:

1.1 RMS CLIENT COMPUTERS

Computer	An IBM-compatible computer with full Windows Desktop Operating System (for desktop client installations)
Peripherals	Mouse or pointing device, COMM port, USB ports
Video	1280 x 800 resolution display monitor
Operating System	Microsoft Windows 10, 11
Memory	4 GB
CPU	Intel or AMD 2 GHz dual core processor 1 GHz or faster 64-bit (x64) processor
Hard Drive	64 GB
Network Interface Card (NIC)	100 Mbps Ethernet network adaptor
Other Software	Adobe Acrobat Reader, HTML5 supported browser (such as Microsoft Edge, Safari, Firefox, or Chrome). Note that Chrome is the primary browser used by Versaterm and the only browser officially certified.
Usage	Browser-based vRMS (WebRMS) Other non-Versaterm installations (e.g., Web browser, email, word processor, etc.)

1.2 MOBILE DATA COMPUTERS (WITH MAPS)

Computer	An IBM-compatible computer with full Windows Desktop Operating System
Peripherals	Mouse or pointing device, COMM port, USB ports Touchscreen recommended
Video	Minimum: 1 24 x 6 resolution, 24-bit color depth. MDT can be configured for displaying on non-standard screen aspect ratios. Accelerated graphics card: 64 MB minimum 256 MB recommended, Shader Model 2. minimum, latest drivers
Operating System	Windows 1 (ver 2 4 or later) Windows 11 21H2 or later
Memory	Recommended: GB
CPU	Recommended: I5 or i - 2.5 GHz
Hard Drive	Recommended: GB
Other Software	HTML5 supported browser (such as Microsoft Edge, Safari, Firefox, or Chrome). Note that Chrome is the primary browser used by Versaterm and the only browser officially certified. .Net 4.5 Framework or higher Windows Media Player for Audio
Usage	Versaterm Mobile Data Terminal (MDT) installation (with the use of maps) Versaterm Mobile Report Entry (MRE) installation webRMS Other non-Versaterm installations (e.g., Web browser, email, word processor, etc.)

1.3 VMOBILE

Device	The vMobile application runs on Android and iOS. Devices must meet the following operating system requirements to run vMobile 2. . Android: version . or greater iOS: version 16. or greater
Additional requirements: VPN software to allow secure communication between the devices and the VMC server. Communication between devices and the VMC is through WebSockets on port 6 1 and HTTPS on port 1 16. Mobile Device Management software for deploying the application Server certificates may need to be installed on the device in order to establish a secure connection with the VMC server (IOS has strict certificate requirements. For more information see https://support.apple.com/en-ca/122).	

2 HARDWARE PERIPHERALS

2.1 PROPERTY BAR CODE LABEL PRINTERS

Description / Recommendation:

Smart Label Printer 42 (USB) from Seiko Instruments (or equivalent)
ebra LP2 44 or TLP2 44 (or equivalent)

Usage:

Bar code label printers are used in the Versaterm RMS Property sub-system to print bar code labels for in-custody items. They can also be used to print bar code labels for storage locations.

Note: Please refer to vConnect for the most up to date information on recommended property bar code label printers.

[vConnect Documentation and Downloads Information Sheets Bar Code Printing and Scanning Equipment](#)

2.2 PROPERTY BAR CODE SCANNERS

Description / Recommendation:

Wasp WCS3 CCD bar code scanner (corded)
ebra MC 3 (cordless)
Bluetooth -enabled scanner LS42 with STB 42 (cordless)

Usage:

Bar code scanners are used in the Versaterm RMS Property sub-system to read bar codes, typically when performing property control and evidence continuity group transactions. They are used to facilitate the retrieval of item information by bar code number.

Note: Please refer to vConnect for the most up to date information on recommended property bar code scanners.

[vConnect Documentation and Downloads Information Sheets Bar Code Printing and Scanning Equipment](#)

2.3 DRIVERS LICENSE CARD SWIPE READERS

Description / Recommendation:

Code Reader 14
MagTek Mini (USB) Swipe Reader (or equivalent)
MagTek Mini Port Powered RS-232
L-Tron 331 and 4 1 R
ESeek M-25 and M-26 readers (or equivalent)
Motorola DS45

Usage:

The Versaterm MRE and MDT support the use of both 2D and magnetic stripe readers to quickly enter person information. This is useful as users can perform quick person queries and prefill forms using driver s license information.

Note: Please refer to vConnect for the most up to date information on recommended card swipe readers.

[vConnect](#) [Documentation and Downloads](#) [Information Sheets](#) [Card Scanner-Reader Support](#)

2.4 DOCUMENT SCANNERS

Description / Recommendation:

No specific hardware recommendation

Usage:

Modern networked scanners are recommended to scan paper documents (using the native software that the scanner comes with). The Versaterm browser-based vRMS attachment functionality browses for a file (.PDF preferred, to enable preview) on the MS Windows operating system. The located file(s) can then be attached to events, entities, detail pages, property, or narrative text within the vRMS.

Note:

Please refer to vConnect for detailed information on how connect to and configure your network scanners.

R

This Exhibit contains the form to be used to track Change Orders made to the Agreement as agreed to by the Customer and Versaterm. It is understood by both parties that documenting changes in project status reports including, but not limited to, changes in schedule and staffing, as agreed to by both parties, do not require a Contract Change Log. Any change that has a financial impact must be documented using the form within this Exhibit.

Change Order Form

The following Change Order form is to be used when adding a new entries to the Change Control Log.

Change Order Identification			
Change Order Name		Change Order ID #	
Date Submitted		Priority/Impact (Low/Moderate/High/Critical)	
Description of Change			
Impact Assessment - List the project areas that will be affected by the change as well as the impacts on the schedule and budget.			
Areas Affected	Schedule Impact	Budget Impact	
Acceptance			
Customer Approved By			
Name	Title		
Date	Signature		
VERSATERM Approved By			
Name	Title		
Date	Signature		

EXHIBIT B.9

DATA CONVERSION PLAN

CONTENTS

O r

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2 C r S

2.1 Master name	- 5 -
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A d C r

OVERVIEW

The Customer intends to convert data from the following legacy data sources into the Versaterm RMS:

Master Names with Cautions from OnCall RMS
Warrants

The Customer will extract and transform data from its legacy systems into files that conform to Versaterm's data conversion file layout specifications. Versaterm will provide the applicable specifications and will run the data conversion loads into the Versaterm RMS conversion environment for validation purposes.

The conversion process will be iterative. Following each pre-production conversion load, Versaterm will make available warning/error reports and/or other conversion output as applicable. The Customer will review the converted data, validate data quality and field mapping, and correct any issues in the source data, extract logic, or transformed files. Updated files will then be provided to Versaterm for the next pre-production conversion load.

Unless otherwise agreed in writing, Versaterm will perform up to a maximum of five (5) pre-production conversion loads for each conversion type listed in this Exhibit. Additional pre-production conversion loads, if required, may be subject to additional fees through the applicable change order or other mutually agreed process.

Just prior to cutover to Production Use, Versaterm will perform the final production conversion load.

1 ATA CONVERSION STEPS

This section presents details for the specific tasks associated with converting the Customer's legacy data into the Versaterm RMS.

1.1 DATA SOURCE REVIEW

The Customer will provide Versaterm with information regarding the legacy data sources to be converted, including the applicable data tables, relevant data elements, and an approximation of the number of records intended for conversion.

The Customer will also provide sample extracts from the applicable legacy data sources, allowing Versaterm to review the data elements and contents with the Customer.

The purpose of this activity is to review and confirm the Data Conversion Plan, validate the available legacy data sources, and identify any known data considerations that may affect the conversion approach.

1.2 FIELD MAPPING SESSIONS

For the initial data conversion test run for each conversion type, the Customer will provide Versaterm with extract files containing representative sample data from the legacy system.

Versaterm will perform the initial pre-production conversion load using the files provided by the Customer. If the files fail basic technical validation checks, such as file structure, required fields, or formatting issues, Versaterm will provide feedback to the Customer. The Customer will correct the files and provide updated files for reprocessing.

Assuming the files pass basic technical validation, Versaterm will load the data into the Versaterm RMS conversion environment and provide the Customer with available warning/error reports and/or conversion output. The Customer will review the converted data, verify field mapping and data quality, and identify any required corrections to the source data, extract logic, or transformed files.

1.3 DATA EXTRACTION AND LOADING ITERATIONS

Versaterm will perform subsequent pre-production conversion loads using updated files provided by the Customer. The Customer will review the results of each load and make the required corrections to its source data, extract logic, or transformed files based on warning/error reports and/or validation of the converted information in Versaterm RMS.

The purpose of the iterative process is to improve the quality and completeness of the converted data prior to the final production load. The Customer's Project Team is expected to participate in validating converted data and providing feedback to the Customer's Data Conversion Team.

Unless otherwise agreed in writing, the pre-production conversion process is limited to a maximum of five (5) conversion loads for each conversion type:

Up to five (5) pre-production loads for Master Name Index conversion

Up to five (5) pre-production loads for Warrants conversion

The five-load maximum is intended to provide a reasonable iterative validation cycle. If additional pre-production loads are required due to data quality issues, extract changes, scope changes, late changes to mapping decisions, or other factors, additional fees may apply.

Versaterm is not responsible for correcting the Customer's legacy source data or for creating or maintaining the Customer's extract programs unless specifically identified elsewhere in the Statement of Work. The Customer remains responsible for correcting its source data, transformation logic, and supplied conversion files.

1.5 FINAL DATA CONVERSION LOAD

Once the Customer and Versaterm agree that the pre-production conversion results are ready for final conversion, Versaterm will schedule and perform the final production conversion load.

The Customer is responsible for providing final conversion files in the required Versaterm-supported format and in accordance with the agreed cutover schedule. Versaterm will load the final files into the Production RMS database.

2 ATA CONVERSION SCOPE

This section outlines the Versaterm data conversion load programs required for this Project.

The conversion process described in this exhibit applies independently to each conversion type identified below.

2.1 MASTER NAME

The goal of this data conversion is to convert person names with caution codes from the legacy system into the Versaterm RMS Master Name Index.

This data conversion process requires that a unique person identifier be provided for each person where available. The rules for building the Master Name Index and merging names will be discussed and determined as part of the data source review and field mapping process.

The following name records are planned to be included in the conversion:

Names that have a caution code in the legacy RMS

These records may have associated mugshots and/or electronic attachments included in the conversion, if identified as in scope and supported by the agreed conversion file specifications.

Versaterm will perform up to five (5) pre-production Master Name Index conversion loads. Additional pre-production loads may be subject to additional fees.

2.3 WARRANTS

The goal of this data conversion is to convert active Warrants (estimated at ~12,000) from the legacy system into the Versaterm RMS Warrant and Master Name Index.

As associated names are converted, the process will attempt to match with existing names in the Master Name Index. If the Master Name Index record was provided as part of the Master Name Index conversion, the person's unique identifier will be used to support matching. Otherwise, matching logic may be reviewed and adjusted during conversion testing to support the most accurate matching reasonably possible based on the data provided.

Versaterm will perform up to five (5) pre-production Warrant conversion loads. Additional pre-production loads may be subject to additional fees.

ASSUMPTIONS AND CONSTRAINTS

The Customer will provide conversion files in the format specified by Versaterm.

Versaterm will provide the applicable file layout specifications and guidance regarding the required conversion format.

Versaterm will perform the pre-production and final production conversion loads.

The Customer will validate converted data and correct source data, extract logic, transformation logic, and supplied files as required.

The pre-production conversion process is limited to a maximum of five (5) loads per conversion type, unless otherwise agreed in writing.

Additional pre-production loads, scope changes, late mapping changes, or significant data quality remediation may result in additional fees.

The final production conversion load is dependent on the Customer providing final conversion files in the agreed format and within the agreed cutover timeline.

Service Schedule Attachments

Mindbase Exhibits C.1 and C.2

EXHIBIT C-1

GENERAL TERMS — MINDBASE

PREAMBLE

These General Terms are attached to and form part of the Service Schedule for VCAD/VRM (the "Service Schedule") and incorporates by reference the terms and conditions of the Master Software and Services Agreement (the "MSA"). These General Terms govern Customer's access to and use of Mindbase, which is provided as part of Customer's VCAD/VRM subscription. The Mindbase subscription shall commence upon Provisioning and shall be co-terminus with the VCAD/VRM Service Schedule. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the MSA. In the event of a conflict between these General Terms and the MSA, these General Terms shall prevail to the extent of the inconsistency. In the event of a conflict between these General Terms and the Service Schedule, the General Terms shall prevail to the extent of the inconsistency.

1. DEFINITIONS

The following definitions apply to this Service Schedule and, where applicable, shall supersede any corresponding definitions in the MSA.

- (a) "Customer Contact Data" means data Versaterm collects from Customer, its Authorized Users, and their end users for business contact purposes.
- (b) For purposes of this Service Schedule, "Customer Data" as defined in the MSA is further clarified to exclude Customer Contact Data, Service Use Data, information from publicly available sources, Third-Party Data, and Versaterm Data.
- (c) "Non-Versaterm Content" means Customer or third-party software, services, content, and data that is not provided by Versaterm.
- (d) "Process" or "Processing" means any operation or set of operations performed on personal information or on sets of personal information, whether or not by automated means, such as collection, recording, copying, analyzing, caching, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction, erasure, or destruction.
- (e) "Service Use Data" means data generated by Customer's use of the Software and Subscription Services or by Versaterm's support of the Software and Subscription Services, including product performance and error information, activity logs, and date and time of use.

2. MODIFICATIONS

Versaterm may modify the Software and Subscription Services and any related systems, provided that such modifications do not materially degrade the functionality described in the

applicable Ordering Document. User Documentation for the Software may be updated by Versaterm to reflect any such modifications.

3. USER CREDENTIALS

3.1. If applicable, Versaterm will provide Customer with administrative user credentials for the Software, and Customer will ensure such administrative user credentials are accessed and used only by Customer's employees with training on their proper use.

3.2. Customer will protect, and will cause its Authorized Users to protect, the confidentiality and security of all user credentials, including any administrative user credentials, and maintain user credential validity, including by updating passwords.

3.3. Customer will be liable for any use of the Software through such user credentials (including through any administrative user credentials), including any changes made to the Software or issues or user impact arising therefrom.

3.4. To the extent Versaterm provides services to Customer in order to help resolve issues resulting from changes made to the Software through user credentials, including through any administrative user credentials, or issues otherwise created by Authorized Users, such services will be invoiced to Customer on a time and materials basis, and Customer will pay all invoices in accordance with the payment terms of the MSA.

4. SUPPORT OF DOWNLOADED CLIENTS

The Mindbase Wellness App is available in the iOS App Store and Google Play store for download. Authorized Users may install the app on their mobile device(s) or access content through a web browser.

Versaterm may update the current version of its client at any time, including for bug fixes, product improvements, and feature updates. Customer acknowledges that continued use of the Mindbase Wellness App may require Authorized Users to install the most current version of the client as made available by Versaterm.

5. CUSTOMER-PROVIDED EQUIPMENT

5.1. Certain components, including equipment and software, not provided by Versaterm may be required for use of the Software and Subscription Services ("Customer-Provided Equipment"). Customer will be responsible, at its sole cost and expense, for providing and maintaining the Customer-Provided Equipment in good working order.

5.2. Customer represents and warrants that it has all rights in Customer-Provided Equipment to permit Versaterm to access and use the applicable Customer-Provided Equipment to provide the Software and Subscription Services under this Agreement, and such access and use will not violate any laws or infringe any third-party rights (including intellectual property rights).

Customer (and not Versaterm) will be fully liable for Customer-Provided Equipment. Customer will immediately notify Versaterm of any Customer-Provided Equipment damage, loss, change, or theft that may impact Versaterm's ability to provide the Software and Subscription Services. Customer acknowledges that any such events may cause a change in the Fees or performance schedule under these General Terms.

6. NON-VERSATERM CONTENT

6.1. In certain instances, Customer may be permitted to access, use, or integrate Non-Versaterm Content with or through the Software and Subscription Services. If Customer accesses, uses, or integrates any Non-Versaterm Content with the Software and Subscription Services, Customer will first obtain all necessary rights and licenses to permit Customer's and its Authorized Users' use of the Non-Versaterm Content in connection with the Software and Subscription Services.

6.2. Customer will also obtain the necessary rights for Versaterm to use such Non-Versaterm Content in connection with providing the Software and Subscription Services, including the right for Versaterm to access, store, and process such Non-Versaterm Content and to otherwise enable interoperation with the Software and Subscription Services.

6.3. Customer represents and warrants that it will obtain the foregoing rights and licenses prior to accessing, using, or integrating the applicable Non-Versaterm Content with the Software and Subscription Services, and that Customer and its Authorized Users will comply with any terms and conditions applicable to such Non-Versaterm Content.

6.4. Customer acknowledges and agrees that Versaterm is not responsible for, and makes no representations or warranties with respect to, the Non-Versaterm Content (including any disclosure, modification, or deletion of Customer Data resulting from use of Non-Versaterm Content or failure to properly interoperate with the Software and Subscription Services).

6.5. If Customer receives notice that any Non-Versaterm Content must be removed, modified, or disabled within the Software and Subscription Services, Customer will promptly do so.

6.6. Versaterm will have the right to disable or remove Non-Versaterm Content if Versaterm believes a violation of law, third-party rights, or Versaterm's policies is likely to occur, or if such Non-Versaterm Content poses or may pose a security or other risk or adverse impact to the Software and Subscription Services, Versaterm, Versaterm's systems, or any third party (including other Versaterm customers).

7. END USER LICENSES

Notwithstanding any provision to the contrary in the MSA, certain software included in or delivered as part of the Software and Subscription Services may be governed by a separate license, end user license agreement ("EULA"), or other agreement, including terms governing third-party software such as open-source software. Customer shall comply, and shall ensure that all Authorized Users comply, with the terms and conditions of such additional license agreements. In the event of a conflict between any such separate license agreement and the MSA

or these General Terms with respect to the applicable software component, the terms of the separate license agreement shall control solely as to that component.

8. PROCESSING CUSTOMER DATA

8.1. Versaterm Use of Customer Data. To the extent permitted by law, Customer grants Versaterm the right to use Customer Data to (a) perform Services and provide the Software under the MSA, (b) analyze the Customer Data to operate, maintain, manage, and improve Versaterm products and services, and (c) create new products and services. Customer represents and warrants that Customer's instructions, including appointment of Versaterm as a processor or sub-processor, have been authorized by the relevant controller.

8.2. Collection, Creation, Use of Customer Data. Customer represents and warrants that the Customer Data, Customer's collection, creation, and use of the Customer Data (including in connection with the Software and Subscription Services), and Versaterm's use of such Customer Data in accordance with the MSA, will not violate any laws or applicable privacy notices or infringe any third-party rights (including intellectual property and privacy rights). Customer also represents and warrants that the Customer Data will be accurate and complete, and that Customer has obtained all required consents, provided all necessary notices, and met any other applicable legal requirements with respect to collection and use (including Versaterm's and its subcontractors' use) of the Customer Data as described in the MSA.

8.3. Data Retention and Deletion. Except for anonymized Customer Data as described in Section 7.1 of the MSA, or as otherwise provided under the MSA, Versaterm will delete all Customer Data no later than ninety (90) days following termination or expiration of the MSA or these General Terms, unless otherwise required to comply with applicable law. Any requests for exportation or download of Customer Data must be made by Customer in writing before expiration or termination in accordance with Section 23 (Notices) of the MSA. Versaterm will have no obligation to retain Customer Data beyond expiration or termination unless Customer has purchased extended storage through a mutually executed Service Schedule.

8.4. Service Use Data. Customer understands and agrees that Versaterm may collect and use Service Use Data for its own purposes, including to (a) operate, maintain, manage, and improve existing and create new products and services, (b) test products and services, (c) aggregate Service Use Data and combine it with that of other users, and (d) use anonymized or aggregated data for marketing, research, or other business purposes.

8.5. Third-Party Data and Versaterm Data. Versaterm Data and Third-Party Data may be available to Customer through the Software and Subscription Services. Customer and its Authorized Users may use such data as permitted by Versaterm and the applicable Third-Party Data provider, as described in the applicable Addendum. Unless expressly permitted in the applicable Addendum, Customer will not, and will ensure its Authorized Users will not: (a) use Versaterm Data or Third-Party Data for any purpose other than Customer's internal business purposes; (b) disclose the data to third parties; (c) "white label" such data or otherwise misrepresent its source or ownership, or resell, distribute, sublicense, or commercially exploit the data; (d) use such data in violation of applicable laws; (e) remove, obscure, alter, or falsify any marks or proprietary rights

notices; or (f) modify such data or combine it with Customer Data or other data, or use the data to build databases. Any rights granted with respect to Versaterm Data or Third-Party Data will immediately terminate upon termination or expiration of the MSA or these General Terms. Versaterm or the applicable Third-Party Data provider may suspend, change, or terminate access to such data if use violates the MSA, applicable law, or Versaterm's agreement with the applicable provider. Upon termination of such rights, Customer and all Authorized Users will immediately discontinue use, delete all copies, and certify such deletion to Versaterm. Versaterm will have no liability for Third-Party Data or Versaterm Data available through the Software and Subscription Services. Versaterm and its Third-Party Data providers reserve all rights not expressly granted in an Addendum or Ordering Document.

8.6. Versaterm as a Controller or Joint Controller. In all instances where Versaterm acts as a controller of data, it will comply with the applicable provisions of its Privacy Statement at <https://getmindbase.com/privacy-policy>, as may be updated from time to time. Versaterm holds all Customer Contact Data as a controller and shall Process such Customer Contact Data in accordance with the Privacy Statement. In instances where Versaterm is acting as a joint controller with Customer, the Parties will enter into a separate Addendum to these General Terms to allocate the respective roles as joint controllers.

Introduction and Purpose

VersaTerm M d r d r d r r r
r d r . r d r
d d r. V r r M d
d d r . r r d r d
r d r r d r r r
d r r r dr r r .U d r d d
r C r V r r d r d
r d d r d r d r d
d r P r d L A r .

T r r d r r r r d S .

V r r d d r r C r r d
r r d r r
.V r r r d C r r d d
d r rd d
d r .

T SO d r r dr r S
.I d r r r d r
r r r r d d
r r V r r d C r d r .

Mindbase will be delivered after the VersaTerm vCAD is in Production Use. Mindbase integration will be exclusively to the vCAD/vRMS.

Project Objectives

Ongoing objectives of the VersaTerm Implementation project:

Pr d r d d r
d
Pr d r d r r r
r r r d r
D r d d dr d r
r d C r CAD/ RMS d .

Specific SOW objectives:

C
I d r M d r
I d r r CAD/ RMS r
Pr d S Ad r Tr
Pr d P r T d r r
Pr d d
E d V r r d r r
Pr d 2
H d C r S T d r d V r r S r P r r

Project Assumptions and General Responsibilities

Project Assumptions

T M d S d A dr d r OS d d
r .
T d r V r r CAD
Pr d U d V r r r d r r C r
r d d r d r .
C r r d r r d r r
r d d r d
r .

Customer Responsibilities

M V r r Pr M r
P r r d r d V r r d
r
R d d r d V r r Pr
M r
(d d) M d r dr d r OS
d
E r d d r r r r

Versaterm Project Team Responsibilities

C r d d r r
 M d r
 P r r d
 C rd d d r r d d
 V r r
 C d r d r
 Pr d r dr dr C r
 r d r d rd r
 r

Project Tasks and Responsibilities

T r d d dr r r r d
 d SO .V r r dC r r r r
 r r r rd
 d rr r r .
 T r d rd r r. S
 r rr r .
 S rd r (r d r .)
 r .V r r r d d r
 r rd r r r r d r r r
 r r r .

Pre-Installation and Project Kickoff Meeting

Task Description

Pr P r d
C r d V r r r r . V r r d r
r r C r r . T Pr
d d r d d SO r
/ d dr dr r . T Pr
d d r r r d r
d dr d r d r

Deliverables

V r r d C r d d C rr r r r
d d r C rr d . T
d V r r r r r r . T r
d (0) d r d . T r r
r r d r S Ad r Tr .
A r 0 d V r r r r d V r r d r d r
r d r d . D r r C r
r d r dd d
r r .

Prerequisites

S d A r

Completion Criteria

T d r d r .

Versaterm

Customer

Responsibilities

– C d Pr K M

Responsibilities

S d r r PKM
A d PKM

Pre-Installation and Project Kickoff Meeting

Required Staff

Pr r

Required Staff

$$\begin{array}{ccccccc} \text{Pr} & & \text{S} & & r(d) & & \\ \text{Pr} & & & & & & r(d) \\ & r & & r & & r & \\ & rd & r & & & &) \end{array}$$

Install/Configure Mindbase Application

Task Description

V r r r d S d OS r
A dr d d rd d CAD/ RMS r . V r r r
r M d d M d d r . T
r r d r d r
r . V r r r - CAD/ RMS r
d r C r r rr d r d r r r
M d d rd.

V r r r d C r OS dA dr d .C r
r r d .

Deliverables

I	M	d	d	rd	d	
I	M	d				r
C	r	d	S	CAD/	RMS	r

Prerequisites

M r d V r r CAD

Completion Criteria

T V r r d r M d
r d r d d r
r r d r r d r d r r d .

Install/Configure Mindbase Application	
Versaterm	Customer
Responsibilities I r M d Cr d r I r r CAD/ RMS V r rr d d rd T d d r C r	Responsibilities Pr d CAD/ RMS d I d T d P r I M d d r OS rA dr dd V r rr d d rd
Required Staff S r Pr r D (r r r)	Required Staff IT r P r r / d

System Administration Training

Task Description

V r r d r r r C r r . P r r
d r r d . D r r V r r
d r .

S d r r d r r d d r
r d d r r M d . r
C r r r r l d T /l L r
d rd. C r r l d T /l L r r
r .

Deliverables

– S Ad r Tr
M d
l d T /l L r

Prerequisites

M d

Completion Criteria

T C r r r d
d r M d r d r d l d T /l L
r d rd .

Versaterm

Customer

Responsibilities

S Ad r Tr
D r M d

Responsibilities

E r r r r
d S Ad r
Tr
C r l d T /l
L d rd

Required Staff

Pr r

Required Staff

Pr

Conduct Peer Team End User Training	
Task Description V r r d r d r r	
Deliverables P rT E d r r	
Prerequisites M d d d r d	
Completion Criteria T V r r r d d d r r	
Versaterm	Customer
Pr d d r r	E r r r r d r
Required Staff Tr r	R r dS P rT M r

Go-Live and Post Go-Live Assistance	
Task Description V r r r r d d C r r r r r d r r r . A r d d d P r T d r r . V r r C r r dd d d r d d r2 r d . C r r r d d r C r r d dd . Deliverables d P C r r M d L K r r Prerequisites C r Completion Criteria T r r S d d r d r d d.	
Versaterm	Customer
O r r d r M r d d d r2 r	E r r r r d Pr d d d d d r R d r V r r
Required Staff	Required Staff
Pr r S r	Pr r P r T r

Customer Success Handoff	
Task Description T C V r r S r P r :	
Deliverables - C r S r d d d l r d V r r S r P r	
Prerequisites r d	
Completion Criteria T r d d r .	
Mindbase	Customer
Responsibilities A r r d	Responsibilities C r
Required Staff C r	Required Staff A

Project Completion
Task Description T d d d C r d
Major Milestones Completed Pr K M

Project Completion	
C r M d r d rd r d dM d d d S Ad r r – CAD/ RMS I r P rT E d r r 2 P I r d d d r (S) Completion Criteria T d r	
Versaterm	Customer
Responsibilities R r r d r	Responsibilities M rM d S L rr r r r d
Required Staff Pr r C r	Required Staff Pr / d

Customer Success Handoff
Task Description T d V r r r C r r . V r r r d r V r r S r P r : Deliverables – C rS r d d d I r d V r r S r P r Prerequisites r Completion Criteria T r d d r .

Customer Success Handoff	
Mindbase	Customer
Responsibilities A r r d	Responsibilities C r r
Required Staff C r	Required Staff A

Contract Exhibit 2



**POLICE DEPARTMENT RECORDS MANAGEMENT AND FIELD-BASED REPORTING
SYSTEM SOLUTION AGREEMENT #2017190**

CITY OF MESA, an Arizona municipal corporation

Department Name	City of Mesa – Purchasing Department
USPS Address	P.O. Box 1466 – MS 3320
	Mesa, AZ 85211-1466
Delivery Address	20 E Main Street, Suite 400
	Mesa, AZ 85201
Attention	Kristy Garcia, CPPB Senior Procurement Officer
Telephone	(480) 644-5052
Email Address	Kristy.Garcia@mesaaz.gov

With a copy to: City of Mesa – Information Technology Department
Attn: Suzanne Alberts, IT Purchasing & Contracts Coordinator
PO Box 1466
Mesa, AZ 85211-1466
Suzanne.Alberts@mesaaz.gov

Versaterm, Inc., an Ontario, Canada Corporation

Company Name	Versaterm, Inc.
Mailing Address	2300 Carling Avenue
	Ottawa, ON K2B 7G1
	Canada
Attention	Warren Loomis, President and Chief Executive Officer
Telephone	613-820-0311
Email Address	wloomis@versaterm.com

With a copy to: Versaterm, Inc.
Attn: Terri Rosales
2300 Carling Avenue
Ottawa, ON K2B 7G1
Canada
Terri.Rosales@versaterm.com

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POLICE DEPARTMENT RECORDS MANAGEMENT AND FIELD-BASED REPORTING SYSTEM SOLUTION
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THIS POLICE DEPARTMENT RECORDS MANAGEMENT SYSTEM (PDRMS) SOLUTION AGREEMENT ("Agreement") is made and entered into as of July 3, 2018 ("Effective Date"), by and between the City of Mesa, an Arizona municipal corporation ("City"), and Versaterm, Inc., an Ontario, Canada corporation ("Contractor" or "Versaterm").

WHEREAS, City requires a PDRMS Solution or third-party hosted "software as a service" ("Solution" / "Services," as further described herein) with respect to certain of its information technology needs; and

WHEREAS, on August 21, 2017, Contractor submitted its Proposal to City for a PDRMS Solution as described in the City's RFP #2017190; and

WHEREAS, Contractor wishes to provide/perform the Solution/Services and acknowledges the successful implementation/performance of the Solution/Services and the security and availability of City's data ("City Data," as further described herein) are critical to the operation of City's business; and

WHEREAS, Contractor has agreed to provide the Services, Software, and professional services for all customization, development, implementation, training, maintenance and support services relating to implementation of a PDRMS Solution to/for City, all on the terms and conditions set forth herein; and

WHEREAS, City by appropriate action on July 3, 2018, awarded a contract to Contractor and

NOW, THEREFORE, in consideration of the mutual covenants and representations set forth in this Agreement, the parties hereby agree as follows:

1. **Definitions.** The following definitions shall have the meanings in the Agreement and in any Exhibit hereto.
 - 1.1 **Application Software** means Contractor-licensed software, including all corrections, modifications, additions, improvements, and enhancements to such Application Software, provided by the Contractor for use in conjunction with the Solution, together with any Documentation and other related materials for the Application Software, as set forth in Exhibit D – Price and Payment Terms. The Application Software may consist of separate software modules.
 - 1.2 **Arizona Public Records Law** means Arizona Revised Statutes, Title 39, Chapter 1, Article 2, Sections 39-121, 39-121.01, 39-121.02, and 39-121.03.
 - 1.3 **Authorized Person** means an employee or independent contractor of Contractor who has a legitimate need to know or otherwise access City Data to enable Contractor to perform its obligations under this Agreement, and who is bound in writing by confidentiality obligations sufficient to protect City Data in accordance with the terms and conditions of this Agreement.

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- 1.4 **Authorized Users** means an employee or independent contractor of City (solely to the extent such contractor is providing service to City), who has been authorized by City to use the Product.
- 1.5 **Business Day** for the purposes of this Agreement shall mean weekdays, Monday through Friday, excluding holidays recognized by the City.
- 1.6 **City** means the City of Mesa and includes without limitation all past or present official legal representatives, City Manager, Mayor, and City Council, and all current and former employees of the City of Mesa.
- 1.7 **City Data** means all data (including Personal Data), information, content, and other materials stored or transmitted by the City and any Authorized User through the Solution, excluding any Third Party Data and any Contractor Data.
- 1.8 **Critical Priority Errors** means complete system failure where the Product is not available for use.
- 1.9 **Customization** means an extension or modification of a Product feature that requires custom coding and/or implementation.
- 1.10 **Day** means a calendar day, unless otherwise specified.
- 1.11 **Defect** means a deviation between the Solution or a component thereof, and the requirements set forth in the Documentation, provided, however, that Defects do not include “cosmetic” deviations.
- 1.12 **Deliverable** means Software, Documentation, Services, and any other items identified in the Schedule of Items and Services to be Provided.
- 1.13 **Documentation** means the user guides, administration guides, release notes, technical information, and training materials, and any other documentation provided by Contractor throughout the Agreement for the Solution that Contractor provides the City.
- 1.14 **Exhibit** means one or more documents (sequentially-numbered), each of which includes a specific description of the Deliverables/Services to be provided, performance dates, price for such Deliverables/Services, and any other information necessary to document the parameters of the Deliverables/Services to be provided.
- 1.15 **Fees** means the monetary amount to be paid by the City to Contractor for the rights granted and services provided under this Agreement, as mutually agreed upon and listed in Exhibit D .
- 1.16 **Go Live** means the date on which the Onboarding Period ends, and the Production Period begins, as further defined in the Statement of Work (Exhibit A.1).
- 1.17 **High Priority Error** means a serious problem that materially affects the operational use of the Product.
- 1.18 **Intellectual Property Rights** means all intellectual and industrial property rights, whether now existing or existing in the future, including without limitation, (i) all

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patent rights, including any rights in pending patent applications and any related rights; (ii) all copyrights and other related rights throughout the world in works of authorship, including all registrations and applications therefor; (iii) all trademarks, service marks, trade dress or other proprietary trade designations, including all registrations and applications therefor (iv) all rights throughout the world to proprietary know-how, trade secrets and other confidential information, whether arising by law or pursuant to any contractual obligation of non-disclosure; and (v) all other rights covering industrial or intellectual property recognized in any jurisdiction.

- 1.19 **Major Enhancement Release** means a change or a new release of the Product then in use by the City containing new functions, features, and enhancements that have become part of the standard system.
- 1.20 **Minor Enhancement Release** means a change or new release of the Product then in use by the City designed to correct Problem(s) and/or provide minor functionality additions.
- 1.21 **On-Site Application Software** means Contractor's proprietary software programs as described in the definition "Application Software" that are installed and used on City's own systems or premises, on the license terms set out in Exhibit E.
- 1.22 **Onboarding Period** means the period during the Term before the Production Period, during which Contractor will provide Onboarding Services.
- 1.23 **Onboarding Services** means the evaluation, consultation, implementation, customization, configuration, development of interfaces, and other services provided by Contractor in connection with the Product. This is including, but not limited to, project management, re-engineering/implementation, training, conversion, and installation as listed in the Price and Payment Terms (Exhibit D) and as further described in the Statement of Work (Exhibit A.1), and related onboarding documentation, which are detailed in Exhibits A through A.10.
- 1.24 **Performance Credits** means the agreed-upon credits to be applied to an invoice, as a result of Service Provider's failure to meet requisite Service Levels, as set forth in an Exhibit.
- 1.25 **Personal Data** means the City Data provided to Contractor by or at the direction of the City, or to which access was provided to Contractor by or at the direction of the City, in the course of Contractor's performance under this Agreement that identifies or can be used to identify an individual (including, without limitation, names, signatures, addresses, telephone numbers, e-mail addresses, and other unique identifiers).
- 1.26 **Problem** means a failure of the Product to function substantially in accordance with the Documentation.
- 1.27 **Product** means the combination of the SaaS Services, On-Site Application Software and Documentation, which the City is authorized under the License Terms in Exhibit E

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to use in the course of their normal operations. The term “Product” includes any sort of Major and Minor Enhancement Releases, and Customization.

- 1.28 **Production Period** means the period during the Term following Go-Live of the Product.
- 1.29 **Production Use** means the use of one or more functional application components to collect and manage real police information for the purpose of serving actual police needs; this is in contrast to “testing mode” where real police information may be used, but only for the purpose of evaluation and testing.
- 1.30 **Proposal** means Contractor’s response to the City’s RFP, including without limitation:
 - 1.30.1 Contractor’s Best and Final Proposal.
 - 1.30.2 Contractor’s Original Proposal.
- 1.31 **RFP** means Request for Proposals and includes without limitation:
 - 1.31.1 City of Mesa Request for Best and Final Proposals.
 - 1.31.2 City of Mesa RFP #2017190.
- 1.32 **Services** means the work provided by Contractor Personnel, including but not limited to professional services, as described in the Contract Documents.
- 1.33 **SOC 2 Report** means Service Organization Controls Report 2, which is the outcome of an examination of a service organization's controls over its system relevant to the five areas of trust: security, availability, processing integrity, confidentiality, or privacy.
- 1.34 **Software** means, collectively, the Application Software and/or the Third Party Software. The Software may consist of separate software modules or the applicable software included as a part of the Services, including all updates, improvements, and enhancements thereof from time to time used/developed by Service Provider.
- 1.35 **“Software as a Service” or “SaaS Services”** means the Application Software, and related software-as-a-service, hosting, maintenance and/or support services made available by Versaterm for remote access and use by the Customer, including any Documentation hereto.
- 1.36 **Solution** means the **POLICE DEPARTMENT RECORDS MANAGEMENT AND FIELD-BASED REPORTING SYSTEM** Solution, consisting of the Software, Services, and/or related items, as set forth in the RFP response and any other items to be provided as optional upon City’s exercise of such option(s).
- 1.37 **Source Code** means a collection of computer instructions written using a human-readable programming language. Source Code shall include all material including, but not limited to, design documentation, Software Documentation, reference manuals, libraries for the Software, and interface software, in any form (printed, electronic, or magnetic).

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- 1.38 **Support** means services which are provided by the Contractor to the City, as described herein, regarding Problem(s) encountered with standard, unmodified Product, and with Contractor's modifications to or interfaces with the Products, and which are necessary to:
- 1.38.1 Resolve Problems and provide temporary "work around" solutions, if necessary;
 - 1.38.2 Assist with data manipulation, duplication, or restoration where data has been affected by defects under paragraph 1.38.1 immediately above, but not hardware defects or operator error misuse of any of the software or hardware
 - 1.38.3 Periodically review all Products to identify and resolve Problems on a preventative basis; and
 - 1.38.4 Provide, in a timely manner, all Major and Minor Enhancement Releases.
- 1.39 **Support Authority** means the City's designated employee(s) authorized to approve additional, separately billable time and materials support work, beyond that included within this Agreement.
- 1.40 **Support Contact** mean City's designated employee(s), a consultant providing services directly to the City, or another designated City representative with whom Contractor will communicate when providing Support. The Support Contact must be knowledgeable about how the Product is being used and must be familiar with the operating system under which it is being used.
- 1.41 **Term** means the Initial Term and any Renewal Term.
- 1.42 **Third Party Application** means a third-party service by a Third Party Provider(s) approved by Contractor to which the City and any Authorized User facilitates Contractor's vendor access to, and use of the Solution, via an application programming interface or other means.
- 1.43 **Third Party Data** means any data owned by a third party that the City accesses via the Product.
- 1.44 **Third Party Provider** means third parties, including other vendors, state agencies, and local agencies that control products and/or databases with which the Product are to be interfaced.
- 1.45 **Third Party Software** means all software that is not Application Software, but is provided by Contractor or by City as specified by the Contractor.
- 1.46 **Third Party Systems** means entities designated by City to receive City Data through the enablement of interfaces, and are those entities enumerated in the internal list maintained by Contractor, upon mutual agreement between Contractor and City.
- 1.47 **Third-Party Update** means a change or new release designed to correct problem(s) of a Third Party Application.

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- 1.48 **Third-Party Upgrade** means a change or new release of a Third Party Application containing new functions, features, or enhancements.
 - 1.49 **Versaterm Certified Browsers** means acceptable browsers on which Contractor shall operate its Application Software. This internal list shall be maintained by Contractor.
 - 1.50 **Virus** means any virus, trojan horse, worm, spyware, phishing, spam or other software routine or component designed to permit unauthorized access to disable, erase, or otherwise harm software, equipment, or data, or to perform any other such actions.
 - 1.51 **Warranty Period** means the one-year period following the Go Live date, provided, however, if the Final Acceptance Test exceeds the 30 Day period set forth in the Acceptance Testing Process, the Warranty Period shall be extended by the same number of Days.
2. **Contract Documents, Order of Precedence.** The following documents are hereby incorporated into this Agreement by reference ("Contract Documents"). In the event of any conflict among the Contract Documents, the Contract Documents will control in the following order:
- 2.1 Amendments, executed from time to time
 - 2.2 This Agreement
 - 2.3 Exhibit A – Onboarding Services (individual or collectively), as executed from time to time
 - Exhibit A.1 – Statement of Work
 - Exhibit A.2 – Project Implementation Schedule
 - Exhibit A.3 – Interface Control Document (ICD)
 - Exhibit A.4 – Data Conversion Plan
 - Exhibit A.5 – Acceptance Testing Plan
 - Exhibit A.6 – Training Plan
 - Exhibit A.7 – Change Order Process
 - Exhibit A.8 – System Performance and Availability Standards
 - Exhibit A.9 – Options
 - Exhibit A.10 – Technical Glossary
 - 2.4 Exhibit B – Insurance Requirements
 - 2.4 Exhibit C – Annual Subscription Support Terms
 - 2.5 Exhibit D – Price & Payment Terms
 - 2.6 Exhibit E – License Terms
 - 2.7 Exhibit F – Documentation

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2.8 Exhibit G – Minimum Client and Peripheral Specifications

2.9 Contractor's/Service Provider's Proposal, as amended by clarification during proposal evaluation.

2.10 City's RFP with City Standard Terms and Conditions, as amended by any addenda.

All exhibits, attachments, schedules, and recitals to this Agreement are hereby incorporated into this Agreement by this reference.

It is not uncommon for changes to be identified and mutually agreed to as necessary during the term of an agreement, such as this Agreement. This may involve changes to software, hosting services, functionality, training, etc. with an associated additional cost, or it may entail changes to schedules, sequences, staff, etc. that do not involve changes to costs. In either event, such changes must be documented in writing. Changes without financial impact will be documented in the form of project status reports. All changes with financial impact or that result in any amendment to the terms of this Agreement will follow the change order process set forth in Change Control Log (Exhibit A.7).

3. Term of the Agreement.

3.1 **Initial Term.** The term of this Agreement shall commence on the Effective Date and continue for five (5) years thereafter ("Initial Term"), unless terminated earlier in accordance with Section 18, Termination.

3.2 **Renewal Term(s).** Following the Initial Term, the Agreement shall automatically renew for successive term(s) of 1 year each ("Renewal Term") unless City provides Contractor with written notice of non-renewal at least 30 Days prior to the last day of the then-current Term.

3.3 **Exhibit A Term.** This Agreement will include at least one Exhibit A, as may be amended from time to time, which will have the term set forth therein.

4. The Solution/Services.

4.1 **Purpose.** This Agreement sets forth the terms and conditions under which Contractor agrees to provide certain Software, Services, /hosted "software as a service," and all other services, data import / export, monitoring, support, backup and recovery, change management, technology upgrades, and training necessary for City's productive use of the Solution/Services as further set forth on an Exhibit A.

4.2 **Authorized Users.** Unless otherwise limited in an Exhibit, the City, its official legal representatives, City Manager, Mayor, and City Council, and any of its employees, agents, contractors, or suppliers of services who have a need to use the Services for the benefit of City ("Authorized Users") shall have the right to operate and use the same. Such authorization shall be subject to each aforementioned individual's signing of an acknowledgement and agreement to the Police Department's Rules and Regulations which include a non-disclosure regarding software products and systems in use by the Police Department, or signing a specific non-disclosure agreement pertaining to the software products and systems in use by the Police Department.

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4.3 **Time of the Essence.** See Section S.8 of City Standard Terms and Conditions.

4.4 **Backup and Recovery of City Data.** As a part of the Services, Service Provider is making use of AWS high availability relational database services (RDS) supported across multiple AWS availability zones ("AZ"s) or data centers. That is, there is both a primary database instance configured in one AZ, as well as a secondary database instance in a second AZ (or data center). The primary and secondary databases are replicated in near real time across AZ(s). Should errors be detected on the primary database instance, AWS RDS services will automatically promote the secondary database to primary.

In addition to the above, Service Provider will also maintain separate backups of City Data, including daily database backups, and daily backups of multimedia file attachments and application log files.

In the case a database restore is required, the Service Provider will restore the database from the last daily database backup, and will apply database transaction logs (last complete written transaction log) to recover the database to a current point in time. The point in time recovery will only be available for database backups within the last seven days of daily backup from the current date. Otherwise, database backups will only be able to be recovered to the time the database backup was taken (weekly or monthly backup as appropriate). Database recovery from a backup is typically accomplished at a rate of 30-50MB/second, plus the time to apply the required database transaction logs. During a database recovery, the database is offline for the duration of the restore process.

Database and current file backups are stored in standard AWS cloud storage, where multiple copies are kept within different Availability Zones (data centers) in the secure GovCloud Region.

4.5 **Non-Exclusivity.** See Section S.6 in City Standard Terms and Conditions.

4.6 **Subcontractors.** Contractor shall not enter into any subcontracts for the performance of the Solution/Services, or assign or transfer any of its rights or obligations under this Agreement, without City's prior written consent and any attempt to do so shall be void and without further effect. City's authorization for Contractor to subcontract any (of the) Services shall not relieve Contractor of any of its duties or obligations under this Agreement, and Contractor shall indemnify and hold City harmless from any payment required to be paid to any such subcontractors.

5. **Service Levels.**

5.1 **Service Levels Reviews.** Service Provider and City will meet as reasonably agreed to by the parties, to review the performance of Service Provider as it relates to the Service Levels further described in an Exhibit.

5.2 **Service Level Reporting.** On a monthly basis Service Provider shall provide reports to City describing the performance of the Services and of Service Provider as compared to the Service Levels further described in an Exhibit.

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5.3 **Performance Credits for Failure to Meet Service Levels.** As further described in an Exhibit, in the event Service Provider does not meet any (individual or collectively) of the requisite Service Levels, Service Provider shall:

5.3.1 reduce the applicable invoice to City by the amount of the applicable Performance Credits as a credit; and

5.3.2 use its best efforts to ensure that any un-met Service Level is subsequently met.

Notwithstanding the foregoing, Service Provider will use commercially reasonable efforts to minimize the impact or duration of any outage, interruption, or degradation of Service.

6. **Fees and Expenses.** City shall be responsible for and shall pay to Contractor the fees described in Exhibit D, subject to the terms and conditions contained therein. Any uncontested sum due Contractor under an Exhibit for Services performed shall be due and payable forty-five (45) Days after City's receipt of a properly prepared invoice from Contractor.

6.1 **Billing Procedures.** Contractor shall bill to City the sums due pursuant to each Exhibit D by Contractor's invoice, which shall contain:

- City purchase order number, if any, and invoice number; and
- description of Software delivered and the amount thereof that is due, as applicable; and
- the Services fee or portion thereof that is due, as applicable; and
- sales/use taxes on tangible items, if any; and,
- total amount due.

6.2 **Expense Reimbursement.** The Services Fee, set forth in Exhibit D, includes all costs associated with Contractor's Services under the Exhibits, including without limitation, travel expenses and/or other expenses incurred during such work. Accordingly, the Contractor shall not be entitled to reimbursement for any expenses incurred as a result of the Services performed hereunder.}

6.3 **Credits.** Any amounts due from Contractor may be applied by City against any fees due to Contractor. Contractor agrees to provide any such credits in a manner and form acceptable to City.

6.4 **Non-binding Terms.** Any terms and conditions included in an invoice or a purchase order shall be deemed to be solely for the convenience of the parties, and no such term or condition shall be binding upon either party or become part of this Agreement.

6.5 **Taxes.** See section S.10 City Standard Terms and Conditions.

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7. **Security Clearances and Access to City Facilities.** City shall have final authority, based on security reasons:
- to determine when security clearance of Service Provider personnel is required; and
 - to determine the nature of security clearances, up to and including fingerprinting Service Provider personnel; and
 - to determine whether any individual or entity may provide Services under this Agreement; and
 - to determine whether access to City facilities will be escorted or unescorted.
- 7.1 **Background Investigation.** City shall have the right to review and investigate Service Provider personnel as it deems necessary to protect the security of City's data and/or facilities.
- 7.2 **Access to City Facilities.** City agrees to provide access to City facilities during City's normal business hours and otherwise as reasonably requested by Contractor to implement the Solution/Services, and facilities and equipment resources necessary for training of City personnel. Access to City facilities may be escorted or unescorted, at City's sole discretion, and any access granted shall be subject to City's reasonable security policies and practices.
- 7.2.1 **City Resources.** If required, City agrees to provide Contractor personnel reasonable working space and equipment, similar to that provided to City personnel. Contractor agrees to keep such resources in good order and not permit waste or damage to the same. Contractor shall return the resources to City in substantially the same condition as when Contractor began using them, ordinary wear and tear excepted. Contractor personnel who work on-site at City shall observe City's working rules and schedules, standards for attire, and holiday schedules, unless otherwise specified by City.
- 7.2.2 **Unescorted Access.** Contractor personnel granted unescorted access to City facility(ies) shall be issued an access card, which will allow entry into the designated facility(ies) during authorized hours. Prior to Contractor personnel being issued an access card, Contractor shall complete Attachment 1, Contractor Verification Form. No Contractor personnel shall be permitted unescorted access to City facility(ies) until Contractor has submitted a completed and signed Contractor Verification Form. During any term of this Agreement, if access cards are needed for additional Contractor personnel, or if any Contractor personnel are removed from Contractor's employment, Contractor shall submit a revised completed and signed Contractor Verification Form.
- 7.3 **Removal of Contractor Personnel.** See Section S.15 of City Standard Terms and Conditions.

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8. **Non-Disclosure of Confidential Information.** The parties acknowledge that each party may be exposed to or acquire communication or data of the other party that is confidential, privileged communication not intended to be disclosed to third parties.

8.1 **Definitions of Confidential Information.**

8.1.1 **Contractor Confidential Information.** "Contractor Confidential Information" means Services, Software, Documentation, and other information, which is not generally known to the public, whether of a technical, business or other nature (including, but not necessarily limited to: trade secrets, know how, computer program source codes, and information relating to the customers, business plans, promotional and marketing activities, finances and other business affairs of Contractor).

8.1.2 **City Confidential Information.** "City Confidential Information" means:

- "Personal Information," which includes without limitation, names, addresses, social security numbers, telephone numbers, financial profiles, credit card information, driver license numbers, or any other information identifiable to a specific individual; and
- any information clearly marked or otherwise designated by City as confidential or proprietary at the time of disclosure; and
- any other information, whether oral, machine-readable, or human-readable, relating to the City's management, operations, products, intentions, plans, goals, objectives, inventions, records, costs, technical information.

8.1.3 **Exclusions.** The terms "City Confidential Information" and "Contractor Confidential Information" do not include the Contract Documents or any information or documentation that:

- 8.1.3.1 was publicly available at the time it was disclosed or which, through no act or omission of the disclosing party, becomes publicly available before the disclosing party discloses it to a third-party; or
- 8.1.3.2 a party rightfully discloses to third parties without restriction on disclosure; or
- 8.1.3.3 the receiving party already rightfully possessed, without obligation of confidentiality, before the disclosing party disclosed it to the receiving party; or
- 8.1.3.4 a party rightfully receives without obligation of confidentiality from any unrelated third-party; or
- 8.1.3.5 a party develops independently without reliance upon or use of the other party's Confidential Information; or

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8.1.3.6 the receiving party is required to disclose pursuant to Arizona Public Records Law or other applicable law, subpoena, or other judicial process; or

8.1.3.7 is reasonably necessary for a party to enforce this Agreement.

8.1.4 **Required Disclosures.** In the event a party is required by Arizona Public Records Law or other applicable law, subpoena, or other judicial process, to disclose documents or other information related to this Agreement, the disclosing party agrees to promptly notify the other party to allow such party a reasonable opportunity to seek protective legal treatment for such confidential and/or proprietary information. The disclosing party agrees to cooperate with any efforts undertaken by the other party at disclosing party's expense to contest such subpoena or other proceedings, and further agrees to disclose only that portion of such documents or other information required to be disclosed. Both parties agree and acknowledge that any such disclosure will not violate the provisions of this Agreement.

8.2 **Obligations of Confidentiality.**

8.2.1 **City Obligations.** Subject to Arizona Public Records Law, City agrees to hold all Contractor Confidential Information in confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Contractor Confidential Information to third parties other than employees, agents, or subcontractors who have a need to know in connection with this Agreement, or to use such Contractor Confidential Information for any purposes whatsoever other than the performance of this Agreement. City agrees to advise and require its employees, agents, and subcontractors of its obligations to keep such information confidential.

8.2.2 **Contractor Obligations.** Contractor agrees to hold all City Confidential Information in confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such City Confidential Information to third parties other than employees, agents, or subcontractors who have a need to know in connection with this Agreement, or to use such City Confidential Information for any purposes whatsoever other than the performance of this Agreement. Contractor agrees to advise and require its employees, agents, and subcontractors of its obligations to keep such information confidential.

8.2.3 **Nondisclosure of City Confidential Information.** Contractor will respect the confidentiality of City Confidential Information, and except as set forth in Section 8.1.4, Required Disclosures, will make no disclosure thereof to third parties, nor shall Contractor use City Confidential Information for its own purposes, except upon written permission of City, which shall be at City's absolute and sole discretion. If Contractor loses or makes unauthorized disclosure of City Confidential Information, it shall notify the City immediately

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and take all steps reasonable and necessary to retrieve the lost or improperly disclosed information. Notwithstanding the foregoing, Contractor may disclose such information to its officers, directors, and employees, provided such parties:

- 8.2.3.1 have duties justifying their need to know the City Confidential Information;
- 8.2.3.2 have been clearly informed of their obligation to maintain the confidential status of City Confidential Information; and
- 8.2.3.3 have been informed of this Section 8 and have executed an Attachment 2, Non-Disclosure Acknowledgement and Compliance Form.

8.3 **Nonuse of Confidential Information.** Neither party shall, without the other party's prior written consent, provide any service or advice to any other person, company, firm, agency or organization, which results in the disclosure of such party's confidential information provided under this Agreement, nor will either party, without the other party's prior written consent, provide any service or advice in connection with such party's confidential information.

8.3.1 **Nonuse by Contractor.** Contractor acknowledges that all City documents, data, and other materials, including without limitation City Confidential Information, which are furnished by City under this Agreement, whether in machine-readable or human readable form, shall remain the sole property of City. Except as set forth Section 9.2, City Data, neither this Agreement, nor any disclosure of City Confidential Information, shall be deemed to grant Contractor any license or other intellectual property right to such information.

8.3.2 **Nonuse by City.** City acknowledges that Contractor Confidential Information, which is furnished by Contractor under this Agreement, whether in machine-readable or human readable form, shall remain the sole property of Contractor. Except as set forth Section 9.1, Pre-Existing Materials, neither this Agreement, nor any disclosure of Contractor Confidential Information, shall be deemed to grant City any license or other intellectual property right to such information.

8.4 **Cooperation to Prevent Disclosure of Confidential Information.** Each party shall use the same care to prevent disclosure of the other party's confidential information as it uses with respect to its own confidential information of a similar nature, which shall not in any case be less than the care a reasonable business person would use under similar circumstances. Each party shall use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any confidential information. Without limiting the foregoing, if a party learns or has reason to believe that any person who has had access to the other party's confidential information has violated or intends to violate the terms of this Agreement, such party will immediately

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notify the other party and will fully cooperate with the other party in seeking injunctive or other equitable relief against any such person.

8.5 **Remedies for Breach of Obligation of Confidentiality.** Each party acknowledges that the confidential information of the other party constitutes the valuable trade secrets of the other party, and that breach of the obligations of confidentiality by one party may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, the damaged party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, at the sole election of the damaged party, the immediate termination, without penalty to the damaged party, of this Agreement or any Exhibit A, in whole or in part.

8.6 **Restriction on Access to Personal Information.** Unless City, in its sole and absolute discretion, provides authorization in writing, Contractor shall not allow any subcontractor to have access to Personal Information, and any attempt to do so shall be a breach of this Agreement. City's authorization for Contractor to subcontract any of the Services shall not relieve Contractor of any of its duties or obligations of confidentiality under this Agreement, and Contractor shall indemnify and hold City harmless from any breach of the terms of this Section 8 by any such subcontractors.

8.7 **Offshore Services.** The parties acknowledge and agree Services provided under this Agreement shall not be performed outside of those countries that participate in the CJIS advisory policy board, such as the United States and Canada, nor shall Personal Information, as that term is defined in Section 8.1.2, City Confidential Information, be stored on any computing equipment located outside the United States, except by City's explicit prior, written authorization, at City's sole discretion. For purposes of this Section 8.7, "United States" shall mean the forty-eight contiguous states, Alaska, Hawaii, and the District of Columbia.

Notwithstanding the above, Contractor may perform Services offshore where no City Data or Personal Information is being utilized, but all Services involving the use of City Data or Personal Information, (i.e. testing) shall be performed within those countries that participate in the CJIS advisory policy board, such as the United States and Canada.

8.8 **Residual Knowledge.** As used in this Section 8, the term "Residual Knowledge" shall mean the confidential information disclosed under this Agreement that may be retained in the unaided memories of the receiving party's personnel, having had access to that confidential information in connection with providing Services; provided, however, that Residual Knowledge shall not include any confidential information remembered with the aid of mnemonic devices, notes or other documents, tapes, disks, or intentionally memorized in any other way. Notwithstanding anything to the contrary in this Agreement, either party shall be free to use Residual Knowledge to gain generic or peripheral knowledge in its business activities, or to enhance its ideas, concepts, know-how and experience for use in development, manufacture, marketing and

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maintenance of its own products and services. Use of Residual Knowledge shall not grant any license for such Residual Knowledge.

9. **Proprietary Rights.**

9.1 **Pre-existing Materials.** City acknowledges that, in the course of performing the Services, Contractor may use software and related processes, instructions, methods, and techniques that have been previously developed by Contractor (collectively, the "Pre-existing Materials") and that same shall remain the sole and exclusive property of Contractor.

9.2 **Software.** Contractor represents that the Software and Software Documentation is Contractor's (or its suppliers') property. The Software and Software Documentation will remain the property of Contractor (or its suppliers), and City will not be deemed by virtue of the License Agreement or any access to such Software or Software Documentation to have acquired any right, title or interest in or to the Software or Software Documentation.

9.3 **City Data.** City's information, or any derivatives thereof, contained in any Service Provider repository ("City Data," which shall also be known and treated by Service Provider as City Confidential Information) shall be and remain the sole and exclusive property of City. City shall be entitled to an export of City Data, without charge, upon the request of City, during Transition Assistance Period, or upon termination of this Agreement. Service Provider is provided a license to City Data hereunder for the sole and exclusive purpose of providing the Services, including a license to store, record, transmit, maintain, and display City Data only to the extent necessary in the provisioning of the Services, and City shall retain all right, title and interest in and to City Data. This disclosure of City Data shall not be deemed to grant Service Provider any other intellectual property right to such information.

9.4 **No License Granted.** Except as expressly set forth in this Section 9, no license is granted by either party to the other with respect to such party's confidential information, Pre-existing Materials, or City Data. Nothing in this Agreement shall be construed to grant to either party any ownership or other interest in the other party's confidential information, Pre-existing Materials, or City Data.

10. **Information Security.** Contractor acknowledges City has implemented information security processes and policies to protect City's information assets (collectively, the "Protected Data"). Where Contractor has access to Protected Data, Contractor acknowledges and agrees to the following:

10.1 **Undertaking by Contractor.** Without limiting Contractor's obligation of confidentiality as more fully described in Section 8, Non-Disclosure of Confidential Information, Contractor shall be responsible for establishing and maintaining an information security program that is designed to:

10.1.1 ensure the security and confidentiality of Protected Data; and

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- 10.1.2 protect against any anticipated threats or hazards to the security or integrity of Protected Data; and
- 10.1.3 protect against unauthorized access to or use of Protected Data; and
- 10.1.4 ensure the proper disposal of Protected Data; and
- 10.1.5 ensure that all subcontractors of Contractor, if any, comply with all of the foregoing.

In no case shall the safeguards of Contractor's information security program be less stringent than the information security safeguards used by City. City's information security processes and policies are Confidential Information of City.

- 10.2 **Audit of Information Security Program.** City shall have the right to review Contractor's/Service Provider's information security program commencing one year following Go Live and from time to time during the term of this Agreement. Commencing one year following Go Live, on an ongoing basis from time to time and with prior written notice, City, at its own expense, shall be entitled to perform, or to have performed, an on-site audit of Contractor's/Service Provider's information security program. In lieu of an on-site audit, upon request by City, Contractor/Service Provider agrees to complete, within forty-five (45 days) of receipt, an audit questionnaire provided by City regarding Contractor's/Service Provider's information security program.

For the purpose of clarity, Contractor's/Service Provider's information security program does not include that of Contractor's/Service Provider's hosted cloud service provider.

- 10.3 **Audit by Service Provider.** No less than annually, Service Provider shall conduct an independent third-party audit of its information security program (SOC 2 or equivalent) and provide such audit findings to City.

Contractor/Service Provider makes use of cloud services as provided by Amazon Web Services (AWS). Our hosted cloud service provider endeavours to follow best industry practices, and provides regular SOC 1, 2, and 3 audits. The results of these audits can be provided to the City upon request and upon completion of an NDA.

The hosted cloud service provider has an independent third party perform (SOC) audits of its data centers, and does not allow on-site data center access to customers.

- 10.4 **Audit Findings.** Contractor/Service Provider shall implement any required safeguards as reasonably identified by City or information security program audits, as it pertains to the Contractor/Service Provider's information security program.

- 10.5 **Indemnification by Contractor.** Without limiting Contractor's other obligations of indemnification set forth in Section 13 of this Agreement, Contractor shall defend, indemnify, and hold City Indemnitees harmless from and against any and all Claims, including reasonable expenses suffered by, accrued against, or charged to or

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recoverable from any City Indemnitee, related to, or arising out of, the failure of Contractor to perform its obligations imposed by this Section 10.

- 10.6 **City Responsibilities.** The City is responsible for maintaining the security of end user credentials (including user names and passwords as well as system administrator IDs and passwords, among others), and taking steps to maintain appropriate security and access by end users to Protected Data.

Login credentials are for City internal use only and City may not sell, transfer, or sublicense them to any other entity or person. The City agrees to be responsible for all activities undertaken by the City, City's Authorized Users, including City application administrators, and City end users that result in unauthorized access to the City account or Protected Data. The City shall contact Contractor/ Service Provider immediately if an unauthorized third party may be using the City account or Protected Data, or if account information is lost, stolen, or compromised.

City is also responsible for ensuring users meet CJIS compliance for 2-factor authentication for any users accessing the Contractor/Service Provider applications.

Given that users will be connecting via DirectConnect/VPN connection to the Solution through the City's local network, City must also ensure City network is protected, and City will equally conduct regular security reviews and audits, as required.

11. **Insurance.** Contractor shall purchase and maintain, not at City's expense, the minimum insurance coverage specified in the RFP, and any other coverage required by law. Each insurance policy required under this Agreement must be in effect at or prior to the commencement of Services under this Agreement and remain in effect for the duration of this Agreement including any warranty periods. Contractor shall provide evidence thereof to City at or prior to the commencement of Services under this Agreement. Contractor shall also require its subcontractors to purchase and maintain the minimum insurance coverage specified in Insurance Requirements, and any other coverage required under law, along with any other coverage Contractor deems appropriate for the subcontractor's work on Contractor's behalf. Contractor shall require its subcontractors to provide evidence thereof to City at or prior to the commencement of Services under this Agreement. Failure to maintain the insurance policies as required by this Agreement or to provide evidence thereof shall, at the discretion of City, constitute a breach of this Agreement.
12. **Limitation of Liability.** EXCEPT AS OTHERWISE PROVIDED HEREIN, UNDER NO CIRCUMSTANCES SHALL EITHER PARTY'S LIABILITY WITH RESPECT TO ANY AND ALL CLAIMS ARISING FROM PERFORMANCE OR NONPERFORMANCE OF OBLIGATIONS SET FORTH UNDER THIS AGREEMENT OR ANY SUBJECT MATTER OF THIS AGREEMENT, IN TORT, INCLUDING ANY NEGLIGENCE, IN CONTRACT OR OTHERWISE, EXCEED THE AMOUNTS PAID BY CUSTOMER TO VERSATERM UNDER THIS AGREEMENT DURING ANY CONTRACT YEAR. A "Contract Year" means each twelve-month period commencing on the effective date (or any anniversary of the effective date) of this Agreement during the term.

THE FOREGOING LIMITATION SHALL NOT APPLY TO:

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- A PARTY'S OBLIGATIONS OF INDEMNIFICATION, AS FURTHER DESCRIBED IN SECTION 13.3 OF THIS AGREEMENT; OR
- DAMAGES CAUSED BY A PARTY'S NEGLIGENCE OR WILFULL MISCONDUCT; OR
- A PARTY'S BREACH OF ITS OBLIGATIONS OF CONFIDENTIALITY, AS FURTHER DESCRIBED IN SECTION 8 OF THIS AGREEMENT.

Notwithstanding the aforementioned, Contractor's aggregate liability pursuant to the Data Breach Indemnification will not exceed \$1,000,000 during any Contract Year.

IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATED TO THIS AGREEMENT, WHETHER FORESEEABLE OR NOT, INCLUDING BUT NOT LIMITED TO LOST REVENUE OR PROFITS, LOSS OF DATA, LOSS OF USE OF PRODUCTS OR SERVICES, INTERRUPTION OF BUSINESS OR INCREASED OPERATING COSTS ARISING FROM ANY CAUSE OR ACTION WHATSOEVER, INCLUDING CONTRACT, WARRANTY, STRICT LIABILITY OR NEGLIGENCE.

Should City wish Contractor to enable interfaces directly with Third Party Systems, or in other words, the publishing and consuming of City Data by Third Party Systems by bypassing the City network, City will assume all responsibility for Third Party System use of City Data. Contractor shall only be responsible for ensuring that the transfer of data adheres to CJIS compliance protocols. CONTRACTOR SHALL NOT, UNDER ANY CIRCUMSTANCES, BE RESPONSIBLE FOR THE MISUSE OF CITY DATA BY THIRD PARTY SYSTEMS, DATA BREACHES, DATA QUALITY, OR VIRUSES/MALWARE AS THEY RELATE TO OR ARISE OUT OF THIS SECTION. CONTRACTOR WILL NOT INDEMNIFY FOR ANY CLAIMS ARISING OUT OF ANY THIRD PARTY CLAIM FOR DATA BREACHES OR VIRUSES/MALWARE RELATED TO OR CAUSED BY THIRD PARTY SYSTEMS.

13. **Indemnification.**

13.1 **Contractor Indemnification.** Contractor agrees to indemnify, defend, and hold City, its officers, directors, agents, and employees (each, an "Indemnitee" and collectively, the "Indemnitees") harmless from and against any and all liabilities, demands, claims, suits, losses, damages, expenses, fines, or judgments (collectively "Claims"), including reasonable attorneys' witnesses' and expert witnesses' fees, costs, and expenses incidental thereto, which may be suffered by, accrued against, charged to, or recoverable from any City Indemnitee, by reason of any Claim arising out of or relating to any negligent act, error or omission, or misconduct of Contractor, its officers, directors, agents, employees, and subcontractors, during the performance of this Agreement, including, without limitation, Claims arising out of or relating to:

- bodily injury (including death) or damage to tangible personal or real property; or
- violation of any law or regulation; or
- a Virus/malware; or
- a breach of any representations made under this Agreement.

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Data Breach Indemnification. Subject to the Data Breach limitation outlined in Section 12, Contractor will indemnify, defend, and hold City Indemnitees harmless from and against any and all Claims arising out of any third party claim to the extent such claim is the result of a Data Breach resulting from Contractor's breach of its obligations.

For the purposes of this Section, "Data Breach" shall mean a security incident in which the Contractor transmits or provides access to data that is stored in the Services to an un-authorized person. A Data Breach does not include cases where the City transmits or otherwise provides access to data stored in the Services to un-authorized persons.

The foregoing indemnity shall not apply to the extent the applicable Claim resulted from the acts or omissions of City, its officers, directors, agents, or employees.

- 13.2 **City Indemnification.** To the fullest extent permitted by law, City agrees to defend, hold harmless, and indemnify Contractor from and against any and all liabilities, demands, claims, suits, losses, damages, causes of action, fines or judgments, including costs, attorneys', witnesses', and expert witnesses' fees, and expenses incident thereto, relating to, arising out of, or resulting from:

- the negligent acts, errors, mistakes or omissions by City; or
- City's failure to comply with or fulfill the obligations established by this Agreement.

- 13.3 **Proprietary Rights Indemnification.** Contractor agrees to indemnify, defend, and hold City Indemnitees harmless from and against any and all Claims, including reasonable attorneys' fees, costs, and expenses incidental thereto, which may be suffered by, accrued against, charged to, or recoverable from any City Indemnitee, arising out of a claim that the Services infringes or misappropriates any United States or foreign patent, copyright, trade secret, trademark, or other proprietary right. In the event Contractor is enjoined from delivering the Services, either preliminary or permanently, or continuing to license such Services to City, and such injunction is not dissolved within thirty (30) days, or in the event City is adjudged, in any final order of a court of competent jurisdiction from which no appeal is taken, to have infringed upon or misappropriated any patent, copyright, trade secret, trademark, or other proprietary right in the use of the Services, then Contractor shall, at its expense:

- 13.3.1 obtain for City the right to continue using such Services; or
- 13.3.2 replace or modify such Services so that it does not infringe upon or misappropriate such proprietary right and is free to be delivered to and used by City; or
- 13.3.3 in the event that Contractor/Service Provider is unable, or determines in its reasonable judgment, that it is commercially unreasonable to take the action described in Section 13.3.1 or 13.3.2, and the issue is in the entire system or a major and critical component significantly affecting City's business

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operations, Contractor/Service Provider, at its sole cost and expense, shall accept return of Application Software, and refund to City an amount equal to a declining percentage of the total agreement price paid by the City, 100% of the fees during the first year of the term of this Agreement; 90%, 80%, 65%, and 50% of the fees in the second, third, fourth, and fifth years, respectively, of the term of this Agreement; and 0% thereafter.

- 13.4 **Assistance and Cooperation.** Neither party shall do anything to prejudice the other party's right to recover against third parties for any loss, destruction, or damage to real or tangible property, and shall at the indemnifying party's request and expense, furnish to such party reasonable assistance and cooperation, including assistance in the prosecution or defense of suit and the execution of instruments of assignment in favor of the indemnifying party in obtaining recovery. Each party agrees to update the other party during the course of the litigation to timely notify the other party of any issues that may involve the independent negligence of such other party, which is not covered by this indemnification.
- 13.5 **Separate and Independent.** The insurance provisions in Section 11 of this Agreement are separate and independent from the indemnity provisions of this Section 12 and shall not be construed in any way to limit the scope and magnitude of these indemnity provisions. Nor shall the indemnity provisions of this Section 13 be construed in any way to limit the scope and magnitude and applicability of the insurance provisions set forth in Section 11.
14. **Indemnification Procedures.** The indemnities in Section 13 are contingent upon:
- the indemnified party promptly notifying the indemnifying party in writing of any claim which may give rise to a claim for indemnification hereunder; and
 - the indemnifying party being allowed to control the defense and settlement of such claim; and
 - the indemnified party cooperating with all reasonable requests of the indemnifying party (at the indemnifying party's expense) in defending or settling such claim.
- 14.1 **Notice.** Promptly after receipt by the indemnified party of a threat of any action, or a notice of the commencement or filing of any action against the indemnified party or any of its indemnitees, the indemnified party shall give notice thereof to the indemnifying party, provided that failure to give or delay in giving such notice to the indemnifying party shall not relieve the indemnifying party of any liability it may have to the indemnified party or any of its indemnitees except to the extent that the indemnifying party demonstrates that the defense of such action is prejudiced thereby.
- 14.2 **Participation by Indemnified Party.** The indemnified party shall not independently defend or respond to any such claim; provided, however, that:
- 14.2.1 the indemnified party may defend or respond to any such claim, at its option and expense, if the indemnified party's counsel determines, in its sole

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discretion, that such defense or response is necessary to preclude a default judgment from being entered against the indemnified party, with the exception of proprietary rights indemnification, in which case, the Contractor/Service Provider shall have the sole control of the defense and of all negotiations for settlement of such action; and

14.2.2 the indemnified party shall have the right, at its option and expense, to participate in the defense of any action, suit or proceeding relating to such a claim through a counsel of its own choosing.

14.3 **Sole Control.** The indemnifying party shall have sole control of the defense and of all negotiations for settlement of such action, except that the indemnifying party agrees to consult with the indemnified party about any proposed settlement prior to the indemnifying party agreeing to the settlement. At the indemnifying party's request, the indemnified party shall cooperate with the indemnifying party in defending or settling any such action; provided, however, that the indemnifying party shall reimburse the indemnified party for all reasonable out-of-pocket costs incurred by the indemnified party (including, without limitation, reasonable attorneys' fees and expenses) in providing such cooperation.

15. **Representations and Warranties.**

15.1 **Mutual Representations and Warranties.** City and Contractor each represent and warrant that:

15.1.1 it is duly incorporated, validly existing, and in good standing under the laws of its state of incorporation;

15.1.2 it has all requisite corporate power, financial capacity, and authority to execute, deliver, and perform its obligations under this Agreement;

15.1.3 this Agreement, when executed and delivered, shall be a valid and binding obligation of it, enforceable in accordance with its terms;

15.1.4 the execution, delivery, and performance of this Agreement has been duly authorized by it and this Agreement constitutes the legal, valid, and binding agreement of it and is enforceable against it in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency, reorganizations, moratoriums, and similar laws affecting creditors' rights generally and by general equitable principles;

15.1.5 it shall comply with all applicable federal, state, local, international, or other laws and regulations applicable to the performance by it of its obligations under this Agreement.

15.2 **Contractor Representations and Warranties.** Contractor represents and warrants that:

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- 15.2.1 Solution/Services provided shall materially conform to all requirements of the Contract Documents, all representations of Contractor, and shall be fit for all purposes and uses required by the Contract Documents;
- 15.2.2 the Services to be performed under this Agreement shall be performed in a competent and professional manner;
- 15.2.3 Contractor will utilize only experienced, responsible, and competent personnel in its performance under this Agreement, and shall be fully responsible to City for the performance of its personnel;
- 15.2.4 Contractor has the experience and is qualified to perform the tasks involved with providing the Solution/Services in an efficient and timely manner. Contractor acknowledges City is relying on Contractor's representation of its experience and expertise, and any substantial misrepresentation may result in damage to City;
- 15.2.5 the Solution/Services will achieve in all material respects the functionality described in the Contract Documents, and such functionality shall be maintained during the initial Term;
- 15.2.6 Contractor is the owner of the Services, Software and documentation and/or Contractor has the right to license such Services, Software or documentation, as applicable;
- 15.2.7 no portion of the Services, Software or documentation infringes upon or violates any existing patent, copyright, trade secret or other intellectual property rights of any third party, as of the effective date of this Agreement, to the best of Contractor's knowledge without further investigation;
- 15.2.8 the Software, Services, and any other work performed by Contractor hereunder shall be its own work, and shall not infringe upon any United States or foreign copyright, patent, trade secret, or other proprietary right, or misappropriate any trade secret, of any third party, and that it has neither assigned nor otherwise entered into an agreement by which it purports to assign or transfer any right, title, or interest to any technology or intellectual property right that would conflict with its obligations under this Agreement;
- 15.2.9 Contractor will use its best efforts to ensure no Virus/malware is introduced into City's computer and network environment while providing or performing the Solution or Services, and will adhere to City's then-current procedures to protect against the same, and, if Contractor transfers a Virus/malware to City through the Solution or Services, Contractor shall reimburse City the actual cost incurred by City to remove or recover from the Virus/malware, including the costs of persons employed by City to remove or recover from the Virus/malware;
- 15.2.10 there is no outstanding litigation, arbitrated matter or other dispute to which Contractor is a party which, if decided unfavorably to Contractor,

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would reasonably be expected to have a potential or actual material adverse effect on Contractor's ability to fulfill its obligations under this Agreement;

15.2.11 during the Warranty Period, Contractor warrants the Solution components will function properly together without Defects.

15.2.12 **Warranty Limitations.** The warranties described in this Section 15.2 shall be contingent upon the existence of the following conditions: (i) the Product is implemented and used by the City in accordance with the Documentation; (ii) the City notifies Contractor of any warranty defect as promptly as reasonably possible after becoming aware of such defect; (iii) the City has properly used all Major and Minor Enhancement Releases made available with respect to the Product, and any updates recommended by Contractor with respect to any third-party software products that affect the performance of the Product; (iv) the City has properly maintained all associated equipment and software, as applicable, and provided the environmental conditions in accordance with written specifications provided by the applicable manufacturer of such equipment and software; (v) the City has not introduced other equipment or software that causes an adverse impact on the Product; (vi) the City has paid all amounts due hereunder and is not in default of any provision of this Agreement; (vii) any legacy software with respect to which the Product is to operate contains clearly defined interfaces and correct integration code, and (viii) the City has made no changes (nor permitted any changes to be made other than by or with the express approval of Contractor) to the Product except as may be permitted herein.

15.2.13 **NO OTHER WARRANTIES.** THE PRODUCT IS NOT INTENDED TO BE A SUBSTITUTE FOR THE PROFESSIONAL JUDGMENT OF AUTHORIZED USERS. THE PRODUCT DOES NOT PROVIDE LEGAL ADVICE. CONTRACTOR ASSUMES NO RESPONSIBILITY OR RISK FOR THE CITY'S MISUSE OF THE PRODUCT. EXCEPT AS EXPRESSLY SET FORTH UNDER THIS AGREEMENT, NEITHER PARTY MAKES ANY WARRANTY IN CONNECTION WITH THE PRODUCT, SERVICES, THIRD PARTY SOFTWARE, THIRD PARTY DATA, THIRD PARTY SUPPLIERS, OR THIS AGREEMENT AND HEREBY DISCLAIMS ANY AND ALL IMPLIED OR STATUTORY WARRANTIES, INCLUDING ALL IMPLIED WARRANTIES OF TITLE, MERCHANTABILITY, NO INFRINGEMENT, FITNESS FOR A PARTICULAR PURPOSE, ERROR-FREE OR UNINTERRUPTED OPERATION, OR THAT THE SERVICES, THIRD-PARTY DATA ARE UP TO DATE, ACCURATE OR COMPLETE, SECURE FROM LOSS OR DAMAGE, OR FREE OF HARMFUL COMPONENTS, AND ANY WARRANTIES ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE. TO THE EXTENT THAT A PARTY MAY NOT AS A MATTER OF APPLICABLE LAW DISCLAIM ANY IMPLIED WARRANTY, THE SCOPE, AND DURATION OF SUCH WARRANTY WILL BE THE MINIMUM PERMITTED UNDER

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SUCH LAW. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED,
BEYOND THE WARRANTIES SET FORTH IN THIS AGREEMENT.

16. **Default.** If either party fails to perform or comply with any term or condition of this Agreement, such failure shall be considered an event of default.
- 16.1 **Default Conditions.** A party shall be in default if that party:
- 16.1.1 fails to meet Service Levels as set forth in Section 5; or
 - 16.1.2 conducts business in an unethical or illegal manner; or
 - 16.1.3 is or becomes insolvent or is a party to any voluntary bankruptcy or receivership proceeding, makes an assignment for a creditor, or is subject to any similar action affecting such party's capability to perform under this Agreement; or
 - 16.1.4 is the subject of a petition for involuntary bankruptcy not removed within 60 Days; or
 - 16.1.5 fails to carry out any term or condition of the Contract Documents.
- 16.2 **Contractor Insolvency.** Not applicable.
- 16.3 **Written Assurance of Intent To Perform.** Whenever City in good faith has reason to question Contractor's intent to perform, City may demand that Contractor give a Written Assurance of its intent to perform. In the event the demand is made and no Written Assurance is given within 5 Days, City may treat this failure as an anticipatory repudiation of this Agreement.
17. **Remedies.** The remedies set forth in this Agreement are not exclusive, except where specifically limited elsewhere in this Agreement. Election of one remedy shall not preclude the use of other remedies. In the event of default:
- 17.1 **Notice of Failure to Perform under the Agreement.** The non-defaulting party shall provide written notice of such default. The defaulting party shall have 30 Days to perform after written notice is received. If the defaulting party believes the nature of its default is such that more time than the Cure Period allows would reasonably be required to fulfill such obligation, then the defaulting party shall provide a written request for the additional time it deems necessary to perform, and the non-defaulting party shall not unreasonably withhold its approval for such request. In no event, however, shall any Cure Period exceed 60 Days. Any written notice shall specify the nature of the default and, if possible, the manner by which the default may be satisfactorily cured. If the default is not cured to the satisfaction of the non-defaulting party within the Cure Period, the non-defaulting party may terminate this Agreement pursuant to Section 18.1, Termination of Agreement for Cause, and the termination shall be effective immediately or at such other date as specified by the terminating party.
- 17.2 **Notice of Failure to Perform under an Exhibit A.** The non-defaulting party shall provide written notice of such default. The defaulting party shall have 30 Days ("Cure

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Period”) to perform after written notice is received, provided however, the defaulting party must commence performance, and diligently proceed to fulfill such obligation, within 2 Days and provide written notice to non-defaulting party of its efforts cure the default. If the defaulting party believes the nature of its default is such that more time than the Cure Period allows would reasonably be required to fulfill such obligation, then the defaulting party shall provide a written request for the additional time it deems necessary to perform, and the non-defaulting party shall not unreasonably withhold its approval for such request. In no event, however, shall any Cure Period exceed 60 Days. Any written notice shall specify the nature of the default and, if possible, the manner by which the default may be satisfactorily cured. If the default is not cured to the satisfaction of the non-defaulting party within the Cure Period, the non-defaulting party may terminate the applicable Exhibit A pursuant to Section 18.2, Termination of an Exhibit A for Cause, and the termination shall be effective immediately or at such other date as specified by the terminating party.

- 17.3 **All Rights Reserved.** The non-defaulting party shall have all other rights granted under this Agreement and all rights at law or in equity that may be available to it.
- 17.4 **No Liability for Certain Damages.** Neither party shall be liable for incidental, special, or consequential damages.
- 17.5 **Dispute Resolution.** The Parties agree if a dispute arises with respect to this Agreement or any Exhibit A, it shall be resolved in accordance with this Section 17.5.
- 17.5.1 The parties shall use all reasonable efforts to resolve any dispute, controversy or claim (“Dispute”) through good faith negotiations. However, if such good faith negotiations do not resolve the Dispute, the following shall apply:
- 17.5.1.1 If such a Dispute should arise, the project managers of City and Contractor will attempt to resolve the Dispute; and
- 17.5.1.2 if the Dispute is not resolved within ten (10) days of being referred to the project managers, the Dispute will be referred to City’s CIO (or designee) and Contractor’s COO (or designee); and
- 17.5.1.3 if the Dispute is not resolved within ten (10) days of being referred to the City’s CIO and Contractor’s COO (or designee), the Dispute will be referred to the City’s Manager of Technology and Innovation and Contractor’s CEO (or designee); and
- 17.5.1.4 if the Dispute is not resolved within ten (10) days of being referred to the City’s Manager of Technology and Innovation and Contractor’s CEO (or designee), such Dispute will be resolved exclusively by arbitration as provided in and subject to Section 17.5.2.
- 17.5.2 Except as stated in Section 17.5.4, any Dispute, whether based on contract, tort or other legal theory (including, but not limited to, any claim of fraud or misrepresentation, but other than in respect of equitable relief that may be

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sought), arising out of or relating to this Agreement, including its interpretation, performance, breach of or termination not resolved by good faith negotiations, as provided in Section 17.5.1, shall be resolved exclusively by arbitration in accordance with the following provisions:

- 17.5.2.1 The arbitration will be conducted in Phoenix, Arizona, in accordance with American Arbitration Association (the "Rules").
- 17.5.2.2 The Arbitrator will be bound by the provisions of this Agreement. Prior to his/her appointment, the selected Arbitrator shall be made aware of the terms of this Agreement and the relevant Exhibit A(s). Following his/her appointment, the Arbitrator shall set forth the schedule and timing of the arbitration proceedings and shall conduct the proceedings in accordance with the Rules.
- 17.5.2.3 The Arbitrator shall have the right to assess the costs incurred by the successful party against the unsuccessful party or in such manner as he or she deems just. Upon rendering an award or a decision, the Arbitrator shall set forth in writing the basis of such award or decision.
- 17.5.3 The award or decision rendered by such Arbitrator shall be final and binding. Judgment on the award or any other final or interim decision rendered by the Arbitrator may be entered, registered or filed for enforcement purposes in any court having jurisdiction thereof.
- 17.5.4 Notwithstanding the foregoing in this Section 17.5, in any matter at issue which: (a) relates solely to the collection of outstanding amounts due hereunder; or (b) arises as a result of a breach of confidentiality, the party owed such outstanding amounts (or whose confidentiality protection has been breached) may, in its sole discretion, seek resolution in equity or law before a court of competent jurisdiction without first subjecting such matter to the arbitration process described in Section 17.5.2.

18. Termination.

- 18.1 **Termination of Agreement for Cause.** If either party breaches any of its duties or obligations hereunder, and such breach is not cured, or the breaching party is not diligently pursuing a cure to the non-breaching party's sole satisfaction, within 30 Days after written notice of the breach, then the non-breaching party may terminate this Agreement for cause as of a date specified in such notice.
- 18.2 **Termination of an Exhibit A for Cause.** If Contractor breaches any of its duties or obligations under an Exhibit A, and such breach is not cured, or Contractor is not diligently pursuing a cure to City's sole satisfaction, as set forth in Section 17.2, then City may terminate the applicable Exhibit A without liability, in whole or in part, for cause as of the date specified in such notice.
- 18.3 **Termination for Conflict of Interest.** See Section S.20 of City Standard Terms and Conditions.

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- 18.4 **Termination for Non-Appropriation.** See Section S.21 of City Standard Terms and Conditions.
- 18.5 **Termination for Convenience.** See Section S.19 of City Standard Terms and Conditions.
- 18.6 **Contractor's Responsibilities upon Notice of Termination.** Upon receipt of a notice of termination, Contractor shall:
- 18.6.1 discontinue providing Services under this Agreement upon the effective date of termination and to the extent specified in the notice of termination; and
 - 18.6.2 continue performance of any such Services not terminated by the notice of termination; and
 - 18.6.3 take all actions necessary, or as City may direct, for the protection and preservation of any City property in possession of Contractor when Contractor receives notice of termination; and
 - 18.6.4 negotiate in good faith with City on any applicable equitable adjustments to unpaid amounts as a result of a partial termination of Services; and
 - 18.6.5 reasonably cooperate with City to effect an orderly and efficient transition of Services to a Successor Service Provider in accordance with the Transition Assistance Services set forth in Section 18.7.
- 18.7 **Transition Assistance Services.** In the event of expiration or termination of this Agreement or an Exhibit A, in whole or in part, Contractor will provide to City and/or to City's replacement service provider ("Successor Service Provider") assistance reasonably requested by City to effect the orderly transition of the applicable Services to City or to Successor Service Provider ("Transition Assistance Services"). Transition Assistance Services shall be available to City, at City's sole cost and expense, during the 365 Day period prior to, and/or following, expiration or termination of this Agreement or an Exhibit A ("Transition Assistance Period"). Provided that Contractor and City agree on the price and scope of the Transition Assistance Services, such Transition Assistance Services may include:
- 18.7.1 developing a plan for the orderly transition of the terminated or non-renewed Services from Service Provider to City or Successor Service Provider;
 - 18.7.2 providing reasonable training to City staff or Successor Service Provider in the performance of the Services then being performed by Service Provider;
 - 18.7.3 using commercially reasonable efforts to assist City, at City's sole cost and expense, in acquiring any necessary rights to legally and physically access and use any third-party technologies and documentation then being used by Service Provider in connection with the Services;

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- 18.7.4 using commercially reasonable efforts to make available to City, pursuant to mutually agreeable terms and conditions, any third-party services then being used by Service Provider in connection with the Services; and,
- 18.7.5 such other activities upon which the parties may agree.
- 18.8 **Payments Upon Termination.** Upon termination of this Agreement or an Exhibit A, City shall pay to Contractor all undisputed amounts due and payable, as follows:
- 18.8.1 Contractor shall be paid the pro-rated value of all Services in progress as of the effective date of the termination notice, provided however, that such payment shall not exceed the payment amount associated with the progress payment applicable to the Services. If termination is for Contractor's uncured breach, City will not be required to release any Hold-Back Amounts (if any) or pay for Services that resulted in the uncured breach; and
- 18.8.2 the cost of all materials and outside services, which have been reasonably placed on order by Contractor on behalf of City under this Agreement, or, as applicable, any cancellation charges (including, but not limited to, restocking fees) relating to such materials and outside services.
- 18.9 **Return of Materials.** Upon expiration or earlier termination of this Agreement or an Exhibit A, each party shall cease using and:
- 18.9.1 promptly return to the other party, or certify the destruction of, any of the following of the other party held in connection with the performance of this Agreement, an Exhibit A, or the Services:
- all Confidential Information; and
 - any other data, programs, and materials.
- 18.9.2 return to the other party, or permit the other party to remove, any properties of the other party then situated on such party's premises; and
- 18.9.3 in the case of City Data, Service Provider shall, immediately upon termination of this Agreement or an Exhibit A, provide City with a final export of City Data and shall certify the destruction of any City Data within the possession of Service Provider or a subcontractor. The parties agree to work in good faith to execute the foregoing in a timely and efficient manner. Notwithstanding the foregoing, Contractor reserves the right to retain City Data on audit logs and server system logs and in support tickets, support requests, and direct communications with Contractor.

Except for termination for City's default, no liability shall accrue to City in the event the Agreement or any Exhibit A is terminated under this Section 18.

19. **General.**

- 19.1 **Notices.** See Section S.40 of City Standard Terms and Conditions.
- 19.2 **Governing Law.** See Section S.41 of City Standard Terms and Conditions.

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- 19.3 **Public Records.** See Section S.12 of City Standard Terms and Conditions.
- 19.4 **Compliance With Applicable Laws.** See Section S.9 of City Standard Terms and Conditions.
- 19.5 **Relationship between City and Contractor.** It is expressly understood that the relationship of Contractor to City shall be that of an independent contractor.
- 19.6 **Restriction on Employment Solicitations.** Neither party shall, during any term of this Agreement and for a period of 90 Days following termination, completion, or other expiration of this Agreement, solicit the employment of or hire the other party's personnel with whom such party has had contact under this Agreement. For the purposes of this Agreement, the terms "solicit the employment of" and "hire" shall not include any offer of hiring resulting from either party's publicly posted job openings. Further, pursuant to A.R.S. § 38-504(b), while employed by City and for 2 years thereafter, City personnel are prohibited from disclosing or using, without appropriate authorization, any confidential information acquired by such personnel in the course of his or her official duties at City.
- 19.7 **Assignment of Agreement.** Contractor may assign its rights and benefits and delegate its duties and obligations to an Affiliate provided that such assignee assumes in writing the performance of all of the terms, provisions and covenants of this Agreement on the part of Contractor to be kept and performed, and Contractor delivers to City within 21 calendar days after the assignment is executed (or as soon thereafter as reasonably practicable), a copy of such agreement, together with a duly executed assumption agreement. Contractor may not otherwise assign or delegate this Agreement or any of its rights or obligations, whether by operation of law or otherwise, without prior written consent of City, such consent not to be unreasonably withheld. Failure to comply with this Section 19.7 shall render the assignment void and may be grounds for termination.
- 19.8 **Advertising and Publicity.** Contractor is prohibited from any use of City's name in any media, including providing City as a reference, unless explicitly authorized in advance in writing by City, which authorization City may revoke at any time for any reason.
- 19.9 **Cooperative Use of Agreement.** See Section S.38 of City Standard Terms and Conditions.
- 19.10 **Force Majeure.** If a Party is delayed or hindered in, or prevented from, the performance required under this Agreement (except for payment of monetary obligations) by reason of acts of God, acts of the public enemy, acts of the United States government, fires, floods or other natural catastrophes, explosions, epidemics, quarantine restrictions, or embargoes ("Event"), not the fault or negligence of the Party delayed in performance, and where reasonable measures by such Party could not have avoided or mitigated the effects of such Event, then such Party is excused from such performance for the period of delay.

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Any such excuse for delay shall last only as long as the Event remains beyond the reasonable control of the delayed party, and the delayed party shall use its best efforts to minimize the delays caused by any such Event beyond its reasonable control.

- 19.10.1 The delayed party must promptly notify the other party upon the occurrence of any such event, including its plans to resume performance or to minimize or eliminate the effect of the delay, or performance by the delayed party will not be considered excused pursuant to this Section 19.10. Where Contractor fails to use its best efforts to minimize such delays, the delays shall be included in the determination of Service Level achievement.
- 19.10.2 An Event does not excuse Contractor from providing services and fulfilling its responsibilities related to the requirements of backup and recovery of City Data providing the Event does not prevent the Contractor from fulfilling these responsibilities. Configuration changes, other changes, viruses/malware, or other errors or omissions introduced, or permitted to be introduced, by Contractor that result in an outage or inability for City to use the Solution/Services shall not constitute an Event.
- 19.10.3 The delivery or performance date shall be extended for a period equal to the time lost by reason of delay, plus such additional time as may be reasonably necessary to overcome the effect of an Event, provided however, under no circumstances shall delays caused by an Event extend beyond 120 Days from the scheduled delivery or completion date of a task.
- 19.11 **Cooperation.** Where agreement, approval, acceptance, consent or similar action by either party hereto is required by any provision of this Agreement, such action shall not be unreasonably delayed or withheld. Each party will cooperate with the other by, among other things, making available, as reasonably requested by the other, management decisions, information, approvals, and acceptances in order that each party may properly accomplish its obligations and responsibilities hereunder. Service Provider will cooperate with any City supplier performing services, and all parties supplying hardware, software, communication services, and other services and products to City, including, without limitation, the Successor Service Provider. Contractor agrees to cooperate with such suppliers, and shall not commit or permit any act which may interfere with the performance of services by any such supplier.
- 19.12 **Continuation During Disputes.** See Section S.18 of City Standard Terms and Conditions.
- 19.13 **Non-Waiver of Rights.** See Section S.23 of City Standard Terms and Conditions.
- 19.14 **Severability.** See Section S.44 of City Standard Terms and Conditions.
- 19.15 **No Third Party Beneficiaries.** See Section S.5 of City Standard Terms and Conditions.
- 19.16 **City's Right to Recover Against Third Parties.** See Section S.26 of City Standard Terms and Conditions.

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- 19.17 **Counterparts; Facsimile.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which, taken together, shall constitute one and the same Agreement. If any signature is delivered by facsimile, or e-mail delivery of a .pdf document, such signature shall create a valid and binding obligation of the executing party with the same force and effect as if such facsimile or .pdf document were an original.
- 19.18 **Provisions Required by Law.** See Section S.43 of City Standard Terms and Conditions.
- 19.19 **Interpretation, Neutral Construction.** The parties agree this Agreement was negotiated fairly between them at arm's length and the final terms of this Agreement are the product of the parties' negotiations. Each party warrants and represents it has sought and received legal counsel of its own choosing with regard to the contents of this Agreement and the rights and obligations affected hereby. The parties agree this Agreement shall be deemed to have been jointly and equally drafted by them, and the provisions of this Agreement therefore should not be construed against a party on the grounds such party drafted, or was more responsible for, drafting the provisions.
- 19.20 **Amendments.** See Section S.7 of City Standard Terms and Conditions.
- 19.21 **Successors and Assigns, Binding Effect.** See Section S.4 of City Standard Terms and Conditions.
- 19.22 **Entire Agreement.** The Contract Documents shall supersede all prior oral or written agreements, if any, between the parties, and shall constitute the entire agreement between the parties with respect to the Solution/Services to be provided.
- 19.23 **Surviving Provisions.** Notwithstanding any completion, termination, or other expiration of this Agreement, all provisions which, by the terms of reasonable interpretation thereof, set forth rights and obligations that extend beyond completion, termination, or other expiration of this Agreement, will survive and remain in full force and effect, including Section 8 (Non-Disclosure of Confidential Information), Section 12 (Limitation of Liability), Section 13 (Indemnification), Section 17.5 (Dispute Resolution), Section 18 (Termination). Except as specifically provided in this Agreement, completion, termination, or other expiration of this Agreement will not release any party from any liability or obligation arising prior to the date of termination.
- 19.24 **UN Exclusion.** Pursuant to Article 6 of the United Nations convention on contracts for the International Sale of Goods ("UN Convention"), the Parties agree that the UN Convention shall not apply to this Agreement.

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THIS AGREEMENT shall be in full force and effect only after it has been approved and executed by the duly authorized City officials.

CITY OF MESA, ARIZONA

an Arizona municipal corporation

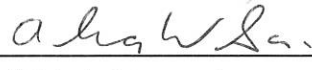
By:  Digitally signed by Edward Quedens
DN: cn=Edward Quedens, o=City of Mesa,
ou=Business Services Department,
email=ed.quedens@mesaaz.gov, c=US
Location: City of Mesa
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Travis Cutright
Chief Information Officer

VERSATERM, INC.

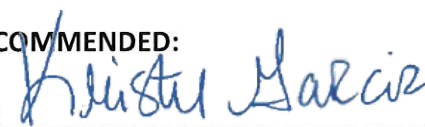
a Canadian Corporation

By: 
Name T ROSALTS
Title SECRETARY-TREASURER

By: 
Name ALLAN WILSON
Title CTO

APPROVED BY MESA CITY COUNCIL ON: July 2, 2018

RECOMMENDED:

By: 
Name Kristy Garcia
Title Senior Procurement Officer

APPROVED AS TO FORM:

By: n/a
Jim Smith
City Attorney

ATTESTED:

By: n/a
DeeAnn Mickelsen
City Clerk

EXHIBIT A

ONBOARDING TERMS AND CONDITIONS

1 TERM

This Exhibit shall be effective from the Effect Date, and shall expire upon the completion of the final onboarding task, as indicated in the Statement of Work (Exhibit A.1).

2 DOCUMENTS

The Onboarding Terms and Conditions shall also include the following exhibits:

- i. Exhibit A.1 Statement of Work
- ii. Exhibit A.2 Project Implementation Schedule
- iii. Exhibit A.3 Interface Control Document (ICD)
- iv. Exhibit A.4 Data Conversion Plan
- v. Exhibit A.5 Acceptance Testing Plan
- vi. Exhibit A.6 Training Plan
- vii. Exhibit A.7 Change Order Process
- viii. Exhibit A.8 System Performance and Availability Standards
- ix. Exhibit A.9 Options
- x. Exhibit A.10 Technical Glossary

3 CONTRACT DELIVERABLES

- 3.1 Contractor shall supply the Products and Services for the specific products identified in the Price and Payment Terms (Exhibit C) and as described in the Documentation (Exhibit E), the Interface Control Document (Exhibit A.3) and as modified under the Change Order Process (Exhibit A.7).
- 3.2 Contractor shall supply and maintain a detailed Project Implementation Schedule (Exhibit A.2) that describes the tasks and scheduled completion dates for all of the activities involved with the project; these shall also include activities that are the responsibility of the City. Contractor will provide written project status reports, as appropriate, detailing current status of project, milestones achieved and documented project implementation schedule changes. The responsibilities of the parties to perform to meet such schedules are outlined under Section 5 (Acceptance) below and in the Statement of Work (Exhibit A.1) and Project Implementation Schedule (Exhibit A.2).
- 3.3 Contractor shall supply the expertise, services, and project management called for by this Agreement and identified specifically in the Price and Payment Terms (Exhibit C), the Statement of Work (Exhibit A.1) and Project Implementation Schedule (Exhibit A.2) to effect the proper preparation, installation, conversion, training, and placing into Production Use the Product for the City, as described in the Statement of Work (Exhibit A.1).
- 3.4 Contractor shall provide the appropriate Documentation in electronic form for the Solution.

- 3.5 Contractor shall make two additional copies of the database available; one will be a training version of the database, which the City can use to conduct their own training courses for new staff, and the other will be a test environment.
- 3.6 Contractor shall provide the conversion services identified in the Price and Payment Terms (Exhibit C), Statement of Work (Exhibit A.1), and Interface Control Document (Exhibit A.3) to process and load information from previous data processing systems of the City into the new Solution, so that such information continues to be useful in the new system.

4 RESPONSIBILITIES

- 4.1 Contractor shall assign a competent project manager to this project during the Implementation Period. The project manager shall be Rochelle Danielson, unless the parties mutually agree to change this individual, which consent shall not be unreasonably withheld. The project manager shall prepare work plans and schedules, keep all active parties aware, in writing, of progress, changes, issues, etc. and convene meetings when necessary and convenient for the parties to resolve issues and confirm achievements. Only Contractor staff who are fully trained and qualified and who have met the Contractor's police security standards shall be assigned to this project.
- 4.2 The City shall designate a project authority from the Police Department who shall have the experience, knowledge, and authority to make decisions with Contractor's project manager and carry out those responsibilities attributed to the City and reflected in the Project Implementation Schedule (Exhibit A.2) and Statement of Work (Exhibit A.1).

5 GUIDANCE

Contractor will provide guidance and assistance in specifying the hardware and third party software to be purchased by the City as identified in Minimum Client and Peripheral Specifications (Exhibit G).

6 ACCEPTANCE

The acceptance process shall be conducted formally and in writing between the parties pursuant to the Statement of Work (Exhibit A.1), Project Implementation Schedule (Exhibit A.2), and Acceptance Testing (Exhibit A.5). Specific details of each test and the process for testing are defined within Acceptance Testing (Exhibit A.5).

EXHIBIT A.1

STATEMENT OF WORK

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1 OVERVIEW

This document is the Statement of Work defining the principal tasks, activities and responsibilities of the parties involved in the implementation of the Application Software, interfaces and ancillary products.

This Project is a collaboration between the Parties, City of Mesa, hereafter “City” and Versaterm, and is contingent upon both entities fulfilling their respective responsibilities as defined in the Agreement and this Statement of Work.

1.1 PROJECT SUMMARY AND OBJECTIVES

This project will implement Versaterm’s Record Management System, Versadex (RMS), Mobile Field Reporting (Mobile Records Entry, MRE), and various related components for the Mesa Police Department. This solution will replace Hexagon’s I/LEADS (RMS), Mesa’s jail management (BARS), and the Brazos eCitation systems.

The project objectives include:

- Meeting the Federal and State mandate for NIBRS reporting (National Incident-Based Reporting System)
- Adoption of a more user-friendly system - minimizing duplicate entry, streamlining workflow, using available technology more efficiently, and, where we can, to make the records function easier for field personnel.

1.2 RELATED EXHIBITS

- Agreement
- Exhibit A – Onboarding Services (individual or collectively), as executed from time to time
- Exhibit A.1 – Statement of Work
- Exhibit A.2 – Project Implementation Schedule
- Exhibit A.3 – Interface Control Document (ICD)
- Exhibit A.4 – Data Conversion Plan
- Exhibit A.5 – Acceptance Testing Plan
- Exhibit A.6 – Training Plan
- Exhibit A.7 – Change Control Process
- Exhibit A.8 – System Performance and Availability Standards Exhibit
- Exhibit A.9 – Options Exhibit
- Exhibit A.10 – Technical Glossary Exhibit
- Exhibit B – Insurance Requirements
- Exhibit C – Annual Subscription Support Terms
- Exhibit D – Price and Payment Terms
- Exhibit E – License Terms
- Exhibit F – Documentation
- Exhibit G – Minimum Client and Peripheral Specifications
- Contractor’s/Service Provider’s Proposal, as amended by clarification during proposal evaluation.
- City’s RFP with City Standard Terms and Conditions, as amended by any addenda

2 ROLES AND RESPONSIBILITIES

2.1 PROJECT MANAGEMENT OVERVIEW

The City and Versaterm shall each appoint a Project Manager for the Project with the experience, knowledge and authority to make decisions and carry out the tasks in the Project Implementation Schedule and this Statement of Work. The Project Managers will be the primary points of contact between the Parties during the Project.

The City and Versaterm Project Managers will be responsible for directing and managing the Project to meet the Project objectives. The City and Versaterm Project Managers will be responsible for managing their respective Project Team resources and ensuring that Project Team members fulfill their responsibilities. Each will have access to resources necessary to complete the project (personnel, documents, physical areas, etc.), and will be responsible for coordinating administrative and technical decisions on the Project.

2.2 PROJECT MANAGEMENT TOOLS

The following project artifacts will be maintained on the City's SharePoint site:

- Schedule (will be in MS Project format and posted to the City's SharePoint site. All revisions shall be made on the City SharePoint file)
- Issues List
- Task List/Action Items
- Change/Decision log
- Risk List/Register
- Change Management Items List

The City shall give the Versaterm Project Manager and Lead Implementer access to the above.

If, for whatever reason, the SharePoint site becomes less than effective method for sharing this information (mutually agreed upon by City and Versaterm), an alternative may be created/provided.

2.3 VERSATERM PROJECT MANAGER

Project management services are a large part of what Versaterm provides and occurs throughout the Project as part of every task. The Versaterm Project Manager is available to the City on a daily (workday) basis (not just at designated points in time). The Versaterm Project Manager is responsible for, but not limited to, the following:

2.3.1 PLANNING AND EXECUTION

- Maintain Project Implementation Schedule on City's SharePoint site (initial plan will be drafted by Versaterm PM and posted by the City. The Versaterm PM will have access to it thereafter.)
- Ensure Versaterm tasks are executed on time.
- Coordinate and oversee the installation of all licensed Versaterm Application Software as well as all System Software and Third-Party Software included in the Agreement.

- Coordinate and oversee the development efforts of all contracted interfaces.

2.3.2 COMMUNICATIONS

- Prepare weekly project status reports identifying overall project status, recent accomplishments, outstanding issues, risks, action items and upcoming events
- Maintain regular communication with City's Project Manager, providing timely responses, no later than ten (10) Business Days, to issues raised by the City's Project Managers
- Conduct, or participate in, regular conference calls (e.g. weekly) to discuss project status updates, open issues, and identified risks on Mondays from 0830-1000
- Work with City Project Managers and staff to resolve identified issues and mitigate project risks identified as requiring action
- Plan and/or attend on-site project meetings as requested or needed
- Facilitate communication between City resources and Versaterm resources for interface and conversion tasks
- Assist City Project Manager with developing a Communication Plan

2.3.3 RESOURCE MANAGEMENT

- Manage internal Versaterm resources and efforts (technical tasks, implementation tasks, Support during the Configuration Phase, interface development, conversion efforts)
- Communicate with City resources regarding work effort in coordination with the City Project Manager

2.3.4 CONFIGURATION WORKSHOPS

- Assist the Versaterm Implementation Specialist during onsite Configuration workshops

2.3.5 TRAINING

- Assist the Versaterm Implementation Specialist in conducting Versaterm Trainer Training
- Provide onsite and remote support during the City Trainer Training
- Provide onsite and remote support during the City End-User Training

2.3.6 ROLLOUT

- Provide onsite support during cutover
- Provide front-line support during post-cutover testing and refinement period

2.3.7 OTHER

- Prepare project Change Order Request Forms per the Agreement
- Oversee invoice preparation

2.4 CITY PROJECT MANAGER

The City's Project Manager is responsible for overseeing the implementation of the Project on the City's sites. The City's Project Manager is responsible for, but not limited to, the following:

- Maintaining regular communications with the Versaterm Project Manager.
- Managing the efforts of the City's staff.
- Coordinating City activities with the Versaterm Project Manager.
- Participating in regular conference calls and onsite meetings with the Versaterm Project Manager to discuss Project status updates, project issues, risks including mitigation efforts, and upcoming activities.
- Reviewing Versaterm's Project status reports.
- Tracking overall Project status.
- Tracking and resolving outstanding City issues and action items for Action Item Log.
- Providing timely responses, no later than ten (10) Business Days, to issues raised by the Versaterm Project Manager.
- Facilitating communication between City and Third-Party resources and Versaterm's resources for System Infrastructure, Interface and Data Conversion tasks.
- Managing communications and coordinating project activities with outside agencies and Third-Party vendors directly under contract with the City.
- Coordinating Versaterm access (SharePoint, onsite, and remote)
- Providing workspace at the City's project site for Versaterm's Project Team.
- Requesting, discussing, and reviewing Change Order Request Forms prepared by Versaterm Project Manager.
- Coordinating approval and execution of Change Orders and Amendments as needed.

2.5 ROLES AND RESPONSIBILITIES DURING THE PROJECT

This section describes the roles and responsibilities of key Project resources throughout the duration of the Project.

2.5.1 VERSATERM RESPONSIBILITIES

Versaterm's overall responsibility is to establish a designated Project Team for the duration of this project. The Project Team should have the expertise to carry out the assigned Project tasks and responsibilities. As the Versaterm Project Team members will not be 100% dedicated to this project, Versaterm is also responsible for ensuring that the team members have ample time and resources to fulfill their responsibilities according to the Project Implementation Schedule.

When appropriate, Versaterm will connect to City infrastructure, workstation(s), and/or MDT(s) via SecureLink. (Mesa PD provides SecureLink VPN for all vendors at no cost to the vendor.)

2.5.2 VERSATERM PROJECT TEAM

The Versaterm Project Team will consist of a Project Manager, an Implementation Specialist, and a Technical Lead.

The **Versaterm Implementation Specialist** is responsible for delivering the Configuration workshops to the City Project Team, assisting the City in configuring the Versadex RMS, and reviewing business re-engineering options.

The **Versaterm Technical Lead** is responsible for delivering the technical aspects of the project, assisting in the Configuration workshops, and providing technical support to the project.

2.5.3 CITY RESPONSIBILITIES

The City's overall responsibility is to establish a designated Project Team for the duration of this project. The Project Team members should have the expertise to carry out the assigned Project tasks and responsibilities as indicated in this Statement of Work. The City must ensure that City personnel have ample time, resources, and expertise to carry out their assigned Project tasks and responsibilities.

The City is responsible to provide desktop computers and mobile workstations for the City to use during the Configuration phase. The City workstations must meet Versaterm's minimum specifications as specified in Exhibit F – Minimum Client and Peripheral Specifications. Additionally, the City must provide Versaterm with VPN connectivity with remote desktop access to city computers for troubleshooting workstation related items. When appropriate, Versaterm will connect to City infrastructure, workstation(s), and/or MDT(s) via SecureLink. (Mesa PD provides SecureLink VPN for all vendors at no cost to the vendor). The City is also responsible to provide access to information and the staff required for data conversion as specified in this Statement of Work.

2.5.4 CITY PROJECT TEAM

The City will provide a Project Team consisting of, but not limited to, the following roles, which may change based on project need:

- Technical Lead
- System Administrator
- Application Administrator
- GIS Specialist
- Infrastructure Specialist
- Operational Lead
- Crime Analyst
- Records Specialist
- Investigations Specialist
- Patrol Division Specialist
- Property and Evidence Division Specialist
- Detention Specialist

2.6 PROJECT IMPLEMENTATION SCHEDULE

The Project Implementation Schedule will be updated as necessary over the course of the Project. All changes to the schedule will be mutually agreed upon and, if required, documented via the mutually agreed upon Change Order Process.

2.6.1 CHANGE ORDERS

In accordance with the Change Order Process (Exhibit A.7), should a change to the Project Implementation Schedule be deemed necessary, the City and Versaterm Project Managers will discuss and review the Project Implementation Schedule. The City and Versaterm will verify the availability of resources to complete scheduled tasks and adjust the schedule to accommodate any known variations in availability. The Versaterm Project Manager will update the Project Implementation Schedule.

2.7 TASK COMPLETION

When all criteria has been met for each task in this Statement of Work, the Versaterm Project Manager will be responsible for providing written notification (via email) to the City Project Manager, specifying the task and confirming the criteria that was met. Upon the City's review and approval of the completed task, the City will notify the Versaterm Project Manager of the approval and will retain a copy of the confirmation for the purposes of milestone payments that are dependent on certain tasks.

3 SOFTWARE DELIVERABLES

This section describes the Project's software deliverables to be provided by Versaterm. Detail information regarding some deliverables may be found elsewhere (Interface Control Document (Exhibit A.3).

Cost information for each deliverable is included in Exhibit C - Price and Payment Terms. Options City elects to include in the project scope will add cost and will be paid according to the Change Order. Interfaces, options, and priced components that the City removes from scope will result in a credit toward cost, as designated by the particular Change Order.

3.1 SOFTWARE

- See Exhibit E – License Terms and Conditions, Annex A – List of Licensed Programs

3.2 INTERFACES – FOR GO-LIVE

- See Exhibit E – License Terms and Conditions, Annex A – List of Licensed Programs

3.3 INTERFACES – FOR POST-LIVE

- See Exhibit E – License Terms and Conditions, Annex A – List of Licensed Programs

3.4 REDUNDANCY AND BACKUP DELIVERABLES

The Versaterm cloud RMS makes use of multiple back end application instances, supporting an active-active configuration, that are load balanced across AWS Availability Zones (AZs). Availability Zones are separate datacenters connected to each other via low latency network links and completely separate infrastructure. This makes the RMS not only highly available, but fault tolerant as well since an outage of a single node or availability zone (datacenter), will not cause an extended outage to the end user (users will be automatically re-directed to the surviving datacenter/nodes where they may have to re-authenticate/login to the RMS). While the Versaterm RMS vCloud configuration provides resiliency across datacenters/AZs, it does not protect against an outage of the entire AWS GovCloud Region.

RMS users connect to the application by means of a highly available load balancer in the AWS infrastructure, which will authenticate the user against Mesa PD on-premise Active Directory user store, then direct the user to one of the availability zones (datacenters). Two-factor authentication for the client RMS workstations and mobile workstations is the City's responsibility.

The underlying application and data files are stored across the AZs, which provides resiliency. Multiple copies of the files and database are maintained. This configuration will provide the 99.99% availability requested (see Exhibit A.8 – System Performance and Availability Standards for exceptions) as well as 99.99999999% (11-9s) durability of stored data (for files stored on and backed up to AWS S3 data storage).

All of the data in the RMS is encrypted at rest and in transit including database backups and data files. A strict backup mechanism further ensures that the entire environment is safe should any unforeseen problem cause

major issues in the main environments. A rotation of daily and monthly snapshot backup files will be copied to AWS's S3 file storage system, which is encrypted and highly resilient (a minimum of 3 copies of the data is kept).

4 KEY ASSUMPTIONS AND CONTRAINTS

4.1 SOFTWARE VERSION

- Versaterm will supply the latest, released, version of the products to Mesa PD.
- As a hosted System, Versaterm will keep the products up to date with the latest release, within the parameters of Versaterm's Update and Upgrade processes.

4.2 THIRD-PARTY PRODUCTS, HARDWARE AND/OR SERVICES

These are **not** provided by Versaterm, but are required for the solution:

- Hexagon's Generic MDT Interface (for CAD/MDT Interface)
- Hexagon's CAD to Generic RMS Interface for Queries
- Hexagon's Generic Informer Interface
- Mobile Printers (to print eCitations, 30-day Tows, etc. in the vehicles)
- Smartphones (for driver's license and registration scanning, fingerprint capture, signature capture)
- Connection to AWS GovCloud (Direct Connect is optional)
- Barcode scanning devices
- Barcode printers
- Fingerprint scanning devices

5 STATEMENT OF WORK TASKS

This section describes the Project's major implementation tasks, identifying City and Versaterm responsibilities, prerequisites, Versaterm deliverables and completion criteria for each task.

The precursors, start dates and durations, and responsible resources for each task are tracked in the Project Implementation Schedule (Exhibit A.2). Statement of Work tasks outlined below and the tasks in the Project Implementation Schedule may not always start and complete in a sequential manner.

5.1 PLANNING PHASE

TASK #1 INITIATE PROJECT

The Project will officially start upon the Effective Date of the Agreement.

In this task, the City and Versaterm Project Managers will hold a series of meetings to initiate the project. The Project Managers will establish the Project Action Item Log and confirm a Communication Plan.

VERSATERM RESPONSIBILITIES

- Schedule the meetings to initiate the project with the City Project Manager.
- Collaborate with the City's Project Managers to design the format of the Project Action Item Log, Issues List, Change/Decision log, Risk List/Register, and Change Management Items List.
- Collaborate with the City's Project Managers to establish and confirm the Communication Plan.
- Identify to the City the recommended Versadex RMS tables that can be initially loaded with local values (for the purposes of the Configuration Workshops), such as but not limited to: Officer ID numbers, user accounts and offense codes.

CITY RESPONSIBILITIES

- Host the meeting to initiate the project with the Versaterm Project Manager.
- Collaborate with the Versaterm Project Manager to design the format of the Project's Action Item Log on City's SharePoint site.
- Collaborate with the Versaterm Project Manager to establish and confirm the Communication Plan.
- Assign resources to provide information to load the Versadex RMS tables.
- Provide Versaterm with local values for initial loading into the Versadex RMS tables.

PREREQUISITES

- Agreement Execution.

VERSATERM DELIVERABLES

- Project Action Item Log format and initial content on City's SharePoint site.

TASK COMPLETION CRITERIA

- The required discussions have been held.
- The City has approved the format and content of the initial Action Item Log on City's SharePoint site.
- The City and Versaterm have confirmed the Communication Plan.

TASK #2 FINALIZE PROJECT IMPLEMENTATION SCHEDULE

In this task the Project Managers will finalize the Project Implementation Schedule.

VERSATERM RESPONSIBILITIES

- Identify and verify Versaterm resources are available.
- Meet with the City Project Manager to discuss the Project Implementation Schedule.
- Update the Project Implementation Schedule within ten (10) days of meeting with the City Project Manager.

CITY RESPONSIBILITIES

- Provide input to the Project Implementation Schedule.
- Identify and verify City resources are available.

PREREQUISITES

- Agreement Execution.

VERSATERM DELIVERABLES

- Final Project Implementation Schedule.

TASK COMPLETION CRITERIA

- The final version of the Project Implementation Schedule is approved by the City.

TASK #3 PROJECT KICKOFF MEETING

City and Versaterm Project Managers will collaborate to develop the agenda and materials for an on-site Project Kick-off meeting to introduce the project to City Project Team and key stakeholders. This meeting will include a high-level presentation covering the following topics:

- Overall project scope
- Key contract elements
- City Project Team introduction
- City Project Team requirements, roles, and assignments
- Versaterm Project Team introduction
- Versaterm roles and assignments
- Project Implementation Schedule
- System implementation approach options
- Other key project details (e.g., risks, communication plan, change management)

VERSATERM RESPONSIBILITIES

- Work with the City to develop the Kickoff Presentation.
- Participate in the Project Kickoff Meeting.

CITY RESPONSIBILITIES

- Provide location and logistical support for Project Kickoff meeting.
- Invite Project Team and other key stakeholders to attend meeting.
- Participate in the Project Kickoff presentation.

PREREQUISITES

- Project Implementation Schedule has been finalized.

TASK COMPLETION CRITERIA

- Project Kickoff Meeting concluded.

TASK #4 ESTABLISH COMMUNICATION TO AWS

This task is to establish connectivity between the City and the Versadex RMS installed in the Versaterm VPC (Virtual Private Cloud) in the AWS GovCloud (US) Region.

Separate VPCs are supported for the Versadex RMS Production and Non-Production environments.

A secure redundant connection (tunnel) is being established between the City and the Versaterm VPC in the AWS GovCloud (US). It is assumed that all customer access to the Versaterm RMS will be done through this secure connection. That is, a user must first authenticate and connect to the local City network before gaining access to the RMS. This applies to all users, including any remote or external users (e.g. court or other). Users will not be able to access the RMS without coming through the established secure tunnel between the City and the Versaterm VPC.

All exchanges between the Versaterm applications in the AWS GovCloud (US) and any onsite servers or services (interface servers, FTP servers, etc.) will communicate through the secure connection (tunnel) established between the City and the Versaterm VPC in AWS.

The City can connect to AWS via either an Internet connection (Customer Gateway IPsec VPN tunnel routable through the Internet), or a Direct Connect connection to AWS. Costs and requirements will differ for each (costs for a Direct Connect link to AWS are not included as part of the costs provided by Versaterm). If using a Direct Connect link to AWS, the City will need to provision the Direct Connect connection under their own AWS Account. The City would then setup a VPC to do an inter-VPC link to Versaterm's (transit) VPC in GovCloud.

Redundant connections are recommended to minimize service interruption (either two separate Direct Connect links; two separate Internet connections; or one Direct Connect link and a separate backup Internet connection).

All connections to the Versaterm VPC in AWS GovCloud, whether an Internet connection or Direct Connect link, will go through an encrypted IPsec VPN tunnel. To configure an IPsec VPN tunnel on a Direct Connect link, the Direct Connect link must connect to a public VIF in AWS.

VERSATERM RESPONSIBILITIES

- Work with the City to review and finalize connectivity to AWS, including reviewing connectivity requirements, data transfer and network bandwidth requirements, and level of service required (redundancy requirements)
- Work with the City to confirm how MPD will connect to AWS (Customer Gateway IPsec VPN tunnel (routable through the internet), or Direct Connect connection to AWS, or combination of both)
- Provide a list of network ports and services that need to be enabled (opened) between the City local network and AWS (both ways)
- Versaterm will provide a list of supported IPsec VPN hardware to the City (for the local customer VPN hardware) compatible with AWS/Versaterm's VPN solution
- Versaterm will supply requirements to the City to connect to our VPN end points in AWS GovCloud (US)
- Enable City access to the Versaterm VPC(s) in the AWS GovCloud (US) Region
- Define routing rules for the City provided IP ranges, on the Versaterm core VPN tunnel, for access to any City on-premise servers/services Versadex RMS will need access to (for interfaces, etc.)
- Test connectivity with the City

CITY RESPONSIBILITIES

- Provide a local network specialist who can work with the PD and Versaterm to establish required network connectivity
- Review network bandwidth requirements, and network connection redundancy requirements with Versaterm to determine how the City will connect to AWS (Customer Gateway IPSec VPN tunnel, or Direct Connect connection to AWS)
- Identify onsite servers/services/interfaces Versadex RMS is to connect to
- Provide connectivity to AWS,
 - provide a secure connection for access to the Versaterm VPC(s) in the AWS GovCloud (US) Region; the connection must be capable of supporting the City bandwidth requirements identified above
 - to minimize service interruptions, separate, redundant connections are required; dedicated circuits are preferred
 - if Direct Connect connection(s) to AWS is to be supported (as determine by local bandwidth and other requirements), work with the City local telco provider, AWS, AWS Direct Connect Partner, and Versaterm to finalize detailed requirements and establish required Direct Connection(s) to the Versaterm VPC(s) in the AWS GovCloud Region
- Provide Customer Gateway VPN(s),
(for clarity, a Customer Gateway is a physical device or software application on the City side of the VPN connection)
 - provide secure IPSec Customer Gateway VPNs capable of meeting City connectivity and bandwidth requirements. Customer Gateway VPNs compatible with the AWS/Versaterm supported platform (as provided by Versaterm) are required. Redundant Gateways/VPNs are also required to minimize service interruption
 - IPSec Customer Gateway VPNs must support and be certified for FIPS 140-2
 - provide Customer Gateway VPN hardware (e.g. Cisco), platform (e.g. ISR Series Routers), and software version (IOS 12.4) to Versaterm
 - provide internet-routable IP address for the Customer Gateway VPN(s)' external interface which Versaterm will use when configuring our VPN end points (value must be static); Customer Gateway VPN(s) may reside behind a device performing network address translations(NAT)
 - provide the City BGP ASN (Border Gateway Protocol, Autonomous System Number) to Versaterm, if any
 - identify IP range (IP subnet pre-fixes) for all nodes connecting to the Versaterm VPC(s), including user desktop workstations and any City onsite servers the Versadex RMS will need access to (for interfaces, etc.)
 - configure Customer Gateway VPN device(s) as required to support access to the Versaterm VPC(s)
- Provide a method of local auditing of connections on a per user basis
- In the case of IP subnet conflicts, the City will be responsible for resolving the conflicts (using NAT translation, or other) on their local network interface
- Test connectivity with Versaterm (for The City internal, and remote/external users)

- Monitor network and Customer Gateway VPN connections and troubleshoot any issues that arise
- Provide 7x24 technical network support

PREREQUISITES

Initiate Project.

DELIVERABLES

- List of required network ports and services that need to be enabled
- List of requirements to connect to the Versaterm VPN end points in AWS GovCloud (US Region)
- Enable City access to the Versaterm VPC(s) in the AWS GovCloud

TASK COMPLETION / ACCEPTANCE CRITERIA

The task will be complete when all of the following actions have been completed to the City's satisfaction and an Acceptance Certificate has been issued by the City for all Deliverables associated with this task.

- City connectivity is installed, configured, and The City is able to connect to the Versaterm VPC in the AWS GovCloud (US) Region.

5.2 CONFIGURATION PHASE

The purpose of the Configuration Phase is to build and configure the System.

These tasks and deliverables include both technical tasks and software familiarity tasks. Technical tasks involve activities such as the setup of the software, the development of the interfaces, testing of data conversion runs, and building agency-specific stylesheets, reports, and dashboard configurations, whereas, software familiarity tasks involve a number of activities that take place in the form of Configuration Workshops.

Configuration Workshops provide the City's Project Team with an overall understanding of the Versadex applications and interfaces, including all of the possible configuration options. A total of four (4) Configuration Workshops will be delivered (onsite) by Versaterm to the City's Project Team.

The topics covered in each Workshop week are prepared by Versaterm (designed to provide a gradual learning experience), where each day will incorporate a combination of product demonstrations, system configuration explanations, business practice analysis, business workflow process discussions, and hands-on exercises. In addition to product familiarization, the Workshops also focus on discussing current-versus-future workflow processes, and the impacts the future process will have on the affected end-users.

See the Training Plan for the topics to be covered in the Configuration Workshops. Note that they will be divided between the four workshops.

TASK #5 SYSTEM SETUP AND CONFIGURATION

Versaterm will setup and configure a Development/Test environment within the Versaterm Virtual Private Cloud in the AWS GovCloud (US) Region, in accordance with the agreed to Project Schedule. The resulting deliverable will provide a platform for the City's Onboarding team to access the System in AWS.

As part of this task, Versaterm will also setup and enable user authentication against the local City Microsoft Active Directory (AD) store. Versaterm is looking to stand-up an authentication broker supporting AD Federated Services, whereby users will be authenticated against their local Active Directory data store. This is accomplished by setting up a trust relationship between the Versaterm Authentication Broker configured in each VPC environment and the local customer OpenID Connect compatible identity provider (IdP) (e.g. Active Directory Federated Services (ADFS) for AD 2016, or other IdP for older AD versions). OpenID Connect is a standard authentication protocol to identify the identity of an end-user.

Versaterm has not yet finalized our Authentication Broker, and while Versaterm is looking to support OpenID Connect and AD Federated Services, this may not be possible. Should this be the case, Versaterm will provide an alternate method to authenticate users against the local City Active Directory (customer requirements to be defined once the solution has been confirmed).

Once the environment is setup, Versaterm will provide the City with the URLs for the City users to access the Versadex RMS in the Versaterm Virtual Private Cloud in AWS.

As part of this task, which is necessary to conduct the Configuration Workshops, Versaterm will provide the Versadex MDT and MRE software to the City.

VERSATERM RESPONSIBILITIES

- Install the Development/Test environment on the AWS GovCloud
- Load initial values into the Versadex RMS tables using data provided by the City.
- Provide the client modules of the Versadex MDT and MRE and installation instructions to the City.
- Create the RDS (Relational Database Service) instances for the customer Development/Test database.
- Create customer multi-media document store (for document attachments).
- Create customer data store for audit and log storage (local administrator accessible).
- Configure the application for User use.
- Setup and configure customer interface services for the Versaterm Message Controller (VMC)
- Create folders for interface drop-offs (files from 3rd parties for import to Versadex RMS).
- Configure system monitoring and alerts.
- Create AWS Identity and Access Management (IAM) account for authorized customer system administrator to access customer audit files and logs, as well as customer read-replica database instance.
- Provide requirements to the City for connectivity to the Versaterm Authentication Broker; and configure the Development/Test environments to authenticate against the City Active Directory
- Provide application connectivity instructions and URLs.

CITY RESPONSIBILITIES

- Assist Versaterm in configuring the Development/Test environment to authenticate against the City Active Directory.
- Work with the Versaterm to finalize the setup of the system environment (test and confirm that the City users can access the System)
- Install the mobile client module of the Application Software on City workstations that will be used during the Onboarding activities.
- Work with Versaterm to finalize the setup of the mobile workstations (test and confirm that the mobile workstations can access the System)

PREREQUISITES

- Establish communications to AWS
- City has provided local values for select Versadex RMS tables.

VERSATERM DELIVERABLES

- Versaterm-provided documentation on how to install and configure the client module (MDT and MRE) on City workstations.

TASK COMPLETION CRITERIA

- The System is installed, configured and fully operational on the System's Development/Test Environment.
- City confirmation that the initial set of Versadex RMS tables are correctly loaded into the Versadex RMS tables.
- The web access to the System is verified to be operational from the City workstations required to support the System's Onboarding activities.
- The mobile client module of the Application Software is installed and verified to be operational on the City workstations required to support the System's Onboarding activities.

TASK #6 CONDUCT CONFIGURATION WORKSHOP #1

During the first onsite week-long Configuration Workshop, Versaterm will provide the City's Project Team with a high-level introduction to the Versadex RMS, MDT and MRE applications.

The high-level introduction involves an overview of the functionality, features, and configuration options, as well as, a discussion of potential re-engineering points. The specific activities include demonstrations of the products, hands-on exercises and group discussions. Versaterm will devote time for the City's Project Team to present their current business practices as a contribution to the discussions regarding business process reengineering.

After the week is completed, Versaterm will provide specific action items and exercises for the City's Project Team to complete before the second Configuration Workshop.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the onsite Configuration Workshop #1 with the City's Project Managers.
- Provide the facility requirements for Configuration Workshop #1 to the City's Project Managers at least twenty (20) Business Days prior to the scheduled workshop.
- Provide an agenda with objectives and business processes to review no less than ten (15) Business Days prior to the scheduled workshop.
- Provide one reproducible copy of the Documentation and any required workshop materials (User and Configuration guides) in soft copy at least ten (10) Business Days prior to the scheduled workshop.
- Conduct in-depth demonstrations of the Application Software, identifying functionality and features supported, re-engineering points and configuration options.
- Provide hands-on exercises for the Project Team members to get familiar with the Systems.
- Assist the City's Project Team in reviewing the City's existing business processes and paper forms as compared with System data flow and table options.
- Discuss workflow analyses to assess any required business re-engineering impacts.
- Document any issues discussed during the Configuration Workshop that need to be resolved.

CITY RESPONSIBILITIES

- Coordinate the location and scheduling of the Configuration Workshop #1 with the Versaterm Project Manager.
- Provide a workshop facility that meets Versaterm's requirements.
- Identify and schedule the Configuration Workshop #1 attendees.
- Reproduce and provide the required Documentation and materials (User and Configuration guides) for Configuration Workshop #1 participants in both hard and soft copy formats.
- Ensure that designated Configuration Workshop #1 participants fully participate in the scheduled workshop.
- Prepare and lead reviews and discussions of the City's existing business processes identified in the workshop agenda.
- Identify and make note of known/potential workflow, process, job, and/or report changes.

PREREQUISITES

- Development/Test environment has been set up.
- Application Software has been delivered and installed.

VERSATERM DELIVERABLES

- Configuration Workshop #1 facility requirements.
- Configuration Workshop #1 material (User and Configuration guides) in hard and soft copy format for each workshop participant.
- Delivery of Configuration Workshop #1.

TASK COMPLETION CRITERIA

- Configuration Workshop #1 completed.
- Workshop participants have received sufficient training to navigate and begin the System Configuration.
- Any required City business process re-engineering points covered during the workshop have been identified and documented.
- All identified issues have been documented in the Action Items Log.

TASK #7 DATA CONVERSION

Versaterm and the City shall meet or participate in conference calls to review Data Conversion sources and Data Conversion Mapping, responsibilities, activities and expected results and perform the Data Conversion as specified in the Data Conversion Plan (Exhibit A.4).

VERSATERM RESPONSIBILITIES

- In collaboration with the City refine and finalize the Data Conversion Plan (Exhibit A.4).
- Develop/modify existing Data Conversion modules and Loading Programs as necessary.
- Provide necessary Documentation and guidance to the City's Implementation team.
- Identify and discuss pre-requisites in Data Configuration activities.
- Provide Application Software modules to take a snapshot and reset the Data Conversion database.
- Run the initial Data Conversion loads and train the City on how to run them.
- Assist and guide the City throughout the Data Conversion process.
- Run the final Data Conversion prior to Go Live.

CITY RESPONSIBILITIES

- In collaboration with Versaterm, refine and finalize the Data Conversion Plan (Exhibit A.4).
- Complete the tasks contained in the Data Conversion Plan for which the City is responsible.
- Extract and transform legacy data to be converted per the Data Conversion Plan into the appropriate Versadex API load format.
- With Versaterm assistance, as required, run the Data Conversion utility of the Software.
- Extract or arrange for the extraction of data for the final Data Conversion just prior to System Go-Live.
- Identify, extract, set up, convert, and load standalone databases and access software for selected legacy data that will not be converted and loaded into the System.

PREREQUISITES

- Conduct Configuration Workshop #1.

VERSATERM DELIVERABLES

- Conversion file layout specifications.
- Data conversion load programs.
- Field mapping sessions.

TASK COMPLETION CRITERIA

- The Data Conversion Plan (Exhibit A.4) is updated as required to Implement the identified conversion and loading of legacy data into the System.

- City Data Conversion Team has completed the iterative process of testing their extract programs and verifying the data in the Versadex RMS.

TASK #8 VERSATERM GIS INTERFACE INSTALLATION AND TRAINING

Several components within the System will utilize the City provided geographic information system (GIS) data. It is the City's responsibility to provide and maintain the GIS data that will be used by these System components. The GIS Interface Control Document (ICD) in Exhibit A.3 of this SOW establishes the requirements for the System's GIS information.

The Versaterm GIS Interface (VGI) creates the required System GIS data files by extracting the required information from ESRI shape files provided by the City.

The successful deployment of the System is contingent upon the City providing the required GIS data in the proper format and with the proper content.

As part of this task, Versaterm will provide training to the designated members of the City's Implementation team to provide an overview of the System's GIS structure and to review the requirements for the VGI data files. This training will also provide instruction on how to use the VGI tool to extract geo-related information (street names, ranges, intersections, addresses) from the map-based (ESRI) shape and landmark/common place name files for loading into the System's Street Index.

Following this training and throughout the Project, Versaterm will provide assistance and guidance as required to the City's GIS personnel in obtaining, merging, pre-processing, and loading the required GIS data into the System and adequately testing and correcting.

VERSATERM RESPONSIBILITIES

- Provide any required updates to the GIS Interface section of Exhibit A.3 of this SOW at least thirty (30) Business Days prior to the scheduled Training Session.
- Coordinate and schedule the VGI Training Session with the City's Project Manager.
- Provide VGI Training Session requirements to the City's Project Manager.
- Provide required skills and any pre-requisite training required by trainees.
- Provide Documentation and material required for the training in a format suitable for reproduction in soft copy at least ten (10) Business Days prior to the scheduled Training Sessions.
- Provide requirements for the workstation needed to support the VGI Software tool.
- Provide the City with the VGI Software tool and installation Documentation material.
- Coordinate and support the remote installation of the VGI Software tool.
- Lead and provide remote VGI Training Session that provides an overview of the System's GIS structure, reviews the GIS data file requirements, and provides instructions on how to Configure and run the VGI tool.

CITY RESPONSIBILITIES

- Gather, prepare, and pre-process the required GIS data for the Training Session.
- Provide workstations for running/processing the VGI Software tool that meet Versaterm specifications.
- With Versaterm assistance, install the VGI Software tool provided.

- Coordinate the location and scheduling of the remote VGI Training Session with Versaterm's Project Manager.
- Identify and schedule the VGI Training Session trainees.
- Reproduce and provide the required Documentation and training materials to VGI Training Session trainees.
- Ensure that the designated trainees attend the scheduled VGI Training Session.

PREREQUISITES

- Configuration Workshop #1
- Required GIS data available in the required format and with the proper content.

VERSATERM DELIVERABLES

- GIS data required for the Training Session in the proper format and with the proper content. Fully operational VGI Software tool installed and Configured on City provided workstations.
- VGI Training trainee pre-requisite training and required skill set.
- VGI Training Documentation and material for each trainee.
- Completed VGI Training Session per the Project Schedule.

TASK COMPLETION CRITERIA

- Completed VGI Training Session.
- Trainees have been adequately trained on the agreed upon VGI Training topics and are able to use the VGI tool effectively.

TASK #9 CONDUCT CONFIGURATION WORKSHOP #2

The second week-long onsite Configuration Workshop is a continuation of the first Configuration Workshop. Prior to the Workshop, Versaterm will review the progress achieved by the City's Project Team since the first Configuration Workshop. At the Workshop, Versaterm will provide a more in-depth understanding of the Versadex applications (RMS, MDT and MRE), using product demonstrations, hands-on exercises and group discussions. Versaterm will provide detailed demonstrations of additional configuration options and will facilitate further discussion of business process re-engineering opportunities. The City's Project Team will be expected to present current business practices that were not covered in the first Configuration Workshop.

After the week is completed, Versaterm will provide specific action items and exercises for the City's Project Team to work on before the next scheduled Configuration Workshop.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the onsite Configuration Workshop #2 with the City's Project Managers.
- Provide the facility requirements for Configuration Workshop #2 to the City's Project Managers at least twenty (20) Business Days prior to the scheduled workshop.
- Provide an agenda with objectives and business processes to review no fewer than fifteen (15) Business Days prior to the scheduled workshop.
- Provide one reproducible copy of any required workshop materials (User and Configuration guides) in soft copy format at least ten (10) Business Days prior to the scheduled workshop.
- Conduct additional in-depth demonstrations of the Application Software, identifying functionality supported, re-engineering points and Configuration options.
- Assist the City's Project Team in reviewing existing City business processes and forms as compared with System data flow and table options.
- Discuss workflow analyses to assess any required business re-engineering impacts.
- Document issues and any required City business re-engineering points.
- Review the System Configuration progress to-date.
- Review outstanding Configuration and business process re-engineering issues.

CITY RESPONSIBILITIES

- Coordinate the location and scheduling of Configuration Workshop #2 with the Versaterm Project Manager.
- Provide a workshop facility that meets Versaterm's requirements.
- Identify and schedule Configuration Workshop #2 participants.
- Reproduce and provide the required Documentation and materials (User and Configuration guides) to Configuration Workshop #2 participants in both hard and soft copy formats.
- Ensure that designated Configuration Workshop #2 participants fully participate in the scheduled workshop.
- Prepare and lead reviews and discussions of City existing business processes identified in the workshop agenda.

- Identify and make note of known/potential workflow, process, job, and/or report changes.

PREREQUISITES

- Completion of tasks assigned to City for completion after Configuration Workshop #1.
- Versaterm GIS Interface (VGI) Training
- GIS Data processed

VERSATERM DELIVERABLES

- Configuration Workshop #2 facility requirements.
- Configuration Workshop #2 participant pre-requisite training and required skill set.
- Configuration Workshop #2 Documentation and material (User and Configuration guides) in soft copy format.

TASK COMPLETION CRITERIA

- Delivery of Configuration Workshop #2.
- Workshop participants have received sufficient training to continue the System Configuration.
- Any required City business process re-engineering points covered during the workshop have been identified and documented.
- All identified issues have been documented.

TASK #10 SET UP TRAINING CLOUD ENVIRONMENT

Versaterm will create the Training Environment from the cloud Development/Test environment. Versaterm will configure the environment and database for training use. Versaterm will send a written notification to the City when it is satisfied that the System is ready for use.

VERSATERM RESPONSIBILITIES

- Create the Training Environment from the Development/Test environment.
- Send written notification to the City that the System is ready for use.

CITY RESPONSIBILITIES

- Test the Training environment.

PREREQUISITES

- Development/Test environment

TASK COMPLETION CRITERIA

- The Training environment configured and tested and is fully operational.

TASK #11 CONDUCT CONFIGURATION WORKSHOP #3

- The third week-long onsite Configuration Workshop is a continuation of the second Configuration Workshop. The objectives of the third Configuration Workshop are to review the City Project Team's progress, cover all functionality and features that have not been covered already, discuss the business process re-engineering decisions and impacts to the processes, confirm the configuration options and address any open issues.
- Versaterm will provide additional product demonstrations and hands-on exercises, as well as discuss the objectives of the next project phases (Testing and Training) with the Project Team and Project Managers.
- After the week is completed, Versaterm will provide specific action items that need to be completed before the next phase of the project.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the onsite Configuration Workshop #3 with the City's Project Managers.
- Provide the facility requirements for Configuration Workshop #3 to the City's Project Managers at least twenty (20) Business Days prior to the scheduled workshop.
- Provide an agenda with objectives and business processes to review no less than fifteen (15) Business Days prior to the scheduled workshop.
- Conduct additional in-depth demonstrations of the Application Software, identifying functionality supported, re-engineering points and Configuration options.
- Assist the City's Project Team in reviewing existing City business processes and forms as compared with System data flow and table options.
- Discuss workflow analyses to assess any required business re-engineering impacts.
- Document issues.
- Review the System Configuration progress to-date.
- Review outstanding Configuration and business process re-engineering issues.
- Answer questions and conduct in-depth demonstrations of the Application Software functionality as required.
- Review progress and demonstrate Interface functionality developed to-date.
- Review additional Configuration options.

CITY RESPONSIBILITIES

- Coordinate the location and scheduling of the Configuration Workshop #3 with the Versaterm Project Manager.
- Provide a workshop facility that meets Versaterm's requirements.
- Identify and schedule the Configuration Workshop #3 participants.
- Ensure that designated Configuration Workshop #3 participants fully participate in the scheduled workshop.
- Prepare and lead reviews and discussions of City existing business processes identified in the workshop agenda.
- Identify and make note of known/potential workflow, process, job, and/or report changes.

PREREQUISITES

- Completion of tasks assigned to City for completion after Configuration Workshop #2.

VERSATERM DELIVERABLES

- Configuration Workshop #3 facility requirements.
- Configuration Workshop #3
- Documentation of issues.

TASK COMPLETION CRITERIA

- Delivery of Configuration Workshop #3.
- Any required City business process re-engineering points covered during the workshop have been identified and documented.
- All identified issues have been documented.

TASK #12 CONDUCT CONFIGURATION WORKSHOP #4

- The fourth week-long onsite Configuration Workshop is a continuation of the third Configuration Workshop. The objectives of the fourth Configuration Workshop are to review the City Project Team's progress, cover all functionality and features that have not been covered already, discuss the business process re-engineering decisions and impacts to the processes, confirm the configuration options and address any open issues.
- Versaterm will provide additional product demonstrations and hands-on exercises, as well as discuss the objectives of the next project phases (Testing and Training) with the Project Team and Project Managers.
- After the week is completed, Versaterm will provide specific action items that need to be completed before the next phase of the project.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the onsite Configuration Workshop #4 with the City's Project Managers.
- Provide the facility requirements for Configuration Workshop #4 to the City's Project Managers at least twenty (20) Business Days prior to the scheduled workshop.
- Provide an agenda with objectives and business processes to review no less than fifteen (15) Business Days prior to the scheduled workshop.
- Conduct additional in-depth demonstrations of the Application Software, identifying functionality supported, re-engineering points and Configuration options.
- Assist the City's Project Team in reviewing existing City business processes and forms as compared with System data flow and table options.
- Discuss workflow analyses to assess any required business re-engineering impacts.
- Document issues.
- Review the System Configuration progress to-date.
- Review outstanding Configuration and business process re-engineering issues.
- Answer questions and conduct in-depth demonstrations of the Application Software functionality as required.
- Review progress and demonstrate Interface functionality developed to-date.
- Review additional Configuration options.

CITY RESPONSIBILITIES

- Coordinate the location and scheduling of the Configuration Workshop #4 with the Versaterm Project Manager.
- Provide a workshop facility that meets Versaterm's requirements.
- Identify and schedule the Configuration Workshop #4 participants.
- Ensure that designated Configuration Workshop #4 participants fully participate in the scheduled workshop.
- Prepare and lead reviews and discussions of City existing business processes identified in the workshop agenda.
- Identify and make note of known/potential workflow, process, job, and/or report changes.

PREREQUISITES

- Completion of tasks assigned to City for completion after Configuration Workshop #3.

VERSATERM DELIVERABLES

- Configuration Workshop #4 facility requirements.
- Configuration Workshop #4
- Documentation of issues.

TASK COMPLETION CRITERIA

- Delivery of Configuration Workshop #4. Workshop participants have received sufficient training to finalize the System Configuration.
- Any required City business process re-engineering points covered during the workshop have been identified and documented.
- All identified issues have been documented.

TASK #13 DEVELOP AND INSTALL INTERFACES

The Interfaces identified in Interface Control Document (Exhibit A.3) will be developed, installed and tested.

Interface development will follow Agile methodology to allow for contingencies (i.e., certain things can change once both Parties start developing). While Exhibit A.3 - ICD, serves to provide a high-level definition of the Scope, expectations and roles/responsibilities of each Interface, there is flexibility for making changes to the Interface expectations once the development and testing process begins, so long as Versaterm and the City mutually agree to any changes.

Any agreed upon changes are documented in conformance to Exhibit A.7, Change Order Process, and must be executed prior to continuing with the Interface development effort.

VERSATERM RESPONSIBILITIES

- Collaboratively, with the City and other Interface stakeholders, design, develop and install the Interfaces in accordance with each Interface's ICD.
- Discuss with the City and other Interface stakeholders any required changes in Interface Implementation from the Interface's ICD.
- Document additional detail and any exceptions and/or deviations from an Interface's ICD in a revised ICD for that Interface.
- Prepare a Change Order or Amendment, whichever is appropriate, for any significant changes to an Interface's ICD.
- Schedule Interface tests at least ten (10) Business Days prior to the scheduled testing.
- Perform initial testing on the Interfaces and provide the City with verification of functionality.

CITY RESPONSIBILITIES

- Collaboratively with Versaterm and other Interface stakeholders participate in the design, development and installation of the Interfaces in accordance with each Interface's ICD.
- Review and approve any required changes to an Interface ICD.
- Arrange for execution of mutually agreed upon ICD Change Orders or Amendments.
- Provide the most updated Documentation available from appropriate third party Interface stakeholders as required by Versaterm to complete the Interfaces.
- Provide all liaison support with third party Interface stakeholders as required to support the installation and testing of the Interfaces.
- Complete the tasks listed as City responsibilities specified in Exhibit A.3- ICD.
- Coordinate with Versaterm and third party Interface stakeholders to schedule Interface tests.
- Provide test facilities for the Interfaces.
- Verify the functionality of the Interfaces.

PREREQUISITES

- Set up Development/Test Environment

VERSATERM DELIVERABLES

- Documentation for any changes to the Interface Control Document.
- Design Specifications for each interface defined in the Interface Control Document.
- Implementation of Interfaces as defined in the Interface Control Document.
- Training as appropriate for each interface.

TASK COMPLETION CRITERIA

- Interface Control Documents (ICDs) are updated as required to Implement the Interfaces.
- The set of System Interfaces are installed and tested to verify that they operate in accordance with the ICDs contained in Exhibit A.3.

TASK #14 SET UP PRODUCTION CLOUD ENVIRONMENT

Versaterm will create the Production Environment from the cloud Training environment. Versaterm will configure the environment and database for Production Use. Versaterm will send a written notification to the City when it is satisfied that the System is ready for Functional Acceptance Testing in the Production Environment.

VERSATERM RESPONSIBILITIES

- Create the Production Environment from the Training environment.
- Send written notification to the City that the System is ready for Functional Acceptance Testing.

CITY RESPONSIBILITIES

- Test the Production environment.

PREREQUISITES

- Training environment

TASK COMPLETION CRITERIA

- The Production environment configured and tested and is fully operational.

5.3 TESTING PHASE

TASK #15 INTERFACE INTEGRATION TESTING

The purpose of Interface Integration Testing is to demonstrate and verify that all interfaces specified in the Interface Control Document meet or exceed the functionality and performance, that each interface is operational and ready for Functional Acceptance Testing, and that the data conversion was/will be successful.

The Interface Integration Testing occurs during the Configuration Phase of the implementation as interfaces are completed.

The Acceptance Test Plan (Exhibit A.5) provides details regarding the strategy, schedule, dependencies, environment, problem tracking and remedies, and completion criteria.

An Interface will be excluded from the Interface Integration Testing should the City be unable to meet the related Interface City responsibilities specified in the ICD. A Change Order or Amendment, whichever is appropriate, will be generated to document any changes.

VERSATERM RESPONSIBILITIES

- Provide the City with an electronic version of interface design specifications for the interfaces defined Interface Control Document.
- Coordinate and schedule the Interface Testing efforts with the City's Project Managers.
- Demonstrate each interface to the City's Project Team.
- With the assistance of the City's Project Team, test each interface to ensure that it meets or exceeds the functionality and performance measurements specified in the Interface Control Document.
- Document and track all defects reported by the City.
- Review and correct any discrepancies per the Acceptance Test Plan.
- Provide training to the City on interface setup, configuration, administration and usage of each interface.

CITY RESPONSIBILITIES

- Coordinate and schedule the Interface Testing efforts with the Versaterm Project Manager.
- Identify and schedule Interface Testing with the relevant City participants.
- Reproduce and provide the interface design specifications from Versaterm to the relevant City participants that will be involved in the Interface Testing.
- Ensure that the designated City participants attend and partake in the scheduled Interface Testing.
- Work with Versaterm to test each interface, identifying the type of correction needed to ensure that each interface conforms to the Interface Control Document.
- Retest any interfaces that did not meet the specifications.

PREREQUISITES

- Install of the Development/Test and Production environments
- Develop and install interfaces

VERSATERM DELIVERABLES

- Tracking document to track all issues reported.
- Corrections to errors or issues identified during Interface Testing.

TASK COMPLETION CRITERIA

- The City has verified that all interfaces operate as specified in the Interface Control Document.
- The City's Project Team and other select City staff are sufficiently trained to be able to administer, manage, and fully use each interface.

TASK #16 DATA CONVERSION TESTING

The purpose of Data Conversion Testing is to demonstrate and verify that the data conversion trial runs were successful, and therefore provide confidence that the final data conversion will also be successful.

The Data Conversion Testing occurs during the Configuration Phase of the implementation as conversion portions (MNI, Incidents, etc.) are completed.

The Acceptance Test Plan (Exhibit A.5) provides details regarding the strategy, schedule, dependencies, environment, problem tracking and remedies, and completion criteria.

VERSATERM RESPONSIBILITIES

- Provide error/warning reports to the City and assist the City's Implementation team to identify required corrections.
- Discuss quality assurance requirements and methods.
- Support the City in Data Conversion quality assurance tasks.
- Assist and guide the City throughout the Data Conversion process.

CITY RESPONSIBILITIES

- With Versaterm assistance, as required, run the Data Conversion utility of the Software.
- Correct identified Data Conversion errors.
- Perform quality assurance of converted data.
- Extract or arrange for the extraction of data for the final Data Conversion just prior to System Go-Live.

PREREQUISITES

- Configuration Workshop #1
- Data Conversion development and field mapping sessions

VERSATERM DELIVERABLES

- All identified issues have been documented.

TASK COMPLETION CRITERIA

- City Data Conversion Team has completed the iterative process of testing their extract programs and verifying the data in the Versadex RMS.

TASK #18 FUNCTIONAL UNIT TESTING

The purpose of Functional Unit Testing is to verify that the fully configured System, including the interfaces specified in the Interface Control Document, and the workflows and business processes such as data entry, reports, notifications, tasks, etc. meet the functional requirements described in the Agreement and system documentation.

The Functional Unit Testing occurs after the Configuration Phase and before the Training Phase of the implementation.

The Acceptance Test Plan (Exhibit A.5) provides details regarding the strategy, schedule, dependencies, server environment, problem tracking and remedies, and completion criteria.

VERSATERM RESPONSIBILITIES

- Review the Functional Unit Testing scripts created by the City.
- Provide support to the City as it conducts the Functional Unit Testing.
- Review, verify, and correct all defects classified as Level 1 or Level 2 Errors reported by the City.
- For all Level 3 and Level 4 Errors reported by the City, collaborate with the City to mutually agree upon the remedy.

CITY RESPONSIBILITIES

- Develop the Functional Unit Testing scripts.
- Generate any production data files needed for Functional Unit Testing.
- Execute the Functional Unit Testing plan and Functional Unit Testing scripts.
- Report all defects to Versaterm.
- Work with Versaterm to identify the correction needed to ensure that the System conforms to the System's expectations.
- Notify Versaterm in writing when Functional Unit Testing is completed.

PREREQUISITES

- Configuration Phase
- Interface Testing
- Data Conversion Test Runs (initial passes prior to final data conversion during cutover to Production Use)
- GIS data processed
- Setup the Development/Test and Production environments

VERSATERM DELIVERABLES

- Document and track all defects reported by the City.
- Review and correct any discrepancies per the Acceptance Test Plan.

TASK COMPLETION CRITERIA

- The System and interfaces have been verified by the City to operate as specified in the Agreement
- Versaterm has remedied all defects classified as Level 1 or Level 2 Errors and Versaterm and the City have mutually agreed upon the remedy for all Level 3 and Level 4 Errors.

TASK #19 SYSTEM PERFORMANCE TESTING

The purpose of the System Performance Test is to demonstrate that system response times meet the Performance Specifications in Exhibit A.8 of the Agreement. The City will conduct the System Performance Test as described in the Acceptance Test Plan (Exhibit A.5).

VERSATERM RESPONSIBILITIES

- Remotely support the City's Project Team as it conducts the System Performance Testing.
- Work with the City to determine a mutually acceptable load generation methodology and the performance monitoring approach employed during the test.
- Work with the City to troubleshoot the source of any discrepancies between observed and expected system performance i.
- Remedy discrepancies between observed and expected system performance per the Acceptance Test Plan.
- Work with the City to identify network, infrastructure, equipment or Application Software configuration modifications that can improve or resolve documented performance failures attributed to causes other than Application Software. City Responsibilities

CITY RESPONSIBILITIES

- Select, install, test, and operate any Third-Party performance testing tools that will be used to simulate production loads on the System.
- Coordinate all aspects of preparing, executing and reporting the results of the System Performance Testing.
- Work with Versaterm to determine a mutually acceptable load generation methodology and performance monitoring approach.
- Generate any data files needed for the System Performance Testing.
- Document any discrepancies between observed performance and the specifications contained in System Performance and Reliability Standards (Exhibit A.8).
- Perform the network, infrastructure, equipment or Application Software configuration modifications identified as necessary to improve or resolve documented performance failures attributed to causes other than Application Software.
- Notify Versaterm in writing when the System successfully completes the System Performance Testing.

PREREQUISITES

- Functional Unit Testing

VERSATERM DELIVERABLES

- Review and correct any discrepancies per the Acceptance Test Plan.

TASK COMPLETION CRITERIA

The System Performance Testing is considered complete when Versaterm has remedied all deviations from Performance Standards attributed to Application Software, and the City has notified Versaterm that it has completed the System Performance Test.

5.4 TRAINING PHASE

TASK #20 PREPARE TRAINING FACILITIES

The City is responsible for providing and preparing the necessary training facilities for training end-users.

VERSATERM RESPONSIBILITIES

- Provide the City with the technical requirements for the training facilities.

CITY RESPONSIBILITIES

- Provide network access requirements for remote training facilities being prepared by the City.
- Disseminate the technical facility requirements obtained from Versaterm to members preparing training facilities for the Project.
- Establish and disseminate minimum facility and equipment requirements to members preparing training facilities for the Project.
- Ensure that the required training facilities are available and properly configured in accordance with the Project Implementation Schedule.

PREREQUISITES

- Agreement Execution.

VERSATERM DELIVERABLES

- Training facility and equipment requirements.

TASK COMPLETION CRITERIA

- Training facility and equipment requirements are available and disseminated to the members responsible for preparing the Project's training facilities.
- The required number of training facilities is available and properly configured in accordance with the Project Implementation Schedule.

TASK #21 CONDUCT SYSTEM ADMINISTRATION TRAINING

Versaterm will provide, on-site at City facilities, up to an eight (8) hour System Administration Training course to the City's Technical System Administrators. The course can accommodate up to 12 participants, and will provide the City with a technical overview of the system, including, but not limited to:

- Architecture overview
- File structures and key file locations (various system logs and configuration files).
- Versadex related CRON jobs
- Introduction to the VMC (Versadex Message Controller)

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the System Administration Training course with the City's Project Managers.
- Provide training facility requirements to the City's Project Managers.
- Provide participant skill and previous training requirements.
- Provide training documentation and material in a format suitable for reproduction in soft copy at least ten (10) Business Days prior to the scheduled Training Sessions.
- Conduct the System Administration Training Session.

CITY RESPONSIBILITIES

- Coordinate the location and scheduling of the System Administration Training course with the Versaterm Project Manager.
- Provide a training facility that meets Versaterm's requirements.
- Identify and schedule the System Administration Training Session participants.
- Reproduce and provide the required documentation and training materials to System Administration Training Session participants.
- Ensure that the designated participants attend the scheduled System Administration Training Sessions.

PREREQUISITES

- Production Environment Setup

VERSATERM DELIVERABLES

- Administration Training facility requirements.
- Administration Training participant pre-requisite training and required skill set.
- Administration Training documentation and material for each participant.

TASK COMPLETION CRITERIA

- Completed System Administration Training Session.

- Participants have been adequately trained on the agreed upon Administration Training

TASK #22 CONDUCT TRAIN-THE-TRAINER TRAINING

Versaterm will provide hands-on training to the City's Project Team members. Refer to the Training Plan (Exhibit A.6) which includes details related to the training approach, course outlines and sample training packages.

VERSATERM RESPONSIBILITIES

- Provide the City with a re-settable training database.
- Coordinate and schedule the Train-the-Trainer Training with the City's Project Managers.
- Provide Train-the-Trainer training facility requirements to the City's Project Managers.
- Provide required skills and any pre-requisite training required by Train-the-Trainer participants.
- Produce a reproducible set of Train-the-Trainer Training Documentation that includes the City's requirements, in soft copy.
- Conduct the Train-the-Trainers Training Session, including instructions on re-setting and administering the training database.

CITY RESPONSIBILITIES

- Assist in adapting the training scenarios to make use of familiar data and to include site-specific policy and/or process flow information.
- Coordinate the location and scheduling of the Train-the-Trainer Training with the Versaterm Project Manager.
- Provide a Train-the-Trainer training facility that meets Versaterm's requirements.
- Reproduce and provide the required Documentation to Train-the-Trainer Training participants.
- Ensure that the designated participants attend the scheduled Train-the-Trainer Training.

PREREQUISITES

- Training facility prepared.
- Testing successfully completed.

VERSATERM DELIVERABLES

- Train-the-trainer training facility requirements.
- Train-the-trainer participants pre-requisite training and required skill set.
- Train-the-trainer training documentation for each participant.
- Train-the-trainer training

TASK COMPLETION CRITERIA

- Delivery of Train-the-Trainer training, per the Training Plan.

- Participants have been adequately trained on the agreed-upon Train-the-Trainer training topics, are able to complete the training assignments/scenarios.

TASK #23 DECLARE SYSTEM READY FOR TRAINING

This task signifies that Versaterm has delivered all required software, interfaces, data conversion programs and Train-the-Trainer training, and remedied all Level 1 and Level 2 errors that are critical for the City to start training.

VERSATERM RESPONSIBILITIES

- Issue written notice to the City that the System is Ready for Training.
- Correct any defects mutually identified by the City and Versaterm as having to be corrected prior to the System being ready for the end-user training.

CITY RESPONSIBILITIES

- Within ten (10) Business Days after receiving Versaterm's "Ready for Training" notification, review the System's status and outstanding issues list and mutually identify with Versaterm any defects that must be corrected prior to its being used for end-user training.
- Issue a written notice to Versaterm that the System has been verified to be ready for end-user training.

PREREQUISITES

- Set Up and Test Disaster Recovery Environment
- Interface Testing
- Functional Acceptance Testing
- System Performance Testing
- Train-the-Trainer Training

VERSATERM DELIVERABLES

- Written notice to the City that the System is Ready for Training, once all defects mutually identified by the City and Versaterm have been corrected.

TASK COMPLETION CRITERIA

- Receipt by the City of Versaterm's written notice that the System is Ready for Training.
- Issuance of a written notice to Versaterm from the City that the System has been verified to be Ready for Training.

TASK #24 CONDUCT INTERNALS TRAINING

Versaterm will provide the City with a 2-day onsite Internals training course.

This training focuses primarily on database structure and relationships. Using the knowledge gained from this course, students will have the technical understanding to develop custom reports for the City's needs, and extract information for use in other applications.

VERSATERM RESPONSIBILITIES

- Coordinate and schedule the Internals Training Course with the City's Project Managers.
- Provide training facility requirements to the City's Project Managers.
- Provide required skills and any pre-requisite training required for training participants.
- Produce a reproducible set of Internals documentation and training material, in soft copy.

CITY RESPONSIBILITIES

- Coordinate the location and scheduling of the Internals Training Session with the Versaterm Project Manager.
- Provide a training facility that meets Versaterm's requirements.
- Identify and schedule the Internal Training participants.
- Reproduce and provide the required documentation and training materials to Internals Training participants.
- Ensure that the designated participants attend the scheduled Internals Training.

PREREQUISITES

- Prepare training facilities.

VERSATERM DELIVERABLES

- Internals training facility requirements.
- Internals participant pre-requisite training and required skill set.
- Internals training Documentation and material for each participant.

TASK COMPLETION CRITERIA

- Completed Internals Training Session.
- Participants have been adequately trained on the agreed upon Internals training topics.
- Participants have an in-depth technical an understanding of the internals of the Versadex RMS application.

TASK #25 CONDUCT END-USER TRAINING

Versaterm-trained City trainers will provide just-in-time training to end-users. Versaterm will provide at least two (2) training support resources onsite at City facilities for the first five (5) calendar days of the end-user training classes. Given that the training classes may be held at geographically dispersed locations and during various times of the day, the City and Versaterm will collaborate to optimize the in-class monitoring of Versaterm's resource. Versaterm will continue to provide remote support during the City's regular business hours for the remainder of the end-user training period.

VERSATERM RESPONSIBILITIES

- Provide at least two (2) training support resource (on-site) for the first five (5) calendar days of the training classes.
- While on-site, assist and observe the City-provided trainers and make recommendations on improving the training (if necessary).
- Provide remote support as needed during the end-user training period.

CITY RESPONSIBILITIES

- Provide adequate training facilities including screen projection resources and enough workstation positions for up to forty (40) students.
- Coordinate with Versaterm on the use and location of Versaterm's onsite training resource during the first five (5) calendar days of end-user training.
- Train additional trainers as necessary to staff the end-user training.
- Schedule and organize the end-user training schedule.
- Assign end-users to training classes at each facility.
- Assign trainers to training facilities so that at least one qualified trainer is present at each end-user training class.
- Prepare required training documentation and material for each end-user attending a training session.
- Ensure that the designated trainers and end-users attend their scheduled end-user training classes.

PREREQUISITES

- Training facility
- Train-the-trainer training

VERSATERM DELIVERABLES

- 2 training resources onsite for 5 calendar days
- Feedback to City training resources

TASK COMPLETION CRITERIA

- Completion of end-user training classes (prior to Production Use).

5.5 PRODUCTION PHASE

TASK #26 PERFORM FINAL DATA CONVERSION RUN

The City and Versaterm will schedule a final data conversion run as close to Cutover as possible. Versaterm will perform the final data conversion run.

VERSATERM RESPONSIBILITIES

- Perform final data conversion run.

CITY RESPONSIBILITIES

- Schedule final data conversion run.

PREREQUISITES

- Data Extraction and Loading Iterations

TASK COMPLETION CRITERIA

- Versaterm has successfully performed the final data conversion run.

TASK #27 PRODUCTION USE

- Versaterm will assist and support the City in placing the System into Production Use.

VERSATERM RESPONSIBILITIES

- Collaborate with the City to determine the date and time of the System cutover for Production Use.
- Provide sufficient onsite resources at least one (1) full Calendar Day prior to System cutover to assist the City's Project Team in preparing.
- Assist the City in placing the system into a Production Use status.
- Monitor the initial operation of the System and answer any operational questions raised by the City.
- Provide sufficient onsite resources to support the first five (5) full calendar days of Production Use.

CITY RESPONSIBILITIES

- Collaborate with Versaterm to determine the System Cutover date and time.
- Provide trained personnel to be the first line of Support.
- Set up and staff a “Go-Live War Room” to act as a central coordination point for Go-Live issues and support.
- Coordinate with Versaterm to schedule the onsite Versaterm resources as needed to support the first five (5) calendar days of Production Use.

PREREQUISITES

- End-User training

VERSATERM DELIVERABLES

- Onsite Versaterm resources in support of the System cutover to Production Use.

TASK COMPLETION CRITERIA

- The System is successfully operating in Production Use.

TASK #28 SOFTWARE SUBSCRIPTION BEGINS

This task signifies that the system is in production use and the annual subscription begins.

VERSATERM RESPONSIBILITIES

- Provide subscription invoice as per Exhibit D – Price and Payment Terms.

CITY RESPONSIBILITIES

- Pay the invoice as per terms identified in the Contract or provide written objection as to why the invoice should not be paid as per terms and conditions of the Contract.

PREREQUISITES

- Production Use

VERSATERM DELIVERABLES

- Provide subscription invoice

TASK COMPLETION CRITERIA

- Task is completed when the invoice is delivered and the City has accepted the invoice.

TASK #29 RELIABILITY ACCEPTANCE TESTING

After cutover to live operations, the System will undergo a thirty (30)-day test period. The City will use the System for its intended purposes and monitor system reliability, functionality, and performance. Errors will be tracked and remedied per the Acceptance Test Plan.

VERSATERM RESPONSIBILITIES

- Remedy reported issues per the Acceptance Test Plan.
- Support the City as required during the Reliability Acceptance Test.

CITY RESPONSIBILITIES

- Operate the System in Production Use.
- Monitor system functionality, performance, and reliability.
- Notify Versaterm immediately of any encountered issues that impact the Reliability Acceptance Testing.
- Notify Versaterm in writing of the successful conclusion of the Reliability Acceptance Testing.

PREREQUISITES

- System cutover to Production Use

VERSATERM DELIVERABLES

- Correction to any encountered System issues or defects as specified in the Acceptance Test Plan.
- System support as specified in Exhibit B – Annual Subscription Support Terms.

TASK COMPLETION CRITERIA

- The System has operated for thirty (30) Consecutive Days without a Level 1 or Level 2 Error and a mutually agreeable plan to remedy all Level 3 and Level 4 Errors has been developed.

TASK #30 FINAL SYSTEM ACCEPTANCE

Final System Acceptance will occur after the completion of the 30-day Reliability Acceptance Testing period without an occurrence of a Level 1 or 2 error, and when all Level 3 and Level 4 errors have been resolved or a mutually agreeable plan to remedy these errors has been developed.

If a Level 1 or 2 error occurs during the 30-day Reliability Acceptance Testing period, the 30-day Reliability Acceptance Testing period will begin again at such time there are no Level 1 or 2 errors.

VERSATERM RESPONSIBILITIES

- N/A

CITY RESPONSIBILITIES

- Notify Versaterm in writing of Final System Acceptance when all outstanding System issues or defects that preclude Final System Acceptance have been corrected.

PREREQUISITES

- Successful completion of the Reliability Acceptance Testing.

VERSATERM DELIVERABLES

- N/A

TASK COMPLETION CRITERIA

- City has provided written notice of Final System Acceptance to Versaterm.

5.6 POST LIVE ACTIVITIES

POST-LIVE DATA CONVERSION

Phase 2 (Post-Live) Data Conversion activities will be undertaken per the Data Conversion Plan. Responsibilities are the same as Phase 1 Conversion.

OPTIONAL ACTIVITIES

The below items have been proposed as options in the price proposal:

- 3-day Efficiency Assessment – A 3-day onsite assessment, conducted by Versaterm, to review how the City is doing with the Versadex system and make suggestions for improvements.
- Follow-up Train-the-Trainer Training – A session to re-train the Train the Trainer group to refresh topics as well as focus on any areas needing attention.

6 OUT OF SCOPE

The following items are specifically out of scope for this project:

- Computer Aided Dispatch (CAD) – however, this is included as a future option and if opted for, will become “within scope”
- Hardware
- Interfaces and Services provided by Hexagon

7 COMMUNICATION PLAN

The purpose of this communication plan is to provide meaningful, timely, and responsive communications that meets the needs of our staff and stakeholders, and ultimately supports a successful project completion, adoption, and utilization of the Versaterm RMS and MRE. Consequently, the project team and supporting readiness team members will regularly review and update the Plan throughout the project to ensure communication strategies and actions directly support and address key needs of the project, City staff, and citizens.

Communications Product	Audience	Key Interests/ Messages	Frequency	Delivery Method	Moderation Level
Weekly Status Reports	- MPD PM Team - Versaterm PM	- Status Review - Current/Recent Activities - Upcoming Activities - Communications - Current Resource Use - Timeline for Next Few Months	Weekly	Email	Project Manager
Meeting Agendas & Minutes	Meeting participants	- Agenda - Participants - Minutes - Action Items - Decisions - Identified Risks	As appropriate	Email	Project Manager
Command Staff Briefing	MPD Command Staff	- Status Review - Current/Recent Activities - Upcoming Activities - Current Resource Use - Future Resource Needs - Timeline for Next Few Months	Monthly	In person with PowerPoint, SharePoint and/or handouts as appropriate	City Project Manager or PDIT Administrator
RMS 2.0 Posters	MPD Staff	- General Introduction - Basic Timeline	Ongoing	Posters at MPD facilities	Project Manager
RMS 2.0 SharePoint, FAQ, and Q&A	MPD Staff	- Status Review - Current/Recent Activities - Upcoming Activities - Timeline for Next Few Months	Ongoing / Real-time	MPD Intranet	Project Manager

8 RISK MANAGEMENT PLAN

- Both the Versaterm and City Project Managers shall add to the Risk Register (SharePoint list) any reasonable risks that come to their attention – whether the risk is self-identified or suggested by someone else.
- Both the Versaterm and City Project Managers shall routinely (weekly) monitor and update the Risk Register including mitigation plans.
- When a risk is deemed likely or imminent, either the Versaterm or City Project Manager shall initiate the appropriate risk mitigation plan(s) as necessary and notify the appropriate team members.

9 APPROVALS

Name/Title	Signature	Approval Date

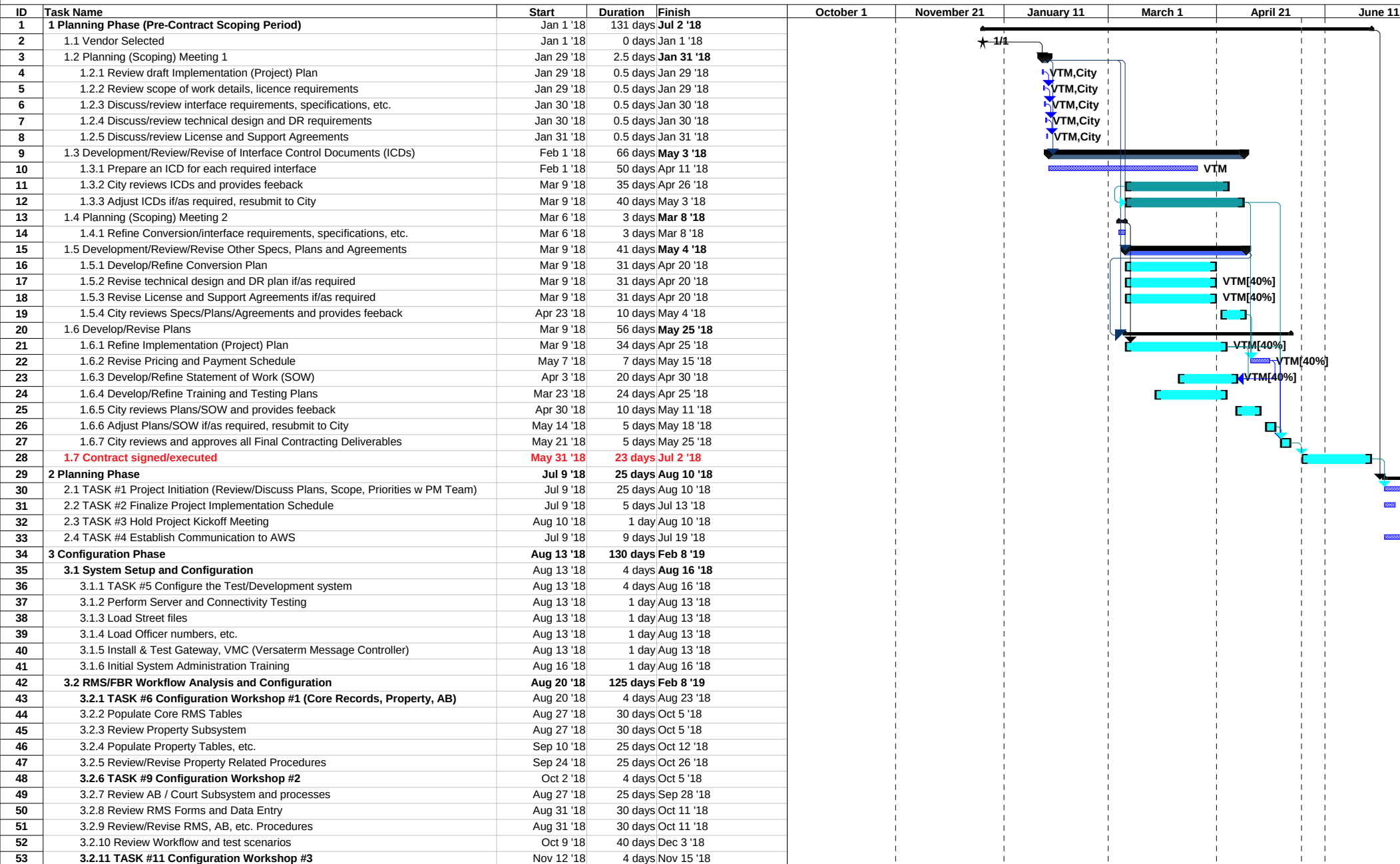
EXHIBIT A.2

PROJECT IMPLEMENTATION SCHEDULE



City of Mesa RMS Project Schedule

City of Mesa
Records Management System & Field-Based Reporting





City of Mesa RMS Project Schedule

City of Mesa
Records Management System & Field-Based Reporting

ID	Task Name	Start	Duration	Finish	October 1	November 21	January 11	March 1	April 21	June 11
54	3.2.12 Review/Revise Procedures (Property, RMS, AB), etc.	Nov 19 '18	35 days	Jan 4 '19						
55	3.2.13 Review Versadex standard reports, etc.	Nov 19 '18	25 days	Dec 21 '18						
56	3.2.14 Configure/Review Field-Based Reporting (FBR)	Dec 3 '18	25 days	Jan 4 '19						
57	3.2.15 Review/Configure Security	Nov 16 '18	25 days	Dec 20 '18						
58	3.2.16 TASK #12 Configuration Workshop #4	Jan 7 '19	4 days	Jan 10 '19						
59	3.2.17 Review Final System Configurations	Jan 11 '19	10 days	Jan 24 '19						
60	3.2.18 Develop / Document Procedures	Jan 25 '19	11 days	Feb 8 '19						
61	3.3 TASK #7 Data Conversion (Phase 1)	Aug 22 '18	123 days	Feb 8 '19						
62	3.3.1 Provide XML Specs to-date	Aug 22 '18	0.5 days	Aug 22 '18						
63	3.3.2 Conversion Workshop #1	Sep 3 '18	2 days	Sep 4 '18						
64	3.3.3 MNI & Mugshots -> Criminal Description	Sep 5 '18	29 days	Oct 15 '18						
65	3.3.3.1 Develop XML Extract	Sep 5 '18	6 days	Sep 12 '18						
66	3.3.3.2 Provide Sample Extract to Vtm	Sep 12 '18	0.5 days	Sep 12 '18						
67	3.3.3.3 Verify and Run Sample	Sep 13 '18	2 days	Sep 14 '18						
68	3.3.3.4 Document/Report Errors/Issues	Sep 17 '18	0.5 days	Sep 17 '18						
69	3.3.3.5 Correct / Adjust XML Extract	Sep 18 '18	3 days	Sep 20 '18						
70	3.3.3.6 Provide Sample Extract to Vtm	Sep 20 '18	0.5 days	Sep 20 '18						
71	3.3.3.7 Verify and Run Sample	Sep 21 '18	1 day	Sep 21 '18						
72	3.3.3.8 Document/ Report Errors/Issues	Sep 24 '18	0.5 days	Sep 24 '18						
73	3.3.3.9 Correct / Adjust XML Extract	Sep 25 '18	2 days	Sep 26 '18						
74	3.3.3.10 Provide Sample Extract to Vtm	Sep 26 '18	0.5 days	Sep 26 '18						
75	3.3.3.11 Verify and Run Sample	Sep 27 '18	1 day	Sep 27 '18						
76	3.3.3.12 QA Data	Sep 28 '18	2 days	Oct 1 '18						
77	3.3.3.13 Refine, Re-Run Loads & QA	Oct 2 '18	10 days	Oct 15 '18						
78	3.3.4 Alert Records -> Flag Records	Sep 27 '18	27 days	Nov 2 '18						
79	3.3.4.1 Review Alerts compared to Versadex Flag Records/Caution Codes	Sep 27 '18	2 days	Sep 28 '18						
80	3.3.4.2 Develop XML specs for Flag Records	Oct 1 '18	3 days	Oct 3 '18						
81	3.3.4.3 Develop XML Ingest Routines	Oct 4 '18	3 days	Oct 8 '18						
82	3.3.4.4 Develop Flag XML Extract	Oct 9 '18	5 days	Oct 15 '18						
83	3.3.4.5 Provide Sample Extract to Vtm	Oct 15 '18	0.5 days	Oct 15 '18						
84	3.3.4.6 Verify and Run Sample	Oct 16 '18	3 days	Oct 18 '18						
85	3.3.4.7 Document/ Report Errors/Issues	Oct 19 '18	1 day	Oct 19 '18						
86	3.3.4.8 Correct / Adjust XML Extract	Oct 22 '18	2 days	Oct 23 '18						
87	3.3.4.9 Provide Sample Extract to Vtm	Oct 23 '18	0.5 days	Oct 23 '18						
88	3.3.4.10 Verify and Run Sample	Oct 24 '18	1 day	Oct 24 '18						
89	3.3.4.11 QA Data	Oct 25 '18	2 days	Oct 26 '18						
90	3.3.4.12 Refine, Re-Run Loads & QA	Oct 29 '18	5 days	Nov 2 '18						
91	3.3.5 Incidents -> General Offenses (Active and Closed within 24 Months (including Collisions and Case Management))	Nov 1 '18	49 days	Jan 8 '19						
92	3.3.5.1 Review Field Mapping	Oct 24 '18	5 days	Oct 30 '18						
93	3.3.5.2 Develop Incident XML Extract	Oct 31 '18	10 days	Nov 13 '18						
94	3.3.5.3 Provide Sample Extract to Vtm	Nov 13 '18	0.5 days	Nov 13 '18						
95	3.3.5.4 Verify and Run Sample	Nov 14 '18	6 days	Nov 21 '18						
96	3.3.5.5 Document/ Report Errors/Issues	Nov 26 '18	1 day	Nov 26 '18						
97	3.3.5.6 Correct / Adjust XML Extract	Nov 27 '18	3 days	Nov 29 '18						
98	3.3.5.7 Provide Sample Extract to Vtm	Nov 29 '18	0.5 days	Nov 29 '18						
99	3.3.5.8 Verify and Run Sample	Nov 30 '18	1 day	Nov 30 '18						
100	3.3.5.9 Document/ Report Errors/Issues	Dec 3 '18	3 days	Dec 5 '18						
101	3.3.5.10 Correct / Adjust XML Extract	Dec 6 '18	3 days	Dec 10 '18						
102	3.3.5.11 Provide Sample Extract to Vtm	Dec 10 '18	0.5 days	Dec 10 '18						
103	3.3.5.12 Verify and Run Sample	Dec 11 '18	1 day	Dec 11 '18						
104	3.3.5.13 QA Data	Dec 12 '18	2 days	Dec 13 '18						
105	3.3.5.14 Refine, Re-Run Loads & QA	Dec 14 '18	7 days	Dec 24 '18						



City of Mesa RMS Project Schedule

City of Mesa
Records Management System & Field-Based Reporting

ID	Task Name	Start	Duration	Finish	October 1	November 21	January 11	March 1	April 21	June 11
106	3.3.6 QTel Property -> Property	Dec 11 '18	23 days	Jan 10 '19						
107	3.3.6.1 Review Field Mapping	Dec 11 '18	2 days	Dec 12 '18						
108	3.3.6.2 Develop Incident XML Extract	Dec 13 '18	5 days	Dec 19 '18						
109	3.3.6.3 Provide Sample Extract to Vtm	Dec 19 '18	0.5 days	Dec 19 '18						
110	3.3.6.4 Verify and Run Sample	Dec 19 '18	3 days	Dec 21 '18						
111	3.3.6.5 Document/ Report Errors/Issues	Dec 26 '18	1 day	Dec 26 '18						
112	3.3.6.6 Correct / Adjust XML Extract	Dec 27 '18	3 days	Dec 31 '18						
113	3.3.6.7 Provide Sample Extract to Vtm	Dec 31 '18	0.5 days	Dec 31 '18						
114	3.3.6.8 Verify and Run Sample	Jan 2 '19	1 day	Jan 2 '19						
115	3.3.6.9 QA Data	Jan 3 '19	1 day	Jan 3 '19						
116	3.3.6.10 Refine, Re-Run Loads & QA	Jan 4 '19	5 days	Jan 10 '19						
117	3.3.7 I/LEADS Property -> Property	Dec 20 '18	26 days	Jan 24 '19						
118	3.3.7.1 Review Field Mapping	Dec 20 '18	2 days	Dec 21 '18						
119	3.3.7.2 Develop Incident XML Extract	Dec 26 '18	7 days	Jan 3 '19						
120	3.3.7.3 Provide Sample Extract to Vtm	Jan 3 '19	0.5 days	Jan 3 '19						
121	3.3.7.4 Verify and Run Sample	Jan 4 '19	3 days	Jan 8 '19						
122	3.3.7.5 Document/ Report Errors/Issues	Jan 9 '19	1 day	Jan 9 '19						
123	3.3.7.6 Correct / Adjust XML Extract	Jan 10 '19	3 days	Jan 14 '19						
124	3.3.7.7 Provide Sample Extract to Vtm	Jan 14 '19	0.5 days	Jan 14 '19						
125	3.3.7.8 Verify and Run Sample	Jan 15 '19	1 day	Jan 15 '19						
126	3.3.7.9 QA Data	Jan 16 '19	2 days	Jan 17 '19						
127	3.3.7.10 Refine, Re-Run Loads & QA	Jan 18 '19	5 days	Jan 24 '19						
128	3.3.8 Arrests	Jan 3 '19	24 days	Feb 5 '19						
129	3.3.8.1 Review Field Mapping	Jan 3 '19	2 days	Jan 4 '19						
130	3.3.8.2 Develop Incident XML Extract	Jan 7 '19	8 days	Jan 16 '19						
131	3.3.8.3 Provide Sample Extract to Vtm	Jan 16 '19	0.5 days	Jan 16 '19						
132	3.3.8.4 Verify and Run Sample	Jan 17 '19	3 days	Jan 21 '19						
133	3.3.8.5 Document/ Report Errors/Issues	Jan 22 '19	1 day	Jan 22 '19						
134	3.3.8.6 Correct / Adjust XML Extract	Jan 23 '19	3 days	Jan 25 '19						
135	3.3.8.7 Provide Sample Extract to Vtm	Jan 25 '19	0.5 days	Jan 25 '19						
136	3.3.8.8 Verify and Run Sample	Jan 28 '19	1 day	Jan 28 '19						
137	3.3.8.9 QA Data	Jan 29 '19	2 days	Jan 30 '19						
138	3.3.8.10 Refine, Re-Run Loads & QA	Jan 31 '19	4 days	Feb 5 '19						
139	3.3.9 Field Contacts/Interviews -> Street Checks (All GMICs and last 6 months of Field Contacts)	Jan 17 '19	17 days	Feb 8 '19						
140	3.3.9.1 Review Field Mapping	Jan 17 '19	1 day	Jan 17 '19						
141	3.3.9.2 Develop Incident XML Extract	Jan 18 '19	4 days	Jan 23 '19						
142	3.3.9.3 Provide Sample Extract to Vtm	Jan 23 '19	0.5 days	Jan 23 '19						
143	3.3.9.4 Verify and Run Sample	Jan 23 '19	3 days	Jan 28 '19						
144	3.3.9.5 Document/ Report Errors/Issues	Jan 29 '19	1 day	Jan 29 '19						
145	3.3.9.6 Correct / Adjust XML Extract	Jan 30 '19	2 days	Jan 31 '19						
146	3.3.9.7 Provide Sample Extract to Vtm	Jan 31 '19	0.5 days	Jan 31 '19						
147	3.3.9.8 Verify and Run Sample	Feb 1 '19	1 day	Feb 1 '19						
148	3.3.9.9 QA Data	Feb 4 '19	2 days	Feb 5 '19						
149	3.3.9.10 Refine, Re-Run & QA	Feb 6 '19	3 days	Feb 8 '19						
150	3.4 TASK #13 Develop and Install Interfaces	Aug 20 '18	74 days	Nov 29 '18						
151	3.5 TASK #14 Production System Installation	Jan 18 '19	9 days	Jan 30 '19						
152	3.5.1 Configure Production Environment	Jan 18 '19	3 days	Jan 22 '19						
153	3.5.2 Configure Production Interfaces	Jan 23 '19	5 days	Jan 29 '19						
154	3.5.3 Final GIS/Street Load	Jan 30 '19	1 day	Jan 30 '19						
155	4 Testing Phase	Feb 11 '19	20 days	Mar 8 '19						
156	4.1 Interface Integration Testing and Training	Feb 11 '19	5 days	Feb 15 '19						
157	4.1.1 Interface Integration Test	Feb 11 '19	5 days	Feb 15 '19						



City of Mesa RMS Project Schedule

City of Mesa
Records Management System & Field-Based Reporting

ID	Task Name	Start	Duration	Finish	October 1	November 21	January 11	March 1	April 21	June 11
158	4.1.2 Sys Admin training on Interfaces	Feb 11 '19	5 days	Feb 15 '19						
159	4.2 Functional Unit Testing	Feb 18 '19	10 days	Mar 1 '19						
160	4.2.1 Conduct Functional Unit Testing	Feb 18 '19	10 days	Mar 1 '19						
161	4.3 System Performance Testing	Mar 4 '19	5 days	Mar 8 '19						
162	4.3.1 Run scripts developed for stress-testing	Mar 4 '19	5 days	Mar 8 '19						
163	4.3.2 Execute specific response tests, document response times	Mar 4 '19	5 days	Mar 8 '19						
164	5 Training Phase	Mar 11 '19	125 days	Aug 30 '19						
165	5.1 Prepare Training Facilities	Mar 11 '19	30 days	Apr 19 '19						
166	5.2 Conduct System Administration Training	Apr 19 '19	1 day	Apr 19 '19						
167	5.3 Train-the-Trainer Training (TTT)	Apr 22 '19	14 days	May 9 '19						
168	5.3.1 Train-the-Trainer Session #1	Apr 22 '19	4 days	Apr 25 '19						
169	5.3.2 Train-the-Trainer Session #2	May 6 '19	4 days	May 9 '19						
170	5.4 Declare System Ready for Training	May 9 '19	0 days	May 9 '19						
171	5.5 Conduct Internals Training (on DB Structure)	May 13 '19	2 days	May 14 '19						
172	5.6 End User Training	May 27 '19	70 days	Aug 30 '19						
173	5.6.1 Prepare to Deliver Training	May 27 '19	35 days	Jul 12 '19						
174	5.6.2 Conduct End User Training	Jul 22 '19	30 days	Aug 30 '19						
175	6 Production Phase	Aug 13 '19	16 days	Sep 3 '19						
176	6.1 Perform Final Data Conversion Run	Aug 13 '19	15 days	Sep 2 '19						
177	6.2 RMS / FBR PRODUCTION USE (Cut-over)	Sep 3 '19	0 days	Sep 3 '19						
178	7 Post Go-Live Activities	Sep 4 '19	38 days	Oct 25 '19						
179	7.1 Reliability and Performance Acceptance Period	Sep 4 '19	30 days	Oct 15 '19						
180	7.1.1 Repeat Performance (Response) Tests	Sep 4 '19	5 days	Sep 10 '19						
181	7.1.2 System Reliability Acceptance Period	Sep 4 '19	30 days	Oct 15 '19						
182	7.2 Final System Acceptance	Oct 15 '19	0 days	Oct 15 '19						
183	7.3 System Warranty Begins (12 months)	Oct 15 '19	0 days	Oct 15 '19						
184	8 Data Conversion (Phase 2- Post Go-Live)	Oct 28 '19	127 days	Apr 21 '20						
185	8.1 Conversion Workshop #2	Oct 28 '19	1 day	Oct 28 '19						
186	8.2 Incidents -> General Offenses (remaining Incidents, Crashes and Case Management)	Oct 28 '19	21 days	Nov 25 '19						
187	8.2.1 Provide Sample Extract to Vtm	Oct 28 '19	2 days	Oct 29 '19						
188	8.2.2 Verify and Run Sample	Oct 28 '19	2 days	Oct 29 '19						
189	8.2.3 Document/ Report Errors/Issues	Oct 30 '19	1 day	Oct 30 '19						
190	8.2.4 Correct / Adjust XML Extract	Oct 31 '19	1 day	Oct 31 '19						
191	8.2.5 Provide Sample Extract to Vtm	Oct 31 '19	0.5 days	Oct 31 '19						
192	8.2.6 Verify and Run Sample	Nov 1 '19	1 day	Nov 1 '19						
193	8.2.7 QA Data	Nov 4 '19	1 day	Nov 4 '19						
194	8.2.8 Refine, Re-Run, Load & QA	Nov 5 '19	15 days	Nov 25 '19						
195	8.3 Civil Papers -> Civil Process	Nov 5 '19	27 days	Dec 11 '19						
196	8.3.1 Review Field Mapping / File Format	Nov 5 '19	1 day	Nov 5 '19						
197	8.3.2 Develop Civil Ingest Routines	Nov 6 '19	5 days	Nov 12 '19						
198	8.3.3 Provide File Layout Specs	Nov 12 '19	0.5 days	Nov 12 '19						
199	8.3.4 Develop Formatted File	Nov 13 '19	5 days	Nov 19 '19						
200	8.3.5 Provide Sample Extract to Vtm	Nov 19 '19	0.5 days	Nov 19 '19						
201	8.3.6 Verify and Run Sample	Nov 20 '19	3 days	Nov 22 '19						
202	8.3.7 Document/ Report Errors/Issues	Nov 25 '19	1 day	Nov 25 '19						
203	8.3.8 Correct / Adjust Extract	Nov 26 '19	2 days	Nov 27 '19						
204	8.3.9 Provide Sample Extract to Vtm	Nov 27 '19	0.5 days	Nov 27 '19						
205	8.3.10 Verify and Run Sample	Dec 2 '19	1 day	Dec 2 '19						
206	8.3.11 QA Data	Dec 3 '19	2 days	Dec 4 '19						
207	8.3.12 Refine, Re-Run, Load & QA	Dec 5 '19	5 days	Dec 11 '19						
208	8.4 Bike Registration	Jan 6 '20	10 days	Jan 17 '20						
209	8.4.1 Review Field Mapping / File Format	Jan 6 '20	1 day	Jan 6 '20						



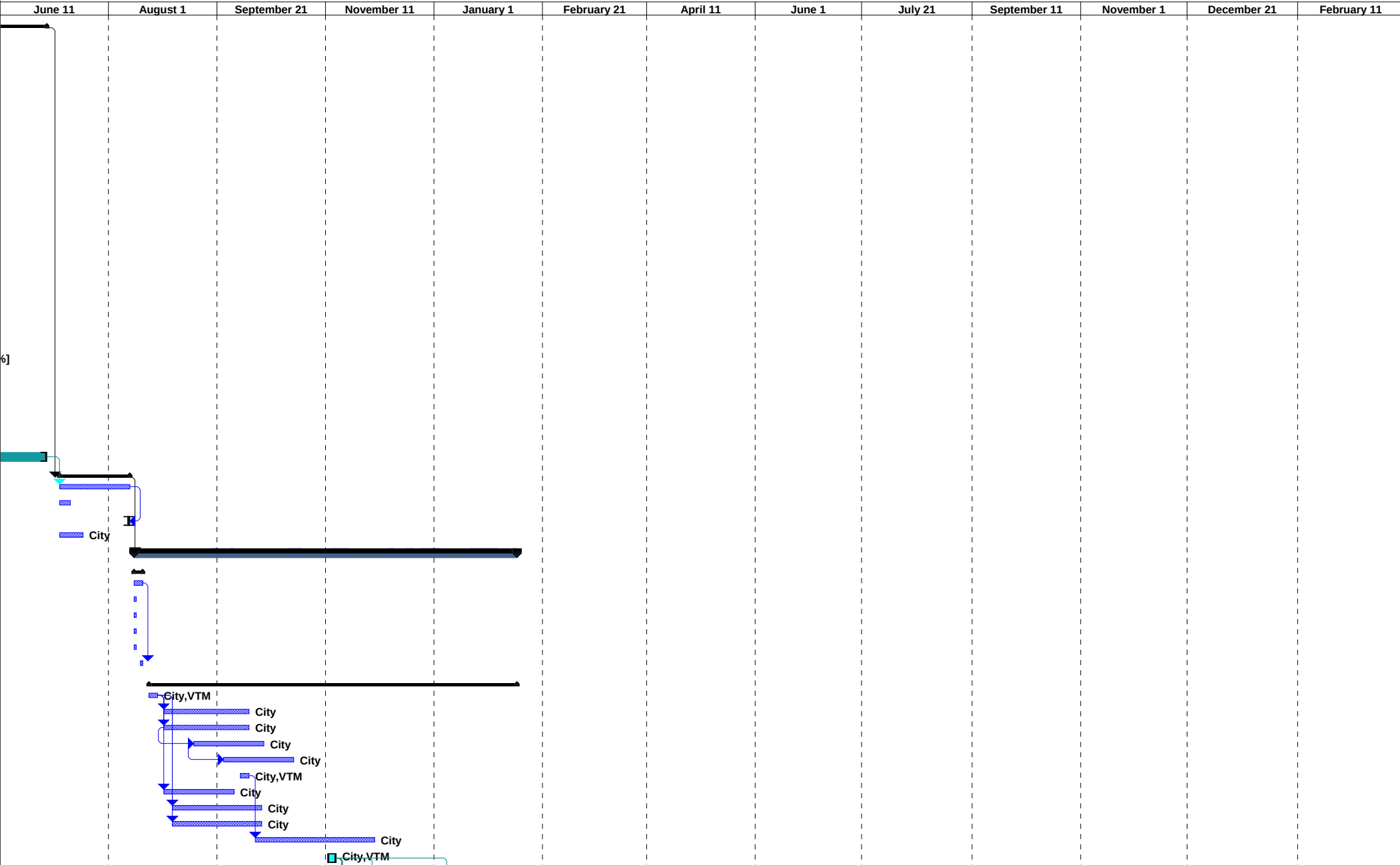
City of Mesa RMS Project Schedule

City of Mesa
Records Management System & Field-Based Reporting

ID	Task Name	Start	Duration	Finish	October 1	November 21	January 11	March 1	April 21	June 11
210	8.4.2 Provide File Layout Specs	Jan 7 '20	0.5 days	Jan 7 '20						
211	8.4.3 Develop CSV Formatted File	Jan 7 '20	2 days	Jan 8 '20						
212	8.4.4 Provide Sample Extract to Vtm	Jan 8 '20	0.5 days	Jan 8 '20						
213	8.4.5 Verify and Run Sample	Jan 9 '20	1 day	Jan 9 '20						
214	8.4.6 Document/ Report Errors/Issues	Jan 10 '20	1 day	Jan 10 '20						
215	8.4.7 Correct / Adjust Extract	Jan 13 '20	1 day	Jan 13 '20						
216	8.4.8 Provide Sample Extract to Vtm	Jan 13 '20	0.5 days	Jan 13 '20						
217	8.4.9 Verify and Run Sample	Jan 14 '20	1 day	Jan 14 '20						
218	8.4.10 QA Data	Jan 15 '20	1 day	Jan 15 '20						
219	8.4.11 Refine, Re-Run, Load & QA	Jan 16 '20	2 days	Jan 17 '20						
220	8.5 Gang Records -> Gangs and Related Names	Jan 16 '20	7 days	Jan 24 '20						
221	8.5.1 Review Field Mapping / CSV Format	Jan 16 '20	1 day	Jan 16 '20						
222	8.5.2 Develop CSV Ingest Routines	Jan 17 '20	1 day	Jan 17 '20						
223	8.5.3 Develop CSV Formatted File	Jan 17 '20	1 day	Jan 17 '20						
224	8.5.4 Provide Sample Extract to Vtm	Jan 17 '20	0.5 days	Jan 17 '20						
225	8.5.5 Verify and Run Sample	Jan 20 '20	1 day	Jan 20 '20						
226	8.5.6 Document/ Report Errors/Issues	Jan 21 '20	1 day	Jan 21 '20						
227	8.5.7 Correct / Adjust Extract	Jan 22 '20	1 day	Jan 22 '20						
228	8.5.8 Provide Sample Extract to Vtm	Jan 22 '20	0.5 days	Jan 22 '20						
229	8.5.9 Verify and Run Sample	Jan 23 '20	0.5 days	Jan 23 '20						
230	8.5.10 QA Data	Jan 23 '20	0.5 days	Jan 23 '20						
231	8.5.11 Refine, Re-Run, Load & QA	Jan 24 '20	1 day	Jan 24 '20						
232	8.6 Field Interviews -> Street Checks (remaining records)	Jan 27 '20	11 days	Feb 10 '20						
233	8.6.1 Provide Sample Extract to Vtm	Jan 27 '20	1 day	Jan 27 '20						
234	8.6.2 Verify and Run Sample	Jan 28 '20	1 day	Jan 28 '20						
235	8.6.3 Document/ Report Errors/Issues	Jan 29 '20	1 day	Jan 29 '20						
236	8.6.4 Correct / Adjust XML Extract	Jan 30 '20	1 day	Jan 30 '20						
237	8.6.5 Provide Sample Extract to Vtm	Jan 30 '20	0.5 days	Jan 30 '20						
238	8.6.6 Verify and Run Sample	Jan 31 '20	1 day	Jan 31 '20						
239	8.6.7 QA Data	Feb 3 '20	1 day	Feb 3 '20						
240	8.6.8 Refine, Re-Run & QA	Feb 4 '20	5 days	Feb 10 '20						
241	8.7 Citations	Feb 17 '20	21 days	Mar 16 '20						
242	8.7.1 Review Field Mapping / File Format	Feb 17 '20	1 day	Feb 17 '20						
243	8.7.2 Develop CSV Ingest Routines	Feb 18 '20	5 days	Feb 24 '20						
244	8.7.3 Develop CSV Formatted File	Feb 18 '20	6 days	Feb 25 '20						
245	8.7.4 Provide Sample Extract to Vtm	Feb 25 '20	0.5 days	Feb 25 '20						
246	8.7.5 Verify and Run Sample	Feb 26 '20	3 days	Feb 28 '20						
247	8.7.6 Document/ Report Errors/Issues	Mar 2 '20	1 day	Mar 2 '20						
248	8.7.7 Correct / Adjust Extract	Mar 3 '20	2 days	Mar 4 '20						
249	8.7.8 Provide Sample Extract to Vtm	Mar 4 '20	0.5 days	Mar 4 '20						
250	8.7.9 Verify and Run Sample	Mar 5 '20	1 day	Mar 5 '20						
251	8.7.10 QA Data	Mar 6 '20	2 days	Mar 9 '20						
252	8.7.11 Refine, Re-Run, Load & QA	Mar 10 '20	5 days	Mar 16 '20						



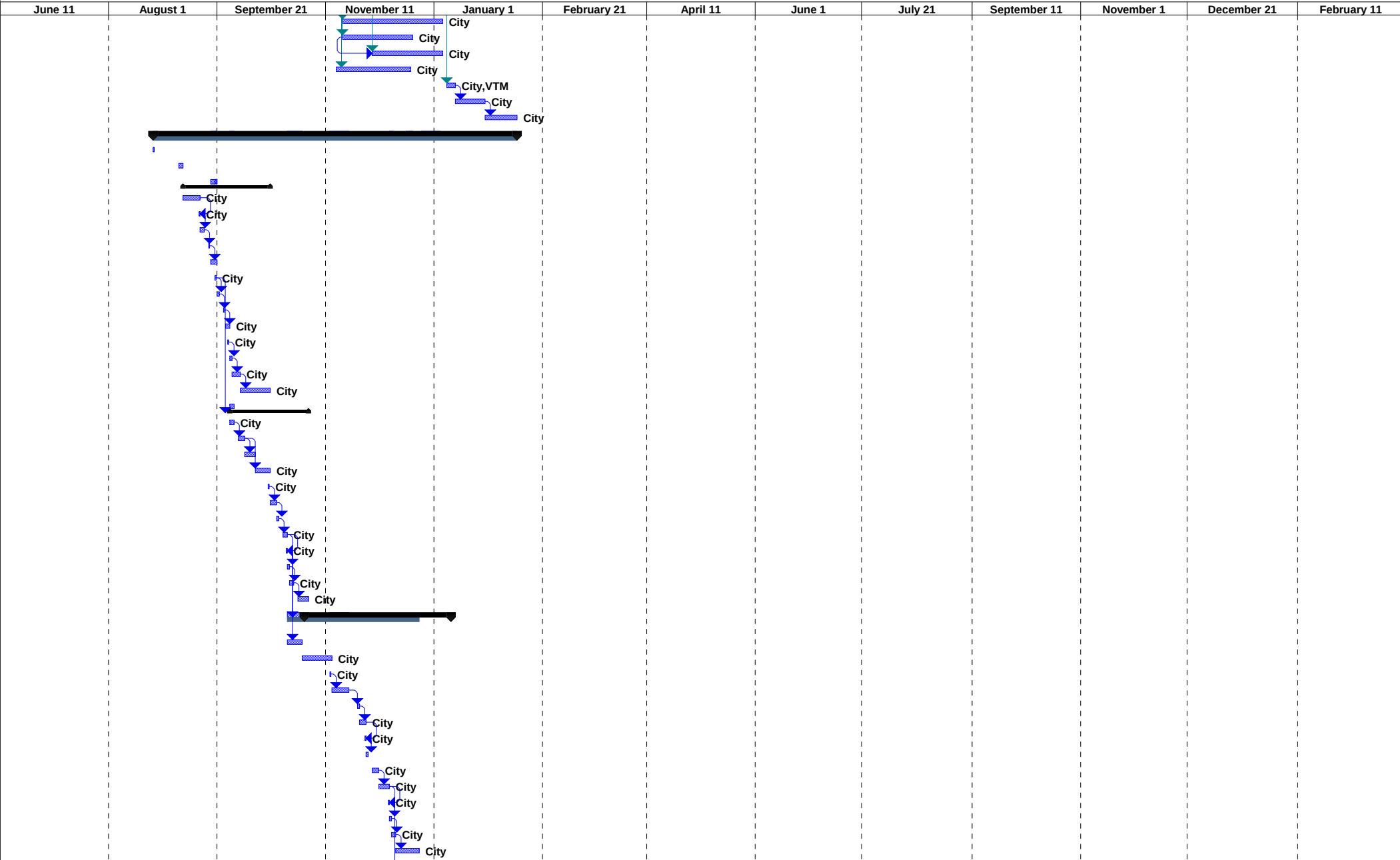
City of Mesa RMS Project Schedule

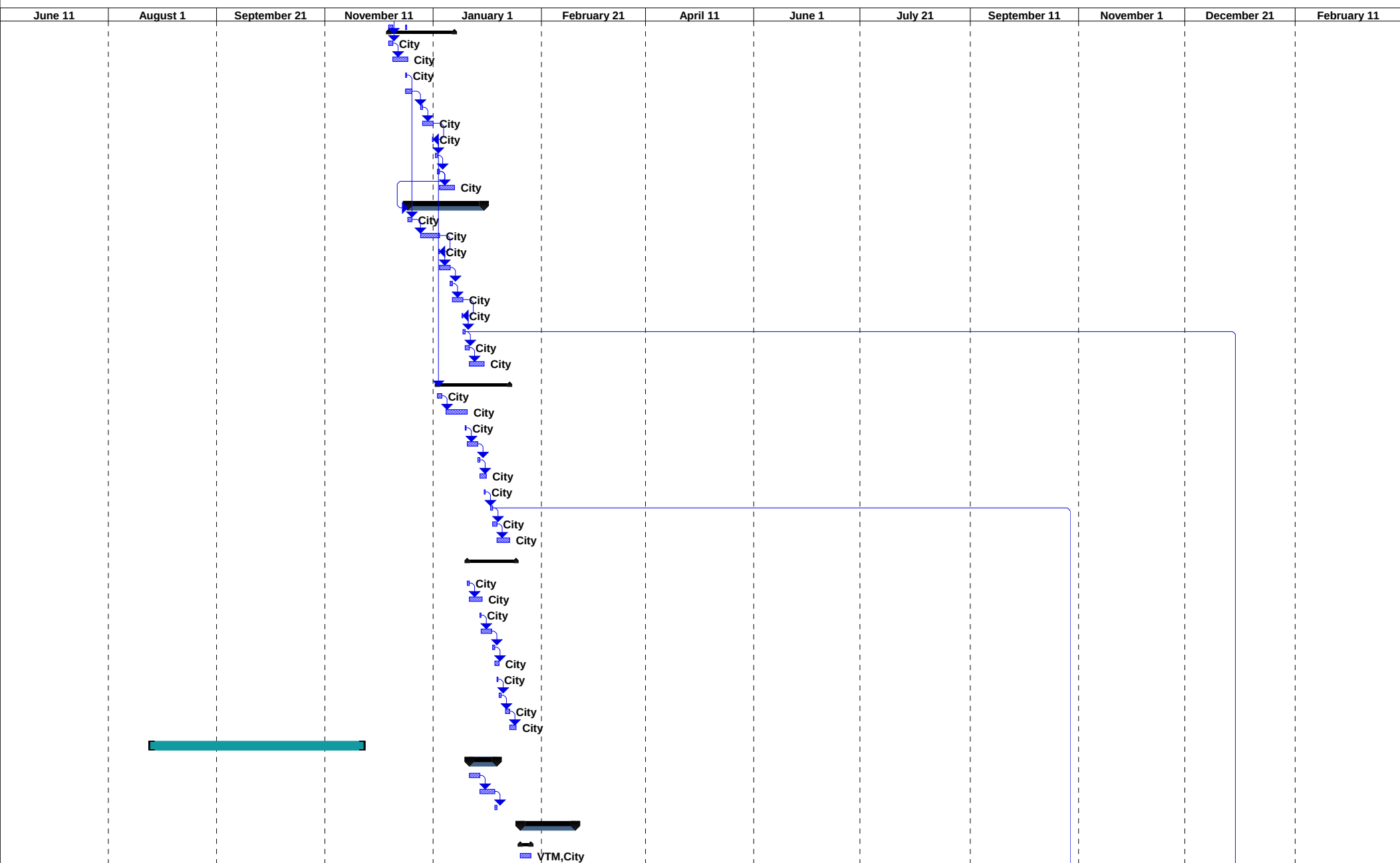


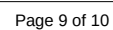


City of Mesa RMS Project Schedule

City of Mesa
Records Management System & Field-Based Reporting







June 11	August 1	September 21	November 11	January 1	February 21	April 11	June 1	July 21	September 11	November 1	December 21	February 11

EXHIBIT A.3

INTERFACE CONTROL DOCUMENT (ICD)

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1 OVERVIEW

This Interface Control Document (ICD) defines all interface deliverables, technical requirements and responsibilities between Versaterm and the City for the Interfaces to be developed and implemented between the Versadex Application Software and other systems.

This document also includes a list of interfaces that were deemed “out of scope”.

2 INTERFACES

2.1 HEXAGON CAD TO QUERY RMS INTERFACE

This Interface will enable the Hexagon CAD system Users to initiate queries of person, vehicle, and location information from the Versadex RMS system.

PROCESS OVERVIEW

The Hexagon CAD systems will initiate queries, via the Versaterm web services. Hexagon will make a synchronous Web service request to the RMS System and will return the related response to the requesting CAD system in the expected format of the CAD system.

Queries to the RMS System will, most often, return a list for the User to select from. Selecting from the list will initiate a subsequent query, using the internal primary key that was provided in the initial response so that details are returned. Note that the CAD implementation of the Interface and the number of queries supported by the CAD is the responsibility of the CAD vendor. This ICD supports a specific set of queries, with appropriate data, which may or may not be supported by a third-party CAD system.

TRANSACTION DETAILS

The RMS System will expose a Web service to handle foreign queries. Queries made to the RMS System are handled immediately (synchronously). The Web services will be Configured/tuned to limit the number of concurrent queries so not to negatively affect performance.

The RMS System accepts a SOAP/XML Web service call and returns the appropriate response. The queries are identified in 2 categories: 1) criteria query and 2) detail request. That is, a User may request to query a name, using last name, first name and sex, which (likely) returns a list of possible matches so the User can select a person from the list which, as a result, initiates a request for more detail on the selected person.

Responses are returned with discreet fields in a RMS System supported XML structure. In some instances, discreet fields in the RMS System may be concatenated into a single XML field (i.e. a data block). If a record was not found, the response will return an appropriate error message.

The following provides criteria and responses in a summary format. The details of transactions, including field definitions and “header” details, are provided in Web service description language (WSDL) format with a sample (vdx_rms_query_ws.wsdl) provided with this ICD. The final details of the WSDL will be confirmed prior to development.

QUERY PERSON

The Person query accepts criteria, queries the RMS System's database and returns a list of persons matching the entered criteria, based on the System's SOUNDEX scoring algorithm, so the User may select to return the complete details of the person and synopsis of the person's involvements.

a. Inbound Criteria Query

The Inbound criteria query consists of the sample fields as follows:

Field Name	Field Type	Comment
LastName	String(24)	Mandatory
FirstName	String(15)	
SecondName	String(15)	
ThirdName/Suffix	String(15)	
Sex	String(1)	M, F or U
BirthYear	Short(4)	
BirthMonth	Short(2)	
BirthDay	Short(2)	
ApparentAge	Short(2)	Approximate age. Not required when DOB is entered.

Sample Web service XML request may be (with the question mark "?" replaced by data fields):

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ver="http://www.versaterm.com">

  <soapenv:Header/>

  <soapenv:Body>

    <ver:vdX_person_queryRequestElement>

      <!--Optional:-->

      <ver:SiteCode>?</ver:SiteCode>

      <!--Optional:-->

      <ver:AgencyOriCode>?</ver:AgencyOriCode>

      <ver:AuthenticationCode>?</ver:AuthenticationCode>

      <!--Optional:-->

      <ver:QueryRemarks>?</ver:QueryRemarks>

      <!--Optional:-->

      <ver:PersonSurName>?</ver:PersonSurName>
```

```

<ver:PersonGivenName1>?</ver:PersonGivenName1>

<ver:PersonGivenName2>?</ver:PersonGivenName2>

<ver:PersonGivenName3>?</ver:PersonGivenName3>

<ver:SexId>?</ver:SexId>

<ver:BeingBirthYear>?</ver:BeingBirthYear>

<ver:BeingBirthMonth>?</ver:BeingBirthMonth>

<ver:BeingBirthDay>?</ver:BeingBirthDay>

<ver:ObjectApparentAge>?</ver:ObjectApparentAge>

</ver:vdX_person_queryRequestElement>

</soapenv:Body>

</soapenv:Envelope>

```

Response

The response returns an XML formatted structure containing a list of matching names, based on the Versadex SOUNDEX and scoring algorithm. The list is returned sequenced by the SOUNDEX score (descending) providing the most likely match, based on the criteria entered, first in the list. An XML record per returned name is created of the following fields providing the calling application an opportunity to display the returns in a list format (to the User).

Field Name	Field Type	Comment
PersonIdentifier	Integer(9)	PIN field. Internal key in the System
AliasMatch	String(1)	Indicates name is an alias
SoundexScore	Short(3)	SOUNDEX score
LastName	String(24)	
FirstName	String(15)	
SecondName	String(15)	
ThirdName/Suffix	String(15)	
Sex	String(1)	M, F or U
BirthYear	Short(4)	
BirthMonth	Short(2)	
BirthDay	Short(2)	
...		

b. Person Detail Request

This action/query is performed as a result of the User selecting a name from the list. This query uses the System's internal key: person ID number (PIN) as a parameter to query the RMS System and return the details of the selected person.

Field Name	Field Type	Comment
PersonIdentifier	Integer(9)	PIN. Internal key in the System

Sample Web service XML request may be:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ver="http://www.versaterm.com">

  <soapenv:Header/>

  <soapenv:Body>

    <ver:vdX_person_getRequestElement>

      <!--Optional:-->

      <ver:SiteCode?></ver:SiteCode>

      <!--Optional:-->

      <ver:AgencyOriCode?></ver:AgencyOriCode>

      <ver:AuthenticationCode?></ver:AuthenticationCode>

      <!--Optional:-->

      <ver:QueryRemarks?></ver:QueryRemarks>

      <!--Optional:-->

      <ver:PersonIdentifier?></ver:PersonIdentifier>

    </ver:vdX_person_getRequestElement>

  </soapenv:Body>

</soapenv:Envelope>
```

Response

The response includes the details of the person record from the RMS System's MNI (master name index), associate names and related involvements (e.g. General Offenses, street checks, tickets, etc.).

QUERY VEHICLE

The vehicle query accepts a number of parameters and returns a list of vehicles matching the entered criteria so the User can select to return the complete details of a vehicle and synopsis of involvements.

a. Inbound Criteria Query

The Inbound criteria query consists of the standard vehicle query fields including: plate and state or VIN. The following is a sample SOAP Web service query:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ver="http://www.versaterm.com">

  <soapenv:Header/>

  <soapenv:Body>

    <ver:vdX_vehicle_queryRequestElement>

      <!--Optional:-->

      <ver:SiteCode>?</ver:SiteCode>

      <!--Optional:-->

      <ver:AgencyOriCode>?</ver:AgencyOriCode>

      <ver:AuthenticationCode>?</ver:AuthenticationCode>

      <!--Optional:-->

      <ver:QueryRemarks>?</ver:QueryRemarks>

      <ver:LicencePlateId>?</ver:LicencePlateId>

      <ver:LicencePlateIssueState>?</ver:LicencePlateIssueState>

      <ver:VehicleManufacturerSerialNumber>?</ver:VehicleManufacturerSerialNumber>

    </ver:vdX_vehicle_queryRequestElement>

  </soapenv:Body>

</soapenv:Envelope>
```

Response

The response returns an XML formatted structure containing a list of matching vehicles, based on the RMS System's matching algorithm. Along with details for the vehicle, the RMS System's master

vehicle index (MVI) primary key (VehicleIdentifier) is returned so the User can select a vehicle from the list and generate a vehicle request.

b. Vehicle Detail Request

This action/query is performed as a result of the User selecting a vehicle from the list. This query uses the RMS System's internal key identified as VehicleIdentifier as a parameter to query the RMS System and return the details of the vehicle

Field Name	Field Type	Comment
VehicleIdentifier	Integer(9)	Internal key in the System

Response

The response includes the details of the vehicle record from the RMS System's master vehicle index (MVI) and a synopsis (many) related involvements (e.g. General Offenses, street checks, tickets, etc.).

QUERY LOCATION

The location query accepts a number of parameters and returns a list of addresses matching the entered criteria so the User can select to return the complete details of a location and synopsis of involvements occurring at that location.

a. Inbound Criteria Query

The inbound criteria query consists of the standard location fields including: street name, type, direction, etc. The following is a sample SOAP Web service query:

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:ver="http://www.versaterm.com">

  <soapenv:Header/>

  <soapenv:Body>

    <ver:vdx_address_queryRequestElement>

      <!--Optional:-->

      <ver:SiteCode?></ver:SiteCode>

      <!--Optional:-->

      <ver:AgencyOriCode?></ver:AgencyOriCode>

      <ver:AuthenticationCode?></ver:AuthenticationCode>

      <!--Optional:-->

    </ver:vdx_address_queryRequestElement>

  </soapenv:Body>

</soapenv:Envelope>
```

```
<ver:QueryRemarks>?</ver:QueryRemarks>

<!--Optional:-->

<ver:AddressStreetName>?</ver:AddressStreetName>

<ver:AddressStreetType>?</ver:AddressStreetType>

<ver:AddressStreetDirection>?</ver:AddressStreetDirection>

<!--Optional:-->

<ver:AddressStreetNumber>?</ver:AddressStreetNumber>

<ver:AddressStreetNumberHalfFlag>?</ver:AddressStreetNumberHalfFlag>

<ver:AddressStreetAlpha>?</ver:AddressStreetAlpha>

<ver:AddressApartmentAlphaNumericCode>?</ver:AddressApartmentAlphaNumericCode>

  <ver:AddressCityName>?</ver:AddressCityName>

</ver:vdx_address_queryRequestElement>

</soapenv:Body>

</soapenv:Envelope>
```

Response

The response includes the address details of the match in the RMS System and a 0:many synopsis or related involvements. Note that unlike the person and vehicle queries, the User is not presented with a list of possible matches.

BUSINESS CONTINUITY/INTERFACE AVAILABILITY

This Interface is available from the Production RMS system providing the Hexagon CAD interface has connectivity to the Web service on the vCloud.

INTERFACE TESTING

These tests are intended to ensure the Interface is complete. The following are descriptions of the tests to be performed for the functionality of this Interface during the Interface Integration Test and the Functional Acceptance Test.

FUNCTIONAL AND COMPLETENESS TEST

These tests are to ensure the queries can be invoked and the responses meet the defined transactions within the WSDL. The various parameters can be submitted and the appropriate response includes the fields as defined in the WSDL.

For each query/request supported, the functional test will confirm the Web service can be invoked and return the fields documented in the WSDL.

OPERATIONAL TESTS

These tests confirm that a query can be initiated in CAD and the appropriate response is returned ensuring that the expected results follow the security as configured. This test also confirms running multiple queries at the same moment to ensure the Web services, on the RMS System, will support the number of concurrent queries.

PERFORMANCE TESTS

Performance tests consist of measuring the SRT (System Response Time) between the CAD Interface and the vCloud environment.

EXCEPTION TESTING

This test is to confirm that if the network connection is lost then the Web services re-start automatically.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Coordinate with Hexagon to support the queries. The CAD vendor may need to develop an Interface where the CAD User can interact with the responses.
- Coordinate with Hexagon or develop the transaction transformation routines to convert CAD vendor transactions into the supported format documented within the WSDL.
- Configure network access to allow Web service communications between the CAD and the Versadex System.
- Provide a test facility for this Interface.
- Test the transactions.

VERSATERM RESPONSIBILITIES

- Provide a finalized version of the WSDL to the City.
- Install and Configure the necessary Web services.
- Assist in testing with the City.

2.2 HEXAGON CFS INTERFACE

INTERFACE SCOPE

The I/CAD Interface will transfer call and officer/unit activity information from the Hexagon (Intergraph) CAD system (I/CAD) to the Versadex RMS and DataMart.

The transferred calls will be available for querying and used to prefill into a General Offense report. Call information can be used to prefill a General Occurrence report and, as a result, is automatically linked. The key fields used for prefilling include: the CAD Incident number (into the General Offense Report number field), date/time of occurrence, address (location) and complainant/reporting-party details. These functionalities will be available in the both Versadex RMS and in the Versadex MWS (Mobile Workstation).

The (optional) Officer/Unit Activity for non-call related activity can be transferred to the Versadex RMS and Versadex Data Mart providing data for further analysis via Business Intelligence (BI) reporting tools.

PROCESS OVERVIEW

CALLS FOR SERVICE

The Intergraph CAD system will transfer all calls through a process developed and maintained by City of Mesa, to the Versadex RMS whenever updated file is provided. City of Mesa will decide to send the call-for-service during interim stages of the call (i.e. before it is closed) as the Versaterm RMS can accept the transfer more than once.

Note: The interface trigger points may be reviewed and adjusted as needed in the future. For instance, the transfer could occur whenever a unit is cleared from a call (as calls can stay open for several days).

As all calls are transferred to the Versadex RMS, regardless if a report is required or not, the Versadex RMS will contain a complete data bank of all calls from I/CAD. This will enable the City to use the RMS and the Versaterm Data Mart to analyze both RMS and CAD data.

The call data transferred from I/CAD includes details of the call, related dispatches, unit information, ACJIS returns (included in the XML and attached to the CFS as a text document), Supplemental information and remarks/comments.

The Versadex Data Mart (VDM) supports the ability to ingest the Call-For-Service information so that it is available for reporting and analysis.

Each call record will be transferred to the Versadex RMS (as read-only). As a by-product, each call record will also be automatically transferred to the Versadex Data Mart (VDM) for analytical reporting purposes.

OFFICER/UNIT ACTIVITY

All non-call related activity (such as sign-on, sign-off, lunch, busy, etc.) can be provided to the Versadex RMS / Data Mart (VDM) in a separate file.

CALL-FOR-SERVICE TRANSFER DETAILED PROCESSING

Call-For-Service records will be transferred from the Intergraph CAD system to the AWS RMS environment.

Mesa plans to provide the call information in the Versadex RMS NIEM-compliant call-for-service XML specification. We need to get some specifications/samples of what is available. As a backup plan, and possibly at extra cost, Versaterm can likely transfer from a legacy format if they do not have a NEIM-compliant format.

The Versadex RMS call upload interface will be configured using the operating system scheduling function that, upon configured intervals, will invoke a script to upload any call XML data files in the AWS folder/directory (S3 bucket). The script will process the oldest file first and once identified, move or rename the files into a “processing” state. Once the call-for-service file is processed, the file will be removed (or backed up if required) and the script will continue to process files until the directory is empty. Note, the script first verifies that another version is not already running (i.e. already running from a previous invocation).

Should the call-for-service already exist in the Versadex RMS, it will be replaced with the new incoming record (deleted then added) in order to reflect the most up to date call information from I/CAD.

OFFICER/UNIT ACTIVITY DETAILED PROCESSING

The officer/unit history records will be transferred frequently from the Intergraph CAD system to a directory/folder accessible to the Versadex RMS application server(s) environment. The officer/unit activity information will conform to the Versadex RMS officer/unit history table (of_data), supplied in a pipe-delimited ASCII file. The current file layout is ASCII pipe-delimited but is undergoing a design review and change where it may be modified to a JSON format and updated to include more data elements. Prior to developing such an interface, Versaterm will confirm the layout with the City.

The Versadex RMS officer/unit activity upload interface will be configured using the operating system scheduler that, upon specified intervals, will invoke a script to process any officer/unit activity data files in the AWS RMS directory/folder. Once processed, the file will be removed and the script will continue to process files until the directory is empty. Note, the script first verifies that another version is not already running (i.e. already running from a previous invocation).

Should the officer/unit activity record already exist in the Versadex RMS, it will be replaced with the new incoming record (deleted then added) in order to reflect the most up to date officer/unit activity information from I/CAD.

CONFIGURATION

The City’s CFS extract process will be configured to automatically transfer call information for all events that had a change in the last minute. The Officer/Unit Activity extract process will be configured to automatically transfer updated activity information for all units that had a change in the last 5 minutes.

The call-for-service extract format will be in NIEM compliant XML format. Should the City have difficulty producing NIEM XML, Versaterm and the City will revisit the format and perhaps have Versaterm transform the legacy data extract format to NIEM.

The current I/CAD incident number is in the format yyyyjjj#### where:

- yyyy represents the calendar year
- jjj is the Julian day within the year
- #### is the sequence number of call within the Julian day

Note that the year and number will be separated, as the data is ingested into vRMS, where the year is already part of the report date while the number is then stored as an integer value (leading zeroes are removed). Therefore a CAD incident number of P201809010001 would be stored as 9010001 as the year is part of the Occurred On date already (the leading zero is truncated and the Call # is displayed as 2018-9010001).

The File Naming convention will be reviewed/decided prior to beginning interface development.

The event types, currently maintained in I/CAD are also maintained (manually) in Versadex. For initial development of the interface, Versaterm will offer to load the values from an ASCII, pipe delimited (“|”) or similar file. For on-going maintenance of the I/CAD event types (call types), updates will need to be manually made in the Versadex RMS in order to display the proper event type descriptions when viewing or printing a call record.

Other code tables related to call information must be configured in the Versadex RMS by the City to match the interface transformations from I/CAD data values to Versadex data values (such as call types, municipalities, how received, how cleared, etc.).

COMMUNICATION

The communication method to pass the call data XML files and officer/unit history text files will be a SFTP (or similar) script developed by the City to push the data files to an AWS S3 bucket (i.e. directory/folder).

BUSINESS CONTINUITY/INTERFACE AVAILABILITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the City developed script will not require any configuration changes but will be able to connect to the shared resource.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Acceptance Test period.

FUNCTIONAL AND COMPLETENESS TEST

These tests confirm I/CAD-generated calls and officer/unit activity records are loaded into the Versadex RMS, and that data field mapping is accurate based on the City mapping between ICADLink and the Versadex RMS specifications.

OPERATIONAL TESTS

These tests ensure that the Versadex RMS interfaces (for calls and officer/unit activity) are available after any system reboots or failovers within the AWS availability zones.

PERFORMANCE TESTS

As this is essentially a batch process, the processing will be scheduled on the Versadex RMS through the operating system scheduler. The processing of each XML call file will not exceed 5 seconds, while the processing each officer/unit activity text file will not exceed 30 seconds.

EXCEPTION TESTING

This test consists of removing the shared directory or disconnecting the interface and ensuring that the call data and officer/unit activity records are transferred and loaded once the connection is re-established.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Develop, test and configure the CFS extract to produce the Versaterm NIEM XML format.
- Develop and test the ability to unload officer/unit activity records to file according to the Versadex RMS officer/unit activity specification.
- Provide an ASCII (pipe-delimited) file of the I/CAD event types (call types) for the initial load into the Versadex RMS.
- Provide an ASCII (pipe-delimited) file of the I/CAD busy codes for the initial load into the Versadex RMS.
- Develop/configure the necessary SFTP scripts to push the file(s) to the AWS RMS environment.
- Ensure that calls-for-service files are placed within the shared directory/folder.
- Test the interface.

VERSATERM RESPONSIBILITIES

- Provide the Versadex RMS call XML specification and XML samples to the City.
- Provide the Versadex RMS officer/unit activity table layout specification and text file samples to MPD, as well as support.
- Assist in the XML field mapping process.
- Configure a necessary S3 AWS bucket to receive the Call-For-Service and Unit/Activity files.
- Configure and test the interface for failover.
- Configure and test the CRON entry.

- Load the initial call types into the Versadex RMS.
- Assist in the testing process.

2.3 HEXAGON CAD TO VERSATERM MDT INTERFACE

INTERFACE SCOPE

The Hexagon CAD Mobile interface is a two-way exchange of dispatch-related information and other transactions (e.g. messaging, updates, and ACJIS queries) between the Hexagon CAD and the Versadex Mobile Data Terminal (MDT), which replaces the Hexagon (Intergraph) mobile client software (Mobile for Public Safety, or MPS) on the officers' mobile workstations.

The replacement of Hexagon MPS with the Versadex MDT provides a central and simplified solution for the officers' dispatching and reporting-writing needs.

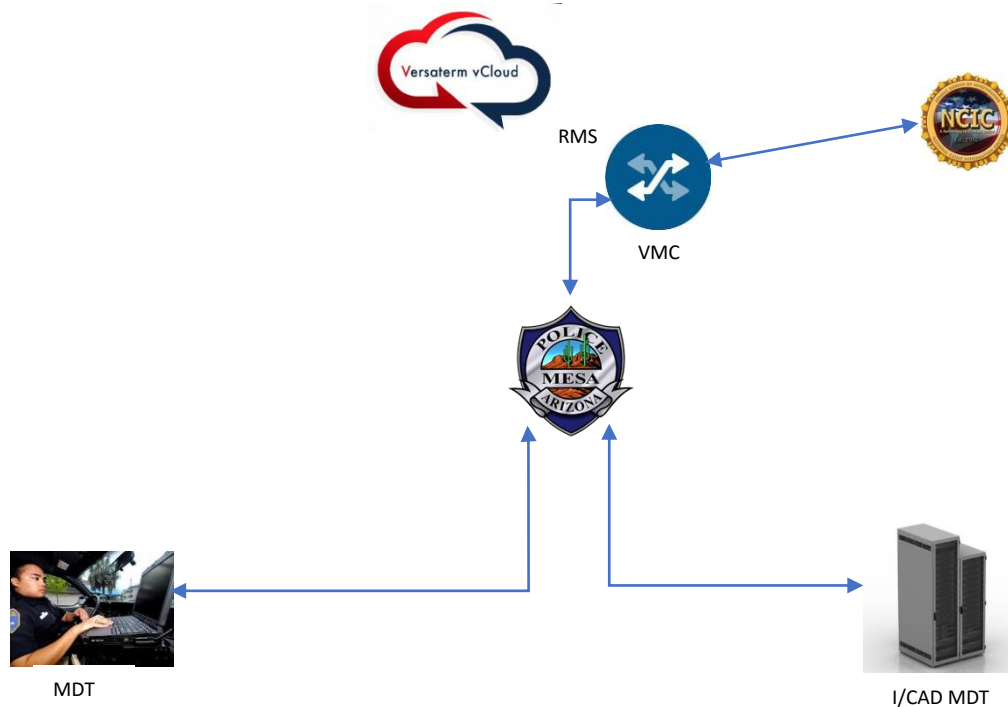
The Versadex Mobile Report Entry (MRE) software is tightly integrated with the Versadex MDT application for report prefill capabilities, integrated queries, and report approval functions. Equally the Versadex MDT is also tightly integrated with the Versadex Records Management System (RMS) and external systems (e.g. ACJIS, etc.). As such, the Versadex MDT will interface to the City's existing Hexagon CAD system in order to provide dispatch-related functions as a comprehensive, integrated solution.

PROCESS OVERVIEW

Whenever an officer is dispatched to a call, the Hexagon CAD system will send the call-for-service information to the officer's mobile workstation, where the information is made available to the officer in the Versadex MDT application. In return, any status changes initiated by the officer in the Versadex MDT application will be communicated back to the Hexagon CAD system.

ACJIS queries and returns are also handled within the MDT. MDT queries have a number of destinations controlled by checkboxes. If the ACJIS system is "checked", the VMC sends the query in and returns the response(s). By default, this is done outside of the Hexagon CAD I/F.

The interface between the Hexagon CAD system and the Versadex MDT is facilitated by a plugin on the Versadex Message Controller (VMC), which takes care of transforming between the Hexagon MDT transaction/message formats and the Versaterm message formats. The VMC also provides store-and-forward queuing technology to ensure delivery of each transaction/message.



Note that the Mesa Fire and Medical Department will continue to use Hexagon MPS for their mobile needs.

THE VERSADEX MESSAGE CONTROLLER (VMC)

The VMC is a Store and Forward design assumes ownership and responsibility for all transaction delivery. When a system sends a transaction in to the VMC, the VMC will respond with an acknowledgment receipt providing the Hexagon CAD Interface supports such a feature. This does not indicate the message has been delivered to the end destination.

If a message bound for an MDT cannot be delivered, the VMC keeps it in its queue until the MDT re-establishes its connection. At that time, it will send out all messages queued for the particular unit (in order of priority). This scenario could occur when a unit is out of radio/network coverage. When the message cannot be delivered, the VMC will send a "Undelivered Message" message back to the initiating system (i.e. CAD) indicating the unit is out-of-range and cannot receive messages.

When a unit is removed from the VMC (via a sign-off transaction or a CAD-initiated transaction, the VMC purges all undelivered messages destined to the Unit.

The following lists the transactions supported by the GenericMDT specification and whether or not the Mesa Police Department plan on using it. The Toronto Police Service (TPS) are currently operating with a Versaterm MDT going against i/CAD using the GenericMDT specifications. In several cases below Mesa will want to make the same adjustments that TPS did.

CAD to MDT Functions	Transaction	VTM Equivalent	Used by Mesa	Notes
CAD Message	cadmessage	Message	Yes	
Status Change	statuschange	Stattext	Yes	
Clear Event Report	cleareventreport	Stattext	Yes	
Event Report	eventreport	Dispatch	Yes	TPS modified to report time in 24hr format. TPS modified to output assigned units. TPS modified to filter out system remarks. TPS modified to output callerphone2, fire, amb, other, and alstatus. TPS modified to include Entry Code, DOB, Sex, Complainant Descriptor, Phone C ext, Phone L ext.
Event Update	eventupdate	Stattext	Yes	
Sign Off Response	signoffresponse	Bye	Yes	
Sign On Response	signonresponse	Confirm Signon	Yes	
General Text Response	generaltextresponse	Stattext	Yes	
LOI Report	loireport	Query Location Response	Yes	
Unit History Report	unithistoryreport	Unit History Response	Yes	TPS modified to report time in 24hr format. TPS modified to enabled Supervisor Unit History command for all operators.
Event Search Report	eventsearchreport	Call Response	Yes	TPS modified to report time in 24hr format. TPS modified to filter out system remarks. TPS modified to output assigned units. TPS modified to include Entry Code, DOB, Sex, Complainant Descriptor, Phone C ext, Phone L ext.
Pending Event Report	pendingreport	Queud Calls Data	Yes	TPS modified to report time in 24hr format. TPS added call XY coordinates.
Unit Summary Report	unitsummaryreport	Unit Status Data	Yes	TPS modified to report time in 24hr format. TPS added unit XY coordinates.
Equipment Report	equipmentreport	Stattext	Yes	Original transaction intent overridden by TPS to provide a response to an IR request.
Find Operator Report	findopreport	Find Operator Response	Yes	
Skill Report	skillreport	Skill Report Response	Yes	
Who Report	whoreport	Who Report Response	Yes	
Recall Broadcast Message	recallbroadcastrequest	BOLO	No	
Event Change Remarks Report	eventchangeremarksreport	New Call Remarks Line	Yes	Added to the running remarks grid below the main Call Info.
Recall Broadcast Report	recallbroadcastreport	Recall Broadcast Response	Yes	Mesa do not use this currently, but would like to in the future
Units / Events Report	broadcastunitseventsreport	N/A	No	The interface does not currently make use of this transaction. The same functionality is facilitated via the Pending Event Report and the Unit Summary Report.
ACJIS Returns	Will supply MDT standard	Will supply MDT standard	Yes	Handled outside of the CAD I/F.
Attach file to call (includes notification of	N/A	Not available	Yes	The GenericMDT specification does not support this functionality.

attachment to other units on same call)				
MDT to CAD Functions	Transaction	VTM Equivalent	Used by Mesa	Notes
Emergency	emergency	Emergency	Yes	
Clear Event Request	cleareventrequest	Clear Call	Yes	
Event Report Request	eventreportrequest	Get Call	Yes	
Sign Off Request	signoffrequest	Bye	Yes	
Sign On Request	signonrequest	SignOn	Yes	
Send CAD Message Request	sendmessagerequest	Message	Yes	Subject field not supported. Set to default "UNIT MESSAGE".
Status Change Request	statuschangerequest	Status Change Transactions	Yes	
GPS Data Update	gpsdataupdate	GPS Report	Yes	
Field Event	fieldeventrequest	Traffic Stop	Yes	
Add Event Comment	addeventcomment	Add Remarks	Yes	
Add Unit History Comment	addunitcomment	Message to Log	Yes	
"Location of Interest" Request	loirequest	Query Location	Yes	
Change Password	changepassword	Password Update	No	Password checking is handled by VTM at the VMC.
Unit History Request	unithistoryrequest	Query Log	Yes	
Event Search Request	eventsearchrequest	Get/Browse Call	Yes	
Pending Event Request	pendingrequest	Status Screen Refresh	Yes	TPS setup Pending Event Query to only work if unit status is clear and the user has non-supervisor access.
Unit Summary Request	unitsummaryrequest	Status Screen Refresh	Yes	
Equipment Request	equipmentrequest	Special	Yes	
Find Operator Request	findoprequest	Where	Yes	
Skill Request	skillrequest	Duty Roster	Yes	VTM Duty Roster re-purposed for this function.
Who Request	whorequest	Who	Yes	
Undeliverable Message	undeliverable	Not Available	Yes	
Change Location Request	changelocation	Change Location	Yes	
Preempt Request	preempt	N/A	No	
Unit Contact	unitcontact	Timer	No	
Special Contact	specialcontact	Special	Yes	
Cancel Special Contact	cancelspecialcontact	Special	Yes	
Recall Broadcast Message	recallbroadcastrequest	Special	Yes	Mesa do not currently use, but want in future
Update Message Status	updatemessagestatus	N/A	No	
ACJIS Queries	Will supply MDT standard	Will supply MDT standard	YES	Handled outside of the CAD I/F
Send file to Dispatcher	N/A	Not available	No	There is no GenericMDT transaction available to do this.
Attach file to call	N/A	Not available	No	There is no GenericMDT transaction available to do this.
Self-Dispatch	N/A	Not available	No	There is no GenericMDT transaction available to do this.
Update Unit Properties	N/A	Not available	Maybe	Things like special equipment, or a second officer in car VTM standard practice is to re-submit the Sign on with the updated values but we would need to verify that GenericMDT treats a sing on resubmission in the same

				way. If it does not, there is no specific GenericMDT transaction available to do this.
Fetch Unread	N/A	Not available	No	Grabs messages that are unread from server (could be several days old, before officer went on break). There is no GenericMDT transaction available to do this. The VMC stores undelivered messages and sends them when the unit is back in range. When the user logs out, all outstanding message in the VMC are deleted and will not be carried over to a new session.

CONFIGURATION

The VMC will be configured to handle the electronic information exchange between the Hexagon CAD and the Versadex MDT, based on Hexagon's specifications document titled "Generic MDT Interface Specifications Document", Version 9.3.0 dated Feb 13, 2014, and based on the City's operational business requirements.

MULTI-DEVICE LOGIN (MDT + VMOBILE APP)

Versaterm's vMobile app is the smartphone version of the MDT. When using the full Versaterm suite of applications, multiple devices can simultaneously log in as the same CAD Unit. This functionality is highly desired, even when interfacing with a 3rd party CAD, but the GenericMDT interface, as written, can not support this feature. In order to enable multi-login functionality, the Versaterm side of the interface will need to manage the multiple devices. As far as the CAD is concerned, there is only one device. The following rules will govern the behaviours:

- The GenericMDT interface uses an mdtid to track logged in devices. Page 10 of the GenericMDT specification states that "(The mdtid) itself is arbitrary and assigned when a unit is signed onto an MDT (when CAD receives signon request with an mdtid)". This mdtid will be "session based", rather than device based. This is so that multiple devices can be mapped to a single mdtid.
- A transaction can be initiated from any logged in device. From the CAD's point of view, it will appear as if from a single device (mdtid).
- All output sent from the CAD to the VMC will be replicated across all logged in devices (for that unit). This is because the CAD will not be able to direct the output to any single device. It is directed to the mdtid.
- When a sign-off is sent in, it will only be forwarded to the CAD if it is coming from the last device still logged in (for that unit/mdtid).

Multi-login creates a problem for GPS/AVL reporting to the Hexagon CAD. With multiple devices transmitting their own GPS data, all being funneled to the same CAD Unit/mdtid, the position of the Unit in CAD will bounce around. Versaterm will have to manage the GPS feed on their end so that it is always only coming from a single device. Versaterm suggests the following algorithm for deciding on which device's GPS reports make it to the Hexagon CAD:

- If an MDT is logged in, it is the GPS source (regardless of how many other vMobile apps are also logged in as that Unit).
- If a single vMobile app is logged in (no MDT), then it is the source of GPS data.
- If multiple vMobile apps are logged in as a single CAD Unit (no MDT), then there is a conflict (see below).

As a chart (green is GPS source):

MDT	vMobile 1	vMobile 2 (or more)
Present	-	-
Present	Present	-
Present	Present	Present
-	Present	-
-	Present	Present

There are several options available to Mesa for handling the multiple vMobile, no MDT conflict. One will need to be decided on prior to the start of interface development:

- No GPS is reported whatsoever.
- GPS from one device. The choice would be the first on the VMC's query list, but to users this would appear quite random.
- Do not allow the situation to occur. This would work as follows:
 - If a vMobile is logged in as a Unit, as long as there is no MDT a second vMobile could not log in as the same unit (would be prevented).
 - If an MDT and two vMobiles were logged in as the same Unit, when the MDT is logged out, all vMobiles would be logged out as well. Users would be forced to log into their vMobile apps again.

COMMUNICATION

The communication method to support the exchange of information between the Hexagon CAD and the VMC adheres to Hexagon's specifications, which involves the use of XML formatted messages over a TCP socket connection.

The communication method to support the exchange of information between the VMC and Versadex MDT is handled via web sockets-based TCP protocols over the city's wireless data network.

BUSINESS CONTINUITY/INTERFACE AVAILABILITY

This interface is considered "always-on" subject to network availability between the VMC and Hexagon CAD, and between the VMC and the Versadex MDTs. As the VMC will connect to the CAD server "by name", so expect the City will configure the networking as such.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Acceptance Test period.

FUNCTIONAL AND COMPLETENESS TESTING

These tests confirm that Hexagon CAD-generated dispatch-related information and transactions are made available to the VMC application, and that information is properly transferred and populated in the corresponding fields in the Versadex MDT.

OPERATIONAL TESTING

As this interface is mainly dependent on the VMC, the Hexagon CAD, and the City's wireless data network, these tests ensure that the Hexagon CAD mobile interface is operational following any interface issues between the Hexagon CAD and the Versadex MDT. The operator will disconnect/sign-off from Versadex MDT and re-connect/sign-on to receive a call-for-service dispatch from Hexagon CAD, and then confirm that the call-for-service is received accordingly in the Versadex MDT.

PERFORMANCE TESTING

The transfer of transactions between the Hexagon CAD and the Versadex MDT (facilitated by the VMC) will not exceed 2 seconds. Note this test does not include any delays attributed to network connectivity that is owned/managed by the City.

EXCEPTION TESTING

These tests consist of disabling the network/socket connectivity methods used by both sides of this interface and ensuring that transactions are successfully transferred back and forth between the Hexagon CAD and the Versadex MDT (facilitated by the VMC) once the network/socket connectivity methods are re-established.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Review Hexagon's specifications document to ensure the supported transactions meet the City/Mesa PD's operational business requirements, in relation to the existing CAD and mobile environment (Mobile For Public Safety).
- If any, identify supported transactions in Hexagon's generic MDT interface that are outside of the City's operational business requirements (i.e. not required to be supported).
- If any, identify operational business requirements, in relation to the existing CAD and mobile environment, which are not included or supported within Hexagon's generic MDT interface. (If so, work with Hexagon and Versaterm to include any such transactions within the scope and design of this interface).
- For development and testing purposes, work with Hexagon and Versaterm to set up a CAD/mobile test environment, where the Hexagon CAD test system has the generic MDT interface enabled and configured to connect to the Versadex MDT, via the Versadex Message Controller (VMC).
- Assist in creating and providing Versaterm with sample transactions from the CAD/mobile test environment for initial testing purposes.
- Work with Hexagon and Versaterm to test and refine the interface.
- Review and sign-off on final interface documentation to be developed by Versaterm.

VERSATERM RESPONSIBILITIES

- Work with the City and Hexagon to confirm that the transactions supported in Hexagon's specifications document meet the City's operational business requirements, in relation to the existing CAD and mobile environment (MPS).
- If any, identify possible enhancements to this interface, which would support features specific to the Versadex MDT that may be of operational benefit to the City's mobile environment and end-users.
- Develop and test new transactions in the Versadex Message Controller (VMC), according to Hexagon's specifications, and according to the final scope and design of this interface, as agreed upon by the City, Hexagon and Versaterm.
- Assist in the testing and refinement process.
- For support and maintenance purposes, develop detailed documentation defining the final scope and design of this interface; identifying the City's operational business requirements it meets, the supported functionality and features, and the expected mapped transactions between Hexagon and Versaterm (i.e. coded values and/or translations).

2.4 COURT TICKET EXTRACT INTERFACE

INTERFACE SCOPE

The City of Mesa requires a data exchange interface between the Versadex RMS and the Court and City systems. This interface consists of a one-way data transfer of ticket information (traffic citations and parking citations) from the Versadex RMS to multiple file destinations using a mutually agreed upon NIST/FIPS 140 compliant protocol to transfer data.

The identified systems that would be accepting this data are:

- Mesa Municipal Court- Court Management System (CMS) -
- Mesa Municipal Court - File Net (eDMS)
- Export to Mesa SFTP folder for Conduent

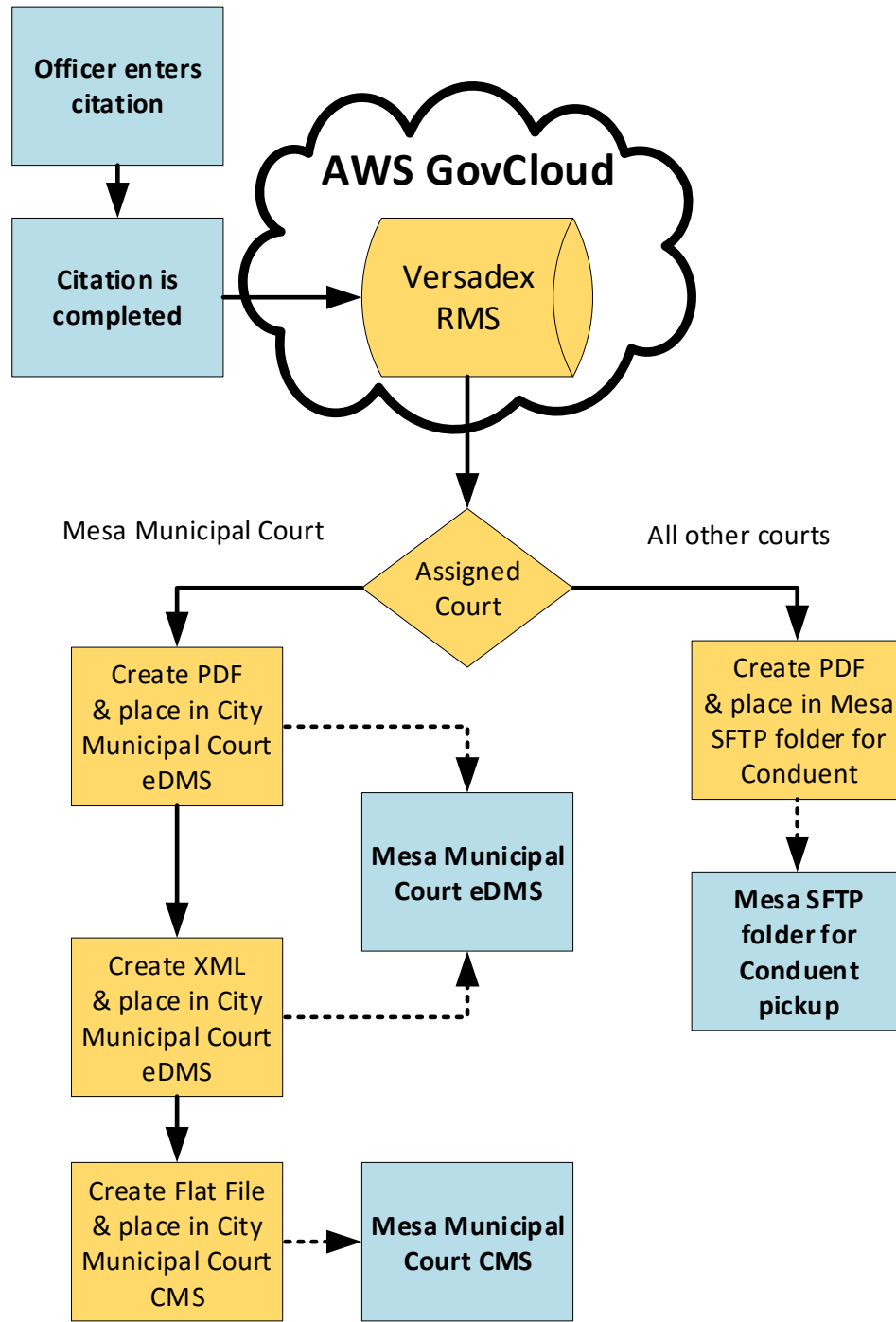
Note: Warning citations and voided citations are stored in the RMS but are not exported to other systems. Versaterm will attempt to extract and format the data elements detailed in the CMS specification, but might not be able to map every field.

PROCESS OVERVIEW

1. A PDF of each completed citation will be exported (on a schedule) to the Mesa Municipal Court eDMS.
 - For assigned courts = "Mesa Municipal Court" defined in the *court_type* lookup
 - Each citation must be in a single PDF, even if it's more than 1 page in length.
 - PDF filename convention = 05022018024339_5035948c.pdf (example)
 - 05022018024339=MMDDYYYYHHMMSS (file creation date/time)
 - 5035948=citation number
 - ending with one of the following: c=citation, fp=fingerprint (if embedded in PDF will likely not be needed), pk=parking ticket, pkfull=full parking ticket, or lightrail=violation on the light rail property (Mesa is working on cleaning this up, particularly the code at the end)
2. Once the PDFs have been processed, XML files containing minimal associated metadata, for each completed Citation will be generated and exported (on a schedule) to the Mesa Municipal Court eDMS. (the PDF needs to arrive before the XML)
 - For assigned courts = "Mesa Municipal Court" defined in the *court_type* lookup
3. Flat files of all completed citations will be exported (on a schedule) to the Mesa Municipal Court CMS.
 - For assigned courts = "Mesa Municipal Court" defined in the *court_type* lookup
 - Versaterm will attempt to extract and format the data elements detailed in the CMS Flat file specification but might not be able to map every field.
4. A PDF of each completed citation will be placed in Mesa's SFTP-to-Conduent folder (on a schedule) for Conduent to pick up from there for JP Superior Court. (City will provide credentials.)
 - For assigned court = anything other than "Mesa Municipal Court" defined in the *court_type* lookup
 - Each citation must be in a single PDF, even if it's more than 1 page in length.
 - PDF filename convention = MESA12345678.PDF (example)

- MESA = hardcoded (always “MESA”)
- 12345678 = citation number

PROCESS DIAGRAM



EXTRACT FILE LAYOUT AND SAMPLE

The following are sample layouts of the data (that MPD is currently using) for a single ticket to be contained in each extract.

1- XML (Metadata) to be consumed by City Filenet (eDMS): To be accompanied with PDF of ticket.

SAMPLE XML (METADATA) FILE

```
<?xml version="1.0" encoding="UTF-8"?>
- <versionseries>
  - <version class="Court eCitation">
    - <properties>
      <property name="CitationNumber">5099977</property>
      <property name="CaseType">CR</property>
      <property name="CourtGenDocType">Complaint</property>
      <property name="CourtDocumentDescription">Complaint</property>
      <property name="LastName">[REDACTED]</property>
      <property name="FirstName">[REDACTED]</property>
      <property name="MiddleName">[REDACTED]</property>
      <property name="NameSuffix"/>
      <property name="FilingDate">12/16/2017</property>
      <property name="CourtDate">01/11/2018</property>
      <property name="CourtSessionTime">09:00</property>
      <property name="CourtSession">AM</property>
      <property name="CivilTrafficIndicator">N</property>
    </properties>
  - <pages>
    <page number="0">c:\12192017094422_5099977c.pdf</page>
  </pages>
</version>
</versionseries>
```

2- File layout and sample flat file to be consumed by CMS

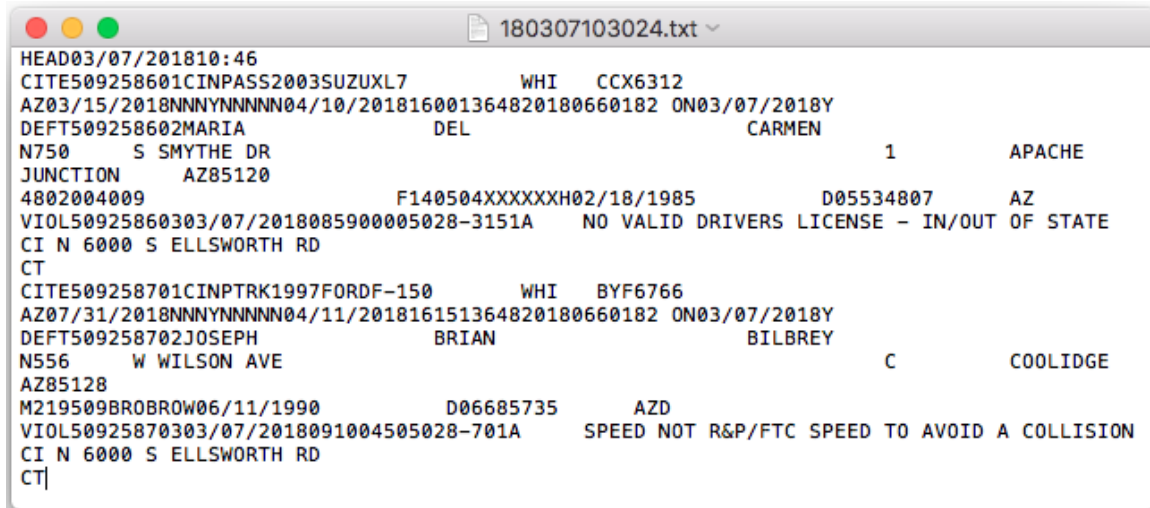
APPENDIX A - E-CITE FILE LAYOUT

Record Type	Format	Length	From	Thru	Values
FILE HEADER RECORD					
Record Type	Character	4	1	4	HEAD
Record Date	Character	10	5	14	dd/mm/yyyy
Record Time	Character	5	15	19	Timestamp
TOTAL		19			
CITE HEADER RECORD					
Record Key					
Rec Type	Character	4	1	4	CITE
Rec Cite	Character	7	5	11	Citation Number
Rec Seq	Numeric	2	12	13	Sequential Number of records within Citation
Citing ACIST Agency Code	Character	2	14	15	CI = Mesa PD LF = Prosecutors LR = Light Rail (allied Barton)
Military Indicator	Character	1	16	16	

Vehicle Type	Character	4	17	20	
Vehicle Year	Numeric	4	21	24	
Vehicle Make	Character	4	25	28	
Vehicle Model	Character	12	29	40	
Vehicle Color 1	Character	3	41	43	
Vehicle Color 2	Character	3	44	46	
License Plate Number	Character	10	47	56	
License Plate State	Character	2	57	58	
License Plate Expiration	Date	10	59	68	dd/mm/yyyy
Offender Ten Print Indicator	Character	1	69	69	
Commercial Vehicle Indicator (CMV)	Character	1	70	70	
Hazardous Indicator (Hazmat)	Character	1	71	71	
Accident Indicator	Character	1	72	72	
Fatality Indicator	Character	1	73	73	
Serious Injury Indicator	Character	1	74	74	
DNA Indicator	Character	1	75	75	
Victim Indicator	Character	1	76	76	
All Victims Notified Indicator	Character	1	77	77	
Court Date	Date	10	78	87	dd/mm/yyyy
Court Time	Time	4	88	91	hhmm
Officer ID	Character	5	92	96	
DR Number (Case Number)	Character	12	97	108	
Served By	Character	1	109	109	O-Officer M-Mailed
Arrest Indicator	Character	1	110	110	
Issuing Date	Date	10	111	120	dd/mm/yyyy
Civil Traffic Indicator	Character	1	121	121	Y=CT N=Criminal P=Parking T = Town Center Parking L=Long Form R=Light Rail
TOTAL		110			
DEFENDANT					
Record Key					
Rec Type	Character	4	1	4	DEFT
Rec Cite	Character	7	5	11	Citation Number
Rec Seq	Numeric	2	12	13	Sequential Number of records within Citation
Offender First Name	Character	20	14	33	
Offender Middle Name	Character	25	34	58	
Offender Last Name	Character	30	59	88	
Offender Name Suffix (Sr, Jr, etc)	Character	3	89	91	
Transient Person	Character	1	92	92	
Offender Home Street Number	Character	8	93	100	
Offender Home Street Name	Character	60	101	160	
Offender Home Apartment Number	Character	10	161	170	
Offender Home City	Character	20	171	190	
Offender Home State	Character	2	191	192	

Offender Home Zip Code	Numeric	10	193	202	
Offender Business Address	Character	60	203	262	
Offender Business City	Character	20	263	282	
Offender Business State	Character	2	283	284	
Offender Business Zip	Numeric	10	285	294	
Offender Home Phone Number	Numeric	10	295	304	
Offender Work Phone Number	Numeric	10	305	314	
Offender Cell Phone Number	Numeric	10	315	324	
Gender	Character	1	325	325	
Weight	Numeric	3	326	328	
Height - feet	Numeric	1	329	329	
Height - inches	Numeric	2	330	331	
Eyes	Character	3	332	334	
Hair	Character	3	335	337	
Origin (Race)	Character	1	338	338	
Date of Birth	Date	10	339	348	dd/mm/yyyy
Social Security Number	Character	9	349	357	
Spanish Interpreter Required Indicator	Character	1	358	358	
ID Number	Character	15	359	373	
State/Country issuing ID	Character	2	374	375	
Driver's License Class	Character	1	376	376	
E-Mail	Character	60	376	436	
TOTAL		436			
VIOLATION RECORD					
Record Key					
Rec Type	Character	4	1	4	VIOL
Rec Cite	Character	7	5	11	Citation Number
Rec Seq	Character	2	12	13	Sequential Number of records within Citation
Violation Date	Date	10	14	23	dd/mm/yyyy
Violation Time	Time	4	24	27	hhmm
Approximate Speed	Numeric	3	28	30	
Posted Speed	Numeric	3	31	33	
Violation Statute Number (can have from 1 to ?)	Character	12	34	45	
Violation Description	Character	60	46	105	
Violation Citing Agency	Character	3	106	108	CI = Mesa PD LF = Prosecutors LR = Light Rail (allied Barton)
Domestic Violence Indicator	Character	1	109	109	
Overweight Indicator	Character	1	110	110	
Violation Location Full Address	Character	105	111	216	
TOTAL		215			

SAMPLE FLAT FILE



```
HEAD03/07/201810:46
CITE509258601CINPASS2003SUZUXL7      WHI    CCX6312
AZ03/15/2018NNNNNNNN04/10/201816001364820180660182  ON03/07/2018Y
DEFT509258602MARIA      DEL      CARMEN
N750      S SMYTHE DR      1      APACHE
JUNCTION      AZ85120
4802004009      F140504XXXXXXH02/18/1985      D05534807      AZ
VIOL50925860303/07/2018085900005028-3151A      NO VALID DRIVERS LICENSE - IN/OUT OF STATE
CI N 6000 S ELLSWORTH RD
CT
CITE509258701CINPTRK1997FORDF-150      WHI    BYF6766
AZ07/31/2018NNNNNNNN04/11/201816151364820180660182  ON03/07/2018Y
DEFT509258702JOSEPH      BRIAN      BILBREY
N556      W WILSON AVE      C      COOLIDGE
AZ85128
M219509BROBROW06/11/1990      D06685735      AZD
VIOL50925870303/07/2018091004505028-701A      SPEED NOT R&P/FTC SPEED TO AVOID A COLLISION
CI N 6000 S ELLSWORTH RD
CT
```

COMMUNICATION

The communication and configuration for the extract and transfer of the necessary PDF, XML file and flat file for this interface will be based on target locations and parameters supplied by the City (e.g. run frequency (every 20 minutes)).

Scheduling:

- PDF's for eDMS and Conduent – process first
- XML file to eDMS and flat file to CMS – process second

Communication:

- A PDF of each completed citation will be exported (on a schedule) to a file share on the City's IT network ([\\isrc01\ITEDMSContentUploadCourt\FN Production](#)), where the Mesa Municipal Court eDMS can process it from.
- Once the PDFs have been processed, XML files containing minimal associated metadata, for each completed citation will be generated and exported (on a schedule) to a file share on the City's IT network ([\\isrc01\ITEDMSContentUploadCourt\FN Production](#)), where the Mesa Municipal Court eDMS can process it from. (the PDF needs to arrive before the XML)
- Flat files of all completed citations will be exported (on a schedule) to a file share on the City's IT network where the Mesa Municipal Court CMS can process it from.

- A PDF of each completed 'out of jurisdiction' citation will be exported (on a schedule) to a file share on the City's IT network (SFTP-to-Conduent folder), for Conduent to pick up from there for JP Superior Court. (City will provide credentials.)
- Workflow notification if file is not processed within 60 minutes.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

This test comprises adding new tickets previously specified to the Versadex RMS and ensuring that the files are successfully extracted.

OPERATIONAL TESTING

This test comprises of running the CRON entry extract programs to ensure that the required data files are written to the appropriate extract area on the RMS server and to ensure the archive directory is created as well.

PERFORMANCE TESTING

As this is a batch interface, there are no prescribed performance tests.

EXCEPTION TESTING

These tests consist of testing the interface to make sure data is transferred when there is a communication failure between the Versaterm RMS and the external sources. Then, once the communication link is re-established, the queued data files are transferred.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Assist in testing and verifying the ticket extract.
- Process files received (PDF/XML for eDMS and flat files for CMS)
- Coordinate resource availability with Mesa City IT and Courts as required.
- The City will configure external access to the City network to allow this network traffic.
- Customer will perform interface testing.

VERSATERM RESPONSIBILITIES

- Versaterm will develop, install and test the extract facility to create and send the necessary PDF, XML file and flat file transfers for this interface.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

2.5 ADOT CRASH INTERFACE

INTERFACE SCOPE

The Crash interface will support a two-way electronic exchange of information between the Versadex RMS and the Accident Location Identification Surveillance System (ALISS), the crash system of the Arizona Department of Transportation (ADOT). The scope of this interface involves the submission of crash-related General Offense reports and PDF diagrams from the Versadex RMS to the ADOT ALISS crash database, conforming to ADOT's ALISS interface specifications.

This interface is also intended to support the validation of Versadex RMS crash-related General Offense reports (against ADOT's ALISS web service interface), based on technical interface specifications mutually agreed upon between Versaterm and ADOT.

PROCESS OVERVIEW

Officers and investigators will document crash-related incidents using Versaterm's eCollision solution, an integrated component within the General Offense report (available in both the Versadex MRE and RMS applications). The diagram will be created using the City's FARO Zone 2D application and saved as a PDF attachment to the GO.

VALIDATION OF CRASH REPORTS

Upon completion of a crash-related General Offense report (in either the MRE or RMS application), officers and investigators will validate their report, to verify its compliance with the state's data collection requirements. The validation check will return success or failure and, if failure, a list of the issues/errors/warnings to the end user.

If data issues are returned, the end-user should correct the errors and re-validate their report, repeating this process as many times as necessary, until all issues are resolved.

AUTOMATED SUBMISSION OF CRASH REPORTS

On a site-configurable scheduled basis (e.g. daily), crash-related General Offense reports meeting the criteria listed below, will be electronically submitted from the Versadex RMS to the ADOT ALISS crash system. The submission of each report will include crash data (in XML format) and any related collision diagrams (in PDF format).

Only General Offense/Accident Reports that meet the ADOT criteria will be submitted to ADOT (see criteria list at bottom).

Special Considerations:

- The General Offense/Accident report has a report date that is less than a site-configurable time period (e.g. twenty-four months), in relation to the submission date.

- The General Offense/Accident report either has an Accident detail page that has never been submitted to the State, or an Accident detail page that was previously submitted and updated since the last submission.
- The General Offense/Accident must be saved in the Versadex RMS. That is, General Offense/Accident reports that were prepared in the Versadex MRE application, which have not been transcribed into the Versadex RMS yet, are not eligible for submission.
- General Offense/Accident reports occurring on private property will only be eligible for submission if at least one or more fatalities exists. The system will determine if the incident occurred on private property based on the Location field associated to the accident-related offense, in the Offense tab of the General Offense report.
- The only attachment that will be sent to ADOT is the Crash Diagram (photos and other attachments will not be submitted)
- Any failed transmissions from a previous send will be automatically sent to ADOT the next day
- Once a report has been accepted by ADOT, it should not be resent again unless the report has been modified or new information added to the report

Upon receiving a submission request, the ALISS crash system will return back notifications to the Versadex RMS (if any) – messages include:

- Accepted – no further action to take
- Accepted with Warnings – no further action to take
- Rejected – officer who wrote the Crash Report or Supplemental Information needs to have a notification to correct the information ADOT says needs to be fixed
- Error and Warning messages

The Versadex RMS will store all notifications sent back from the web service, in addition to the status of each General Offense report (to be sent, error, submitted, etc.).

When a General Offense/Accident report has errors that need to be fixed, a notification specifying the case number will be generated (the method of notification and the target recipients will be reviewed and confirmed during the Configuration phase).

In addition, if a General Offense/Accident report did not get successfully submitted to ADOT during the nightly process, a notification will be generated (the method of notification and the target recipients will be reviewed and confirmed during the Configuration phase).

MANUAL SUBMISSION OF CRASH REPORTS TO ADOT

In the rare circumstance that City needs to resubmit a date range of Crash GO's or individual Crash Go's, the City can call Versaterm Support and Versaterm Support will flag those cases to be resent through the standard interface.

TRACKING OF SUBMITTED OF CRASH REPORTS

The Versadex RMS will record information in the database table called interface_extract, which will include a row for each GO report that was submitted to ADOT. Each row will also include the DR#, accident detail page reference, the interface name, the activity type (add, update, remove, etc.), the activity date and time, and an activity status (ready to send, success, errors, rejected, etc.).

This level of tracking permits the ability to determine the current status of a General Offense report (but will not provide a history).

CONFIGURATION

The following are the configurations required to support the data exchanges between the Versaterm Versadex MRE, RMS and the ALISS crash system:

VALIDATION OF CRASH REPORTS

From the Versadex MRE:

To support the validation of General Offense reports from the MRE application, a configuration setting will be required in the MRE in order for the validation request to be triggered from the RMS server (which will communicate the validation request to ADOT's ALISS web service interface). The configuration in the MRE indicates the RMS web service to call, which therefore requires that the MRE has connectivity to the RMS to perform a validation.

From the Versadex RMS:

To support the validation of General Offense reports from the RMS application, a configuration setting will be configured in the RMS specifying ADOT's ALISS web service URL.

COMMUNICATION

VALIDATION OF CRASH REPORTS

From the Versadex MRE:

The communication method that will handle validation requests/responses between the Versadex MRE and the ADOT ALISS crash system will be web services (via the Versadex RMS server). In order for the Versadex MRE application to request a validation transaction, the mobile computer must have network connectivity to a web service on the Versadex RMS server (which will trigger the web service request to the ADOT ALISS web service).

From the Versadex RMS:

The communication method that will handle validation requests/responses between the Versadex RMS to the ADOT ALISS crash system will be web services.

SUBMISSION OF CRASH REPORTS

The communication method that will handle submissions requests/responses between the Versadex RMS to the ADOT ALISS crash system will be web services.

BUSINESS CONTINUITY

The following are the system dependencies required to support the data exchanges between the Versadex RMS and the ADOT ALISS crash system:

VALIDATION OF CRASH REPORTS

To support the validation of General Offense reports (from MRE or RMS) against the ADOT ALISS crash system, this aspect of the interface will be available assuming the ADOT ALISS web service interface is operating and functioning normally. The Versadex RMS will be available regardless of the configuration. That is, the Versadex RMS logic that will call the ADOT web service will be available should a single application server fail (the Versadex RMS application is migrated either manually or automatically to the available application server).

SUBMISSION OF CRASH REPORTS

To support the submission of Versadex RMS General Offense reports to the ADOT ALISS crash system, this aspect of the interface will be available assuming the ADOT ALISS web service interface is operating and functioning normally. The Versadex RMS will be available regardless of the configuration. That is, the Versadex RMS logic that will call the ADOT ALISS web service will be available should a single application server fail (the Versadex RMS application is migrated either manually or automatically to the available application server).

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Acceptance Test period.

FUNCTIONAL AND COMPLETENESS TESTING

The following are the functional and completeness tests required to support the data exchanges between the Versadex RMS and the ADOT ALISS crash system:

VALIDATION OF CRASH REPORTS

To support the validation of General Offense reports against the ADOT ALISS crash system, this requires creating a number of General Offense reports (in both MRE and RMS), documenting realistic crash-related information in the report, using Versaterm's eCollision solution. The number of sample General Offense reports should reflect the number of common crash scenarios that need to be tested. Once the General

Offense reports are ready to be validated, on each report, the user will invoke the validation request, which will trigger a web service validation transaction from the Versadex RMS server to the ADOT ALISS web service interface. Within the ADOT timeout timeframe, the user is expected to receive a report back identifying connecting issues, no data issues or data issues with the report. Based on the information received from the ADOT ALISS web service interface, the General Offense reports are to be corrected and re-validated until there are no further issues with the data submissions.

These tests are to ensure that the validation transaction is accurately functioning between the Versadex RMS and the ADOT ALISS web service interface.

SUBMISSION OF CRASH REPORTS

To support the submission of Versadex RMS General Offense reports to the ADOT ALISS crash system, this requires having a number of General Offense report in the Versadex RMS (not in the Versaterm MRE) with realistic crash-related information, that were documented using Versaterm's eCollision solution. The number of sample General Offense reports should reflect the number of common crash scenarios that need to be tested. Once the General Offense reports are ready to be submitted, the user will invoke the manual submission request from each report, which will trigger a web service submission transaction from the Versadex RMS to the ADOT ALISS web service interface. Within the ADOT timeout timeframe, the Versadex RMS is expected to receive response messages back with the report. For the reports that were successfully ingested into the ADOT ALISS crash system, the reports require verification and validation for data accuracy and integrity purposes.

These tests are to ensure that the submission transaction is accurately functioning between the Versadex RMS and the ADOT ALISS web service interface.

OPERATIONAL TESTING

The following are the operational tests required to support the data exchanges between the Versadex RMS and the ADOT ALISS crash system:

VALIDATION OF CRASH REPORTS

To support the validation of General Offense reports against the ADOT ALISS crash system, from both the Versadex MRE and Versadex RMS applications, this requires creating a General Offense report in both applications, documenting realistic crash-related information in the report, using Versaterm's eCollision solution. Once the General Offense reports are ready to be validated, on each report, the user will invoke the validation request, which will trigger a web service validation transaction from the Versadex RMS server to the ADOT ALISS web service interface. Within the ADOT timeout timeframe, the Versadex is expected to display a new screen indicating success or if there are any data or connectivity issues with the validation request.

These tests are to ensure that the validation transaction is operational between the Versadex RMS and the ADOT ALISS web service interface.

SUBMISSION OF CRASH REPORTS

To support the submission of Versadex RMS General Offense reports to the ADOT ALISS crash system, this requires one General Offense report in the Versadex RMS (not in the Versaterm MRE) with realistic crash-related information, that was documented using Versaterm's eCollision solution. Transmission failures will be written to the log. Data validation errors will result in a notification. This test is to ensure that the submission transaction is operational between the Versadex RMS and the ADOT ALISS web service interface.

PERFORMANCE TESTING

The following are the performance tests required to support the data exchanges between the Versadex RMS and ADOT ALISS crash system:

VALIDATION OF CRASH REPORTS

To test the validation of General Offense reports against the ADOT ALISS crash system, from both the Versadex MRE and Versadex RMS applications, the performance timing test starts from the time the Versadex RMS calls from the ADOT ALISS web service interface, to the time Versadex RMS receives a response from the ADOT ALISS web service interface which shall not exceed the ADOT timeout timeframe.

SUBMISSION OF CRASH REPORTS

To test the submission of Versadex RMS General Offense reports to the ADOT ALISS crash system, the performance timing test starts from the time the Versadex RMS calls the ADOT ALISS web service interface to the time Versadex RMS receives a response from the ADOT ALISS web service interface which shall not exceed the ADOT timeout timeframe.

EXCEPTION TESTING

The following are the exception tests required to support the data exchanges between the Versadex RMS and the ADOT ALISS crash system:

VALIDATION OF CRASH REPORTS

To perform exception testing of the Versadex RMS logic that will initiate a validation request to the ADOT ALISS web service interface, these tests consist of making either the Versadex RMS or the ADOT ALISS web service interface temporarily unavailable, to ensure the web service operates when both the Versadex RMS and the ADOT ALISS web service interface are available.

SUBMISSION OF CRASH REPORTS

To perform exception testing of the Versadex RMS logic that will initiate a submission request to the ADOT ALISS web service interface, these tests consist of making either the Versadex RMS or the ADOT ALISS web service interface temporarily unavailable, to ensure the web service operates when both the Versadex RMS and the ADOT ALISS web service interface are available.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Collaborate with Versaterm and the ADOT ALISS crash system software provider to define the technical specifications and expectations of the validation transaction between the Versadex RMS and the ADOT ALISS crash system.
- Perform end-to-end tests of the entire process.

VERSATERM RESPONSIBILITIES

- Collaborate with the City and the ADOT ALISS crash system software provider to define the technical specifications and expectations of the validation transaction between the Versadex RMS and the ADOT ALISS crash system.
- Collaborate with the City and ADOT to ensure only the appropriate reports get submitted to ADOT.
- Install and configure the Versadex RMS logic that will initiate the validation and submission transactions to the ADOT ALISS web service interface, and that will log all transactions.
- Provide the ability in the Versadex RMS application to support manual submission of a single case.
- Provide the City with training on the interface validation and submission functionality within the Versadex MRE and Versadex RMS applications.
- Provide guidance, assistance and support to the City with performing end-to-end tests of the entire process.
- In the rare circumstance that City needs to resubmit a date range of Crash GO's or individual Crash Go's, the City can call Versaterm Support and Versaterm Support will flag those cases to be resent through the standard interface.

These are the formal Requirements/Criteria on what Crash Reports to send to ADOT

- The main accident report must be at the final approval level (if supplements are at a final approval level, but the main case is not the report should not be sent to ADOT)
- Any failed transmissions from a previous send should be automatically sent to ADOT the next day
- Once a report has been accepted by ADOT it should not be resent again unless the report has been modified or new information added to the report OR a group (need group permissions on this, as only certain individuals are allowed to do this) request the report to be sent to ADOT
- Only send crash reports for Private Property if there are one or more fatalities on the report, otherwise a Private Property report with no fatalities should not be sent to ADOT

- Only send crash reports where the accident damage is over \$1,000
- Only send crash reports where the accident has one or more motor vehicle units

2.6 FARO ZONE 2D INTERFACE

INTERFACE SCOPE

The City utilizes a program from FARO Technology called FARO ZONE 2D that they use for the creation of crash scene drawings. The City requests a one-way interface between the Versaterm eMVA (Electronic Motor Vehicle Accident) module within Versadex MRE and the FARO ZONE 2D Application.

This interface will provide the ability to attach a pdf diagram produced by the FARO ZONE 2D application to the Crash report in Versadex MRE reports in the field.

Versaterm will embed the diagram in the appropriate area of the ADOT form, as well as allow the diagram to be printed out separately from the form.

PROCESS OVERVIEW

Steps:

- The users of Versaterm MRE will access the Versaterm eMVA module to complete an Arizona Traffic Accident form.
- The users will complete the traffic accident form keying in data and prefilling data from the MRE application.
- The users will utilize the FARO ZONE 2D to create the drawing and save a PDF version of the file.
- The user will be able to browse and attach the PDF version of file to the accident report.
- This PDF attachment will be attached to the accident form when it is transcribed into RMS.
- The drawing along with the accident will be submitted together in the ADOT Crash interface.

BUSINESS CONTINUITY

The FARO ZONE 2D interface will be available assuming the FARO ZONE 2D application is operating and functioning normally.

The Versadex eMVA application has the ability to upload any PDF or JPG file. This is not dependent on the FARO Zone 2D application.

The types of files that can be imported can be configured to limit certain file types.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

This test is intended to ensure the drawing is attached to the appropriate Versaterm eMVA form in RMS after transcription. and will stretch the diagram to fit in the appropriate space on the report.

OPERATIONAL TESTING

The City will create a simple crash diagram in Faro Zone 2D, save the diagram as a pdf/print to pdf and attach the file to the appropriate Crash Report. The City will then print only the diagram out and then print the Crash Report to ensure the diagram is displayed properly in the report (i.e. is expanded or shrunk to fit the report accordingly)

The City will create a complex crash diagram in Faro Zone 2D, save the diagram as a pdf/print to pdf and attach the file to the appropriate Crash Report. The City will then print only the diagram out and then print the Crash Report to ensure the diagram prints is displayed properly in the report (i.e. is expanded or shrunk to fit the report accordingly)

PERFORMANCE TESTING

The City will attach a simple Crash Diagram via the MDT and Versadex to ensure the system is able to Transmit /Transcribe it.

The City will attach a complex Crash Diagram via the MDT and Versadex to ensure the system is able to Transmit/Transcribe it.

EXCEPTION TESTING

The City will create a simple crash diagram in Faro Zone 2D, save the diagram in another file format other than a pdf and attach the file to the appropriate Crash Report. The City will then print only the diagram out and then print the Crash Report to ensure the diagram prints and stretched to fit the appropriate area on the report.

The City will create a complex crash diagram in Faro Zone 2D, save the diagram in another file format other than a pdf and attach the file to the appropriate Crash Report. The application should not allow a file type that is not configured to be a viable attachment.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Assist in testing and verifying the interface
- Ensure FARO ZONE 2D is installed and working successfully on the laptops and desktops requiring the interface.

VERSATERM RESPONSIBILITIES

- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

2.7 ACJIS INTERFACE

INTERFACE SCOPE

The ACJIS interface will provide a query/maintenance transaction interface from the Versadex RMS and from the Versadex Mobile Data Terminal (MDT). These transactions are delivered to state databases (DPS, ACIC, MVD), national databases (NCIC, NLETS) and processed appropriately. The Versadex NCIC Gateway is used to manage and administer the interface.

The RMS user interface consists of a set of DPS and NCIC forms that can be used to process query and maintenance transactions. Additionally, a number of transactions (query and maintenance) may be automatically triggered by transactions within the RMS.

Query transactions from the MDT are spawned using the appropriate query form (query person, query vehicle, etc.).

Once a query had been processed, the response is returned to the MDT in the form of a message transaction and will appear in the MDT message window.

RMS PROCESS OVERVIEW

From within RMS desktop, the NCIC/State subsystem may be invoked by selecting the “NCIC” option from the desktop menu. Prior to allowing access to this subsystem, a security check is performed against the criteria described in Security and Restricting Access.

Once invoked, the user is presented with a transaction list so they may select the appropriate transaction to run by either entering the transaction code (e.g. EA, etc.) or by selecting from a list of valid transactions (known as the NCIC transaction code list). Upon entering the transaction code, the appropriate form is displayed. Mandatory fields are indicated by the convention used throughout the Versadex system (blue reverse).

The following illustrates a wanted person query form:

Fields with corresponding lookup tables are indicated by the “field-level comment” (i.e. press F2 for table values) and/or by the “dropdown” button (Windows convention). Upon completion of the form and pressing the “Process” or “GO” key, form-level edits are performed (e.g. cross-field edits, mandatory field check, etc.); if an error is encountered, the cursor is placed in the appropriate field and a descriptive error message displayed.

Once the transaction has been sent, the user is returned to the transaction selection screen. At this point, the user may continue with other transactions or close the NCIC subsystem and return to the Versadex RMS.

Responses/Replies from the DPS system are returned to the users Versadex vmail mailbox.

Auto transactions, triggered by the Versadex system, will present the corresponding ACIC/NCIC form, for corresponding maintenance transaction(s). That is, for any transaction that will add or update data on ACIC/NCIC as a by-product of a transaction in Versadex, the Versadex system will present the data in the corresponding ACIC/NCIC form for user confirmation. For auto-query transactions, these are simply generated and sent (i.e. the user is not required to confirm the data).

AUTO INITIATED ACIC/NCIC TRANSACTIONS

The following transactions are included with the delivery of the Versadex RMS:

RMS Function	Generated ACIC/NCIC transaction
Query Person	Person Multi Query ³
Query Vehicle	QV, RO (registered owner)
Add Warrant ¹	EWR
Add Seized/Towed Vehicle	QV (generated as a by-product of the add)
Add Recovered/Seized Articles	QA (generated as a by-product of the add)
Add Recovered/Seized Guns	QG (generated as a by-product of the add)

Add Stolen Articles ²	EA
Add Stolen Guns ²	EG
Add Missing Person ²	EM
Add Stolen Vehicle ²	EV

- Note that given the complexity of auto-maintaining Warrants on the State/NCIC databases, the transaction to add/modify/cancel the warrant may not be supported. It is assumed that each warrant, for a person, can be added as a unique record to DPS with a resulting record id (similar to the NIC #) returned. If not, then, adding warrants may not be supported.
- For information added automatically, the Versadex application will attempt to implement “auto-clear” and “update” transactions. For example, when the property is recovered, the system will allow the user to clear or update, as appropriate, the details from ACIC/NCIC based on the NIC# and other associated “stamps” returned from the original add.
- A “Person Multi-Query” is executed whenever a Person auto-query is run (i.e. query by name). This transaction will encompass the following query transactions:
 - ACQW – Arizona State Wanted Person Query
 - QW – NCIC Wanted Person Query
 - DQP – AZ Drivers License Query
 - DQ – Non-AZ Drivers License Query

INITIAL SUPPORTED FORMS/TRANSACTIONS

Although the Versadex NCIC subsystem is designed to support the full complement of ACIC/NCIC forms, Versaterm is not responsible in developing/configuring each and every transaction. As a minimum, Versaterm will provide the forms that correspond to the transaction listed under the “Auto Initiated ACIC/NCIC Transactions” as part of the installation. Additional forms may be configured/created by the administrator (NCIC administrator) using the NCIC Site Configurable Transaction (SCT) Facility (described below). Should forms be available from another Arizona based Versaterm customer, Versaterm will provide these forms as part of the set of forms/transactions delivered by Versaterm.

MDT PROCESS OVERVIEW

The MDT query interface uses pre-defined forms supporting a number of queries. As a by-product of entering a query (e.g. person), the user may “tick” check boxes to indicate which systems should be queried (e.g. NCIC, State, etc):

Query	Generated transaction
Person query	Person Multi-Query
Vehicle query	ACQV, QV, RQ
Property item query	QA, QG (Query Gun), QB (Query Boat)

Once a query had been processed, the response is returned to the MDT in the form of a message transaction and will appear in the MDT message window.

The following is an example of a MDT Person Query form:

Query Person

Send and Close Reset Pin Form Exit

Surname G1 G2

DOB Age Sex

Race

DL State

Records ☒ NCIC/State ☒ RO ☒

DRL ☒ City

Remarks

Person's surname.

Hit Notification: For each query response returned for a query transaction initiated from a MDT, the response will be examined by the system to look for keywords or strings (as defined by Mesa). If a keyword (e.g. Wanted, Stolen, etc.) is found, a hit alert is show to the unit that ran the query.

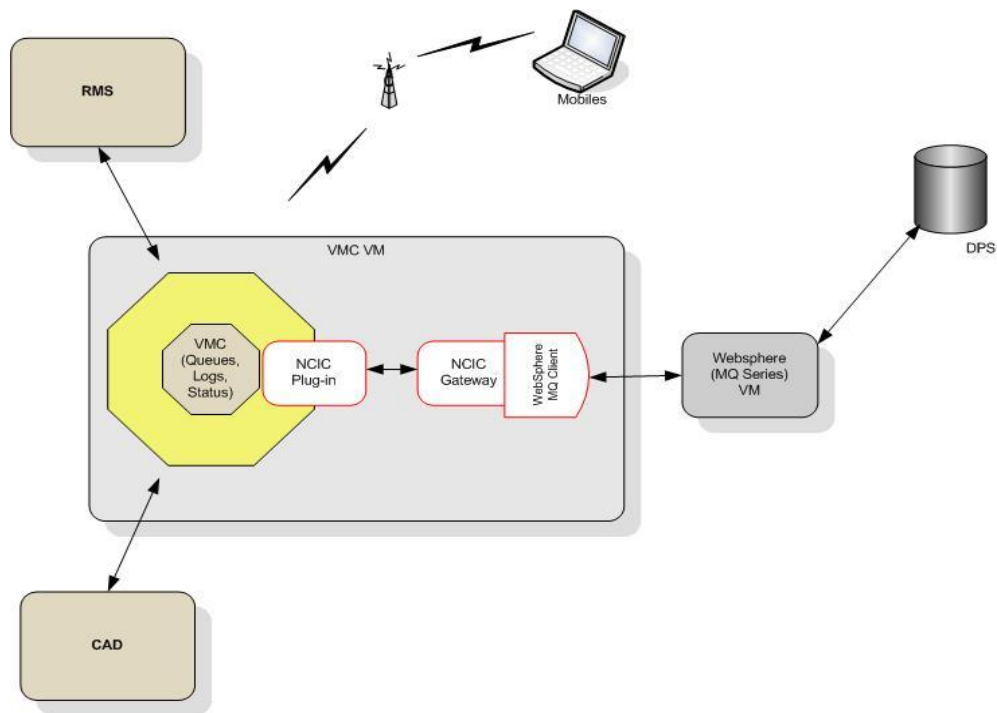
COMMUNICATIONS

Communication to Arizona DPS is performed via IBM MQSeries where the Versadex system communicates from the Versadex Message Controller (VMC) and Versadex Message Switch (VMS) to the local MQSeries queues, channels and messages. The MQSeries queues are configured to exchange data between the customer installation and DPS. To facilitate such interaction, the IBM WebSphere-MQ Client product will be installed on the Versadex VMC/VMS server hosting the Versadex application components responsible sending/receiving data to/from the state interface.

Network communication to the NCIC interface is thru WebSphere MQ via the TCP/IP protocol. The data exchange methodology will conform to the AZDPS MQSeries message standards.

The NCIC Gateway provides the state-specific transaction formatting and communication requirements to the individual state interface. The NCIC Gateway also provides central management for NCIC configurations and user access.

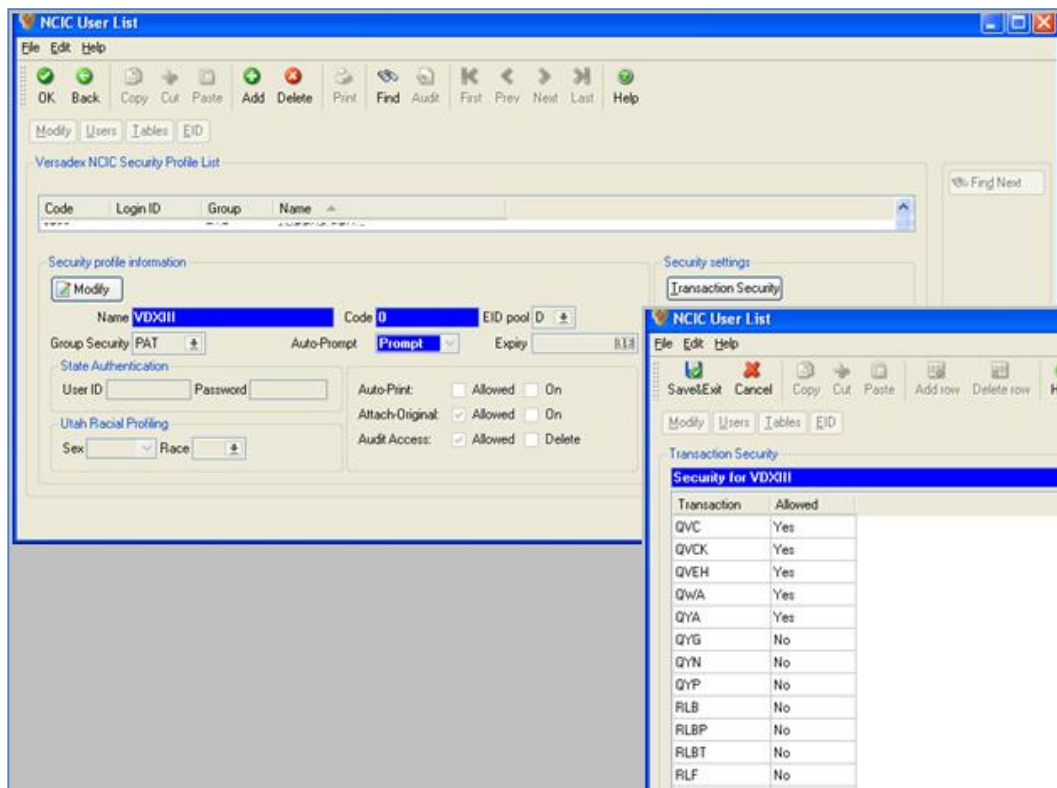
The following diagram illustrates the system connectivity points for the Versadex applications (RMS and MDT) to the NCIC Gateway:



SECURITY AND RESTRICTING ACCESS

Security is controlled with a unique security matrix for NCIC – system users must be registered in the Versadex NCIC security matrix prior to being able to run State/NCIC transactions. Optionally, an expiry date can be maintained where the user is denied access if the current date is greater than the expiry date. For each transaction, the administrator may provide or deny the transaction privileges. Setting security is a supervisor/administrator privilege, accessed through the NCIC Supervisor module. Versaterm will complete the initial load of these values if Mesa provides in a usable format.

The following screen shot is an example of the NCIC security profile and matrix for a specific user:



RESPONSE DESCRIPTION

Each response is returned as a transaction message and placed in the user's Versadex mailbox (Vmail) or MDT message window. Lines are no more than 80 characters in width. If a query generates multiple responses, each response is delivered as an individual message.

AUDITING AND LOGGING

The NCIC gateway switch provides a facility to log/audit all transactions and corresponding responses to an online database table (searchable via the NCIC administrator interface). This is a configurable option as set by site (customer). The audit file can grow very quickly so it is recommended that the log is archived & purged frequently or simply just purged (if retention of the audit is not an issue). Versaterm will provide a program which, through a scheduled system facility, will purge and/or archive the logs to readable ASCII files where the site may back them up to tape periodically. The files are generated on a daily basis, i.e. one file for each day's transactions.

VERSADEX NCIC SITE CONFIGURABLE TRANSACTION (SCT) FACILITY OVERVIEW

The Versadex interface to national, state and county/regional databases is the Versadex NCIC subsystem. The Versadex NCIC subsystem must be configured to recognize every transaction that site requires, where the NCIC subsystem has been identified as the medium by which the transaction is to be passed to an external system. In order to facilitate as flexible a means as possible for such configuration, an integral part of the Versadex NCIC subsystem is its Site Configurable Transaction (SCT) Facility that is more informally referred to as the form-painter.

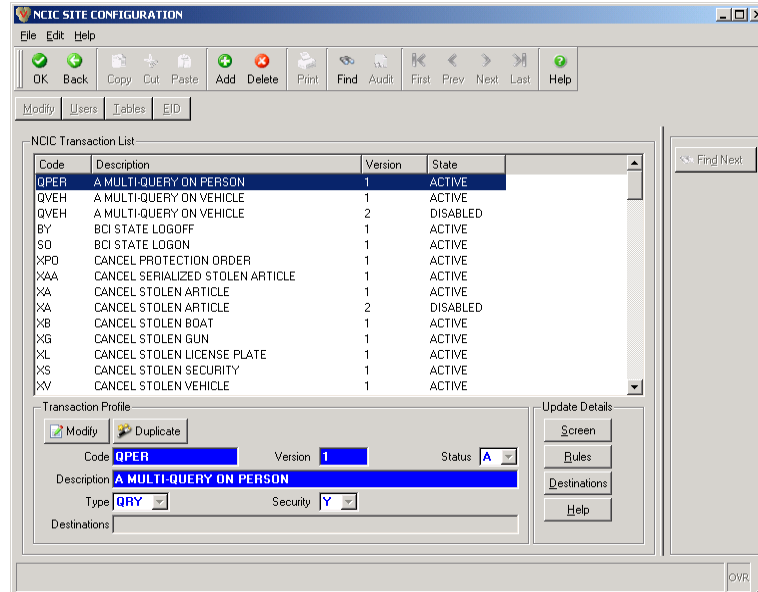
While the SCT certainly provides for the definition of forms that are associated with each transaction, it also provides for the definition of field and/or transaction level rules and, of equal importance, it provides for definition of destination-format strings which govern how transactions will be assembled from the individual field details provided by a user. This allows the City to define additional forms for structured ACJIS transactions as well as a “Free Form” queries which have no predefined structure, thus enabling the user to enter a ACJIS-compliant query string on their own.

It’s due to the Versadex NCIC subsystem’s leveraging of these SCT rules and destination-format strings that every transaction to be handled by the subsystem needs to be defined using the SCT. The benefit of this approach is that any NCIC-like transaction can actually be supported within the NCIC subsystem (e.g. NLETS message) – it does not have to be configured in an integrated fashion within the Versadex application. Further, the agency is capable to adjust the transactions as the external system requirements change.

The remainder of this section provides high-level insight into how the SCT is used to define transactions that can be made available for use with the Versadex NCIC subsystem.

SCT FACILITY TRANSACTION DEFINITION

Transactions are maintained using Versaterm’s Site Configurable Transaction (SCT) facility. When first invoked, a list of already defined transactions is presented. From this list, existing transactions can be modified/deleted (i.e. the highlighted entry in the list representing the transaction currently in focus) or new transactions can be created (i.e. the “Add” button).



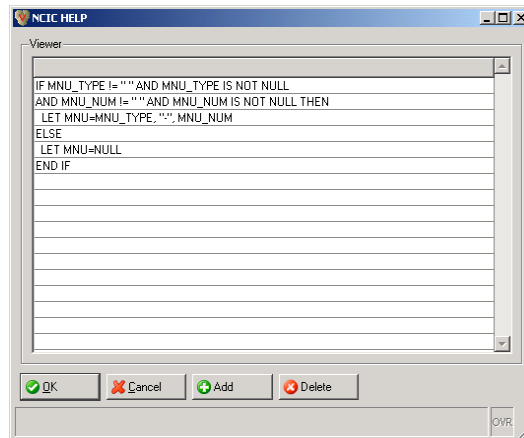
When defining new transactions, or modifying existing ones, in addition to defining a transaction code, version, type, etc., the ability to define individual fields that comprise the transaction is also required. To facilitate this, the “Screen” button will open a window, similar to as illustrated below, which will permit transaction fields and labels to be defined:

Property	Value
Tag	VCO
Tab Order	17
Default Value	
Description	Enter color of stolen vehicle
X-Coord	59
Y-Coord	8
Length	7
Screen Length	
Word Wrap	☐
Look Up	vehicle_color
Color	
Rules	
Include	☐
Input Picture	☐
Send Picture	☐
Period Allowed	☐
Numeric	☐
No Entry	☐
Invisible	☐
Case Sensitive	☐

When a field is defined (as shown above), characteristics such as length, default value, field-level rules, permitted values, picture clauses, lookup-table, etc. can be specified. A field tag-value unique to the transaction must also be specified. This tag-value becomes the name by which the field will be referenced when form level rules and/or destination-formats for the transaction are defined. In addition to fields, the screen painting form also allows for the (optional) definition of labels to make the form readable to the user.

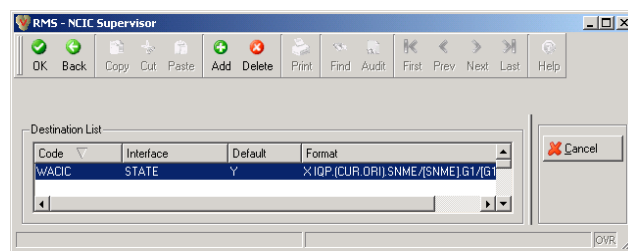
FORM-LEVEL RULES

With the transaction defined, form-level rules and/or destination-formats can be defined. Form-level rules are rules that are applied after the entire form has been specified as opposed to after when an individual field has been entered. Form-level rules can be defined by clicking the "Rules" button and are useful for performing multi-field edits, specifying which destination-formats are to be used and constructing fields that can be used and when populating a destination-format. A sample form-level rules definition might be:



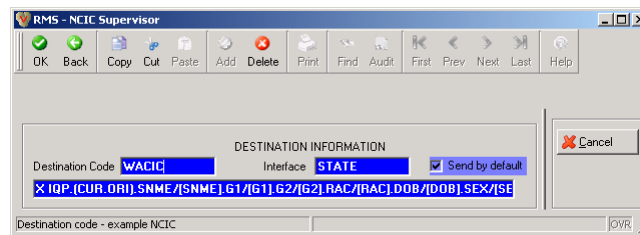
In this case, it is assumed a form has been defined that among others has fields with tag-values of MNU_TYPE and MNU_NUM (i.e. individual fields that when combined would form the NCIC miscellaneous-number - MNU field). If both the MNU_TYPE and MNU_NUM fields above were assigned values when the transaction was being entered then the above rule stipulates that a new variable, MNU, will be assigned the value of the MNU_TYPE field entered on the transaction form, followed by a hyphen ("-"), followed by the value of the MNU_NUM field entered on the transaction form. The resulting MNU variable can then be used later on within the rules section or even used in a destination-format definition.

Destination-formats to specify destination-formats, the "Destinations" button is clicked on the main SCT window. This causes a window similar to the following to be displayed:



The multiple destination capability provides flexibility in dealing where a single transaction may be sent to multiple systems.

The following window shows a destination-format that has been defined for a transaction:



The destination-format generally conforms to rules that tend to be specific to the state and county level messageswitches that the transaction must navigate. Note that the SCT transaction layouts are modeled after the existing, supported NCIC formats where the “dot notation” is used. The SCT does not support native XML transaction definitions (this could be a future enhancement as the state message switches migrate to a pure XML format).

When specifying a destination-format, it is usually comprised from a combination of hard-coded literals (e.g. see CQP, SNME, DOB, etc., outside of brackets/braces above) and/or variables. These variables come from SCT defined constants (e.g. see CUR.ORI embedded within brackets above), from form fields as identified by their tag-value (e.g. see SNME, RAC, DOB, etc., embedded within braces above) and/or from variable names assigned values within the form-level rules section (no example provide above). There is nothing that prevents a hard-coded literal from being the same as a variable name. The destination-format parser distinguishes the appropriate context based on whether or not the value is embedded inside brackets/braces; values inside brackets/braces are variables and values outside brackets/braces are hard-coded literals.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

For each query/maintenance transaction, the site will verify the corresponding transaction is generated. Invalid combinations are entered to verify edits.

OPERATIONAL TESTING

For each query/maintenance transaction, the site will verify the transaction response. Each response should be compared to the transaction responses returned from the State interface contained in the legacy system.

PERFORMANCE TESTING

The performance tests include a load test where site will run a number of queries from various workstations to ensure the interface can handle the expected workload while routing responses back to

the proper originators. External system response time may vary and is outside of the control of Versaterm.

EXCEPTION TESTING

The exception testing consists of “unplugging” the interface to ensure the line failure is detected and that any queries are retained in the outbound queue and subsequently submitted once the failure has been corrected.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Assist Versaterm in configuring the MQ Series and interface with the State for permission and configuration parameters.
- Obtain queue manager name(s), queue name(s) and channel names from JWI and provide to Versaterm.
- Configure (and test) required networking components, including firewalls, to enable communication between the Versadex server environment(s) and JWI
- Provide remote access to the server environment permitting Versaterm to configure and test remotely, as required.
- With remote assistance from Versaterm, complete any state-required Certification testing
- Perform interface testing

VERSATERM RESPONSIBILITIES

- Acquire and install the IBM Websphere MQ Series software
- Install and configure the NCIC Gateway software in the implementation server environment (initially) and then within the production server environment.
- Create and install the required Versadex session handlers to interact with the WebSphere MQ Client software.
- With assistance from the City and JWI, configure the MQ Series queues.
- Install and configure the initial Versadex NCIC/State/County transaction set (transactions).
- Perform initial functional/integration testing of the NCIC interface.
- Complete any state-required staff certifications for software providers.

2.8 BUYCRASH INTERFACE

INTERFACE SCOPE

The Versadex BuyCrash Interface supports the automated one-way transfer of data from the Versadex RMS to the BuyCrash system. This section describes the scope and expectations of the Versadex BuyCrash Interface.

PROCESS OVERVIEW

Steps:

1. A MPD group (TBD) will review the Accident Handle's queue (auto-routing rules can be configured to route cases to the Handle Queue based upon an Offense Type) to review new accident reports, updated accident reports, supplements to the accident report, and attachments to the accident report that are eligible to be sent to BuyCrash.

Criteria for eligibility includes:

- a. Fatal and Hit & Runs are not eligible to be sent
 - b. Other reports per review may not be sent
 - c. The User can remove reports not eligible to be released from the queue
2. The user would open up a GO with an accident from the Accident Handle's queue
 3. The user will invoke (click on) Release Tracking
 4. The user will choose the configured Release Template associated with a "release to BuyCrash" (the BuyCrash release type can be configured to auto-select the proper stylesheet)
 5. User can select which case items are to be included in the release
 6. The system will generate the release (pdf)
 7. User will redact, as needed, and the PDF is saved to Release Tracking record
 8. Nightly, Versaterm's process will look for all BuyCrash releases (including updated accident reports, supplements to the accident report, and attachments to the accident report) that have not been sent and unload the PDF
 - a. Each accident will have its own pdf
 - b. The PDFs are transferred via SMTP to the appropriate location
 9. For verification purposes, the MPD group (TBD) can browse BuyCrash releases to review those reports that were sent to BuyCrash.

COMMUNICATION

The City will provide formal authorization to Versaterm to publish the data to the 3rd party. Versaterm is responsible to provide the data through a secure transport mechanism (i.e. NIST / FIPS 140) providing the 3rd party supports such mechanism. Versaterm is not responsible to protect any data once published outside of the Versaterm environment.

BUSINESS CONTINUITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the files accordingly.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TEST

This test comprises adding accidents to the Versadex RMS and ensuring that the files are successfully extracted.

OPERATIONAL TESTS

This test comprises of running the CRON entry extract programs to ensure that the required data files are written to the appropriate extract area on the RMS server and to ensure the archive directory is created as well.

PERFORMANCE TESTS

As this is a batch interface, there are no prescribed performance tests.

EXCEPTION TESTS

These tests consist of testing the interface to make sure data is transferred when there is a communication failure between the Versaterm RMS and the external source. Then, once the communication link is re-established, the queued data files are transferred.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Assist in testing and verifying the BuyCrash extract.
- Coordinate resource availability with Mesa City ITD and third party as required.
- The City will configure external access to the City Network to allow this network traffic.
- The City will perform interface testing.

VERSATERM RESPONSIBILITIES

- Versaterm will develop, install and test the extract facility to create and send the necessary PDF files for this interface including the required stylesheet.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

2.9 CARFAX INTERFACE

INTERFACE SCOPE

The Versadex CarFax Interface supports the automated one-way transfer of data from the Versadex RMS to the CarFax system. This section describes the scope and expectations of the Versadex CarFax Interface.

PROCESS OVERVIEW

Extract to be run nightly and only include accident reports for the previous day, as per the business rules defined below (e.g. if extract is cron'ed to run at 2:00 a.m. nightly, extract all MVAs from the previous day).

Under normal operations, the process will extract all GOs with an Accident Detail Page, where the 'Status' field = "A" (Approved) on the Accident Detail Page, and where the "Updated On" field (on the Accident Detail Page) is yesterday (previous day from when the extract is being run).

Versaterm will unload MVA details to XML formatted file containing all corresponding MVA(s) extracted for that day. The structure of the unloaded XML file will be defined by Versaterm. The file name will include the date/time the extract is run (so CARFAX can apply in proper sequence).

The GO number will be used to uniquely identify the particular MVA event. If CARFAX receives a subsequent XML record with the same GO#, CARFAX will replace the current record (MVA event) in its entirety, with the new record (including any vehicle(s) associated to the event) - essentially do a delete and re-add of the entire event. If an MVA event is deleted on the RMS, this would have to be manually conveyed to CARFAX (CARFAX is not able to process 'deletes' as part of their electronic interface).

For support and QA purposes, Versaterm will log (in a separate text file on the RMS file system) when the extract is run.

Versaterm will provide the ability to specify a date range as a parameter to the unload script which will enable IT to unload historical data, as appropriate, for delivery to CARFAX. Note that when unloading historical data, extracts should be run in phased increments so as not to adversely impact server performance. IT will need to closely monitor server performance when extracting historical data.

A Notification will be provided if the batch process fails to run for 2 or more consecutive days.

CARFAX RMS MVA EXTRACT DETAILS

The MVA extract is to include the following elements:

0. GO Number (including year)
1. VIN
2. Occurrence Date/Accident Date

3. Police Agency ('Submitting Police Force' on the Accident Form)
4. City (location of the accident – 'Municipality' field on the Accident Form)
5. Prov (location of the accident – default to Ontario)
6. Vehicle Make
7. Vehicle Model
8. Vehicle Year
9. Point of Impact (Mesa to identify fields on the AZ form)
10. Severity (Mesa to indemnify fields on the AZ form)
11. Airbag deployment (Mesa to identify fields on the AZ form)

****Unload all (any) vehicles related to an accident (regardless of role and vehicle type (car, truck, quad, etc.).**

****Vehicle must have an associated VIN to be unloaded.**

****Do not unload 'Trailer' information (unload 'Vehicle' details only at this time).**

COMMUNICATION

The City will provide formal authorization to Versaterm to publish the data to the 3rd party. Versaterm is responsible to provide the data through a secure transport mechanism (i.e. NIST / FIPS 140) providing the 3rd party supports such mechanism. Versaterm is not responsible to protect any data once published outside of the Versaterm environment.

BUSINESS CONTINUITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the files accordingly.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

This test comprises adding accidents to the Versadex RMS and ensuring that the files are successfully extracted.

OPERATIONAL TESTING

This test comprises of running the CRON entry extract programs to ensure that the required data files are written to the appropriate extract area on the RMS server and to ensure the archive directory is created as well.

PERFORMANCE TESTING

As this is a batch interface, there are no prescribed performance tests.

EXCEPTION TESTING

These tests consist of testing the interface to make sure data is transferred when there is a communication failure between the Versaterm RMS and the external source. Then, once the communication link is re-established, the queued data files are transferred.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Test and verifying the CarFax extract.
- Coordinate resource availability with Mesa City ITD and third party as required.
- The City will configure external access to the City Network to allow this network traffic.
- The City will perform interface testing.

VERSATERM RESPONSIBILITIES

- Versaterm will develop, install and test the extract facility to create and send the necessary XML files for this interface.
- Versaterm will add fields to the XML as necessary to conform to the CarFax standards for the U.S.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

2.10 COPLOGIC CITIZEN REPORTING INTERFACE

INTERFACE SCOPE

The Coplogic interface will handle the transfer of Coplogic reports to the Versadex RMS transcription queue, where the information will be made available for data verification prior to being saved as a General Offense report.

Coplogic reports are criminal incident reports, reported either by the public online. These incident reports are non-life-threatening matters.

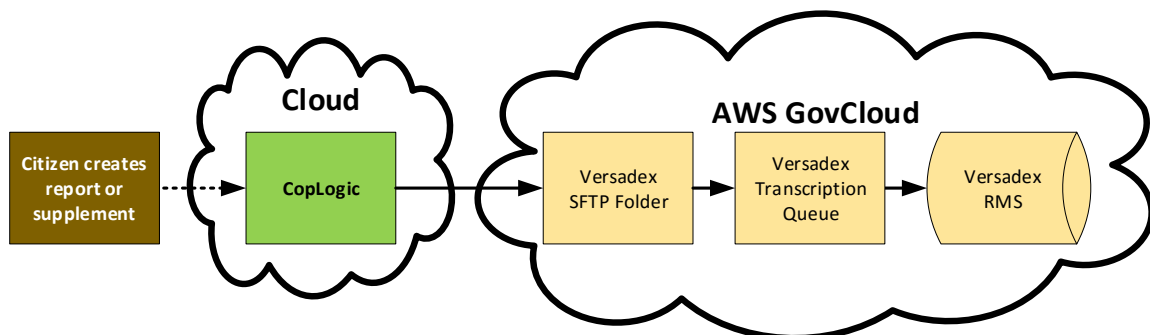
PROCESS OVERVIEW

Once a citizen submits an incident report on the Coplogic website, the citizen's report will be reviewed in DORS by an administrator at the police department and either approved or sent back to the citizen for more detail or correction. Once approved, all citizen's reports will be electronically sent to the Versadex RMS Transcription Queue, ready to be manually processed (transcribed) into the RMS as either a General Offense report or Supplement.

The RMS transcription queue allows the records staff to verify names, either add/merge them to an existing Master Name record or keep the name data case-specific. Additionally, it allows them to validate addresses so that incidents are map-able and review other data within the report. Upon approval the records staff will also see where the report will be routed and has the ability to change or add any case management notifications.

For Supplements, if approved in DORS, the Supplement goes into the RMS transcription queue. If the Supplement doesn't match an existing GO, then the records clerk gets a warning message that there is no matching General Offense. They can then correct it (if it was mistyped) or they can continue on the process and approve it. When a supplement goes through transcription without a matching GO (either from CopLogic or a Versadex MRE sup) it creates a shell GO because the GO can come in later. There is a flag on these reports, so you can see what reports supplements without have associated GOs, so it's easy to find these stragglers.

PROCESS DIAGRAM



STEP DETAIL

Step #	Activity/work performed	By Whom	Notes
1	Citizens make report or supplement on CopLogic	Citizens	
2	Mesa Staff go online to CopLogic and approve or reject the reports and supplements	Mesa	Rejected reports/supplements go “back to citizen” via email notification about rejection – they do not go to RMS
3	For approved reports and Supplements, CopLogic generates XML file and sends to Versadex.	CopLogic	
4	In Versadex Transcription Queue, Mesa Staff will verify names, (either add/merge them to an existing MNI or keep the name data case-specific. Additionally, they will validate addresses so that incidents are mappable.	Mesa	Adduser = “999999” (CopLogic ID#) Reporting officer = “999999” (Coplogic ID#) Case # = YYYY-DDD7### (where DDD=Day of Year, 001-365 - ordinal date format)
5	When the verification process is completed, the report/supplement will be inserted into Versadex	Versadex	

CONFIGURATION

Coplogic handles the design of the web-based report forms and report types according to each police agency’s requirements. As part of this step, the police agency is responsible for providing Coplogic with an extract of the Versadex RMS lookup tables so that the Coplogic website uses the same table lookup values. (The RMS lookup values can be extracted from the Versadex RMS by using the MRE table extract option.)

Coplogic will send each approved report to the Versadex RMS server, in a separate XML file, conforming to Versaterm’s General Offense XML specification (same format as General Offense reports submitted from the Versadex MRE). Each XML file will contain information about the incident, the related entities, narrative text, and property information (if applicable).

To keep Coplogic-generated General Offense reports distinct from the agency’s regular General Offense reports, Coplogic will configure the occurrence numbers to start at a certain number every year, over-and-above the agency’s typical number of reported occurrences per year.

COMMUNICATIONS

The Coplogic interface is comprised of two main components:

- DORS (Desk Officer Online Reporting System) server – in CopLogic cloud and provided by Coplogic
- Versadex RMS (Records Management System) – in Versadex cloud

The **Desk Officer Online Reporting System (DORS)** server manages the entire web front-end processing, including the storage of data, web pages, etc. All work on a report by a citizen occurs on the DORS server. It is only when the report is approved by the agencies' administrator that it will be sent from the DORS server to the Versadex RMS server.

The DORS server will be hosted by CopLogic, who will be responsible for the hardware and the upkeep of the server, including the management of the security of the server by restricting user access. Coplogic is responsible for the DORS application and the generation and transport of the XML file to Versadex RMS server's Samba directory.

Once the citizen reports are in the shared Samba directory, a scheduled script (Unix CRON job) on the Versadex RMS server will load the reports into the RMS Transcription Queue. From here, the Coplogic reports can be processed (transcribed) into the RMS as a General Offense report or Supplemental report.

BUSINESS CONTINUITY

The entire Coplogic interface will be available assuming the DORS server application is operating and functioning normally.

This Versadex RMS side of this interface will be available regardless of the configuration. That is, the scheduled script that takes care of loading Coplogic reports into the Versadex RMS Transcription Queue (from CopLogic) will be available should a single application server fail (the pinned processes can be migrated either manually or automatically to the available application server).

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

The functional tests include:

- Creating a test case on the Coplogic website and transcribing it into the Versadex RMS. This test will ensure the XML files are generated by Coplogic and passed to the Versadex RMS, and that all table values match the RMS table values.
- Negative testing with bad incident number and data.
- Testing the name validation functionality for matches and non-matches.
- Testing the address verification for matches and non-matches.

Both General Offence reports as well as Supplement reports will need to be tested to ensure if a citizen files a Supplement with accurate case number they will attach to appropriate General Offense in RMS.

OPERATIONAL TESTING

Operational tests include confirming that approved Coplogic reports that are placed in the shared directory are uploaded into the Versadex RMS Transcription Queue (for transcription into the RMS).

PERFORMANCE TESTING

Performance tests include timing tests from both sides of the interface.

From the Coplogic side, the performance timing test starts from the time the XML file is generated and placed in the shared directory on the Versadex RMS server, once the Coplogic report is approved.

From the Versadex RMS side, the performance timing test starts from the time the scheduled script (Unix CRON job) is invoked and ingests an XML file from Coplogic into the Versadex RMS Transcription Queue, which will not exceed 30 seconds. The Unix CRON interval (i.e. the frequency at which the script is automatically invoked) will not be included in the processing time.

EXCEPTION TESTING

These tests consist of making the Coplogic DORS server and/or the CopLogic application temporarily unavailable, to ensure the XML files are generated and submitted to the Versadex RMS once both components become available.

An additional exception tests to be included is for Supplement reports that do NOT match an existing Incident.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Provide Coplogic with the RMS tables values (using the MRE Table Extract option)
- With the assistance of Coplogic, design the necessary report types
- With the assistance of Coplogic, establish and test the Coplogic report approval process and policies
- Provide Coplogic with the starting General Offense number for Coplogic reports
- Manually upload General Offense XML files into the Versadex RMS Transcription Queue to transcribe and validate that each field in the Coplogic report is saved to the proper corresponding field in the Versadex RMS General Offense report.
- Perform end-to-end tests of the entire process, verifying that City-generated General Offense XML files are automatically uploaded into the Versadex RMS Transcription queue, and that information from the Coplogic report ends up in the proper fields in the Versadex General Offense report (once transcribed).

VERSATERM RESPONSIBILITIES

- Create and inform the City of the designated shared folder on the Versadex RMS server where General Offense XML files are expected from Coplogic.
- Configure, enable and test the Unix CRON script on the Versadex RMS server that will detect and upload General Offense XML files from Coplogic into the Versadex RMS Transcription Queue.
- Provide the City with training on how to extract the table values for coded fields in the Versadex RMS application.
- Provide the City with training on how to manually upload General Offense XML files from Coplogic into the Versadex RMS Transcription Queue (for initial field mapping testing purposes).
- Provide the City with training on how to transcribe General Offense reports into the Versadex RMS, in order for them to validate that each field in the Coplogic is saved to the proper corresponding field in the Versadex RMS General Offense report.
- Provide guidance, assistance and support to the City with performing end-to-end tests of the entire process.

2.11 VERSADEX GIS INTERFACE

INTERFACE SCOPE

This interface leverages the Versadex GIS application (VGI), which is a suite of Microsoft Windows based tools, scripts and programs used to generate the GIS data files (streets, intersections, addresses and common place names) required by the Versadex RMS. Once completed, the local GIS data will reside in a set of street index validation tables in the RMS database. The Versadex RMS will use the local GIS data to validate and geo-code the RMS events and locations.

The VGI creates the GIS data files required by the Versadex RMS by extracting the required information from ESRI formatted map files (shape files) provided by the City.

The VGI is a .Net application leveraging ESRI's ArcGIS API. As such, the City's GIS Specialist is expected to be familiar with ESRI's ArcGIS Desktop application (formerly ArcView) and must have ArcGIS Desktop version 10.3 installed to use the VGI application.

PROCESS OVERVIEW

ESRI formatted shape files will be provided directly by City GIS.

Using the ESRI-formatted shape files, the VGI will permit the City to map attributes from the various shape files (layers) to the RMS application street index data elements. The VGI program then verifies the data with logical edits and subsequently produces the ASCII file representation of the geo-spatial data, which is then loaded into the Versadex RMS, via the RMS street conversion facility.

The expected result of this process is a comprehensive street index in the RMS for address verification, geo-coding and other spatial-related function and analysis. This process would also be used whenever updates are required to the RMS street index files.

For interim updates that may be required should the City's GIS files not be up-to-date, the Versadex RMS street maintenance facility permits a user, with appropriate security permissions, to manually update the street index data directly in the RMS. All changes are identified as "locally changed." Prior to loading a VGI produced dataset, the locally changed records are unloaded to an ASCII file(s). The RMS system administrator may view the file(s) on the server and edit them, as appropriate, or simply append them to the VGI load files where, upon the subsequent load, the street load edits and rules will be applied and duplicates and/or overlaps will be rejected. An exception report is produced identifying any rejected records.

VGI SOURCE INFORMATION

The data source for the VGI consists of ESRI formatted GIS shape files to be supplied by the City. At a minimum, the City is required to supply a street centerline file and at least one patrol boundary layer.

The VGI can extract the following information from the provided shape files:

- Street names
- Street ranges (including cross-streets)
- Intersections
- Address points (assuming these can be provided as a shape file)

The following information can also optionally be converted:

- Common place names (landmarks)
- Street alias names

While most sites choose to manage their common place names and street alias names outside of the shape files, Versadex can support importing common place names (landmarks) and street alias names from a text file (see file format requirements below).

VGI SHAPE FILE REQUIREMENTS

The VGI only supports shape files that contain 2D feature types. Z values are not supported.

All shape files must have the same projection.

The X and Y coordinates in the RMS street index tables only support integer values. Any decimals will be truncated.

The shape file attributes are mapped to the Versadex RMS data fields using the Versaterm VGI tool. When necessary, the shape file attributes are cast (converted) to the Versadex data type during the extract (the “Char” data type accepts alphanumeric values).

The VGI will process the street centerline layer, the boundary layers (precinct, sector and district), and an address layer. These layers are used to map fields from the ESRI formatted shape files to the fields required by the Versadex RMS.

STREET CENTERLINE LAYER

The purpose of the street centerline layer is to extract the address block ranges from each street segment, and to generate intersections.

The fields below are captured from the street centerline layer. There are several fields, which are automatically generated including X-Y coordinates and cross street data.

Fields captured from the street centerline layer				
	Field Name	Data Type	Req?	Remarks
1	Street Name	Char(40)	Y	Versadex requires a ‘full street name’ that includes direction, name, and type (e.g., N MAIN ST). If the street network shape file contains a full street name field, it can be used or, alternatively, fields

				can be mapped to the direction, name, and type fields and the full street name is generated. If the street name, street type, and street direction is provided individually, then the maximum size of the full street name cannot exceed 40 characters.
2	Street Direction Prefix	Char(2)	N	
3	Street Direction Suffix	Char(2)	N	
4	Street Type	Char(4)	N	
5	Left Municipality (City)	Char(6)	Y/N	The RMS must be able to uniquely identify an address/street. In Versadex, the Municipality (City) code is required to identify unique street names/addresses. Note a unique <u>code</u> for the Municipality/City must be provided (max char(6)), and not the Municipality/City Name (e.g. unique codes will need to be provided for Mesa, and bordering municipalities/cities – Tempe, etc.). If an address is duplicated (e.g., multiple 101 Main St.) within the street network layer, the City GIS must set the Municipality/City code (uniquely) for the addresses, ranges and intersections. If at all possible, the Municipality/City code should be part of the underlying GIS information (i.e., a Municipality/City field in the street network layer or a Municipality/City polygon layer) but it can be based on a constant value.
6	Right Municipality (City)	Char(6)	Y/N	Same as above
7	Left Address Start	Numeric(6)	Y	
8	Left Address End	Numeric(6)	Y	
9	Right Address Start	Numeric(6)	Y	
10	Right Address End	Numeric(6)	Y	
11	Leading Zero ³	Char(1)	N	The Leading Zero field must be populated with a value of "0" for street segments that contain street numbers with leading zeros. Otherwise it should remain blank.
12	Ring Code	Char(10)	N	The Ring code option allows the user to extract ring codes from the street network layer. These

				are usually gated community entry codes that are stored on the map.
13	Remarks	Char(40)	N	The Remarks field can contain any additional information required by the agency. It may also contain 100 Block information.
14	Unique ID	Char(20)	N	The Unique ID must be a unique number within the GIS data set. (The Unique ID provides a cross-reference to the originating source data set). If this does not exist then the feature ID is used. Note the Unique ID is max Char(20).
15	Zip/Postal Code	Char(10)	N	
16	Census Tract	Char(10)	N	
17	Local Field 1	Char(10)	N	
18	Local Field 2	Char(10)	N	
19	Street Alias Name	Char(40)	Y	The Street Alias name can be extracted from the street network layer. However, most agencies manage this information using an external flat file or spreadsheet. See Interface (Text File) Load Requirements below.

STREET CENTERLINE LAYER REQUIREMENTS

- Line segments must be split at the intersection for an intersection to be created.
- Intersections are not created if two lines overlay one another.
- Address block ranges will be created for the left and right side of each street segment. Each address range must contain either an even pair or an odd pair of numbers. Mixed ranges are not valid ranges.
- The geometry type for this layer must be 'polyline'.
- The street network layer must contain the entire street network that the agency services. This includes (but is not limited to) interstates and highways, major roads, municipal roads, and local roads.
- If multiple shape files are currently used to represent the above layers, the City is expected to combine/merge them into a single shape file for the use with the VGI. Note, in order to combine layers, the City is required to use common attribute definitions.
- The street network layer should not contain overlapping street segments containing a different street name for each segment as this can cause the VGI to produce undesirable results.
- The street network layer should not contain street segments that are less than 1 map unit (or 1 meter) in length, often referred to as 'slivers', as these can cause the VGI to produce undesirable results.

BOUNDARY LAYER [MESA'S FILE IS "PDESZ"]

The purpose of the boundary layer is to accurately identify the geographical response boundaries used by the law enforcement agencies that will set up in the multi-jurisdiction RMS. The response boundaries in the Versadex RMS

are hierarchical and broken down as follows (starting from largest to smallest area of space): jurisdictions, districts, zones/beats, and grids/atoms.

The jurisdiction field identifies the law enforcement agency, and the other boundary fields are the layers within each jurisdiction.

Fields captured from the Boundary Layer				
	Field Name	Data Type	Req?	Remarks
1	Municipality (City)	Char(6)	Y/N	The Municipality/City information must be supplied in the Street Network or Boundary Layer or as a constant value.
2	County	Char(2)	N	
3	Jurisdiction	Char(2)	Y/N	The Jurisdiction value is mandatory for multi-jurisdictional sites. (In the case of a non multi-jurisdiction site, the jurisdiction can be defaulted in the VGI to a constant value; note, however, that in this instance surrounding areas will be assigned the same jurisdiction code).
4	District (Precinct)	Char(4)	N	Mesa will need to update.
5	Zone/Beat (Sector)	Char(6)	Y	
6	Grid/Atom (District)	Char(6)	N	
7	Census Tract	Char(10)	N	
8	Zip/Postal Code	Char(10)	N	
9	Local Field 1	Char(10)	N	
10	Local Field 2	Char(10)	N	

BOUNDARY LAYER REQUIREMENTS

- The geometry type for this layer must be 'polygon'.
- At a minimum, the zones (sectors) are required (this is the minimum information required by the Versadex system).
- Zones (sectors) must be unique across the entire agency response area (City).
- Under normal circumstances, the boundary layer should cover the same area as the street network layer but it is recognized that the street network may in fact contain streets for another jurisdiction (e.g., for address validation).
- The boundary layer may be provided in a single or in multiple shape files (e.g., one for zone, one for grid, etc.). The VGI tool will project across multiple layers.

ADDRESS LAYER

The purpose of the address layer is to store the x/y coordinates for every address, which allows the Versadex RMS to tag every report with the associated x/y coordinates for mapping and analysis purposes.

Fields captured from the address layer				
	Field Name	Data Type	Req?	Remarks
1	House (civic) Number	Char(11)	Y	The Civic Number cannot contain a leading zero.
2	Street Name	Char(40)	Y	Like the street name for the street network layer, a full street name field can be generated from the direction, name, type, and suffix fields.
3	Street Direction Prefix	Char(2)	N	
4	Street Direction Suffix	Char(2)	N	
5	Street Type	Char(4)	N	
6	Civic Number Suffix	Char(1)	N	The Civic Number Suffix is a single character at the end of the civic number (e.g., 200A). It can be provided in its own column or as part of the Civic Number.
7	Civic Number Fraction	Char(3)	N	The Civic Number Fraction can be one of the following: 1/4, 1/2, 3/4, or it can be provided in its own column or as part of the Civic Number.
8	Leading Zero	Char(1)	N	The Leading Zero will be populated with a value of "0" if the corresponding civic number should have a prefix "0" value. Otherwise it will remain blank.
9	Unit Number	Char(6)	N	Versaterm will make minor RMS change to accommodate Mesa CHAR 10
10	Unique ID	Char(20)	N	The Unique ID must be a unique number within the GIS data set. The Unique ID provides a cross-reference to the originating source data set. If a Unique ID does not exist in the provided shape file then the feature ID is used. Note the Unique ID is max Char(20).
11	Ring Code	Char(10)	N	
12	Place Name	Char(40)	N	Mesa currently uses CHAR 80. RMS can handle this, at this point Versaterm CAD cannot.

				The Place Names can be extracted from the address layer. When extracting place names from the address layer, an address can only be linked to one place name. When loading place names from a text file, there can be multiple place names at an address. See Interface (Text File) Load Requirements below.
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ADDRESS LAYER REQUIREMENTS

- The geometry type for this layer must be 'point'.
- The City must ensure that common naming conventions are used between the street network and address shape files.
- All address points must have a street segment with matching low and high address values.
- If the City includes data from outside the primary area of responsibility for the PD, it is recommended that the address point layer only be included for the City, and not for the neighboring areas. This will be further discussed and reviewed during the implementation configuration sessions.
- The following are examples of address records that would be rejected during the VGI extract:
 - Address: '2300 CARLING AV'
 - Range: '2200-2298 CARLING AV' & '2302-2398 CARLING AV'
 - This record will be rejected, as it does not fall within a valid range record.
 - Address: '100 MCINLEY BLVD'
 - Street Name: 'MC INLEY BLVD'
 - This record would be rejected as it does not match with an existing street name record — note the space after 'MC'.

CUSTOM INTERSECTION LAYER

Not truly intersections from a GIS point of view (such as bridges and railroad tracks), which the general public would naturally identify with. These types of intersections are also used for dispatching purposes or police reports.

If this type of information is required, then an additional layer may be included to generate additional intersection records. Custom intersections can be provided in one of the following formats:

A- CUSTOM INTERSECTIONS USING LINE LAYERS IN THE STREET CENTERLINE LAYER

Multiple line layers can be used to create intersections with the street centerline layer by overlaying the custom intersection line layers with the Street Layer. The geometry type must be polyline.

An example of this is providing a river layer to overlay the street layer to generate intersections where the rivers cross the street network. The only value required in the custom intersection line layer is the name to be used with the intersecting street.

Custom Intersections using Street Centerline Layers				
	Field Name	Data Type	Req?	Remarks
1	Intersecting Name	Char(40)	Y	

B- CUSTOM INTERSECTIONS USING A SINGLE POINT LAYER

A single point layer can be used to create custom intersections with specific geo-spatial information. The shape file must contain both intersecting street names.

Custom Intersections using a Single Point Layer				
	Field Name	Data Type	Req?	Remarks
1	Street Name	Char(40)	Y	Versadex requires a 'full street name' that includes direction, name, and type (e.g., N MAIN ST). If the street network shape file contains a full street name field it can be used or alternatively, fields can be mapped to the direction, name, and type fields and the full street name will be generated. If the street name, street type and street direction are provided individually then the maximum size of the full street name cannot exceed 40 characters.
2	Street Direction Prefix	Char(2)	N	
3	Street Direction Suffix	Char(2)	N	
4	Street Type	Char(4)	N	
5	Street Name	Char(40)	Y	
6	Street Direction Prefix	Char(2)	N	
7	Street Direction Suffix	Char(2)	N	
8	Street Type	Char(4)	N	
9	Municipality (City)	Char(6)	Y/N	The Municipality (City) <u>code</u> must be supplied if the Municipality (City) for the streets is being extracted from the Street Layer.
10	Remarks	Char(40)	N	
11	County	Char(2)	N	The VGI interface can be configured to read response (police patrol boundary) information, namely District/Zone/Grid from the custom intersection layer or
12	Jurisdiction	Char(2)	Y/N	
13	District (Precinct)	Char(4)	N	

14	Zone/Beat (Sector)	Char(6)	Y/N	to extract response information from the provided boundary layers. If response information is provided as a part of the custom intersection layer, then the Zone (Sector) field is mandatory and the jurisdiction field is mandatory for multi jurisdiction sites. (Note that for non multi jurisdiction sites, the jurisdiction code must match what is used for the Boundary layer).
15	Grid/Atom (District)	Char(6)	Y	

COMMON PLACE NAMES (LANDMARKS)

The Versadex RMS street conversion programs have the functionality to load the common place names (landmarks) into the RMS database from a text file provided by the City.

After the initial load of the street centerline and boundary layers, the place names can be either maintained directly through the RMS street maintenance utility or re-loaded into the RMS database (from a text file) as part of subsequent street conversion loads.

Common place names cannot be loaded separately and independently from the street load as they are processed as part of the street load.

The format of the text file accepted by the conversion programs is as follows:

Common Place Name File Format Requirements				
	Field Name	Data Type	Req?	Remarks
1	Jurisdiction	Char(2)	Y	Jurisdiction (blank if not multi-jurisdictional) – Mandatory if site is multi-jurisdictional
2	House (civic) Number	Char(11)	Y	The street address number
3	Full Street Name	Char(40)	Y	Full street name (includes street type, name and direction)
4	Unit Number	Char(5)	N	Unit or apartment #
5	Municipality (City)	Char(6)	Y	Municipality (City) Code
6	Place Name	Char(30)	Y	The place name (i.e. BURGER KING)
7	Primary Place Flag	Char(1)	Y	Primary (Y) / Alias (A) / blank In Versadex, it is possible to have multiple place names linked to the same address. This field is used to specify place names that are primary place names, alias place names, and non-primary place

				names. For example, indicate “Y” if the place name is the primary place name (CARLINGWOOD MALL – 123 MAIN ST). Provide an “A” if the place name is an alias or short form (CM). Provide a blank or null if the place name is a non-primary place at the same address (SEARS – a store in CARLINGWOOD MALL). If SEARS has its own civic address (e.g., 123 MAIN ST - UNIT 2), this should be the prime at 123 MAIN ST – UNIT 2.
8	Effective From Date	Date	N	Used to identify historical place names (MM-DD-YYYY) These fields can be used to specify the period of time during which the place name or a place name alias will be effective.
9	Effective To Date	Date	N	
10	Address Prefix	Char(3)	N	Civic number prefix (currently only 0-zero is supported)

EXAMPLE:

VI|2300|W MAIN ST|A1|1|TIM HORTONS|Y|||

COMMON PLACE NAME FILE REQUIREMENTS

- The address file is NOT required prior to this file.
- Versadex does not support place names that begin with numeric data (for example, 24 HOUR FITNESS). In order to use this type of place names, the space between the number and the first word of the name must be removed. For example, “24 HOUR FITNESS” should be entered as “24HOUR FITNESS”. “7-11” can be entered as “711”, “7’11” or “7ELEVEN”.
- Place names cannot begin with the word “BLOCK”.
- The following characters are not allowed in place names: ‘&’, ‘.’, ‘-’.

STREET ALIAS NAMES

The Versadex RMS street conversion programs have the functionality to load the alias street name file into the RMS database.

After the initial load of the street centerline and boundary layers, the alias street names can be either maintained directly through the RMS street maintenance utility, or re-loaded into the RMS database (from a text file) as part of subsequent street conversion loads.

The format of the text file accepted by the conversion programs is as follows:

Street Alias Name File Format Requirements				
	Field Name	Data Type	Req?	Remarks
1	Full Street Name	Char(40)	Y	Full street name (includes street type, name and direction)
2	Municipality (City)	Char(6)	Y	Municipality (City) Code
3	Alias Full Street Name	Char(40)	Y	Name as entered (i.e. N MCLEAN ST)
4	Alias Low	Numeric	N	Low value for the range/block face
5	Alias High	Numeric	N	High value for the range/block face

EXAMPLE:

MAIN ST E|1|HWY 61|200|244|

VGI OUTPUT

Once the VGI generate process is completed, up to four ASCII files are generated: street names, ranges, intersections and addresses. These files contain the geo-spatial information required by the system.

STREET NAMES

The street names file contains every unique street that appears on the street network shape file. A unique street is a combination of the full street name and the municipality (city). A full street name includes direction, name, and type (i.e., W FOSTER ST).

RANGES

The ranges file contains a record for each block (segment) in the street network shape file. Each record will contain data corresponding to the block – cross reference ID to the street name (in the ‘street names’ file) low-high address values, cross street IDs, district (precinct), zone (sector), grid (district), X-Y coordinates, etc.

INTERSECTIONS

The intersections file contains a record for each intersection in the streets layer. Each record will contain data corresponding to the intersection – cross reference ID to the street name (in the ‘street names’ file), district (precinct), zone (sector), grid (district), X-Y coordinates, etc.

An intersection record is created whenever two streets actually intersect (i.e., intersecting polylines). There are many cases where, from a public safety perspective, additional intersections may be required (e.g. bridges, railroad tracks, etc.). Although these “intersections” are not truly intersections from a GIS point of view, they are locations

where an incident may occur and the location may be required for a subsequent report. If this type of information is required, then additional layers, of the geometry type of polyline, may be included to identify the rivers and railroad track features for instance. If provided, the intersections will be generated by spatially joining with the street network layer.

ADDRESSES

The address file contains a record for each address point in the provided shape file. Each record will contain a cross reference ID to the street name (in the 'street names' file), address number, district (precinct), zone (sector), grid (district), X-Y coordinates, etc.

As part of this process, a file geo-data base (GDB) is also created containing a feature class (layer) for the ranges, intersections and errors. These layers are added to the main ArcGIS Desktop window and provide a visual representation of the street data that is loaded into the Versadex RMS. The errors layer will contain any street that has invalid or missing data.

ERROR CORRECTION PROCESS

In addition to the error layer, an error log file is generated which contains the record identifier of each street and an error description. The file may be viewed using Windows notepad or other text file editor. The record identifier may be used to view the source segment on either the feature class or street centerline layer.

The City will be able to correct errors prior to loading into the Versadex RMS. It is recommended that detected errors are corrected on the base (City) GIS data files.

Sample errors may include:

- Street name missing or invalid
- Municipality missing or invalid
- Range low/high values wrong side (odd/even on same side of street)
- Overlapping ranges – e.g. range of 2-28 when 24-30 already exists
- Duplicate ranges – range 2-28 & 2-28
- Empty geometry – shape field is empty
- Empty geometry – length of polyline is 0

INTERFACE TESTING

The VGI functional testing ensures that the City ESRI formatted shape files can be successfully processed by the VGI, producing the necessary ASCII data files that can be subsequently loaded into the Versadex RMS database.

These tests are expected to be incremental where the City may load the VGI produced ASCII files into the Versadex RMS for verification, prior to a full end-to-end test and quality assurance testing.

QUALITY ASSURANCE TESTING

Upon completion of the Interface Testing, Versaterm and the City shall use the VGI produced data files to run a complete GIS validation and load into the Versadex RMS.

Once the GIS data is loaded into the RMS database (Street Index), the City will conduct quality assurance tests on the data by performing numerous location data entry trials on the RMS desktop client software.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Provide a Windows 7 / 8 / 10 desktop PC with ESRI ArcGIS Desktop (ArcMap) 10.3 installed for use with the VGI. The desktop PC must meet the minimum ESRI requirements for ArcGIS Desktop (namely minimum 3GHz, 2GB RAM and 150GB Hard Disk for Windows 7). A minimum basic license for ArcGIS Desktop is also required.
- Install the VGI software as per the documentation provided by Versaterm.
- Provide GIS information in a single projection in ESRI formatted shape files.
- If the shape files are to be posted to ESRI ArcGIS Online, provide a mechanism so the shape files can be downloaded from ESRI ArcGIS Online and stored on the PC to be used for the VGI (in the directory as specified in the VGI documentation).
- Provide the GIS shape files to Versaterm for verification and testing as required.
- Verify quality and completeness of the data.
- Correct VGI-identified data errors.
- Perform quality assurance testing within the Versadex RMS.
- Optional: Provide a list of street type abbreviations and configure the Versadex RMS with those abbreviations.
- Optional: Provide the common place name (landmark) file in the format specified within this Section.
- Optional: Provide the street alias file in the format specified within this section.

VERSATERM RESPONSIBILITIES

- Provide the VGI software and related documentation.
- Provide the City with instructions and support on the VGI installation.
- Provide the City with the required VGI training and support.
- Perform initial street conversion load into the Versadex RMS database.
- Train local authorities on how to perform subsequent street conversion loads into the Versadex RMS database.
- Assist in resolving issues arising from the City's quality assurance testing.

2.12 HR SYSTEM (CGI ADVANTAGE HRM) INTERFACE

INTERFACE SCOPE

This interface is a one-way export from the City of Mesa's CGI Advantage HRM system into the Versadex Personnel module for authorization purposes. The purpose of this interface is to reduce duplicate entry in the RMS as personnel employment data changes over time and the associated permissions that personnel have in the RMS should reflect those changes.

PROCESS OVERVIEW

The CGI Advantage HRM system will be the master source for updates to these records. It should be noted that CGI Advantage HRM will need to keep track of past employees and include updated employment status in the transfer given that information (cases, etc.) could be tied to those employees and their name will be needed when translating the badge number. (Note that there is a unique one-to-one relationship between employee ID/badge # and the employee – and if an employee is rehired, they will use the old ID #). The RMS personnel interface is an XML based interface. It will be the responsibility of The City to provide the data formatted to the Versaterm XML specification provided below.

Every time a personnel entry on the City system is modified or added, an XML file (containing a snapshot of the employee record from HRM (including current and historical 'duty status' information (organization assignment and given rank for a certain time period) will be generated and copied to the Versaterm RMS application server in a specified drop directory. This XML file could include one or more add/modify per file for one or more employees.

The file transfer will be accomplished via:

- SFTP - The CITY system can make a Secure FTP transfer to the RMS application server and copy the XML file to the pre-determined drop directory. SFTP is an encrypted transfer protocol.

A scheduled task (cron) on the Versadex RMS will check for the files once per day. This cron job will need to run at quiet times e.g. 4 am since there could be many records being loaded. This job will probe the drop directory for new XML files, and ingest them into the Personnel subsystem where the information will be used to add new records or update existing records.

The following is the cron entry installed on the RMS server, scheduled to run daily, that is responsible for processing files received from the CGI Advantage HRM system:

```
50 6 * * * ( SETUPFILE=; export SETUPFILE; ${VTMScriptDir:-  
/usr/local}/bin/VTMcron RMSSVC  
\\${VDXFILES}/scripts/versonnel_import_ifc.sh \\${VDXDB} MP HREADR; )  
#RMS
```

The following interface log file(s) are located on the RMS application server:

Log File	Associated program/process
----------	----------------------------

\$VDXLOG/import_versonnell.log	Detailed load information of data being ingested by the interface (lists XML file, badge numbers, what was processed, etc.).
\$VDXLOG/versonnell_ifc.log	High level log file that lists start and end time of Personnel interface run

Mesa will have access to these logs via SSH connectivity into the application server (ex. Putty)

Any errors that occur during the load are sent to the vMail of the handle specified in the cron job (ex., HREADR).

Versaterm will send a message to a handle if a file has not been received from the HRM in 24 hours (M-F?).

DATA SPECIFIC NOTES

All character-based fields should be filled with data in upper case.

1. **BADGE_NUMBER (CHAR(6))**- Employee ID/Serial#/Badge#: *Mesa will use Employee ID*
2. **LOGIN (CHAR(64))**- The Versadex RMS “LOGIN” field could be populated with an Employee ID/Serial#/Badge#, or even an email address. This is the ID that Customer is currently using to login to Windows desktops and is a good fit as the accounts used to login to RMS. *Mesa will use Employee ID.*
3. **OP_CODE (CHAR(6))**- The Versaterm Op_code is a value representing an individual and should not change over time. This code is stamped on all data that is added or modified in the RMS. The Employee ID/Serial#/Badge# would be the best candidates for this. *Mesa will use Employee ID (we may have issue with duplicates – this is a Mesa issue to work out).*
4. **EMPL_STATUS (CHAR(1))**- Employee Status: A NULL status field indicates that a user is Active, otherwise the status field holds a value indicating if a user is inactive, retired, etc. This field will be populated with an appropriate value from the City’s CGI Advantage HRM system.
5. **FULL_NAME (CHAR(25))**- Typical example would be “SMITH, JOHN”, or “JOHN SMITH” depending on the standard the City wishes to adopt.
6. **SURNAME (CHAR(24))** = Last Name
7. **GIVEN_NAME (CHAR(24))** = First Name
8. **CELL_AREA (CHAR(3))** = Area Code- Could be used for Work Phone
9. **CELL_NUMBER (CHAR(8))** = Cell Number- Could be used for Work Phone
10. **VOICE_MAIL (CHAR(10))** = voicemail box/extension- Could be used for Work(desk) Phone
11. **EMAIL_ADDR (CHAR (40))** = Work Email address
12. **AUTO_PAGER(CHAR(1) Y/N)**- The Personnel auto page field (Yes or No) refers to whether an officer should be automatically paged on dispatch. *Mesa does not have this in the Advantage HRM, will default “No”.*

13. **ADDED_DATE (Date MM/DD/YYYY)** Mesa will likely use Hire Date
14. **ADDED_BY (CHAR(6))** Mesa will use "HRM"
15. **MODIFIED_DATE (Date MM/DD/YYYY)**
16. **MODIFIED_BY (CHAR(6))** Mesa will use "HRM"
17. **GROUP_SECURITY (CHAR(2))**- The Versaterm Personnel XML specification allows for a group security code to be assigned to the user. If this group security code is to be included in the XML, Mesa would need to define the name and make-up of each security group in RMS and ensure the XML feed contains the required information to be ingested into the RMS.
18. **ORGANIZATION (CHAR(5))**- The ORG code from RMS that you want the officer to be tied to. HRM will need to define these 5 digit codes and map their existing data to these codes. ITD and PDIT will need to develop a "Org to numeric code" crosswalk for the various MPD assignments.
19. **RANK (CHAR(4))**- The code from RMS that you want the officer to be tied to. HRM will need to define these 4 digit codes and map their existing data to these codes. ITD and PDIT will need to develop a "title to numeric code" crosswalk for the various sworn ranks.
20. **SUPERVISOR_FLAG→ IS_SUPER (CHAR(1))**- Is this person a supervisor of this organization unit?
Y/N/A
Y=Yes of ORG Unit / N= No of ORG Unit / A= Can approve reports from ANY ORG Unit (generally from a Field Reporting perspective).
21. **PRIMARY_FLAG→ PRIMARY_POSITION (CHAR(1))**- Is this the officers Primary Assignment?- an Officer can only have one active primary position(assignment).
22. **FROM_DATE (DATE)**- The effective date of the ORG Assignment.
23. **TO_DATE (DATE)**- The end date of the ORG Assignment.

SAMPLE XML FILE (MOST RECENT SPECIFICATION)

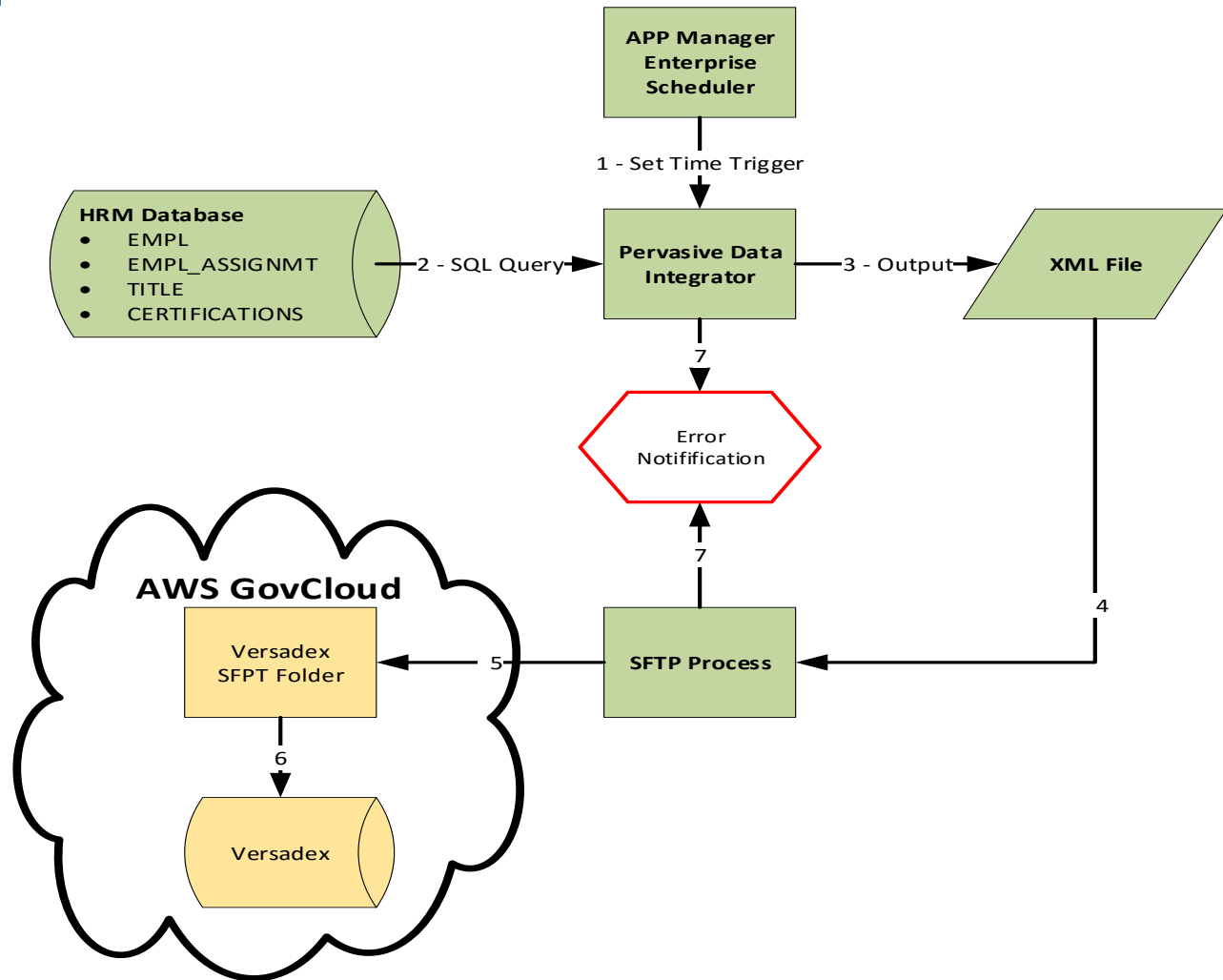
```
<?xml version="1.0" encoding="utf-8" standalone="no"?>
<RMS_PERSONNEL>
  <PERSON>
    <TOMBSTONE_GENERAL>
      <BADGE_NUMBER>123</BADGE_NUMBER>
      <CALL_SIGN>456</CALL_SIGN>
      <EMPL_STATUS/>
      <LOGIN>ABCD123</LOGIN>
      <OP_CODE>P100</OP_CODE>
      <FULL_NAME>SMITH, JOHN</FULL_NAME>
      <SURNAME>SMITH</SURNAME>
      <GIVEN_NAME>MARRY</GIVEN_NAME>
      <MIDDLE_NAME>ANN</MIDDLE_NAME>
      <CELL_AREA>607</CELL_AREA>
```

```
<CELL_NUMBER>820-0311</CELL_NUMBER>
<VOICEMAIL_EXT>12</VOICEMAIL_EXT>
<PAGER_NUMBER>123</PAGER_NUMBER>
<AUTO_PAGER>N</AUTO_PAGER>
<PORTABLE_NUMBER>A12345</PORTABLE_NUMBER>
<EMAIL_ADDRESS>SAMPLE@VERSATERM.COM</EMAIL_ADDRESS>
<ACCESS_TO_CAD>Y</ACCESS_TO_CAD>
<ACCESS_TO_RMS>Y</ACCESS_TO_RMS>
<ADDED_DATE>2015-06-01</ADDED_DATE>
<ADDED_BY>SYSTEM</ADDED_BY>
<MODIFIED_DATE>2015-06-01</MODIFIED_DATE>
<MODIFIED_BY>SYSTEM</MODIFIED_BY>
</TOMBSTONE_GENERAL>
<TOMBSTONE_CAD>
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  <CALL_TAKER_911>Y</CALL_TAKER_911>
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PROCESS DIAGRAM



STEP DETAIL

#	Activity/work performed	By Whom	Reason	Notes
1	Triggers process at 0300 each day.	Mesa App Manager Enterprise Scheduler	Scheduled process	
2	Run SQL Query in HRM	Mesa's Pervasive Data Integrator		Looks for changes since last process ran

3	Output XML File	Mesa's Pervasive Data Integrator		
4/5	Transfer file to Versadex SFTP folder in AWS GovCloud	Mesa SFTP Process		
6	Versadex imports file and updates database	Versadex		
7	If the process fails send notification to Mesa POCs	Mesa Error Notifications	If error	Notifications method to be determined

CONFIGURATION

The following configuration settings are maintained by Versaterm and are required in order to compile and activate the interface.

File: \$VDXFILES/etc/SITE_SPECIFIC.CONFIG		
Setting	Details	
INTERFACES_DIRECTORIES	“versionnel/2.0 “ must be included in the INTERFACES_DIRECTORY setting in order for this interface to be compiled during the system build.	
Table: config_system		
Setting	Details	Value
rms.interfaces.versionnel_import.multi_duty	Determines whether only primary duty assignments are being sent over, or if all active duty assignments are being sent over. If set to Y, it means all active duty assignments are being sent and it will REPLACE all duty records for users.	Y
Cron Entry		
File	Details	
versionnel_import_ifc.sh	Scheduled Script that will ingest XML files from the receive directory	

COMMUNICATION

Communication could be via a shared directory using SFTP. The batch processing will be handled by file drop on the Versadex RMS server. The share name will be **CGI_Advantage**, which points to the following directory on the Versadex RMS server: **/usr2/vdxfiles/rms/vdxif/versionnel/receive**.

BUSINESS CONTINUITY / INTERFACE AVAILABILITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the files accordingly.

INTERFACE TESTING

These tests are intended to ensure the interface is accurate and complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

This test is intended to ensure that updates to employee records from CGI Advantage HRM are updated appropriately in Versadex.

OPERATIONAL TESTING

This test comprises invoking a data transfer from CGI Advantage HRM to the agreed-upon shared directory and having Versadex process the file and update the appropriate records.

PERFORMANCE TESTSING

Response time will not be measured since external system response time may vary and is outside of the control of Versaterm.

EXCEPTION TESTSING

This test is intended to test how the system handles an Organization Code sent from the HRM that is not in Versadex. It will also ensure that the appropriate log file is created to identify the issue and to ensure the file that errored out is processed once the correction has been made.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Develop the SFTP file transfer mechanism to the specified directory on the Versadex RMS server.
- Provide the CGI Advantage HRM data according to Versaterm-supplied XML specifications.
Verification of the data transferred by this interface prior to installing on the production server.
- The City will be responsible for any effort required to translate and extract the necessary data from CGI Advantage HRM.
- Test the accuracy of the HRM data on the Versadex RMS, MDT and MRE to ensure accuracy of this interface.
- The City will be responsible for providing Versaterm with a list of Organizational Codes and descriptions or manually entering these codes and descriptions into Versadex.

VERSATERM RESPONSIBILITIES

- Install & test this program and configure it based on parameters supplied by the City (e.g. run frequency).
- Versaterm will provide the data field mapping documentation and review with the City prior to development.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.
- Create a log file or vMAIL when an organization code comes over from the HRM system that does not exist in the code table. (Log is accessed in \$VDXLOG/import_versonnel.log / vMAIL can be sent to specific RMS Handles designated by MPD).)

2.13 COPLINK INTERFACE

INTERFACE SCOPE

The Versadex COPLINK XML Interface supports the automated one-way transfer of data from the Versadex RMS to the COPLINK information sharing system. This section describes the scope and expectations of the Versadex COPLINK XML Interface.

PROCESS OVERVIEW

As information is entered or updated in the RMS, the RMS will automatically flag the event to be published to COPLINK.

At the configured frequency, the Versadex will invoke a process to identify those events that require publishing, process them and produce the appropriate COPLINK XML formatted file(s).

The XML files will remain on a file folder (directory) on the Versadex server or staging area where they can be consumed and/or transferred to City location.

SUPPORTED REPORT TYPES

The data associated to the Interface involves information that is collected by police law enforcement agencies, organized and categorized under different types of police reports.

Versaterm provides this data in the XML file format provided in samples and details below.

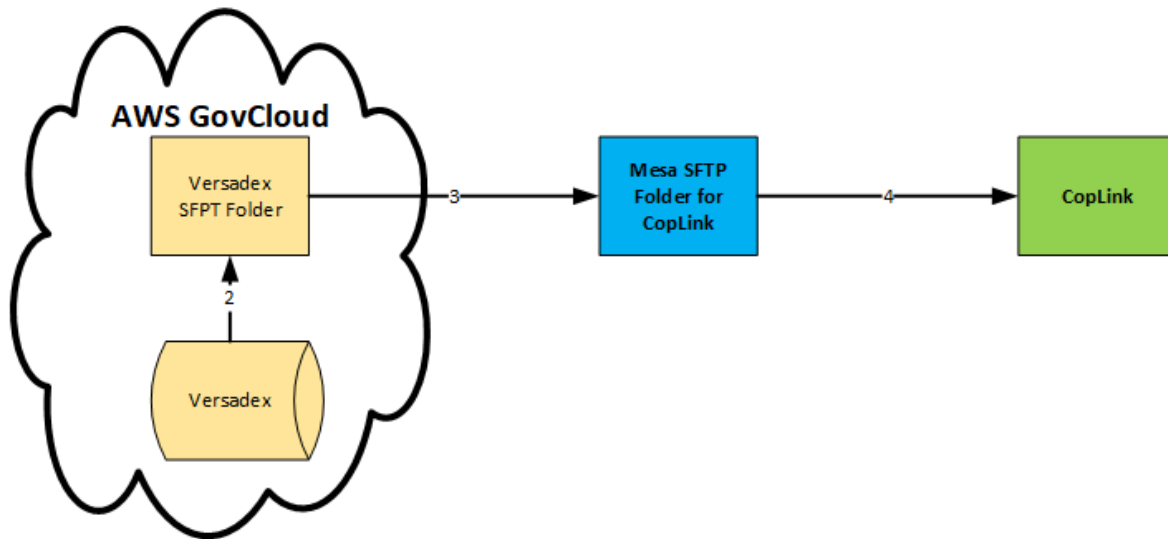
This mapping table outlines the equivalent terminology between both systems (COPLINK and Versadex) and identifies the types of police reports that will not be supported in this Interface.

COPLINK refers to police reports as “document” types. Versaterm refers to police reports as “event” types

COPLINK® Document Types	Versadex RMS Event Type
Arraignment	not supported
Booking	not supported
Citation	General Offense (where cited role 33 or 133 exists) + Tickets
Field Interview	Street Check report
Identification	not supported
Intel	not supported
Master Record	not supported
Miscellaneous Incident	not supported
Occurrence	Calls for service
Pawn Ticket	not supported
Permit	not supported
Report	General Offense report (arrest section exists for arrest info)
Stand Alone Arrest	not supported
Supervision	Criminal Description record (for criminal registrants)

Supplemental Report	not supported (included as part of the GO event type)
Traffic Collision	General Offense report with Accident detail page
Visitation	not supported
Warrant	not supported
Mugs	Mugshots and photos

PROCESS DIAGRAM



STEP DETAIL

Step #	Activity/work performed	By Whom	Reason	Notes
1	As data is entered / updated in RMS, it's flagged for COPLINK	Versadex		
2	XML files are generated and placed in the Versaterm RMS folder	Versadex		
3	On schedule, the XML files are SFTP'd to Mesa's COPLINK server/folder	Versadex		
4	On schedule, COPLINK grabs files from Mesa's COPLINK server/folder	COPLINK		

FREQUENCY AND FORMAT

On a scheduled basis (every 12 hours), the Interface logic extract new or updated data from the Versadex RMS into XML Schema files, where the case is not secured and is approved for Incidents, Incident Supplements, Accidents, Accident Supplements, Arrests, Field Contacts. The XML files are transferred to a specified secure location approved by the City and accessible from a specified server/folder (\\VMA11-PD\...).

EXPECTATIONS

The Versadex COPLINK XML Interface is expected to:

- Produce all supported report types from the Versadex RMS
- Produce incremental changes from a given point forward (to support adds, updates, & deletes)
- Produce documents modified in a given time frame or specific date range (for backward and forward fill capability)
- Support any document access control features the Versadex RMS (such as private or confidential reports) when the case is approved
- Support scheduled publishing of data between Versadex and COPLINK
- Versaterm will provide an error notification in the case of interface failure

COMMUNICATION

The City will provide formal authorization to Versaterm to publish the data to the 3rd party. Versaterm is responsible to provide the data through a secure transport mechanism (i.e. NIST / FIPS 140) providing the 3rd party supports such mechanism. Versaterm is not responsible to protect any data once published outside of the Versaterm environment.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

The functional tests include:

- Creating a test case within the Versadex RMS and confirm the data is represented in COPLINK.
- Add / Update reports and ensure the data is transferred.

OPERATIONAL TESTING

Operational tests include confirming that entered or updated data in the Versadex RMS is published at the configured interval and transferred to COPLINK.

The operational tests include:

- Ensure the added/updated data records are published at the configured time interval; and
- Ensure the data files are transferred to the appropriate location.

Note the City and COPLINK will need to confirm how often the data files are consumed.

PERFORMANCE TESTING

As this is a batch interface, there are no prescribed performance tests.

EXCEPTION TESTING

These tests consist of testing the interface to make sure data is transferred when there is a communication failure between the Versaterm RMS and the COPLINK server. Then, once the communication link is re-established, the queued data files are transferred.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- The City of Mesa is responsible for participating in the testing and data validation process, in addition to providing timely and accurate feedback about any identified during testing and with respect to any other requests for feedback from Versaterm and the City, and input generally.
- The City is responsible for verifying the integrity of the data in the COPLINK system, immediately after the implementation of the Versadex COPLINK XML interface in production use.
- Ensure the City participation in the testing and data validation process and ensure the City provides timely and accurate feedback about any issues identified during testing, respond promptly to any other reasonable requests for feedback from Versaterm.
- The City will ensure the XML files sent/available for COPLINK.

VERSATERM RESPONSIBILITIES

- Versaterm is responsible for installing the COPLINK XML extract.
- Versaterm is responsible for implementing and testing the Interface which will then support the one-way transfer of extracted XML data from the pilot customer's Versadex RMS server to a specified secure location approved by the City.
- Versaterm is responsible for participating in the testing and data validation process, providing timely and accurate feedback about any issues identified during testing, providing timely and accurate feedback with respect to any other reasonable requests from the City, and for providing input regarding the project in general.

2.14 LINX INTERFACE

INTERFACE SCOPE

The Versadex LInX Interface supports and automated export of data from the Versadex RMS to be consumed by the Law Enforcement Information Exchange (LInX) data system. Versaterm has provided data unloads for LInX consumption at other sites and this ICD is based on the existing interface.

PROCESS OVERVIEW)

As information is entered or updated in the RMS, the RMS will automatically flag the event data for publishing. That is, whenever a report changes in the RMS, it becomes a candidate for publishing to LInX. The scheduled extract process will check for any candidates to be published and extract the data to the specified ASCII files.

At the configured frequency, the Versaterm RMS will invoke a process to identify those events that require publishing, process them and produce the data unload files.

The files are created in a designated folder (directory) and will be transferred to a City designated location (file folder) using a SFTP transfer mechanism, where the City will make the data files available to LInX so they may consume the data.

The format and methods described above have been implemented for the LInX interface at other Versaterm sites. Prior to installation and configuration of this interface, Versaterm will review the approach with the City and LInX contact, provided by the City.

SUPPORTED REPORT TYPES / METHODS

A scheduled task can be used to automate the publishing of reports and the format is a series of ASCII delimited files (1 per record type) linked through a primary/foreign key relationship, or similar.

The exported reports include:

- General Offense Reports
- Street Checks/Field Interviews
- Tickets (Citations)
- Arrests
- Calls-For-Service
- Property

Photos of related persons can also be included either in a separate JPG file or encoded within in a base64 format. Similarly, the narrative text portion of the reports can be unloaded in an XML document or encoded using base64. The decision for which method is to be used will be finalized prior to installation and configuration of the interface.

The City will be able to restrict publishing private (confidential) reports via a configuration option.

FREQUENCY AND FORMAT

On a scheduled basis, the Interface logic extracts new or updated data from the Versadex RMS into *.unl “pipe” (“|”) delimited files.

COMMUNICATION

The City will provide formal authorization to Versaterm to publish the data to the 3rd party. Versaterm is responsible to provide the data through a secure transport mechanism (i.e. NIST / FIPS 140) providing the 3rd party supports such mechanism. Versaterm is not responsible to protect any data once published outside of the Versaterm environment.

BUSINESS CONTINUITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the files accordingly.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

The functional tests include:

- Creating a test cases within the Versadex RMS and confirm the data is represented in LInX.
- Add / Update reports and ensure the data is transferred.

OPERATIONAL TESTING

Operational tests include confirming that entered or updated data in the Versadex RMS is published at the configured interval and transferred to the City (LInX) server.

The operational tests include:

- Ensure the added/updated data records are published at the configured time interval; and
- Ensure the data files are transferred to the City server.

Note the City and LInX will need to confirm how often the data files are consumed.

PERFORMANCE TESTING

As this is a batch interface, there are no prescribed performance tests.

EXCEPTION TESTING

These tests consist of testing the interface to make sure data is transferred when there is a communication failure between the Versaterm RMS and the LInX server. Then, once the communication link is re-established, the queued data files are transferred.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- The City is responsible for participating in the testing and data validation process.
- The City is responsible for verifying the integrity of the data in the LInX system.
- The City will set up and maintain SFTP authentication between the servers, including firewall configuration, to support the file transfer process.
- The City is responsible to coordinate with LInX to consume the data extract files.

VERSATERM RESPONSIBILITIES

- Versaterm is responsible for installing the LInX (data unload) extract.
- Versaterm will configure the scheduled time to perform the extracts based upon City request.
- Versaterm is responsible for implementing and testing the Interface which will support the extracted file data on the RMS Server.
- Versaterm is responsible for developing and testing the SFTP script to transfer the files between servers (from RMS server to City (LInX) server).
- Versaterm will participate in the testing and data validation process.

2.15 IMAGEWARE MUGSHOT INTERFACE

INTERFACE SCOPE

This interface enables the storage of frontal mugshot images on the RMS server. The source of these images is the DPS ImageWare mugshot system in production at the MPD site. By storing copies of offender mugshots on the RMS server, Versadex RMS and MDT users are able to view mugshots without having to refer to the web-based DPS mugshot application. The process begins in the Versadex RMS with the entry of an Arrest & Booking and the data transfer described above in the AFIS/Livescan Interface. Included in the data transfer to the AFIS will be a common reference (tracking) number which will be the unique Arrest Booking Number. This number will be included in the mugshot transfer from ImageWare so that it can be appended to the proper record and in turn, the correct Criminal Description (CD) record in the RMS. The result of this linkage will be the ability for RMS and MDT users to view an offender's frontal mugshot when performing a Name, Arrest or CD query. Note: RMS can store multiple mugshots or a single mugshot, which can be configured by site.

This is the same interface that is operational for Tempe PD and Chandler PD.

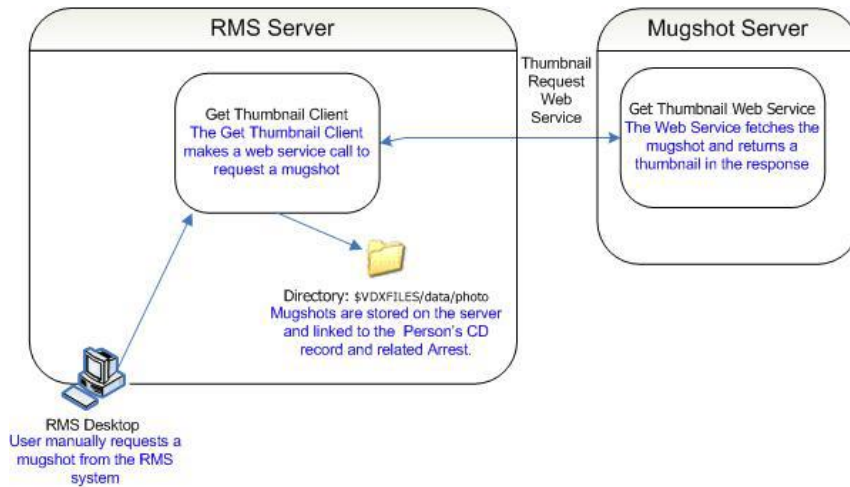
PROCESS OVERVIEW

Part 1 - Data to Mugshot System - The booking data transfer is accomplished by using XML (Extensible Markup Language) formatted file that will be sent to the Mugshot system as a parameter in a Web Service function call. It will transfer arrest/charge, person offender information. The Mugshot system will return a status of successful or unsuccessful.

Part 2 - Retrieving the Mugshot - Using the Versadex Arrest Booking Number as a reference, the DPS Imageware System will convey a frontal mugshot in JPEG format to a file location accessible to the Versadex RMS. The mugshot image will then be retrieved and moved to a permanent file storage location on the RMS server while a link to the appropriate RMS data record is made.

- When the officer completes the arrest in Versaterm RMS and hits the Request Mugshot button it requests a mugshot through the web service hosted on the mugshot system. (The same process happens when an RMS user requests a mugshot from the Criminal Description page)

The following diagram illustrates the process flow for Part 2 of this interface.



WEB SERVICE DEFINITION

Detailed information on the web service has been provided in a GetThumbnail WSDL. See the GetThumbnail.html in the Documentation folder for this detailed information.

CONFIGURATION

The following configuration settings are maintained by Versaterm and are required in order to compile and activate the interface.

Table: cr_config		
Setting	Details	Value
Mugshot	Configuration setting indicating if a mugshot interface is enabled	Y
File: \$VDXFILES/etc/webservices.cfg		
Setting	Details	
WSCMUGVERSION	The WSCMUGVERSION must be set in order for this interface to be compiled during the system build.	
File: \$VDXFILES/etc/Records.res		
Setting	Details	Value
rms.getthumbnailservice.url	The URL of the Mugshot Request web service	http://servername:port/service

COMMUNICATION

Communication for this interface is provided via web services on an agency defined port and can be connected via HTTP or HTTPS. All transactions defined in the Mugshot web services use two-way data transmission. A client will always initiate the communication by sending a request to a server and will wait for a response. Said response is sent by the server once the requested operation is completed. Requests and responses are also referred to as input and output messages respectively.

BUSINESS CONTINUITY / INTERFACE AVAILABILITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the files accordingly.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

The customer will verify that a mugshot can be retrieved from the DPS ImageWare Mugshot system and appended to the appropriate CD record for viewing from an RMS workstation or the MDT.

OPERATIONAL TESTING

RMS and MDT Queries will be executed to ensure that the correct mugshot is returned for the individual in question. Mugshots can be compared to those available in the DPS web mugshot system.

PERFORMANCE TESTING

Response time will not be measured since external system response time may vary and is outside of the control of Versaterm.

EXCEPTION TESTING

These tests consist of making the Versadex RMS and/or DPS ImageWare Mugshot system server temporarily unavailable, to ensure the transmission is generated and transferred to the DPS ImageWare Mugshot system once both components become available.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Ensure network access required to the DPS ImageWare mugshot server.
- Ensure the necessary program logic (supplied by ImageWare) to process the request files and return the JPEG mugshot.
- Coordinate resource availability with ImageWare or other 3rd parties as required.
- Obtain the necessary authorization from DPS to develop this interface.
- Test the mugshot display capability on the Versadex RMS and MDT to ensure accuracy of this interface.

VERSATERM RESPONSIBILITIES

- Develop/tailor the logic required to retrieve mugshots from the DPS ImageWare server.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

2.16 LEXIS NEXIS ACCURINT INTERFACE

INTERFACE SCOPE

The Versadex Accurint XML Interface will support the automated one-way transfer of data from the Versadex RMS to the Lexis Nexis Accurint system. This section describes the scope and expectations of the Versadex Accurint XML Interface.

PROCESS OVERVIEW

As information is entered or updated in the Versadex RMS, the RMS will automatically flag the event to be published to Accurint.

At the configured frequency, the Versadex RMS will invoke a process to identify those events that require publishing, producing the appropriate Accurint XML formatted file(s) to submit to the Lexis Nexis Partner Web Service.

The Versaterm extract is a delete / add architecture. When an event is created or updated Versaterm send an update flag with updated data. Versaterm expects Lexis Nexis to delete the record if it exists and re-adds the updated data. If an event is created or updated as private, Versaterm sends a delete flag in the extract and no data. Versaterm expects Lexis Nexis to delete the record in its entirety. If the private flag is then removed from a private record Versaterm's extract sends an update flag with updated data. Versaterm expects that Lexis Nexis deletes the record if it exists and re-adds the updated data.

The extracted XML files are transferred from the RMS server to the Lexis Nexis Partner Web Service. Versaterm will own the responsibility of ensuring the quality and security of the data transferred from AWS. The City and Lexis Nexis will perform the necessary configurations on the 3rd party application to receive the XML data from Versaterm.

Versaterm will provide a notification in the event data has not been sent by the Versaterm system within the previous 48 hours.

COMMUNICATION PROTOCOL

The Versaterm RMS will call the Lexis Nexis Partner Web Service with an XML export of the data. Versaterm will conform to the XML specification provided by LexisNexis.

BUSINESS CONTINUITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the Lexis Nexis webservice to submit the XML files.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTS

This test is intended to ensure that when creating sample cases in the Versadex RMS that the Lexis Nexis data contains the data elements extracted.

OPERATIONAL TESTS

This test comprises invoking a data transfer from Versadex RMS to the Lexis Nexis Partner Web Service

PERFORMANCE TESTS

There are no performance tests associated with this interface.

EXCEPTION TESTS

These tests consist of making the Lexis Nexis webservice temporarily unavailable, to ensure the XML is generated and transferred to the webservice once it becomes available.

Adding a record in Versadex and securing it right away, to make sure the data is not being displayed in Accurint.

Adding a record in Versadex and sending the data to Accurint. After the data has been sent, secure the data in Versadex and verify the data has been removed from Accurint after the send.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- The City of Mesa is responsible for participating in the testing and data validation process, in addition to providing timely and accurate feedback about any identified during testing and with respect to any other requests for feedback from Versaterm and the City, and input generally.
- The City is responsible for verifying the integrity of the data in the Accurint system, immediately after the implementation of the Versadex Accurint XML interface in production use.

VERSATERM RESPONSIBILITIES

- Versaterm is responsible for installing the Accurint XML interface.
- Versaterm is responsible for implementing and testing the Interface which will then support the one-way transfer of extracted XML data from the Versadex RMS to the Lexis Nexis provided Partner Web Service.
- Versaterm is responsible for participating in the testing and data validation process, providing timely and accurate feedback about any issues identified during testing.

2.17 SAGEM MORPHO AFIS/LIVESCAN INTERFACE

INTERFACE SCOPE

The purpose of this interface is to reduce entry effort and potential errors by transferring Arrest data from the Versadex RMS to the Livescan. This interface provides an export from the Versadex Arrest/Booking Module to the MPD SAGEM Morpho Livescan system. From the Livescan, the user will select the appropriate record and pre-fill the Livescan entry. Versaterm has developed such an interface for neighboring Agencies and is familiar with fields to be mapped to Livescan.

PROCESS OVERVIEW

Versaterm uses a proven approach in Arizona for this type of interface. The approach will use a data/file transfer that will be compliant with NEIM standards for an RMS to AFIS data transfer.

The Livescan machine will send a request message (Trigger is a button on the Livescan machine) to a “listener” process on the Versadex RMS. The request must contain the minimum arrest information needed to query the arrest (ex. Jurisdiction and arrest number/booking number) and RMS will return relevant entered information for that request.

Note- that as this data will be subsequently passed on to the ImageWare Mugshot system, the Livescan will accept a common tracking number (Versadex Arrest Number) so that the ImageWare can return a mugshot to the RMS. The Versadex Arrest Number is different from the PCN number and may need to be stored in a Livescan ‘user-defined’ field.

COMMUNICATION

This is a socket-based interface that listens for a request from the Livescan machine. The program reads the incoming message and responds with arrest related information. Messages are exchanged using the NIST format.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

This test is to ensure the successful transfer of Arrest & Booking data to the Livescan. Versaterm, MPD and SAGEM Morpho will confirm that all expected mapped data elements are transferred.

OPERATIONAL TESTING

This test involves the Customer entering Arrest and Booking data in the Versadex RMS, invoking the data transfer and being able to retrieve the file on the Livescan system.

PERFORMANCE TESTING

There are no performance tests applicable to this interface.

EXCEPTION TESTING

These tests consist of making the Versadex RMS and/or SAGEM Morpho server temporarily unavailable, to ensure the email is generated and transferred to the SAGEM Morpho once both components become available. Currently, Livescan has a limit of 40 Charges per Booking. MPD and Versaterm will need to come up with a process to accommodate and test this limitation.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Customer will review and confirm with SAGEM Morpho on the Versaterm-supplied field mapping and interface spec.
- Customer will be responsible for any additional services required on the part of SAGEM Morpho, should they need to develop or configure their respective portion of the interface to accept and process the arrest file.
- Customer will perform interface testing.

VERSATERM RESPONSIBILITIES

- Versaterm will develop (as necessary) and install the process to create the necessary communication channel between Versadex RMS and SAGEM Morpho Livescan machines. This may include shared directories, file transfers, and/or listener processes.
- Assist with interface testing

2.18 VMC TO VMC INTERFACE

INTERFACE SCOPE

The purpose of this interface is to allow two or more of Versaterm sites to query each other's RMS data including:

- Query Person (via an Agency checkbox on the Query Person form within the vRMS and vMDT)
- Query Vehicle (via an Agency checkbox on the Query Vehicle form within the vRMS and vMDT)

With appropriate links to view details including Agency (or Agency designator), person demographics, vehicle description, basic business information, events, text, mugshots, associates, etc.

Participating Agencies/Linkages:

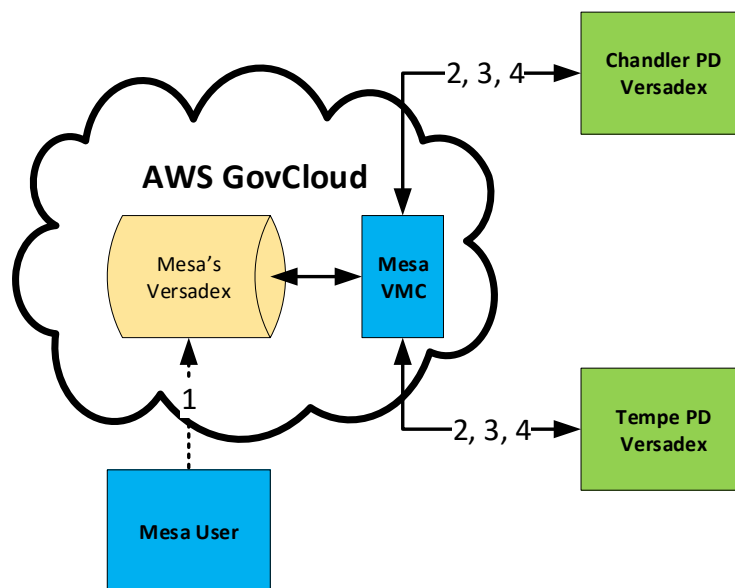
- Mesa Police Department -to- Chandler Police Department
- Mesa Police Department -to- Tempe Police Department

This interface is based upon network connectivity between the Versaterm Message Controllers (VMC) at each installation with the appropriate configuration.

PROCESS OVERVIEW

The queries from RMS or MDTs can be forwarded to the other agencies RMS based upon check boxes on the appropriate query forms. The VMC forwards the query to the remote VMC which in turns hands it over to the appropriate RMS and returns the response back to the originating VMC, which then routes the response back to the requester.

PROCESS DIAGRAM



STEP DETAIL

Step #	Activity/work performed	By Whom	Notes
1	User (RMS or MRE) includes the participating agency via search checkbox	RMS or MRE User	
2	Versadex includes the other agency's Versadex system in the search query	Versadex	
3	If a other Agency system has a match, that will be indicated to the user performing the search	Versadex	
4	If match, user has option of viewing additional details (events, text, mugshots, associates, etc.)	User/Versaterm	

INSTALLATION/CONFIGURATION INSTRUCTIONS

This interface leverages Versaterm standard input/output VMC plug-ins to support the necessary inter-VMC connectivity and message handling. Encrypted network connectivity is recommended and supplied by the sites (i.e. Cities and or PDs).

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL AND COMPLETENESS TESTING

This test is to ensure the successful transfer of Arrest & Booking data to the Livescan. Versaterm, MPD and SAGEM Morpho will confirm that all expected mapped data elements are transferred.

OPERATIONAL TESTING

This test involves the City and other partnering ("connected") agencies querying each other's RMS data and comparing responses to existing entity related data.

PERFORMANCE TESTING

There are no performance tests applicable to this interface.

EXCEPTION TESTING

These tests consist of making either RMS server temporarily unavailable, to ensure the query/results are processed once both components become available.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- City will develop a MOU and obtain agreement between partnering agency(ies) on the intent/scope of this interface.
- City will ensure that partner agencies complete the necessary network communication required to allow traffic in/out to their VMC from Mesa's Cloud VMC.
- City will perform interface testing.

VERSATERM RESPONSIBILITIES

- Versaterm will configure (as necessary) and install the process to create the necessary query plugin for this interface to function for each partnering agency.
- Versaterm will enable the necessary checkboxes on the various query forms within the vRMS and vMDT.
- Assist with interface testing.

2.19 JUSTICETRAX LIMS INTERFACE

INTERFACE SCOPE

This interface is designed to provide a means to automatically attach an electronic copy of the final lab analysis report(s) (including DRE lab results on a PDF) to the General Offense Report on the RMS and send a notification to a handle that lets the officer know a lab report was generated for the specified case.

PROCESS OVERVIEW

An upload from the LIMS system to the RMS of the final lab report (per lab request). (*via file upload to RMS Server as a PDF, that will be attached to the associated Case*). This will also automatically generate a notification to the case officer and a “Handle” specified by MPD, so staff will know the Lab Results were added to the case.

DETAILED INTERFACE/COMMUNICATION OVERVIEW FOR EACH PART

Final Lab Analysis Report Upload

Once the lab has concluded its analysis of the property items or DRE BAC/toxicology tests, a copy of the final lab analysis report will be uploaded to the RMS from the LIMS server at MPD (the original PDF will remain on the LIMS server at MPD). The file will be a PDF and will be uploaded to the RMS server into the \$VDXRMSIF/LIMS/receive directory. Additionally, this would trigger a Notify transaction in the Versadex RMS Case Management to notify officers accordingly. To keep things simple and still be able to determine which case to link this PDF file to in the RMS, we will need a standard naming convention for this file that must include the RMS Case Number. The unique number portion will be left up to the LIMS side to assign in order to ensure that multiple reports for the same case number do not overwrite each other. The RMS will then use the portion before the dash (-) for the case number (characters 1-4 will be the year and the remainder as the case number). In order to keep the future option of a multijurisdictional RMS feasible, the case number will be prefixed by “MPD”.

We recommend using the convention of <jurisdiction>-<case number>-<unique number>-<descriptor>.pdf.
For example:

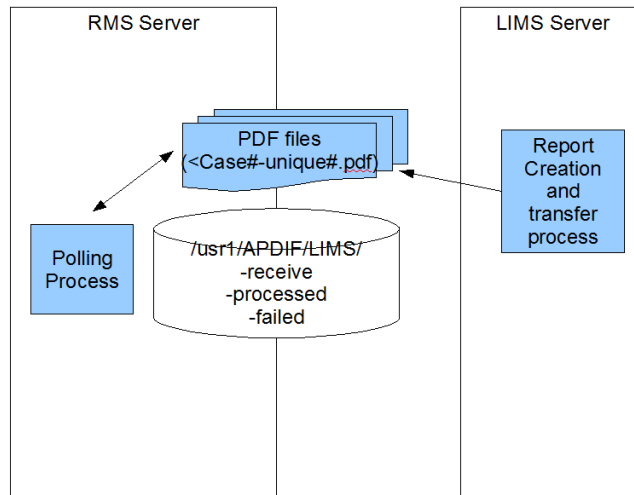
MPD-2018999999-123456-Forensics.pdf

Or a combination of RMS Case Number and MPD LIMS Case number:

MPD-2018999999-FSS051807-0058-0005.pdf

Processed files will be moved to the processed directory and failed files will be moved to the failed directory. The descriptor portion will be saved in the document description field of the attachment record in the RMS. If no descriptor is given, the documents description will be set to “LIMS LAB REPORT” by default. The document type code will be set to “CL” - Crime Lab.

OVERVIEW DIAGRAM



EXCEPTION HANDLING

- The LIMS system will be responsible for handling PDF files that fail to generate.
- PDF files that fail to get attached to a case will be moved to the failed directory, an error log will be generated in the interface log, and a workflow notification will be sent to a handle specified by MPD.

AUDITS

Since the Web Services portion will be running through the core RMS application functions, the built-in query logging mechanism will provide the audits for users configured for query logging. For the item transfer portion of the interface, the Evidence Continuity records themselves provide the audits on the item transfers to and from the Lab.

BUSINESS CONTINUITY / INTERFACE AVAILABILITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the LIMS files accordingly.

INTERFACE TESTING

These tests are intended to ensure the interface is complete. The following are descriptions of the tests to be performed for the specified interface functionality during the Functional Unit Test period.

FUNCTIONAL/OPERATIONAL TESTING

- The customer will verify that the PDF upload is functioning correctly;
- By verifying that the final analysis report(s) related to property and/or DRE were successfully uploaded to RMS and associated to the appropriate Case/Item/Entity and the pdf file is able to be successfully viewed in the system

EXCEPTION TESTING

These tests consist of making the Versadex RMS and/or JusticeTrax LIMS-plus server temporarily unavailable, to ensure the PDF is generated and transferred to the RMS servers once both components become available.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Ensure network access required to the JusticeTrax LIMS-plus server.
- Ensure the necessary program logic (supplied by JusticeTrax) to process the result files and return the PDF.
- Coordinate resource availability with JusticeTrax or other 3rd parties as required.
- Obtain the necessary authorization from JusticeTrax to develop this interface.
- Test the LIMS Interface for functionality and completeness.

VERSATERM RESPONSIBILITIES

- Versaterm will develop and test the generation and transfer of notifications for both processed and failed attachments for this interface.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

3 OUT OF SCOPE INTERFACES

The following Interfaces were determined to be out of scope for the project.

3.1 BRAZOS TICKETING INTERFACE

The Brazos ticket interface is no longer required due to the Mesa PD decision to move to Versaterm Ticketing for this implementation.

3.2 QUETEL PROPERTY AND EVIDENCE

The QueTel Interface is no longer required due to the Mesa PD decision to move to Versaterm Property and Evidence for this implementation.

3.3 INTERFACE DEVELOPERS TOOLKIT/OPEN DATA

Versaterm is proposing internals/database training for this project that will enable Mesa PD to access the Versaterm RMS data for use in other programs and initiatives.

3.4 REPORTING

Versaterm is proposing internals/database training for this project that will enable Mesa PD to access the Versaterm RMS data for use in creating their own reports.

3.5 MARICOPA COUNTY ORDER OF PROTECTION, MENTAL HEALTH ORDERS AND RESTRAINTS

This query interface was determined to no longer be required for the initial RMS project. It may be determined at a later date to be an add on interface.

3.6 DOCUMENT MANAGEMENT

The FileNet Document Management interface is no longer required due to the Mesa PD decision to utilize Versaterm RMS as the system of Record for police data.

EXHIBIT A.4

DATA CONVERSION PLAN

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OVERVIEW

The City intends to convert data from the following legacy data sources into the Versadex RMS:

Phase 1 (pre Go-Live)

- Criminal Description/Master Name Index from iLeads RMS with Mugshots (All that have a Bureau #, FBI #, or SID #)
- All people with a Flag or Caution record (defined below)
- Current Active Cases and 24 months closed from iLeads RMS including Crash reports and case management information
- All Arrests from iLeads RMS
- All Property/Evidence from the Que Tel System and iLeads (exception: no digital evidence from QueTel)
- Field Contacts/Interviews from iLeads RMS with GMIC cards and 6 months of other Field Interviews

Phase 2 (post Go-Live within 6 months)

- The rest of the Cases, Crashes and Field Interviews from iLeads
- Civil Papers from iLeads RMS
- Bike Registration from iLeads RMS
- Gang and Gang Members from iLeads RMS
- Citations

The overall data conversion process involves an iterative testing process (to validate data integrity), prior to performing the final data conversion run.

In summary, the City will convert data from its legacy databases into files (conforming to Versaterm's conversion file layout specifications) to be loaded into the Versadex RMS conversion database (for data validation purposes). Versaterm will perform the initial conversion runs, after which the City will review the warning/error reports, verify the quality and field mapping of the converted data and make any required corrections to the legacy data sources. Versaterm will train the City on how to run the Versadex RMS conversion load programs and how to reset the Versadex RMS conversion database, for the purpose of performing multiple data conversion iterations, which the City will perform. Just prior to the cutover to live operations, Versaterm will execute the final data conversion run.

Refer to the Statement of Work for specific Versaterm and City responsibilities.

1 DATA CONVERSION STEPS

This section presents details for the specific tasks associated with converting the City's legacy data into the Versadex RMS.

1.1 DATA SOURCE REVIEW

The City will provide Versaterm with the list of data tables used in each of its legacy databases, including a description of the data elements in each table, and an approximation of the number of records it intends to convert.

In addition, the City will provide Versaterm with sample extracts from each of the legacy databases, allowing Versaterm to review the data elements and contents with the City. This activity may also require the review of the legacy systems and their data entry forms.

The purpose of this exercise is to review and confirm the Data Conversion Plan for all of the legacy data sources.

1.2 FIELD MAPPING SESSIONS

Versaterm will facilitate field mapping sessions for each data type (Incident, MNI, etc.), at least one on-site, with the City's Data Conversion Team (designated members of the City that will handle the technical activities associated to the data conversion). The field mapping session will involve a detailed review of how the legacy data records and fields map to the Versaterm data structures.

During the field mapping sessions, Versaterm and the City's Data Conversion Team will identify and compare the legacy fields to their equivalent fields in the Versadex RMS, including the need to map coded field values from the legacy systems to its equivalent code values in the Versadex RMS (which the City's Project Team will be configuring during the Configuration Phase.)

Versaterm will provide the City with Versaterm's data conversion file layout specifications along with the Versadex RMS conversion load and reset programs. Versaterm will also describe the data integrity rules built into the Versadex RMS application (i.e. name matching algorithm, etc.). As part of the field mapping sessions, Versaterm will also review with the City's Data Conversion Team on how the legacy data will be validated during the data conversion load process and how the data will be stored within the Versadex RMS conversion database (generating the necessary linkages).

After the mapping sessions, Versaterm will provide guidance and assistance to the City as it transforms the Legacy Databases into Versaterm XML file formats and ensures that legacy field values map to a Versadex-supported code. As part of the transformation, the City will perform any necessary re-mapping of field values (e.g., changing a legacy system code for hair color to a System-supported code – W may become WHI, for white, for example).

1.3 INITIAL DATA EXTRACTION AND LOADING

For the initial data conversion test runs, the City will provide Versaterm with extract files containing sample data sets of the legacy data to test that the files conform to each conversion load program's specifications.

Once the City's Data Conversion Team is ready to test their sample extract files, the City will place the files in the designated directory on the Versadex RMS server (in the Test/Development Environment), where the files are expected by Versaterm's data conversion load programs.

Versaterm will perform the initial data conversion test runs using the Versadex RMS conversion load and reset programs, and will provide the City with feedback if the initial test runs fail the basic technical validation checks (for example, the programs will fail if the XML structure is invalid).

Assuming the files pass the technical validation checks, Versaterm will provide the City with the warning/error reports produced by the conversion load programs. The City will also be able to verify the integrity of the legacy fields converted in the Versadex RMS fields. The City's Data Conversion Team will then make the required corrections to their extract programs, based on the warning/errors reports and/or the validation of converted information in the Versadex RMS.

1.4 DATA EXTRACTION AND LOADING ITERATIONS

In order for the City's Data Conversion Team to repeatedly test and correct their legacy data extracts, Versaterm will train the City's Data Conversion Team on how to run the Versadex RMS conversion load programs and how to reset the Versadex RMS conversion database.

The City's Data Conversion Team will perform subsequent conversion test runs using the Versadex RMS conversion load and reset programs. The City's Data Conversion Team will then make the required corrections to their extract programs, based on the warning/errors reports and/or the validation of converted information in the Versadex RMS, until the converted data achieves an acceptable level of warnings/errors as determined by the City and Versaterm. In addition, the City's Project team is expected to be part of the data integrity verification of converted data, providing feedback to the City's Data Conversion Team.

To assist the City's Data Conversion Team with this iterative process, if needed, Versaterm will provide snapshot and reset programs that can be used to reset the entire Versadex RMS conversion database to a preconfigured state (snapshot) between data conversion runs.

1.5 FINAL DATA CONVERSION LOAD

Once the City's Project Team is satisfied with the completeness of the data conversion test runs by the City's Data Conversion Team, Versaterm will schedule and perform the final data conversion load into the Production RMS database. The final data conversion load will occur and MPD Data Conversion team will review accuracy of the data prior to the cutover to Production Use.

2 RMS DATA CONVERSION LOAD PROGRAMS

This section outlines each of the Versadex RMS data conversion load programs that are required for this Project, and the order in which they must be run.

2.1 PHASE I

2.1.1 MASTER NAME/CRIMINAL DESCRIPTION CONVERSION

The goal of this data conversion is to convert names from the legacy system into the Versadex RMS Master Name Index (MNI) and Criminal Description (CD) (i.e. Rap Sheet) records (where each person will have one CD record).

This data conversion program requires that a unique person identifier be provided for each person. The rules for building the MNI and merging names will be discussed and determined as part of the data source review process.

The following name records are planned to be included in the conversion:

- All that have a Bureau #, FBI #, or SID #
 - All name records that have an alert of: (Mesa to determine Flag vs. Caution)
 - Assault Officer
 - Suicidal (combine Suicidal and Attempted Suicide)
 - Buccal Swab
 - Sex Offender (combine Sexual Offender, Child Sexual Abuser, Molester, and Pornographer)
 - Contagious Disease
 - Escape Risk
 - Military Experience (combine Veteran and Former Military Police)
 - Law Enforcement Experience
 - GMIC
 - Gun(s) On Person
 - Gun(s) in Residence
 - Gun(s) in Vehicle
 - Heart Condition
 - Mental Condition
 - Pacemaker
 - Wanderer
 - Diabetic
 - Epilepsy
 - Knife on Person
 - Knife in Vehicle
 - Martial Arts Expert
 - Prohibited Possessor
 - Threaten Officer

- Violent Tendencies
- Armed and Dangerous
- All Alias records associated with the above Name Records

These records for may have associated mugshots and/or electronic attachments included in the conversion.

2.1.2 GENERAL OFFENSE CONVERSION

The goal of this data conversion is to convert incident/case data into the system as general offense reports along with related text, detail pages, associated persons, businesses, vehicles and unidentified persons. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

A follow up conversion will be run to create follow up assignments and associated case management entries for currently assigned cases.

All I/Leads incidents that are active or within the previous 24 months are planned to be included in the conversion. The remaining incidents are planned for Phase 2 of data conversion. These records for may have electronic attachments included in the conversion.

2.1.3 ARREST CONVERSION

The goal of this data conversion is to convert arrest data into the system as arrest reports along with related text, detail pages, associated persons, and vehicles. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

All I/Leads Arrests are planned to be converted. These records for may have electronic attachments included in the conversion.

2.1.4 PROPERTY DATA CONVERSION

The goal of this data conversion is to convert in-custody property items currently managed by the Property room personnel into the Versadex RMS Property subsystem.

Property reports (and its related items) will be converted and linked to General Offense report, if a case number is provided. The link to the General Offense report is a "soft-link", meaning that the report does not necessarily have to exist in the Versadex RMS. Property owner is also converted.

For each property report and each item, a status is converted (recovered, found, seized, etc.). Property items are categorized into the eleven (11) supported system property categories (articles, firearms, securities, alcohol, bicycles, boats, motors, drugs, jewelry, miscellaneous and vehicles) and NCIC-coded within each category.

For each property item, a storage control record will be created to record the item's current location (or disposition details), assuming this information is provided from the legacy system(s). If the item is in-custody, the item's

current location will be saved, and if the item was previously disposed, the item's disposal information will be saved.

All active QueTel and iLeads Property and Evidence records are planned to be included in this conversion as well as all Sex Kits regardless of status. These records for may have electronic attachments included in the conversion.

2.1.5 FIELD INTERVIEW CONVERSION

The goal of this data conversion is to convert field interview data into the system as field interviews along with related text, detail pages, associated persons, businesses and vehicles. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

All I/Leads field Interviews including all Gang Member Information Cards (GMIC) are planned to be converted. These records for may have electronic attachments included in the conversion.

2.1.6 CRASH/ACCIDENT CONVERSION

The goal of this data conversion is to convert crash/accident data into the system as general offense reports along with related text, detail pages, associated persons, businesses, vehicles and unidentified persons. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

Optionally, the follow up conversion may be run to create follow up assignments and associated case management entries for currently assigned cases.

All I/Leads crash data within the previous 24 months are planned to be included in the conversion. The remaining crash related incidents are planned for Phase 2 of data conversion. These records for may have electronic attachments included in the conversion.

2.2 PHASE II

2.2.1 ADDITIONAL CASES

Additional Cases (General Offenses), Crashes and Field Interviews as defined above.

2.2.2 CIVIL PAPER CONVERSION

The goal of this data conversion is to convert civil paper data into the system as civil papers along with related text, detail pages, associated persons and businesses. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

All civil papers in iLeads RMS are planned to be converted. These records for may have electronic attachments included in the conversion.

2.2.3 BIKE REGISTRATION CONVERSION

The goal of this data conversion is to convert bike registration data into the system as bike registrations along with related text, detail pages, and associated persons. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

All bike registrations in iLeads RMS are planned to be converted. These records for may have electronic attachments included in the conversion.

2.2.4 GANGS AND GANG MEMBER CONVERSION

The goal of this data conversion is to convert gang and gang member data into the system as gangs and gang members along with related text and detail pages. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

All gangs and gang members in iLeads RMS are planned to be converted. These records for may have electronic attachments included in the conversion.

2.2.5 CITATIONS

The goal of this data conversion is to convert citations data into the system as citations along with related data, associated persons, and vehicles. As associated names are converted, the process will attempt to match with any existing names in the MNI. The matching algorithm is adjusted during the data conversion testing to provide the most accurate MNI possible.

All Citations in iLeads RMS are planned to be converted. These records for may have electronic attachments included in the conversion.

EXHIBIT A.5

ACCEPTANCE TEST PLAN

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OVERVIEW

This Schedule describes the parameters involved in the Acceptance Test Plan which will be used per the Agreement and Statement of Work. The Acceptance Test Plan involves five (5) types of acceptance tests:

- Interface Integration Testing
- Data Conversion Testing
- Functional Unit Testing
- System Performance Testing
- Reliability Acceptance Testing

The procedures to conduct each type of acceptance test are documented within each test plan (below). The City has the primary responsibility of conducting the Acceptance Tests, where Versaterm will support and assist the City as required.

1 INTERFACE INTEGRATION TESTING

1.1 OBJECTIVES

The purpose of Interface Integration Testing is to demonstrate and verify that all interfaces specified in the Interface Control Document meet or exceed the functionality and performance expectations, and that each interface is operational and ready for Functional Unit Testing.

The process of testing the interfaces also provides the City with the knowledge necessary to complete the Functional Unit Testing for each interface.

1.2 STRATEGY

As each interface is developed and installed, Versaterm will remotely assist the City's Project Team with performing testing.

Versaterm will demonstrate each interface to City personnel to confirm that it adheres to the specifications documented in the Interface Control Document. The City personnel will test and verify the results.

Errors will be tracked and remedied.

1.3 SCHEDULE

The Interface Integration Test is formally scheduled for five (5) Business Days and will be conducted in accordance with the Project Schedule. However, individual interfaces are expected to be tested as they are ready during the Interface Development and Testing task. The Interface Integration Test period may be extended beyond the initial five (5) Business Days if there are confirmed discrepancies that prevent the Interface Integration Test from being completed successfully within the initial five (5) Business Days.

1.4 DEPENDENCIES

Integration Testing has the following dependencies:

- Install the Production Environment in the Cloud
- Develop and install interfaces.
- Configure the Application Software.
- For each interface that involves another application/system, a test/development system to which the Versadex system can connect must be available, or a plan must be in place to enable the required testing.

1.5 SERVER ENVIRONMENT

Interfaces will be tested in the Cloud Production Environment prior to the System being used for Production Use. After cutover to Production Use, any interface not previously tested will be tested in the Development/Test Environment prior to being installed in the Production Environment for final testing.

1.6 PROBLEM TRACKING AND REMEDIES

Each discrepancy/issue will be documented in City's SharePoint Issues List.

Within ten (10) Business Days of finding and documenting a discrepancy that can be classified as Level 1, 2, or 3 per the definitions in Exhibit C – Annual Subscription Support Terms, Versaterm will correct the issue and then request, in writing, that the City retest the interface.

The City shall repeat the failed Interface Test within ten (10) Business Days of receipt of Versaterm's written request and shall advise Versaterm, in writing, of the results within five (5) Business Days of the test's completion.

Discrepancies that are classified as a Level 4 Error will not prevent the Integration Test from being successfully completed.

1.7 COMPLETION CRITERIA

Integration Testing will be considered successfully completed when all of the following criteria are met:

- The City has verified that all interfaces operate as specified in the Interface Control Document
- The City's Project Team and other select City staff are sufficiently trained to be able to administer, manage, and fully use each Interface.

1 DATA CONVERSION TESTING

1.1 OBJECTIVES

The purpose of Data Conversion Testing is to demonstrate and verify that the data conversion trial runs were successful, and therefore provide confidence that the final data conversion will also be successful.

1.2 STRATEGY

The Data Conversion Testing occurs during the Configuration Phase of the implementation as conversion portions (MNI, Incidents, etc.) are completed. Tests will include the comparison of legacy data to converted data.

The Acceptance Test Plan (Exhibit A.5) provides details regarding the strategy, schedule, dependencies, environment, problem tracking and remedies, and completion criteria.

1.3 SCHEDULE

The Data Configuration Test is formally scheduled for eighteen (18) Business Days and will be conducted in accordance with the Project Schedule. However, individual conversions are expected to be tested as they are ready during the Data Conversion task. The Data Conversion Test period may be extended beyond the initial timeframe if there are confirmed discrepancies that prevent the Data Conversion Test from being completed successfully within the initial timeframe.

1.4 DEPENDENCIES

Data Conversion Testing has the following dependencies:

- Configuration Workshop #1
- Data Conversion development and field mapping sessions

1.5 SERVER ENVIRONMENT

Converted data will be tested in the Cloud Production Environment prior to the System being used for Production Use. After cutover to Production Use, any conversion not previously tested will be tested in the Development/Test Environment prior to being converted into the Production Environment for final testing.

1.6 PROBLEM TRACKING AND REMEDIES

Each discrepancy/issue will be documented in Mesa's SharePoint Issues List.

1.7 COMPLETION CRITERIA

Data Conversion Testing will be considered successfully completed when all of the following criteria are met:

- City Data Conversion Team has completed the iterative process of testing their extract programs and verifying the data in the Versadex RMS.

2 FUNCTIONAL UNIT TESTING

2.1 OBJECTIVES

The purpose of Functional Unit Testing is to verify that the fully configured System, including the interfaces specified in the Interface Control Document, meet the functional requirements described in the Agreement.

2.2 STRATEGY

Functional Unit Testing will involve the testing of end-to-end scenarios and components (prepared by the City and the interfaces documented in Interface Control Document).

The City will determine the level of testing required to verify to its satisfaction that the System meets its functional requirements. The City is responsible for preparing the Functional Unit Testing plan and scripts and providing a copy of its test plan and scripts to Versaterm at least ten (10) Business Days before conducting Functional Acceptance Testing. The City is also responsible for creating any data files required for the testing.

The City will conduct Functional Unit Testing with remote support from Versaterm. During Functional Acceptance Testing, Versaterm will be immediately available to answer questions and address any issues. Errors will be tracked and remedied.

2.3 SCHEDULE

The Functional Unit Testing period should not exceed ten (10) Business Days and will begin according to the mutually agreed upon Project Implementation Schedule and after Versaterm has provided the City with written notice that the System is ready for Functional Acceptance Testing. If the City does not believe the System is ready for the Functional Acceptance Test, it will provide the reasons in writing to Versaterm within ten (10) Business Days of receipt of Versaterm's notification.

The Functional Unit Testing period may be extended if there are confirmed defects that prevent the Functional Acceptance Test from being completed successfully. Functional Unit Testing must be successfully completed before Ready for Use (RFU) can be declared, and before Versaterm-delivered Train-the-Trainer training and End-User training can commence.

2.4 DEPENDENCIES

Functional Unit Testing has the following dependencies:

- Production Environment Infrastructure available in the cloud
- Integration Testing completed
- Geofile loaded
- Validation tables populated
- [Phase 1](#) Data conversion completed (except for Final Data Conversion prior to System Cut-Over)

- Workflows configured
- For each Interface that involves another application/system, a test/development system to which the Versaterm system can connect must be available, or a plan must be in place to enable the required testing

2.5 SERVER ENVIRONMENT

The Functional Acceptance Tests will be conducted in the Production Environment prior to the System being used for Production Use.

2.6 PROBLEM TRACKING AND REMEDIES

The City will document each discrepancy between observed functionality and Agreement Specifications. The City will provide, in writing, a list of the discrepancies and defects to Versaterm. The City and Versaterm Project Managers will mutually agree on the classification of each defect according to the definitions in Exhibit C – Annual Subscription Support Terms.

Each discrepancy/issue will be documented in City's SharePoint Issues List.

Within ten (10) Business Days of receiving written notification of Functional Unit Testing discrepancies, Versaterm will either:

- Correct confirmed defects that prevent Functional Unit Testing from being completed successfully and then request, in writing, that the City repeat the failed Functional Unit Testing component(s) that resulted in the defects; or
- Provide a mutually agreeable solution to confirmed defects consisting of either a future System patch correction that will be installed at a mutually agreeable time period, or a mutually agreeable workaround.

Versaterm must remedy all defects classified as Level 1 or Level 2 Errors before Functional Unit Testing is completed and training begins. The City and Versaterm Project Managers will mutually agree on any Level 3 Errors that must be remedied before training begins, Production Use occurs, or Final System Acceptance, and which can be remedied in a future release. Errors are defined in Exhibit C – Annual Subscription Support Terms.

Defects that are classified as a Level 4 Error will not prevent the Functional Acceptance Test from being successfully completed. However, all defects will be documented and reported to Versaterm, and Versaterm will provide a schedule and/or mitigation procedure for all reported defects.

The City shall repeat the failed Functional Unit Testing within ten (10) Business Days of receipt of Versaterm's remedy for an error, and shall advise Versaterm, in writing, of the results within five (5) Business Days of the test's completion.

2.7 COMPLETION CRITERIA

Functional Unit Testing will be considered successfully completed when all of the following criteria are met:

- The System and Interfaces have been verified by the City to operate as specified in the Agreement.
- Versaterm has remedied all defects classified as Level 1 or Level 2 Errors and Versaterm and the City have mutually agreed upon the remedy for all Level 3 and Level 4 Errors.

3 SYSTEM PERFORMANCE TESTING

3.1 OBJECTIVES

The purpose of the System Performance Test is to demonstrate that the System adheres to the performance standards defined in Exhibit A.8 System Performance and Availability Standards.

If the City chooses to conduct the System Performance Test, the City will conduct it prior to Train-the-Trainer training and again during the Reliability Acceptance Test Period, where the City will determine the level of testing required to verify to its satisfaction.

3.2 STRATEGY

The System Performance Test will include testing individual functions as well as workflows. Versaterm will support the City's System Performance Test as required. The City will designate the workstations from which performance will be measured.

Measurement of response times will be based on the transaction response times defined in Exhibit A.8 System Performance and Availability Standards Exhibit. When measuring system performance thresholds for Application Software conformance, no system or database backups will be processed. Noted deviations from the performance standards will be tracked and remedied.

The following sections describe specific details for the System Performance Test.

3.3 PRE-TRAINING PERFORMANCE TESTING

The City can employ Third Party performance testing tools of its choice to generate a series of automated transactions representing the maximum workload anticipated for the System, or the City can use manual methods to enter transactions and time system response. The City will be responsible for the provision and configuration of any Third-Party testing tools that will be used during the System Performance Test.

At least thirty (30) calendar days prior to the start of the System Performance Test, the City will provide Versaterm with a plan for how it will conduct the tests. The City's plan, which Versaterm will review and approve, will list the commonly-used System transactions and programs that will operate in the background during the System Performance Test, as well as the method that will be used to test the various types of transactions. The plan will also include any scripts and/or a description of any Third-Party testing tools that will be used.

3.4 POST-CUTOVER PERFORMANCE TESTING

During the Reliability Acceptance Test, the City can employ Third Party tools or manual methods to time system response to transactions and workflows. Because the system will be live, Third Party performance testing tools to generate automated transactions are not appropriate.

If the System's performance standards contained within Exhibit A.8 System Performance and Availability Standards Exhibit are not achieved during the System Performance Test, the City and Versaterm will work together to determine whether the cause is the System infrastructure, network, or Application Software. If the Parties agree that the cause is the Application Software, Versaterm will affect the changes needed to meet the response times contained within the Agreement and the System Performance Test will be repeated.

Additionally, Versaterm will participate in collaborative discussions on how to reach the desired performance metrics even if the agreed upon cause(s) exclude the Application Software, however; the successful completion of the System Performance Test will not be affected by non-Application Software-related issues.

3.5 SCHEDULE

The System Performance Testing is expected to last up to five (5) Business Days and will be conducted in accordance with the Project Schedule. The City will conduct System Performance Testing prior to Train-the-Trainer training and again during the Reliability Acceptance Test Period.

3.6 DEPENDENCIES

The System Performance Test has the following dependencies:

- Successful completion of the Functional Acceptance Test.
- The specific details and testing methods have been mutually agreed upon by the Parties.

3.7 SERVER ENVIRONMENT

The System Performance Test will be conducted on the Production Environment.

3.8 PROBLEM TRACKING AND REPORTING

The City will document in writing and immediately notify Versaterm of any observed deviations from the performance standards. The City and Versaterm will work together to determine whether the cause is the Cloud System infrastructure, network, or Application Software. If the Parties agree that the cause is the Application Software, Versaterm will affect the changes needed to meet the response times contained within the Agreement and the System Performance Test will be repeated. During the Reliability Acceptance Period, deviations from the performance standards will be classified as either Level 1 or Level 2 Errors, and the Reliability Acceptance Test will stop per the remedies outlined.

Although the successful completion of the System Performance Test will not be affected by non-Application Software-related issues, Versaterm will participate in collaborative discussions on how to reach the desired performance metrics even if the agreed upon cause(s) exclude the Application Software.

3.9 SYSTEM PERFORMANCE TEST COMPLETION CRITERIA

The System Performance Testing is considered complete when Versaterm has remedied all deviations from Performance Standards attributed to Application Software, and the City has notified Versaterm that it has completed the System Performance Test.

4 RELIABILITY ACCEPTANCE TESTING

4.1 OBJECTIVES

Reliability Acceptance Testing ensures that the System continues to operate according to the specifications contained within the Agreement for thirty (30) consecutive calendar days after the System cutover to Production Use.

4.2 STRATEGY

After cutover to Production Use, the System will undergo a thirty (30)-day test period. The City will use the System for its intended purposes and monitor system reliability, functionality, and performance. Errors will be tracked and remedied.

4.3 SCHEDULE

Reliability Acceptance Testing begins immediately following System cutover to Production Use. It ends when the System operates at an availability level of 99.99% for thirty (30) consecutive days without a Level 1 or Level 2 Error, and the City and Versaterm have mutually agreed upon a plan to remedy Level 3 and Level 4 Errors.

4.4 DEPENDENCIES

Reliability Acceptance Testing is dependent on the System being enabled for Production Use.

4.5 SERVER ENVIRONMENT

Reliability Acceptance Testing will be conducted in the Production Environment in the Cloud.

4.6 PROBLEM TRACKING AND REMEDIES

The City will use the System for its intended purpose and monitor the System for defects, as defined in Exhibit C – Annual Subscription Support Terms. The City will document in writing and report to Versaterm any encountered System defects. The City and Versaterm Project Managers will mutually classify each defect according to the definitions in Exhibit C – Annual Subscription Support Terms.

The City will immediately inform Versaterm by telephone upon discovery of a Level 1 or Level 2 Error, and Reliability Acceptance Testing will immediately stop. The City will follow-up with a written notification of the defect to Versaterm. Once the problem is resolved, Reliability Acceptance Testing will start over from day one (1) and a new thirty (30)-Day Reliability Acceptance Test period will begin.

Discovery of a Level 3 or 4 Error will not stop the Reliability Acceptance Testing. Versaterm will attempt to remedy Level 3 Errors during the Reliability Acceptance Testing period. If Versaterm is not able to fix a Level 3 Error during

the Reliability Acceptance Testing period, Versaterm and the City will develop a mutually acceptable plan to remedy the defect in a future fix release.

4.7 RELIABILITY / DOWNTIME DEFINITION

The System will be considered “down” (i.e. not available to end-users) if a Level 1 or Level 2 Error is encountered during the Reliability Acceptance Testing period. The System will be considered available again after the defect is corrected.

Failures outside of Versaterm’s control, such as individual workstation failures (e.g., a Windows operating system failure, insufficient memory, etc.), will not be considered System defects and will not affect the outcome of the Reliability Acceptance Testing as long as there is productive use of the System on other workstations.

If System unavailability is mutually agreed upon and scheduled for the purpose of Application Software updates, performance tuning, file backups, or other processes typical in an operational environment, the System will not be considered unavailable and will not impact the successful completion of Reliability Acceptance Testing.

The System will also not be considered unavailable if other factors such as the network, external agency, operator or Cloud environment are mutually determined by the City and Versaterm to be the cause of encountered defects.

If the System’s unavailability is attributed to any integrated Third-Party product, both Parties will first assist each other in identifying the root cause. Once the defect has been corrected or a mutually agreeable workaround has been implemented, the System will be considered available again.

If the System’s unavailability is attributable directly to a Third-Party product interfaced or integrated with the System that is beyond Versaterm’s control, then the System shall be considered available from the point at which the defect was originally reported to Versaterm.

If the System is unavailable because of other factors that are beyond Versaterm’s control (e.g., Force Majeure, catastrophic network failures, Third-Party product Interfaces not provided by Versaterm, etc.) and these factors result in users not being able to make production use of the System, at the sole discretion of the City, Reliability Acceptance Testing will be suspended until the System can be placed in Production Use again. When the System is placed into Production Use again, the Reliability Acceptance Test will be resumed from the point at which it was suspended.

If Reliability Acceptance Testing is suspended due to factors beyond Versaterm’s control, the total number of hours, rounded to the nearest hour, during which the test was suspended for this reason will be tracked and documented by the City. The City will inform Versaterm within one (1) Business Day of the test being suspended along with documentation as to why the test was suspended. Multiple Reliability Acceptance Testing suspensions for factors beyond Versaterm’s control will cause the number of hours suspended to be tracked and documented in a cumulative manner.

During the Reliability Acceptance Testing period, Versaterm will not stop the System (force it to be unavailable for Production Use), upgrade the Application Software, or otherwise negatively impact the operational status of the

System without the written permission of the City. The System will continue to operate to the best of its abilities even while/if the Reliability Acceptance Testing has been suspended due to encountered defects.

4.8 COMPLETION CRITERIA

Reliability Acceptance Testing is considered complete when the System has operated for thirty (30) consecutive Days without a Level 1 or Level 2 Error and a mutually agreeable plan to remedy all Level 3 and Level 4 Errors has been developed.

5 FINAL SYSTEM ACCEPTANCE

Final System Acceptance will occur after the completion of the 30-day Reliability Acceptance Testing and when a mutually agreeable plan to remedy all Level 3 and 4 Errors has been developed.

6 DEFECT CLASSIFICATIONS

The City and Versaterm will classify all found defects according to the definitions for error levels contained within Exhibit C – Annual Subscription Support Terms.

EXHIBIT A.6

TRAINING PLAN

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1 TRAINING PLAN OVERVIEW

This document describes Versaterm's recommended training approach for the implementation of the Versadex RMS and Versadex Mobile Workstation (MDT/MRE) software applications and is intended to be used as a guide to planning and delivering training to all users.

The Training Plan and approaches may be refined and further elaborated as required during the Project, where the City and Versaterm will collaborate and mutually agree on any refinements.

This document also describes the course outlines that Versaterm will deliver to the City trainers and a sample of the courses the City may replicate to all users.

1.1 TRAINING FACILITIES

Amongst other requirements, the training facilities are required to meet CJIS security, support network encryption, and support physical access requirements.

The facilities are also expected to be dedicated solely to Versadex training during the end-user training periods, without requiring daily software re-installation and infrastructure re-configuration.

The following is a list of requirements/recommendations for the training facilities:

- At least twenty (20) dedicated workstations that meet the minimum Versadex RMS and Mobile Workstation requirements.
- At least one additional workstation for the training instructor.
- Dedicated network access provided between each workstation and the Versadex servers in the Cloud.
- At least one overhead projector and screen that is viewable by all trainees (i.e., from each training workstation) and that is able to display the contents of the training instructor's workstation monitor(s).
- One whiteboard with Dry-Erase markers.
- A network printer which is configured to be the default printer for each workstation.

1.2 INITIAL TRAINING APPROACH

Following the completion of the Configuration and Testing phases of the Project Implementation Schedule, the Training phase will take place shortly after. The proposed training approach first starts with Versaterm Train-the-Trainer Training followed by End-User Training.

1.2.1 VERSATERM RMS AND MRE SYSTEM ADMINISTRATOR TRAINING

This training is where Versaterm will provide hands-on training to the City's System Administrators. This will be 1-day in duration. At the conclusion of this training, the Administrators will know how to add users to the System and create/maintain their security profiles, understand the system directory structure, know how to add configure printers for the system, know how to maintain the online help facility, and be familiar with Versaterm's problem reporting procedures and be equipped to perform first-level System problem analysis.

1.2.2 VERSATERM TRAIN-THE-TRAINER TRAINING

This first level of training is where Versaterm will provide hands-on training to the City's Project Team members. This will take place over a three-week period (made up of one week of training, followed by a week break, and then another week of training). The two weeks of training will be composed of the training courses documented in Section 2, except for the RMS System Administrators and Internals Training courses. At the conclusion of Versaterm's Train-the-Trainer training, the attendees will be prepared to conduct end user training.

1.2.3 VERSATERM INTERNALS TRAINING

This training is where Versaterm will provide hands-on training to the City's System Administrators. This will be 2-days in duration. At the conclusion of this training, the Administrators will understand the Versadex RMS' database structure so that they can develop ad-hoc and custom reports; the System structure; conventions used by Versaterm within the database; the Datamart, and release upgrade procedures, specifically changes to the database schema.

1.2.4 END-USER TRAINING

Following the completion of the Versaterm Train-the-Trainer training, Versaterm will assist the City with strategizing their End-User Training plans.

Versaterm's recommended End-User training strategy starts with identifying the affected user groups, the courses to be taught and the duration of each course (who, what, and how long). Once these key factors are identified, the training strategy involves planning the logistics and training schedules (who, when and where).

1.2.4.1 STEP 1: IDENTIFY USER GROUPS

The first step involves identifying all of the affected user groups across the Police Department that will require Versadex training. For example: Patrol Officers, Patrol Sergeants, Detectives, Detective Sergeants, Records Supervisors, Records Staff, Crime Analysts, System Administrators, Property Staff, Call Takers, Dispatchers, etc.

1.2.4.2 STEP 2: IDENTIFY VERSADEX COURSES (AND ESTIMATED DURATION)

Following the identification of the affected user groups, the second step involves identifying the Versadex courses that will be taught. While identifying the Versadex courses, the course objectives, the course outline, the course content, and the targeted audience will be determined at a high-level, along with the estimated duration of each course (in hours). For example: A course on the Mobile Report Entry software, designed to teach officers how to create and submit police reports will take approximately 8 hours to deliver.

1.2.4.3 STEP 3: ASSIGN COURSES TO EACH USER GROUP

Following the identification of user groups and Versadex courses, the next step involves matching up the Versadex courses to each user group based on what they will need to be trained on to perform their everyday jobs. Once the training needs of each user group are identified, the estimated total amount of training time (per user group) can be determined. For example: Patrol Officers will require Versadex courses X, Y and Z which amount to a grand total of 32 hours of training.

Once all of the above is determined, the next step in planning the End-User Training involves figuring out the logistics and the schedules. This specifically focuses on the coordination of trainers, trainees, training facilities (and setup), and scheduling logistics (i.e. will training be required 7 days a week, and in the evenings, and can multiple training classes be conducted simultaneously, etc.).

1.2.4.4 TARGET AND TIMING RECOMMENDATIONS FOR INITIAL END-USER TRAINING

Ideally, all end-users would be trained prior to the production cutover date, however, as end-users may be on vacation, sick, between promotions, or otherwise unavailable to attend the training, Versaterm recommends that End-User Training be targeted for approximately 85% of affected end-users.

In addition, Versaterm recommends that End-User training be delivered within a maximum of five (5) weeks, prior to the production cutover date. This approach is referred to as “Just in Time” training, a timely strategy that eliminates the need for refresher training. This approach reduces potential knowledge loss if training were delivered over an extended period of time, too far from the production cutover date.

With the “Just in Time” approach, trained end-users will be able to immediately use the production Versadex systems as of the production cutover date.

1.2.5 POST-IMPLEMENTATION TRAINING

For the minority percentage of end-users who will not receive training prior to the production cutover date, Versaterm recommends post-implementation training for these end-users. The City may invoke an option for Versaterm’s assistance with this training (See Exhibit A.9 Options).

Likewise, for the end-users who require refresher training after the production cutover date, Versaterm recommends that the City develops an on-going training plan to accommodate post-implementation training needs.

1.3 FINAL TRAINING APPROACH

As the Project Implementation Schedule may be impacted by the type of functionality that will be implemented at go-live, the final training approach will be refined during the Project.

2 COURSE OUTLINES

This section describes the course outlines that Versaterm will deliver to the City trainers.

The definition of a “course” (as used in this document) refers to the in-depth training of either a functional area or set of areas within the Versadex application. For each course listed below, a course code is identified in parentheses. The course code may be used when identifying the makeup of a course.

Notes:

- Each course may be modified or tailored as necessary and each user group may receive multiple courses.
- The time allotted and number of trainees for each course are provided as a guideline.
- Versaterm does not provide any training for Microsoft Windows. If the City requires such training, it is expected that this level of training will be acquired by the City from a Third Party.

2.1 MOBILE WORKSTATION INSTRUCTOR TRAINING (MWS)

Course Duration	3 days
Prerequisite	General knowledge of the System and report entry.
Intended Audience	General audience is users who will use the Mobile Data Terminal module (MDT) and the Mobile Report Entry module (MRE) on a Mobile Data Computer (MDC) on a day-to-day basis. Supervisors and/or System administrators are expected to be in this course. This course will not train on data entry but will illustrate entering reports on MDCs versus desktop workstations.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective, because familiar and realistic situations are used. This course will permit hands-on and “refreshers” as necessary (i.e., much of it is iterative and includes practice sessions). Maximum of 2 trainees per Mobile Data Computer (MDC) or desktop workstations.
Course Objectives	The trainee will: A. Know how to sign on and sign off MDT (Mobile Data Terminal) B. Know how to perform NCIC and System Queries for persons, vehicles and property C. Know how to query addresses D. Know how to lock/unlock the MDT E. Know how to send messages to other MDTs F. Know how to review logs G. Know how to enter a general offense (GO) reports and GO Crash reports in Mobile Report Entry (MRE) H. Know how to query a name from the System and pre-fill into a report I. Know how to enter street checks (field contact reports/interviews) J. Know how to enter property K. Know how to add supplemental or Follow-Up reports

	L. Know how to send the report to the System's Report Approval queue for review and approval M. Know how to manage the System's Report Approval queue from the MRE N. Know how to use the smartphone scanning app and use the resulting data O. Know how to print eCitations and other forms in the vehicle
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2.2 MOBILE WORKSTATION ADMINISTRATOR TRAINING (MWS_ADMIN)

Course Duration	1 day
Prerequisite	None
Intended Audience	Administrators responsible for setting up and maintaining the Mobile Data Terminal (MDT) and Mobile Report Entry (MRE) System modules on the mobiles as well as troubleshooting MDT traffic.
Course Approach	The trainer will "walk through" the various System and programming components of the MDT. Emphasis will be placed on the Equipment and Software Configuration as well as the various components (message controller, etc.) which comprise the Mobile Data Computer (MDC). One installed MDT is required.
Course Objectives	The trainees will: A. Know how to Configure and customize the MRE using the Mobile Configuration Application (MCA) B. Know how to generate the MWS installation setup files using the MCA C. Know how to install the MWS installation on MDCs D. Know how to Configure/update MDT maps E. Know how to monitor MDT traffic, review logs, etc. F. Understand components in the MDT architecture G. Know how to Failover the MDT gateway

2.3 RMS INTRODUCTION (RMS_INTRO)

Course Duration	½ day
Prerequisite	None
Intended Audience	General audience is users who will retrieve information from the System, use the built-in System mail facility and other tools such as notepad and officer scheduling.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Understand the organization (menu layout) of the System B. Know how to use the query functionality within the System including property C. Understand how information is related and how to print a hardcopy D. Know how to use the browse (ad-hoc query) facility E. Know how to use System Mail (attach Mail, etc.)

	F. Know how to use the NCIC interface G. Know how to use the notepad facility H. Know how to use the online help facility
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2.4 RECORDS DATA-ENTRY (RMS_DATAENTRY)

Course Duration	Up to 2 days
Prerequisite	None
Intended Audience	General audience is users who will be responsible for entering a case and subsequent maintenance of case(s). Typically, this course is designed for the records section/division personnel.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to enter and maintain events (general offense reports, accidents, tickets, street checks, flag records) B. Know how to retrieve a cleared complaint to start a report C. Know how to access NCIC for query and maintenance D. Know how to index entities (persons, vehicles, businesses) to events E. Know how to relate text (including word-processor functions), detail pages, clearance blocks to events F. Know how to maintain summons and charges G. Know how to maintain the criminal description record H. Know how to enter property (stolen, lost, etc.) I. Know how to enter and maintain follow-ups (and related text) J. Know how to maintain master person name information (including particulars, aliases) K. Know how to maintain vehicle information (including particulars) L. Know how to maintain business information (including particulars, aliases) M. Know how to scan documents, attach scanned documents and/or files to a report, and how to retrieve and view scanned images and attachments N. Know how to use the Notepad facility to maintain or view lists O. Know how to run reports P. Understand workflow management concepts through discussion

2.5 DETECTIVE (RMS_DET)

Course Duration	1 day
Prerequisite	None
Intended Audience	General audience is users who will add and update cases, add supplemental reports, clear cases and manage follow up reports.

Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to add, retrieve and update General Offense (GO) reports B. Know how to add a supplemental to the General Offense (GO) report C. Know how to index entities (persons, vehicles, businesses) to events and understand the implications of the master name file including SOUNDEX D. Know how to relate text (including word-processor functions), detail pages, and clearance blocks to events E. Know how to assign cases (index follow-ups and related text) F. Know how to view/read a case online and how to print it G. Know how to manage workflow queues H. Understand workflow management concepts through discussion

2.6 IDENTIFICATION / ARRESTS (RMS_AR)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	General audience is users who will maintain arrest information including criminal description.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to transcribe an arrest via the data transcription queue B. Know how to update an arrest including charges and narratives C. Know how to index a person to the arrest understanding implications of the master name file including SOUNDEX D. Know how to maintain local warrants on the System E. Understand how the information is merged with the General Offense (GO) report F. Understand how charges are maintained

2.7 PROPERTY & EVIDENCE (RMS_PROP)

Course Duration	Up to 2 days
Prerequisite	None
Intended Audience	General audience is users who process evidence and other items stored in property rooms.
Course Approach	Versaterm will prepare scenarios based on sample data provided beforehand by the City. This approach has the advantage of making the training more effective because familiar and realistic situations are used.

	Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to enter property into the System's property module and understand property item categories B. Know how to record location, owner/finder information C. Know how disposal process works D. Know how to record evidence continuity (chain-of-custody) records E. Know how to use bar-coding F. Understand available property reports G. Know how to perform group (batch) transactions

2.8 DATA TRANSCRIPTION QUEUE (RMS_TRANSQ)

Course Duration	Up to ½ day
Prerequisite	None
Intended Audience	General audience is Records supervisors who will then instruct/train other Records personnel on transcribing a report sent from the Mobile Data Computer (MDC)
Course Approach	Reports entered on the mobile report entry (MRE) will be used. Maximum of 2 trainees per workstation.
Course Objectives	The trainee will: A. Know how to select a report from the transcription queue B. Know how to merge a General Offense (GO) report C. Know how to transcribe a report D. Know how to retrieve a backup copy from the MDC

2.9 RECORDS SUPERVISOR TRAINING (RMS_SUP)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	General audience is users who are responsible for maintaining table codes, security, User access, run reports, and other Records functions.
Course Approach	Due to the material to be covered, this course will be topic-based, as opposed to scenario-based. Most records related modules and functions will be demonstrated although trainees may be provided with hands-on activities and functions to complete during the training session. The trainees for this course are expected to be familiar with personal computers and the principles of a Records management system. Maximum of 1 person per workstation.
Course Objectives	The trainees will: A. Know how to maintain the System's Configuration record B. Know how to maintain the System's various translation code tables C. Know how to maintain the System's street files D. Know how to run the various reports E. Know how to run and interpret NIBRS edit reports

	F. Know how to run the NIBRS extract Software module G. Become familiar with Versaterm's problem reporting procedures, and be equipped to perform first-level System problem analysis
--	---

2.10 SYSTEM ADMINISTRATOR TRAINING (RMS_ADMIN)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	General audience is administrators responsible for architecture, system logs, configuration files, VMC.
Course Approach	Due to the material to be covered, this course will be topic-based, as opposed to scenario-based. Most functions will be demonstrated although trainees may be provided with hands-on activities and functions to complete during the training session. The trainees for this course are expected to have proven technical computer aptitudes, including networks, with previous experience with the City's DBMS and computer systems in general.
Course Objectives	The trainees will: A. Know how to add users to the System and create/maintain their security profiles B. Understand the System directory structure C. Know how to add configure printers for the System D. Know how to maintain the online help facility E. Become familiar with Versaterm's problem reporting procedures and be equipped to perform first-level System problem analysis

2.11 MYVERSADEX (MYVVDX)

Course Duration	Up to 1 day
Prerequisite	None
Intended Audience	General audience is management staff such as supervisors, commanders, captains, etc.
Course Approach	Versaterm will prepare sample demonstrations based on how existing Versaterm customers are using myVersadex.
Course Objectives	This course is intended to provide training on myVersadex, a tool that allows users to create a personalized portal into the System, giving quick access to the most commonly used System information. The trainees will: A. Understand how to add, modify, and remove a variety of portlets (small windows that provide access to specific information) to customize a portal to suit their specific and changing needs B. Understand how to add multiple portal pages (a collection of portlets) and organize them by district, zone, org unit, offense, etc. C. Understand the links in the portlets, to quickly access relevant and useful System data

2.12 SYSTEM GIS INTERFACE (VGI)

Course Duration	Up to 1 day
Prerequisite	Technical computer aptitudes, familiarity with Windows, and knowledge of GIS principles.
Intended Audience	General audience is GIS (or non-GIS personnel) who are responsible for providing GIS data for the System. The trainees for this course are expected to have technical computer aptitudes, familiarity with Windows, and knowledge of GIS principles.
Course Approach	Due to the material to be covered, this course will be topic-based, as opposed to scenario-based although trainees may be provided with hands-on activities and functions to complete during the training session.
Course Objectives	This course is intended to provide trainees with an overview of the System's Geographic Information System (GIS) structure and to review the Versaterm GIS Interface (VGI) data file requirements. This training will also provide instruction on how to configure and use the VGI tool to extract geo-related information (street names, ranges, intersections, addresses) from the map-based (ESRI) shape and Landmark/commonplace files for loading into the System's street index. The trainees will: A. Understand the System's GIS structure B. Understand the VGI data file requirements C. Know how to install and configure the VGI tools D. Know how to run the VGI tool to extract GIS data from ESRI shapefiles and how to load the extracted GIS data into the System's geographic files

2.13 INTERNALS TRAINING (IT)

Course Duration	Up to 2 days
Prerequisite	Technical computer aptitudes and familiarity database structure, relational databases, and report writing tools.
Intended Audience	General audience is programmers, developers, and report writers that have technical computer aptitudes and familiarity with database structure, relational databases, and report writing tools.
Course Approach	Due to the material to be covered, this course will be tailored specifically for the City where City-specific reports and queries will be used as samples. The final requirements and course objectives will be discussed and adjusted during the System's implementation. This course is intended to be delivered after the System is in Production Use.
Course Objectives	This course is intended to provide real examples of pulling data out of the System to populate specific Interfaces, to perform crime analysis, and to link and extract data for other reports and analysis. It will focus entirely on the database structure and querying the database. The trainees will:

	A. Understand the Versadex RMS’ database structure so that they can develop ad-hoc and custom reports B. Understand the System structure C. Understand conventions used by Versaterm within the database D. Understand release upgrade procedures, specifically changes to the database schema
--	--

3 SAMPLE TRAINING PACKAGES

As the courses will be primarily determined based on the type of functionality that will be implemented at go-live, this section provides sample training packages for both the City trainers and for the End-User training.

3.1 SAMPLE AGENDA FOR VERSATERM-DELIVERED TRAIN-THE-TRAINER

The following screenshots illustrate a sample Train-the-Trainer agenda delivered by Versaterm. (Note: it is anticipated that training classes for the system administrators, crime analysts, report programmers and GIS specialists will be delivered by Versaterm directly to the users).

Week #1 (March 18 - March 22, 2019)

Monday, March 18, 2019	Tuesday, March 19, 2019	Wednesday, March 20, 2019	Thursday, March 21, 2019	Friday, March 22, 2019
Introduction • Introduction of Instructors • Versaterm Trainer Training Objectives • Project Timeline Update Versadex Overview • Versadex Product Suite Overview • Sub-systems and External Interfaces • Basics: Events, Entities, Details, Text... • Navigation Standards • Transcription Concepts • Typical Workflow • DRE vs MRE Versadex MDT Overview • Purpose / Target End-Users • User Interface Basics Versadex MDT Exercises • Query-Related Functions (RMS, NCIC, LEMS, ISS, DL Swipe, etc) • VMMA • Requesting information Versadex MDT Configuration and Administration • Configuration Options • Generating Build Disks • Versadex Message Controller • Managing Access	Versadex MRE Overview • Purpose / Target End-Users • User Interface Basics Versadex MRE GO Exercises • Scenario-based exercises (compliant with NIBRS requirements) • Report Types • Prefill from MDT • General Offense event • Entities (DL swipe) • Details • Arrests • Narrative Text (and Templates) • Stolen Property • NIBRS Edits • Supplemental Reports	Versadex MRE GO Exercises (Continued) Versadex MRE SC Exercises • Prefill from MDT • Street Check event • Entities (DL swipe) • Details • Narrative Text (and Templates) Report Approval (pre-transcription) • Process Overview • Submission/ Rejection/ Approval	Versadex RMS Overview • Purpose / Target End-Users • User Interface Basics Versadex RMS GO Exercises • Scenario-based exercises (compliant with NIBRS requirements) • Option to Prefill from CAD Call • General Offense event • Entities • Details • Narrative Text (and Templates) • Arrests • Stolen Property • NIBRS Edits • NCIC/LEMS/ISS • Case Notes • Supplemental Reports Photos, Imaging, Attachments • Attach Photos on Persons • Scan and Import Images • Attachment Files of any type • URL Links • View Images Printing + Release Tracking • Standard handcopies • Customized stylesheets • Release tracking + redaction	CAD Call Research • TriTech CAD to RMS Call Transfer Interface • View CAD Calls in RMS • Browse CAD Calls in RMS • Add GO Report using CAD Call Data Transcription • Transcription queue • Overriding approval • Transcription process • CopLogic interface Query and Browse Exercises • Query + Browse Difference • Searching Techniques • Text Search Engine • Browse Unload Features

Week #2 (April 1 - 5, 2019)

Monday, April 1, 2019	Tuesday, April 2, 2019	Wednesday, April 3, 2019	Thursday, April 4, 2019	Friday, April 5, 2019
General Review Review first week of training and answer outstanding questions. Workflow Exercises - Electronic process overview - Handles and Org units - Work-to-do queues - Automatic routing - Follow-up assignments - Case clearances/closures - Reminders Other Records - Street Check Maintenance (SC) - Flag Records (FR) - Project Case (PC) - Ticket Maintenance (TK) - Permits and Licenses (PL) Private/Confidential Reports Privatization features for General Offense reports and Flag records, Gangs, Street Checks, Entries, Text...	Arrest/Booking Exercises - Custodial arrests and charges - Mugshot Interface - Warrants Criminal Description - Automatic creation - Complete person description and fingerprints - Charge History - Mugshot interface - Converted data from STS and Juvenile Database Versadex Mail Overview - Messages between users - NCIC/LEMS/ISS responses - System-generated messages BOLO/FYI - Configuration Options - Photos - MDT Access	Interfaces - Advanced Public Safety (APS) Interface - eCharging DWI Arrest Interface - Metro Transit Police Department - Practice Manager - State Web Accident Reporting - Coplogic Interface - City of Minneapolis GIS Database - Crime Reporting System - eCharging Incident Referral - Legacy RMS CAPRS Query Interface - Minnesota Bureau of Criminal Apprehension Law Enforcement Message Switch (LEMS) - MNCIS Court Notifications - TriTech Computer Aided Dispatch (CAD) Application - Gov-To-Gov Automated Property System - IBM 2-11-0000 - Integrated Search Service (ISS) - STARLIMS Laboratory Information Management System NCIC/LEMS Exercises - Interactive NCIC Access Facility - Supported transactions - Integrated vs. Interactive Mode - NCIC Responses - Configuration Options	Property Subsystem - Property Report Header - Property Statuses - Property Items + Case Notes - Storage Control - Evidence Continuity - NCIC - Query / Browse / Printed Reports - Configuration Options	Master Name Maintenance - MNI soundex concept - Case specific information - MNI best practices (security) - MNI transcription - Person transfers (merges) exercises - Duplicate name notification - Photos and Mugshots - Juvenile Disclosure Reporting Capabilities - System Administration Logs - Canned Reports - NIBRS Edit Report Text Templates - Overview / Usage - Designing and Compiling Customized Text Templates - Browse Capabilities - MRE Impact Supervisor Functions - Configurations - Code tables (offense codes, charges, roles, text types, etc...) - Officers, Org units, Duty table - Users, groups, handles - Security profiles - Notepad - NIBRS Extract

3.2 SAMPLE END-USER TRAINING PACKAGES DELIVERED BY CITY TRAINERS

The following course outlines, provided as a sample only, illustrate training packages that may be delivered to the user groups of the City.

3.2.1 SAMPLE TRAINING FOR FULL RMS PRODUCTION USE

User Group	Course Codes	Duration (days)
Patrol Officers	MWS, RMS_INTRO	2.5
Records Personnel	RMS_INTRO, RMS_DATAENTRY	2.5
Records Personnel responsible for transcribing MRE reports	RMS_TRANSQ	.5
Front Desk Personnel (report takers)	RMS_INTRO, RMS_DATAENTRY	2.5
Identification Personnel (Arrests / Criminal Description maintenance)	RMS_INTRO, RMS_AR	1.5
Property and Evidence Personnel	RMS_INTRO, RMS_PROP	2.5
Sergeants who assign cases (for case assignment only)	RMS_INTRO, RMS_DET	1.5
Criminal Investigation Personnel	RMS_INTRO, RMS_DET	1.5

3.2.2 SAMPLE TRAINING FOR POST PRODUCTION USE

Group	Course Codes	Duration (days)
Criminal Investigation Personnel (for crime analysis)	RMS_INTRO	1
Detectives (for crime analysis)	RMS_INTRO	1
Executive and Management Support Staff (reports/inquiry/analysis)	RMS_INTRO, MYVDX	1.5
Patrol Officers	RMS_INTRO	1

4 THIRD PARTY TRAINING

Tableau training is provided online by Tableau.

EXHIBIT A.7

CHANGE ORDER PROCESS

CONTENTS

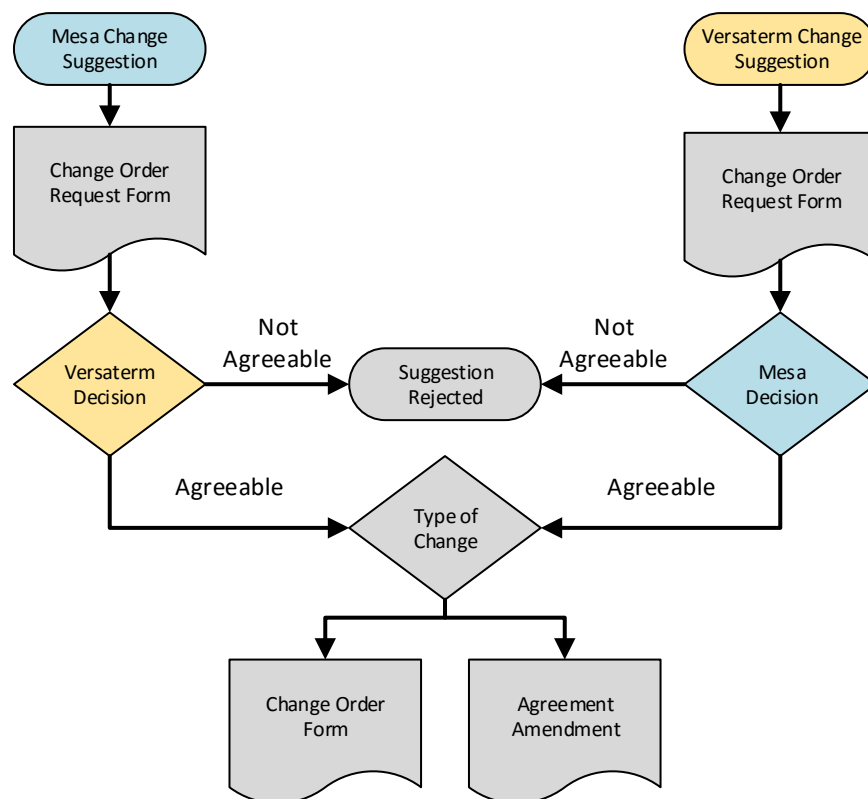
Overview	- 3 -
1 Process Diagram	- 3 -
2 Change Order Request Form	- 4 -
3 Change Order Form	- 6 -
4 Amendment Form	- 6 -

OVERVIEW

The Change Order Process defines the process that will be utilized during the project to manage and account for changes to project scope, cost, and schedule. All project tasks shall be approached with an understanding of the project scope and critically examined within the context of project scope, cost, change in resources and schedule management.

The Change Order Process also defines the process for proposed changes to be properly identified and evaluated, as appropriate. The Change Order Process shall be used for any changes to the Agreement, Exhibits, or Statement of Work (Exhibit A.1), including, but not limited to, changes to the scope, the schedule, the approach, roles and responsibilities, resources, or the fees. Updates to the Project Implementation Schedule (Exhibit A.2) that do not impact Payment Milestones shall not require a Change Order Request Form, Change Order or Amendment.

1 PROCESS DIAGRAM



2 CHANGE ORDER REQUEST FORM

A Change Order Request Form must be completed for all changes requested by either Versaterm or the City. The City Project Manager will be responsible for managing all Change Order requests submitted (whether by Versaterm or the City) on the Project, in accordance with the following process.

All requests for change must be submitted in writing to the City Project Manager, either by email or in printed hard copy form, using the Change Order Request Form herein. The City's Project Manager shall assign each submitted Change Order Request Form a number, in consecutive order, and shall enter the relevant information for each submitted Change Order Request Form. Verbal requests or voice mails will not be considered formal change order requests.

If the change order request is rejected, then the request for a change order is considered rejected and no further action is required. As part of the rejection process, the rejecting Party shall provide a reason why the request for change was rejected.

If the change order request is accepted, the Parties will prepare either a Change Order or Amendment Form in final format for official approval and sign-off by both Parties.

2.1 CHANGE ORDER REQUEST FORM

Change Request Identification			
Change Request Name		Change Request ID #	
Date Submitted		Priority (Low/Moderate/High/Critical)	
Date Last Updated		Impact (Low/Moderate/High)	
Description & Rationale - Briefly describe the change, why the change is needed, and any impacts or risks if the change is not implemented.			
Impact Assessment - List the project areas that will be affected by the change, the resulting benefits or risks, as well as the impacts on the schedule and budget.			
Areas Affected	Benefits/Risks	Schedule Impact	Budget Impact
Recommendations - Describe the options that have been considered. Explain the pros and cons of the various implementation strategies. Provide a recommendation as to how the change ought to be implemented.			
Acceptance & Sign-Off - Identify the decision-making parties responsible for approving or rejecting this change.			
☐ Approved as Requested		☐ Approved with Changes	
☐ Rejected			
Prepared By			
Name		Title	
Date		Signature	
MESA Approved By			
Name		Title	
Date		Signature	
VERSATERM Approved By			
Name		Title	
Date		Signature	
Comments			

3 CHANGE ORDER FORM

The following types of changes shall require a Change Order Form to be completed, and if approved, signed by the Parties' Project Managers:

- Updates to the Project Implementation Schedule (Exhibit A.2) that impact Payment Milestones, excluding the "Final Acceptance Test Complete" Payment Milestone.
- Change in Versaterm's resources.
- Changes in project scope that do not result in an increase in fees.

3.1 CHANGE ORDER FORM

CHANGE ORDER TO AGREEMENT # _____

Change Order Identification		
Change Order Name	Change Order ID #	
Date Submitted	Priority/Impact (Low/Moderate/High/Critical)	
Description of Change		
Impact Assessment - List the project areas that will be affected by the change, the resulting benefits, as well as the impacts on the schedule and budget.		
Areas Affected	Schedule Impact	Budget Impact
Acceptance & Sign-Off - Identify the decision-making parties responsible for approving or rejecting this change.		
MESA Approved By		
Name	Title	
Date	Signature	
VERSATERM Approved By		
Name	Title	
Date	Signature	

4 AMENDMENT FORM

The following types of changes shall require an Amendment Form to be completed, and if approved, signed by representatives of both Parties authorized to bind each Party in such matters:

- Adding new product or additional services to the Project.
- Changes in project scope that result in an increase to the fees.
- Updates to the Project Implementation Schedule (Exhibit A.2) that impact the "Final Acceptance Test Complete" Payment Milestone.

The above types of changes are not meant to be an inclusive list.

In the event of inconsistencies amongst the Main Agreement or the Agreement's Exhibits and any Change Order Form the Change Order Form shall take precedence over the Exhibits contained in the Agreement. The Main Agreement shall remain unaffected.

4.1 AMENDMENT FORM

CITY OF MESA

AMENDMENT # TO AGREEMENT NUMBER

THIS Amendment, entered into this ____ day of _____, __, by and between the City of Mesa (herein called the "City") and Versaterm Inc.).

WHEREAS, the City and Versaterm have entered into that certain Agreement identified above (the "Agreement"); and

WHEREAS, Versaterm and the City have agreed that a change to the here-mentioned Agreement is necessary;

NOW, THEREFORE, the parties hereto agree to amend said Agreement as follows:

[Inset amendment language here].

All other terms and conditions of said Agreement are unaltered hereby, shall remain in full force and effect, and are hereby ratified and reaffirmed.

FOR VERSATERM:

Authorized By _____ Title _____ Date _____

FOR THE CITY:

Authorized By _____ Title _____ Date _____

EXHIBIT A.8

SYSTEM PERFORMANCE AND AVAILABILITY STANDARDS

CONTENTS

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Transaction Response Times.....	- 3 -
System Availability	- 4 -
Ongoing System Performance.....	- 4 -

OVERVIEW

This exhibit sets forth the performance and availability standards to which the Versadex RMS Application Software is expected to perform, providing that the City meets Versaterm's recommended hardware and network specifications, including desktop workstation and mobile configurations, and that the City uses the Application Software according to its intended design.

Hardware requirements and recommended workstation configurations are defined in Exhibit G - Minimum Client & Peripheral Specifications, and Exhibit A.1 – Statement of Work, for connectivity and VPN requirements. Specifications and requirements are subject to change to support future Product Upgrades.

The measured times exclude any factors that may be caused by factors outside of Versaterm's control, such as, but not limited to, the network.

TRANSACTION RESPONSE TIMES

The Versadex RMS Application Software performance is based on transaction response times, which are measured from operator action until visual response is observed or until the operation is completed. The types of transactions that have predictable response times include the majority of navigational and maintenance transactions.

Important Note: Versaterm does not provide expected response times for data-dependent transactions, such as, but not limited to, displaying data lists, displaying dashboards, uploading MRE reports from the MDT, querying external interfaces, attaching files, printing reports, or performing browse searches. For such types of data-dependent transactions, the response time results may vary depending on the amount of data involved, the sizes of the files involved, or the types of search criteria entered.

NAVIGATIONAL TRANSACTIONS

Navigational transactions involve the ease of movement from screen to screen or field to field. The response time for navigational transactions is expected to usually take one second (or less). Examples include:

- Tabbing from field to field in any screen within the Application Software
- Looking up valid values for a coded field

MODULE LOAD TRANSACTIONS

Module load transactions involve the loading of a program module/feature that requires loading an application and initializing the functions. The response time for module load transactions is expected to usually take two second (or less). Examples include

- Loading of programs to access modules within the Application Software (e.g. loading the General Offense (GO) Report program from the main Records menu (of the RMS application)

MAINTENANCE TRANSACTIONS

Maintenance transactions involve add/update transactions in the backend database tables. The response time for maintenance transactions is expected to take three seconds or less. Examples include:

- Saving new or updated information entered into the Application Software screens, such as adding or updating a General Offense screen (note that the transaction response time does not include the time required for the end-user to make a decision if prompted by the RMS)

SYSTEM AVAILABILITY

During production use of the SaaS Services, the Versadex RMS Application Software is required to be available in the production environment 99.99% of the time. The following specifications define both availability and the method by which it is calculated:

Availability will be expressed as a percentage of the maximum expected availability over a given period. The Versadex RMS Application Software must be available seven days per week, 24 hours per day. The percentage availability for any period will be calculated as follows:

$$\frac{(\text{Total Hours in Period} - \text{Hours System Unavailable}) \times 100}{\text{Total Hours in Period}}$$

Total Hours in Period

"Unavailability" is where the Versadex RMS Application Software is completely and generally unavailable for the City's use (but not the use of any one Authorized User, or subset/group of Users), and does not include any unavailability attributable to:

- (a) Versadex RMS scheduled downtime for maintenance;
- (b) Versadex RMS scheduled downtime for Application Software Upgrades or Updates;
- (c) scheduled downtime for Operating System patch updates;
- (d) downtime for upgrades or updates to AWS software, services and components or other cloud-based software and services integrated as part of the Solution;
- (e) downtime related to connectivity issues resulting from City or Third Party-provided or managed Direct Connect or VPN access to hosted server or City internal network problems; City will be responsible for immediately notifying Versaterm of all Third Party-managed VPN access and internal or external (e.g. internet service provider) network problems that arise;
- (f) an incident resulting from data or infrastructure or network provided and/or performed by the City;
- (g) acts or omissions of City or any City user, authorized user, or any employee, agent or independent contractor of the City;
- (h) lack of availability or untimely response from the City that require the City's participation for resolution;
- (i) the City's negligence or breach of the City's material obligations under the Contract;
- (j) any other cause(s) beyond Versaterm's reasonable control, including but not limited to those caused by Third Party Data, Third Party Applications, Third Party Provider, or Third-Party Software, as well as overall internet congestion, denial of service attack, or a force majeure.

ONGOING SYSTEM PERFORMANCE

The following specifies the ongoing system performance and availability standards, upon Production use of the system, and throughout the life of the Agreement between the City and Versaterm:

- The Versadex RMS Application Software must remain operational and available for use, meeting the performance and availability standards described in this document.

- The Versadex RMS Application Software must accommodate all volumes and other applicable sizing parameters as contracted for.
- The Versadex RMS Application Software shall allow for live transactional updates to files and tables without adversely affecting system performance. Changes to the schema of a table will require an outage of the Production environment.

In the event the SaaS Services and Versadex RMS Application Software fails to meet the performance and availability standards set forth in this document, the City will convey any failure to meet the above expectations by contacting Versaterm. Versaterm and the City will proceed with the support procedures outlined in Exhibit C – Annual Subscription Support Terms.

EXHIBIT A.9

OPTIONS

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2.4 Leads Online Interface	- 10 -
2.5 Drug Recognition Export Interface	- 12 -
3 Optional Modules	- 14 -
3.1 Versadex CAD.....	- 14 -

1 OVERVIEW

This Exhibit describes Interfaces and modules that are not included with the System during the Onboarding phase but that may be implemented post Go-Live at a mutually agreed upon timeframe. Additional costs may apply during the implementation of an optional Interface or module described in this Exhibit.

The City has the ability to invoke an option at our discretion without a Change Order decision being made by Versaterm.

2 OPTIONAL INTERFACES

2.1 COUNTY ATTORNEY/MUNICIPAL COURTS INTERFACE

INTERFACE SCOPE

This Interface is designed to transfer case related data from the Versadex System to the Maricopa County Attorney Office (MCAO) System. The transfer of a case to MCAO is a user-initiated, manual release for certain cases.

City will determine release packet contents.

This Interface will be excluded from the Interface Integration Testing and will be a Post-Go Live interface. The testing procedures will be defined once the interface details are finalized.

PROCESS OVERVIEW

Users “release” the entire case through the System's release tracking module and optionally use features within the System's case management/release tracking modules to track investigative activity on cases that have been released to the Prosecutor. These are available as part of the System's product suite.

Versaterm to provide an XML and PDFs specific to the MCAO's specifications as needed. City will provide MCAO's specifications to Versaterm.

COMMUNICATION

The City will provide formal authorization to Versaterm to publish the data to the 3rd party. Versaterm is responsible to provide the data through a secure transport mechanism (i.e. NIST / FIPS 140) providing the 3rd party supports such mechanism. Versaterm is not responsible to protect any data once published outside of the Versaterm environment.

ASSUMPTIONS

- Versaterm is assuming that MCAO is capable of accepting a PDF and XML file and processing this data (all labor to ingest this file will be the responsibility of the City and the MCAO).
- Versaterm is assuming the City and MCAO will provide specifications for the XML and PDF file.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Test the release tracking export for completeness.

- Coordinate MCAO resources as required.

VERSATERM RESPONSIBILITIES

- Develop an XML and PDF as specified by the MCAO
- Provide a technical resource to support the City during the testing.

2.2 MARICOPA COUNTY SHERIFF PRE-BOOKING ARREST TRANSFER

INTERFACE SCOPE

A data exchange interface between the Versadex RMS and the Maricopa County Sheriff's Office (MCSO) Pre-Booking system (will be a requirement once the MCSO system is capable of accepting this data).

It is anticipated that this will be a one-way interface between the two systems; Arrest data from the Versadex RMS application will be transferred to the MCSO Pre-Booking in order to facilitate the pre-booking process at MCSO. Versaterm will develop the XML format to MCSO specifications.

This Interface will be excluded from the Interface Integration Testing and will be a Post-Go Live interface. The testing procedures will be defined once the interface details are finalized.

PROCESS OVERVIEW

A menu option will be available from the Versadex RMS Arrest/Booking module whereby a detention user may invoke the transfer of Arrest information to the MCSO Pre-Booking. This transfer will be via a XML file and will include all data elements contained within the Arrest/Booking module of the Versadex RMS (data includes Maricopa County Form IV, property and arrest data). Versaterm is assuming that the MCSO Pre-Booking is capable of accepting an XML file and processing this pre-booking data. All labor to ingest this file will be the responsibility of the City working with the MCSO.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Test the Interface for completeness.
- Coordinate MCAO resources as required.

VERSATERM RESPONSIBILITIES

- Develop an XML as specified by the MCAO
- Provide a technical resource to support the City during the testing.

2.3 VINE INTERFACE

INTERFACE SCOPE

The purpose of this interface is to share Mesa Police Department's (MPD) Arrest, Booking and Custody information from the Versadex Records Management System (RMS) with Appriss Safety's VINE (Victim Information and Notification Everyday) system.

It is anticipated that this will be a one-way interface between the two systems; Arrest, Booking and Custody data from the Versadex RMS database will be transferred to VINE in order to assist in the Victim notification process.

The development and configuration for the extract and transfer of the necessary XML file for this interface will be based on parameters supplied by the City (e.g. required data elements and run frequency (every 10 minutes)).

This Interface will be excluded from the Interface Integration Testing and will be a Post-Go Live interface. The testing procedures will be defined once the interface details are finalized.

PROCESS OVERVIEW

****Note:** Versaterm does not have an existing Interface with Appriss Safety's VINE (Victim Information and Notification Everyday) system.

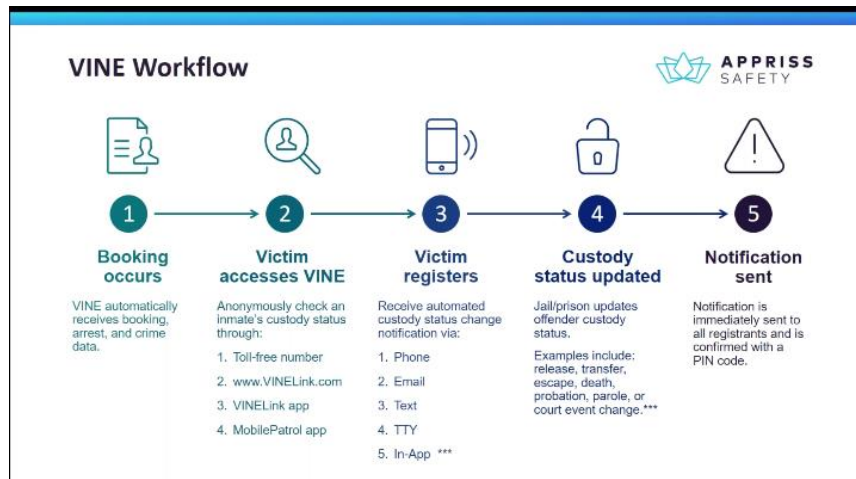
Versaterm will create a XML file (conforming to Appriss VINE standards) from the Versadex RMS and send to VINE's SFTP folder. The creation of VINE XML files will be triggered by the following events in the Versadex JMS system:

- Creating an arrest record
- Creating a booking record
- Creating a release record in the JMS, moving it to a "Released" status, and selecting one of the following "form of release" values:
 - General Release
 - Release on Bond
 - Release for time served
 - Recognizance
 - Extradited
 - Case Dismissed
 - Detox Center
 - Fines paid
 - Release to immigration and customs enforcement, deported
 - Release to other law enforcement agency
 - Release-Error
 - Release unknown
 - Medical
 - Electronic Monitoring
 - Hospital
 - Transfer

- Death
- Escape
- Return from Escape
- Return to custody

WORKFLOW

Below is the VINE Workflow from Appriss Safety's perspective.



ASSUMPTIONS

- Versaterm is assuming that Appriss Safety has standard specification for such an interface.
- Versaterm will attempt to extract and format the data elements detailed in the VINE specification but might not be able to map every field.
- Versaterm is assuming that Appriss Safety is capable of accepting an XML file and processing this data (all labor to ingest this file will be the responsibility of the City working with Appriss Safety).
- Victims must register at the VINE website (<https://vinelink.com/#/home>) in order to receive notifications.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Coordinate resource availability with Appriss Safety as required.
- Obtain the necessary authorization from Appriss Safety to develop this interface.
- Test the VINE Interface for completeness.

VERSATERM RESPONSIBILITIES

- Develop/tailor the logic required to share information with Appriss Safety's VINE server.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

2.4 LEADS ONLINE INTERFACE

INTERFACE SCOPE

The purpose of this interface is to provide a mechanism to receive pawn/secondhand information from LeadsOnline. Containing data such as the following: Dealer ID, Business Name, Employee Name, Ticket #, Pawner/Customer Info [Name, Photo, Address, Phone, Other identifying information], and Item Info [Business Ticket #, Mesa Ticket #, Transaction Type, Date & Time of Transaction, Item Serial, NCIC Code, Model #, Brand, Caliber, Color, Description, Weight, Condition, OAN, Renewal Dates, Image(s)].

It is anticipated that this will be a one-way interface between the two systems; pawn/secondhand information from LeadsOnline will be transferred via a XML file (based on a Versaterm defined specification) to the Versadex RMS application in order to provide Mesa Police Department (MPD) with potentially valuable investigative leads.

The City will provide formal authorization for Versaterm to receive data sent from 3rd party vendors using a mutually agreed upon NIST/FIPS 140 compliant protocol to transfer data to S3 buckets in AWS. Versaterm will perform the necessary configurations in the cloud to allow for the data ingestion. The City and LeadsOnline will own the responsibility of ensuring the quality and security of the data transferred from LeadsOnline to AWS and perform the necessary configurations on the 3rd party application servers to contact the REST API. Versaterm will notify the City if the agreed upon protocol is not being followed as specified above.

This Interface will be excluded from the Interface Integration Testing and will be a Post-Go Live interface. The testing procedures will be defined once the interface details are finalized.

PROCESS OVERVIEW

LeadsOnline will use a NIST/FIPS 140 compliant protocol to transfer an XML file (conforming to Versaterm's format) to a specified S3 bucket in AWS containing the ticket information at agreed upon intervals.

The pawn upload interface consists of a CRON entry that looks in a particular S3 bucket for a XML file to process. Once processed, an error file is generated where errors, if any, can be found.

EXCEPTION HANDLING

- LeadsOnline will be responsible for handling XML transfer files that fail to be processed.
- Errors in ingesting the XML file for item transfers will trigger an error within Versadex and will generate an error log in Versadex' property subsystem log.
- Versaterm will provide a notification if no data was received from LeadsOnline in 24 hours.

AUDITS

For the item transfer portion of the interface, the records themselves provide the audits on the item transferred from LeadsOnline.

BUSINESS CONTINUITY / INTERFACE AVAILABILITY

This interface will be available regardless of which region and/or availability zone the cloud-based RMS is currently serving up the RMS. Should the cloud-based RMS move across availability zones and/or regions, the RMS will reconnect automatically to the shared folder/directory and process the LeadsOnline files accordingly.

ASSUMPTIONS

- Versaterm is assuming that LeadsOnline will build a XML extract based on Versaterm's specification
- The City will be responsible for any additional services required on the part of LeadsOnline should they need to develop or configure their respective portion of the interface to send pawn/second-hand data to the Versadex RMS server.

RESPONSIBILITIES

CITY RESPONSIBILITIES

- The City will review and confirm with LeadsOnline on the field mapping and interface specification.
- The City will perform interface testing.

VERSATERM RESPONSIBILITIES

- Versaterm will develop and provide a XML specification for this interface.
- Versaterm will develop (as necessary) and install the process to import the necessary file for this interface.
- Versaterm will assist with interface testing.

2.5 DRUG RECOGNITION EXPORT INTERFACE

INTERFACE SCOPE

The City of Mesa requires a data exchange interface between the Versadex RMS and the NHTSA (National Highway Traffic Safety Administration). This interface consists of a one-way data transfer of a General Offence report containing Drug Recognition Expert (DRE) data fields and test results (not already supported in RMS) from custom fields.

This Interface will be excluded from the Interface Integration Testing and will be a Post-Go Live interface. The testing procedures will be defined once the interface details are finalized.

PROCESS OVERVIEW

Steps:

1. Officer fills out GO report and DRE data fields in custom fields in MRE. These data elements can also be completed via a supplemental report or directly within RMS.
2. The GO report or Supplement with DRE data is approved and transcribed into RMS.
3. The supplement with custom fields containing DRE test results is approved and transcribed in RMS.
4. Versaterm builds a nightly extract of NHTSA required data in the NHTSA provided format.

COMMUNICATION

The City will provide formal authorization to Versaterm to publish the data to the 3rd party. Versaterm is responsible to provide the data through a secure transport mechanism (i.e. NIST / FIPS 140) providing the 3rd party supports such mechanism. Versaterm is not responsible to protect any data once published outside of the Versaterm environment.

EXTRACT FILE LAYOUT AND SAMPLE

The extract layout will be provided to Versaterm and will conform to NHSTA's requirements.

ASSUMPTIONS

- Versaterm is assuming that NHSTA will provide a standard specification for such an interface.
- Versaterm will attempt to extract and format the data elements detailed in the NHSTA specification but might not be able to map every field.
- Versaterm is assuming that NHSTA is capable of accepting an XML file and processing this data (all labor to ingest this file will be the responsibility of the City working with NHSTA).

RESPONSIBILITIES

CITY RESPONSIBILITIES

- Coordinate resource availability with NHSTA as required.
- Test the DRE Interface for completeness.

VERSATERM RESPONSIBILITIES

- Develop the DRE export to conform to NHSTA standards.
- Provide a technical resource to support the City during the interface testing;
- Provide the necessary support for the go-live cutover of the interface.

3 OPTIONAL MODULES

3.1 VERSADEX

Versaterm is optionally proposing our Versadex CAD application. The Computer Aided Dispatch system is powerful, intuitive and was built specifically for non-stop operation in mission-critical environments. Versadex CAD supports the consolidated dispatch model in which Fire, EMS, and Police are dispatched from a shared system.

Versadex CAD integrates seamlessly with the Versaterm MDT, MRE and RMS that are included in this contract.

The optional CAD pricing includes CAD workstation licenses for 40 production desktop users as an annual subscription cost as well as the following interfaces for the City of Mesa.

- CAD Call-For-Service Interface (to 3rd Party Fire RMS / ePCR)
- 911 I/F
- ASAP Alarm Interface
- CAD2CAD
- Verint (Mlogin client) Interface (City to provide)
- Paging Interface
- G2 Fire Station Alerting
- DECCAN Analytics and LiveMUM
- Alarms Extract
- Axon Extract (City to provide)
- LexisNexis Extract (City to provide or leverage RMS interface)
- OpenData Extract (Internals Training)
- TriStar Extract (City to provide)
- Off Duty Extract (City to provide)
- IQA (Built in CAD Call Path Charting)

In addition to the software licenses and interfaces the pricing includes:

- Implementation Services
- Project Management
- Software Installation / Configuration
- Re-Engineering / Implementation
- Training

EXHIBIT A.10

TECHNICAL GLOSSARY

CONTENTS

Technical Glossary - 3 -

TECHNICAL GLOSSARY

The table below contains a description of the terms and acronyms used in this Exhibit A Onboarding Services and all of its schedules A.1 – A.9

Acronym/Term	Description
*.unl “pipe” (“ ”) delimited files	UNL is a delimited ASCII text File.
Accident Supplements	Additional Crash information that can be appended to an original Crash Report.
Accidents	Traffic Accidents (aka Crashes or Collisions) that occur in a jurisdiction and reported on using data specified by each state.
ACIC	Arizona Crime Information Center. The Arizona counterpart of NCIC, available for entries and inquiries through the ACJIS network. The common acronym is ACIC. Most ACIC and NCIC files are totally independent.
American Standard Code for Information Interchange (ASCII)	A character-encoding scheme originally based on the English alphabet. ASCII codes represent text in computers, communications equipment, and other devices that use text. Most modern character-encoding schemes are based on ASCII, though they support many additional characters.
Arrests	An arrest is using legal authority to deprive a person of his or her freedom of movement. Details around person, incident, charges information is detailed in the RMS system.
AWS GovCloud	AWS GovCloud (US) is an isolated AWS region designed to allow U.S. government agencies and customers to move sensitive workloads into the cloud by addressing their specific regulatory and compliance requirements.
base64 format	Base64 is a group of similar binary-to-text encoding schemes that represent binary data in an ASCII string format by translating it into a radix-64 representation.
batch interface	Batch interfaces are non-interactive user interfaces, where the user specifies all the details of the batch job in advance. Batch Interfaces are set to run on a designated schedule, usually overnight. These interface calls are initiated by specific criteria or triggers, for example, adding a person to a case or updating or editing data elements in a system.
Call for service (CFS)	An emergency incident reported to a public safety communication center requiring a response or attention.
CGI Advantage HRM	City of Mesa's Human Resource system.
CMS	Mesa Municipal Court's- Court Management System (CMS)

Acronym/Term	Description
Computer aided dispatch (CAD)	Computerized systems that are used to manage and track activities within public safety communication centers.
Conduent	Conduent Business Services, LLC. Conduent helps government agencies drive innovation through technology solutions.
COPLINK	COPLINK is a public safety information sharing platform and provider of analytical, tactical and operational software for law enforcement. Owned and operated by Forensic Logic.
CopLogic	Coplogic is a software services (SaaS) company dedicated to providing innovative technical solutions to public safety agencies. Now owned by Lexis Nexis.
CRON	A time-based job scheduler in Unix-like computer operating systems. Cron enables users to schedule jobs (commands or shell scripts) to run periodically at certain times or dates.
DORS	LexisNexis® Desk Officer Reporting System is a citizen incident reporting solution that can handle over 40 incident types.
DPS	The Arizona Department of Public Safety is Arizona's State-wide Law Enforcement agency that enforces state laws with primary responsibility in the areas of traffic, narcotics, organized crime/racketeering, liquor and specific regulatory functions.
Drug Recognition Expert (DRE)	A drug recognition expert or drug recognition evaluator (DRE) is a police officer trained to recognize impairment in drivers under the influence of drugs other than, or in addition to, alcohol.
e-Cite	Electronic citation also known as a traffic ticket.
ESRI	A market leader in the development of GIS software.
ESRI's ArcGIS API	The ArcGIS API is designed for building web mapping applications. The API combines web technology and geospatial capabilities enabling the integration of apps and visualizations of data.
ESRI's ArcGIS Desktop	ArcGIS, is a powerful mapping and spatial analytics software from ESRI and they provide both Desktop Clients (installed on a computer) and online versions of their software.
Field Contacts	A field contact is a Police Officer initiated stop of a person just to talk to them or investigate what they are doing.
File Net (eDMS)	Mesa Municipal Court's - File Net (eDMS)
FIPS 140	The 140 series of Federal Information Processing Standards (FIPS) are U.S. government computer security standards that specify requirements for cryptography

Acronym/Term	Description
	modules. As of December 2016, the current version of the standard is FIPS 140-2, issued on 25 May 2001
Functional Unit Test	Testing of a slice of functionality in a system. This will test many methods and may interact with dependencies like Databases or Web Services. Functional Tests are written from the user's perspective. They ensure that the system is functioning as users are expecting it to.
General Occurrence	Typical report entered by sworn officers and deputies about a reported incident or occurrence.
General Offense	A transgression of the law, a crime. The General Office or (GO) is the part of the Field Reporting System (The Versadex MRE) where most reports are written, classified, approved and submitted - the officer creates a GO.
General Offense	Typical report entered by sworn officers and deputies about a reported incident or offense.
geo-data base (GDB)	A geo database is the physical store of geographic information, primarily using a database management system (DBMS) or file system.
GIS	A geographic information system (GIS) is a framework for gathering, managing, and analyzing data (especially spatial data). Rooted in the science of geography, GIS integrates many types of data.
Hexagon (Intergraph) CAD (I/CAD)	Formerly known as Intergraph, an American Corporation headquartered in Huntsville AL, was purchased and is now wholly owned by Hexagon AB of Stockholm, Sweden which operates under 35 brands worldwide. The Safety and Infrastructure division provides a Police/Fire/Emergency Medical Service Computer Aided Dispatch system known as ICAD. This system is currently in operation at Mesa.
HRM	Human Resource Management (HRM)
IBM MQSeries	IBM® MQ, formerly WebSphere MQ, is messaging middleware that integrates diverse applications and data across multiple platforms.
iCADLink	I/CADLink interfaces to the Hexagon I/CAD (Intergraph Computer Aided Dispatch) system to facilitate the automatic, periodic transfer of events from I/CAD to external systems. It provides configurable options to create calls for service, accidents, and incidents from I/CAD events.
ICD	Interface Control Document- details Scope, process, testing and roles and responsibilities of all parties involved with an interface.

Acronym/Term	Description
Incidents	Incidents are occurrences or events that Police are involved in, typically responding to from a call for service. A police incident report is a police agency's compiling of basic public information related to arrests, accidents or investigations made by law enforcement.
Incident Supplements	Incident Supplements are supplementary police reports that assists in the collection of information for police investigations. It is secondary to the primary report.
Intergraph iCAD	The Intergraph Computer-Aided Dispatch system currently in use at Mesa PD.
Intergraph Mobile for Public Safety, or MPS	The Intergraph mobile system currently in use at Mesa PD.
JPG	The JPG image file, commonly used for photographs and other complex still images on the Web. The JPEG file extension is used interchangeably with JPG. JPEG stands for Joint Photographic Experts Group who created the standard.
Law Enforcement Information Exchange (LInX)	The Law Enforcement Information Exchange (LInX) is a regional information sharing system created, coordinated, and primarily funded by the U.S. Naval Criminal Investigative Service (NCIS).
Maricopa County Attorney Office (MCAO)	The Maricopa County Attorney's Office is one of the nation's largest public prosecutorial agencies, serving nearly four million residents in the fourth largest county in the U.S.
Master Name	A unique record about an individual such as that individual's physical attributes, demographic information, and descriptive information.
Metadata	Metadata is data that describes other data. Meta is a prefix that in most information technology usages means "an underlying definition or description."
Microsoft Windows	Microsoft Windows is a graphical operating system, all of which are developed, marketed, and sold by Microsoft.
Mobile Data Terminal (MDT)	A System module that communicates with System servers and enables uploading reports, query generation and response, messaging, and other mobile System functions.
Mobile Report Entry (MRE)	The System module that is used for report entry, review, and approval.
Mobile workstation	A mobile device running the System's MRE and MDT Software modules.

Acronym/Term	Description
MRE Table Extract	A process that extracts look-up tables from the RMS, to be loaded into the Mobile Reporting Environment (MRE).
MVD	Arizona's Department of Transportation- Motor Vehicle Division
National Information Exchange Model (NIEM)	An International XML-based information exchange framework. NIEM represents a collaborative partnership of agencies and organizations across all levels of government (federal, state, tribal, and local) and with private industry. The purpose of this partnership is to effectively and efficiently share critical information at key decision points throughout the whole of the justice, public safety, emergency and disaster management, intelligence, and homeland security enterprise. NIEM is designed to develop, disseminate, and support enterprise-wide information exchange standards and processes that will enable jurisdictions to automate information sharing.
NCIC	The National Crime Information Center, or NCIC, has been called the lifeline of law enforcement—an electronic clearinghouse of crime data that can be tapped into by virtually every criminal justice agency nationwide, 24 hours a day, 365 days a year.
NHTSA (National Highway Traffic Safety Administration)	NHTSA is an arm of the U.S. Department of Transportation and provides Federal grants to States, so they can conduct effective highway safety programs.
NIST	National Institute of Standards and Technology (NIST) A federal agency under the U.S. Department of Commerce. Established a national standard for the protection of Controlled Unclassified Information (CUI) while residing in nonfederal information systems and organizations.
NLETS	The National Law Enforcement Telecommunications System (NLETS) provides secure network services and information exchange across the national and international communities, with primary emphasis on law enforcement, criminal justice, and public safety issues.
Officer/Unit Activity	Activity that individual Officers or Units are engaged in throughout a work shift. Typically documented through CAD activity and/or status, such as, responding to Call for Service, En Route to a call, Busy (free/lunch), Administrative, etc.
POCs	Point of Contacts
Portable Document Format (PDF)	A file format used to represent documents in a manner independent of application software, hardware, and operating systems. Each PDF file encapsulates a complete description of a fixed-layout flat document, including the text, fonts, graphics, and other information needed to display it.

Acronym/Term	Description
Prerequisites	Project tasks that need to be completed before a project task can start. Also applies to skills and training that must be possessed by City and RPA employees before they can use or be trained to use the System effectively.
primary/foreign key relationship	A primary key-foreign key relationship defines a one-to-many relationship between two tables in a relational database. A foreign key is a column or a set of columns in one table that references the primary key columns in another table.
private or confidential reports	Reports that are sensitive in nature, could be made invisible to general users by marking them private or confidential.
Production use	Operational use of the System.
Project Status Report	A periodic report compiled by the Contractors Project Manager that describes the current state of the project.
Property	The Property subsystem is used to enter details about property items categorized as evidence, found, seized, pawned, lost, or stolen.
Prosecutor	A lawyer who conducts the case against a defendant in a criminal court
Putty	PuTTY is a free and open-source terminal emulator, serial console and network file transfer application
Query	A precise request for information retrieval from a database and/or an information system.
Records management system (RMS)	Law enforcement or other records management Software that enables report entry as well as statistical analysis, queries and responses, relational database organizations, and associated functions and capabilities.
REST API	REST APIs facilitate client-server communications and architectures. If it's RESTful, it's built on this client-server principle, with round trips between the two passing payloads of information.
RMS Handles	A 'handle' represents a particular RMS role or function within a police agency rather than a specific individual. Handles can usually be filled by more than one person, which is useful in a police agency where people who work different shifts have the same responsibility,
S3 buckets	A bucket is a logical unit of storage in Amazon Web Services (AWS) object storage service, Simple Storage Solution S3. Buckets are used to store objects, which consist of data and metadata that describes the data.
Samba	Samba is a free software re-implementation of the SMB/CIFS networking protocol, originally developed by Andrew Tridgell.
Secure FTP (SFTP)	Also known as SSH File Transfer Protocol (Secure File Transfer Protocol, or SFTP) is a network protocol that provides file access, file transfer, and file management

Acronym/Term	Description
	functionalities over any reliable data stream. It was designed by the Internet Engineering Task Force (IETF) as an extension of the Secure Shell protocol (SSH) version 2.0.
Simple Object Access Protocol (SOAP)	A protocol specification for exchanging structured information in the implementation of Web Services in computer networks.
Site Configurable Transaction (SCT)/ Facility	A System module that enable the configuration and creation of NCIC forms and queries.
SQL	Structured Query Language (SQL) is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS).
SQL Query	A precise request for information retrieval from a database and/or an information system using Structured Query Language (SQL).
SSH	Secure Shell (SSH) is a cryptographic network protocol for operating network services securely over an unsecured network.
Statement of Work (SOW)	A statement of work (SOW) is a document routinely employed in the field of project management. It defines project-specific activities, deliverables and timelines for a vendor providing services to the client. The SOW typically also includes detailed requirements and pricing, with standard regulatory and governance terms and conditions.
Supplement	A supplemental police report is one of several articles of paperwork used to document crimes, investigations and incidents. It is secondary to the primary report and assists in the collection of information for police investigations.
The City	The City of Mesa, Arizona
Third/3rd Party	A company or person who may be indirectly involved but is not a principal party to an arrangement, contract, deal, lawsuit, or transaction.
Transcription queue	The System queue where approved report are stored and displayed prior to their going through the transcription process.
Unix	Unix is a family of multitasking, multiuser computer operating systems designed for flexibility and adaptability.
Versadex MRE	Versaterm, a privately traded corporation, provides a line of Public Safety Software Systems to agencies in North America under the umbrella brand name Versadex. Versadex MRE is Versaterm's Field Reporting product where MRE is an acronym for Mobile Report Entry. This system runs in many versions of the Windows operating system. This system will be installed on computers in Mesa Police Cruisers and will communicate wirelessly to the Mesa CAD and RMS systems.

Acronym/Term	Description
Versadex GIS application (VGI)	The Versaterm GIS Interface (VGI) is designed to generate the street index files, required by RMS & CAD, directly from ESRI Shapefiles.
Versadex JMS	Versaterm's Jail Management System within the Versadex suite.
Versadex Message Controller (VMC)	A Versaterm product that routes communication between various other Versaterm products. The VMC handles typical switch functionality and provides controller services. Queries that are run and MRE reports that are submitted through the MDT are one example.
Versadex Message Switch (VMS)	A Versaterm product that routes communication between various other Versaterm products. Functionality now rolled into VMC.
Versadex MWS	Versaterm, a privately traded corporation, provides a line of Public Safety Software Systems to agencies in North America under the umbrella brand name Versadex. Versadex MWS is a Mobile Work Station software solution that combines the functionality of a Mobile Data Terminal (MDT) and a Field Reporting System. This system runs in many versions of the Windows operating system. This system will be installed on computers in Mesa Police Cruisers and will communicate wirelessly to the Mesa CAD and RMS systems.
Versadex NCIC Gateway	The Versadex NCIC Gateway provides an interface from the Versadex CAD/RMS/Mobile Workstation (MWS) applications to the county, state and national databases (NCIC). The NCIC Gateway also provides central management for NCIC configurations and user access.
Versadex Personnel	The Personnel subsystem of the Versadex RMS offers police agencies an effective, integrated personnel management system. Minimally, the Personnel subsystem will define and drive user access to functionality and data within the RMS.
Versadex RMS	Versaterm, a privately traded corporation, provides a line of Public Safety Software Systems to agencies in North America under the umbrella brand name Versadex. Versadex RMS is the Records Management System which is being installed at Mesa. This system provides records keeping, report management, work flow, evidence management and advanced reporting to support investigations.

Acronym/Term	Description
Versaterm Data Mart (VDM)	A System database that contains high level data that is appropriate for statistical reporting purposes.
Versaterm eMVA	Within Versaterm's RMS- there is the ability to collect Motor Vehicle Accident data in an electronic format. electronic Motor Vehicle Accident.
Versaterm GIS Interface (VGI)	A Software tool included in the System that enables the RPA to convert and load required GIS data into the System.
Victim	A person harmed, injured, or killed as a result of a crime, accident, or other event or action.
VINE (Victim Information and Notification Everyday)	VINE is a victim notification network, empowering victims and concerned citizens with timely and reliable information regarding offenders.
vMail	Versadex Mail (vMail) is designed as a useful tool for communication between agency personnel and for receiving important system-generated information with the Versadex systems. The messages received in Versadex Mail are referred to as vMail messages to differentiate them from the messages received in other email applications.
Web service	A software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards.
Web service description language (WSDL)	An XML-based interface description language that is used for describing the functionality offered by a web service. A WSDL description of a web service (also referred to as a WSDL file) provides a machine-readable description of how the service can be called, what parameters it expects, and what data structures it returns.
WebSphere MQ	IBM® MQ, formerly WebSphere MQ, is messaging middleware that integrates diverse applications and data across multiple platforms.
Workflow notification	An internal message sent to users/groups within the RMS that is triggered by some defined process.

Acronym/Term	Description
X and Y coordinates	A pair of values that represents the distance from an origin (0,0) along two axes, a horizontal axis (x), and a vertical axis (y). On a map, x,y coordinates (X = Longitude, Y = Latitude) are used to represent features at the location they are found on the earth's spherical surface. Latitude measures angular distance from the equator to a point north or south of the equator. While longitude is an angular measure of east/west from the Prime Meridian.
XML	XML is an acronym standing for Extensible Markup Language. This is a language that defines standards and rules for encoding documents in a format that can be understood by both computers and humans. It is primarily defined by the W3C's XML 1.0 Specification and is a free and open standard used extensively on the Internet.
Z values	The value for a given surface location that represents an attribute other than position. In an elevation or terrain model, the z-value represents elevation;

EXHIBIT B

INSURANCE REQUIREMENTS

1 OVERVIEW

The insurance obligations of the Contractor are outlined in Section 11 of the Agreement. The types and amounts of insurance are detailed in this Exhibit.

2 TYPES AND AMOUNTS OF INSURANCE

Contractor must obtain and retain throughout the term of the Agreement, at a minimum, the following:

1. Worker's compensation insurance in accordance with the provisions of Arizona law. If Contractor operates with no employees, Contractor must provide the City with written proof Contractor has no employees. If employees are hired during the course of this Agreement, Contractor must procure worker's compensations in accordance with Arizona law.
2. The Contractor shall maintain at all times during the term of this contract, a minimum amount of \$3 million per occurrence/\$5 million aggregate Commercial General Liability insurance, including Contractual Liability. For General Liability insurance, the City of Mesa, their agents, officials, volunteers, officers, elected officials or employees shall be named as additional insured, as evidenced by providing an additional insured endorsement.
3. Automobile liability, bodily injury and property damage with a limit of \$1 million per occurrence including owned, if applicable, hired and non-owned autos.
4. Professional Liability (Technology Errors and Omissions Liability), the Contractor shall maintain at all times during the term of this contract, a minimum amount of \$1 million per occurrence Professional Liability insurance.

Prior to the execution of the Contract, the Contractor shall provide the City with a Certificate of Insurance (using appropriate ACORD certificate) SIGNED by the Issuer, applicable endorsements, and the City reserves the right to request additional copies of any or all of the above policies, endorsements, or notices relating thereto.

When the City requires a Certificate of Insurance to be furnished, the Contractor's insurance shall be primary of all other sources available. When the City is a certificate holder, the Contractor agrees that no policy shall expire, be canceled or materially changed to affect the coverage available without advance written notice to the City.

5. "Waiver of Subrogation". The policies required by this agreement (or contract) shall contain a waiver of transfer rights of recovery (subrogation) against City, its agents, representatives, directors, elected officials, officers, employees, and volunteers for any claims arising out of the work of Contractor."
6. All insurance certificates and applicable endorsements are subject to review and approval by the City's Risk Manager.

EXHIBIT C

ANNUAL SUBSCRIPTION SUPPORT TERMS

1 SITE ACCESS

When requested by Contractor, the City is obligated to provide access to its premises, staff, and authorities, provided Contractor staff meet the security requirements noted in Section 7 of the Agreement.

2 PRODUCT SUPPORT

During the Production Period, Contractor may make Support available through access to Contractor's designated internet platform, and direct contact with the City. Such Support may consist of the periodic review of current outstanding questions and usage issues, new and upcoming releases of Major Enhancement and Minor Enhancements, and the periodic review of potential environment changes that could impact the use of the Product.

When appropriate, Contractor will connect to City infrastructure, workstation(s), and/or MDT(s) via SecureLink. City shall provide SecureLink VPN to Contractor at no cost to Contractor.

3 REGULAR TELEPHONE SUPPORT

During the Production Period, Contractor will make Support available by telephone to the Support Contact at substantially all times from 7:30 a.m. (EST) until 5:30 p.m. (City local time) each day except Saturdays, Sundays, and legal holidays in the jurisdiction of the City. To the extent possible by telephone, email, and remote communication, Contractor will attempt to identify and provide a workaround for the Problem and will use reasonable efforts to provide a final solution for the Problem, if that applies. Contractor will normally respond to a telephone requests for **Level 1 Errors** and **Level 2 Errors** within thirty (30) minutes of receipt of the call.

4 7X24 EMERGENCY TELEPHONE SUPPORT

Contractor will provide 7x24 Telephone Support that extends Support for problems identified as **Level 1 Errors** and **Level 2 Errors** to include all hours not already provided for within Regular Telephone Support. 7x24 Telephone Support allows the City's internal support staff that are technically capable and who first troubleshoot the problem, to authorize Contractor to provide 7x24 Telephone Support.

5 TERMINATION OF CORRECTIVE ACTION

Contractor may, but need not, terminate its corrective efforts under this Exhibit at any time if, in its business judgment:

- a. The City fails to perform its obligations under this Agreement; or
- b. The City is not using the then current unmodified version of the Product or other versions of the Product then supported by Contractor; or
- c. Contractor and/or the City is not able to reproduce the Problem in the applicable operating environment and verify that the Problem is in fact in the Product and not elsewhere; or
- d. The Problem is not material; or
- e. Further corrective efforts are not appropriate because the Problem has been identified and is caused by an external factor not within Contractor's control; or

- f. Contractor has declared the Problem as probably being caused by something external to the supplied Product, such as aberrations within the client's network (LAN and/or WAN and/or related network equipment). Contractor will terminate work on this Problem unless the City authorizes further diagnosis effort that may be billable separately under this Agreement when and if the suspected external problem source is confirmed. If confirmed as being caused by an external source, then such work will be billed on a time and materials basis at the then prevailing hourly rates for Support (whether within or outside normal support hours) and can be authorized by FAX or E-mail by the designated Support Authority or other as designated in writing to Contractor as having that authority.

6 REMEDIES

If the resolution methods and expectations outlined above are not met by Contractor, the City will convey any failure to meet the above expectations by formally contacting their Versaterm account manager to review the issue and resolve the matter. The expected outcome may be a plan detailing methods to ensure the expectations are met in the future. Should the City find that the plan or resolution is unsatisfactory, the City may request that the President of Versaterm meet with the City authorities to identify an action plan for the future. Should the City find that the plan or resolution is unsatisfactory after meeting with the President of Versaterm, then the dispute resolution shall move forward per Agreement section 17.5.1.4.

7 THIRD PARTY APPLICATIONS

7.1. Responsibilities for Planned Updates.

City shall provide Contractor with prompt notice, and in no case fewer than forty-five (45) days' advance notice, of any Third-Party Update by the Third-Party Provider of a Third-Party Application. Contractor shall undertake commercially reasonable efforts to patch, repair, or update the Product in order to integrate it with the updated Integrated Third Party Application. If the Third-Party fails to provide City with forty-five (45) days advance notice, City will make immediate notification to Contractor and will also make every reasonable effort to postpone the Update in order to provide at least forty-five (45) days advance notice to Contractor.

7.2. Responsibilities for Planned Upgrades.

City shall provide Contractor with prompt notice, and in no case fewer than ninety (90) days' advance notice, of any planned Third-Party Upgrade by the Third-Party Provider of a Third-Party Application. Contractor shall evaluate the time and resources required to patch, repair, or update the Product in order to integrate it with the upgraded Integrated Third-Party Application. The Parties shall engage in good faith negotiations to agree on the terms (including, without limitation, schedule and price) on which Contractor would develop a patch, repair, update, or upgrade to integrate the Product with the Integrated Third-Party Application. If the Third-Party fails to provide City with ninety (90) days advance notice, City will make immediate notification to Contractor and will also make every reasonable effort to postpone the Update in order to provide at least ninety (90) days advance notice to Contractor.

8 ERROR CLASSIFICATIONS

- 8.1. **“Level 1 Error”** means a critical issue resulting in a complete Product failure where the Product is not available for use. These types of errors may result in loss of data, data corruption, or inoperative servers. Examples include software defects or database failures.
- 8.2. **“Level 2 Error”** means a high priority problem that materially affects the operational use of either the entire Product or a specific component of the Product, and a procedural work-around is not available. An example would be a system-wide slowness of the Product.
- 8.3. **“Level 3 Error”** means situations where a specific component of the Product does not work as expected, and results in an incomplete, unintended, or erroneous operation. Productive use of the Product is not significantly impacted, and a procedural work-around is available. An example would be receiving a NIBRS edit message on a General Offence report where the error message does not apply to the case.
- 8.4. **“Level 4 Error”** means a minor issue relating to a specific component of the Product that does not affect the productive use of the Product or component. Examples include a field that is right-justified rather than left-justified or the usage of an inconsistent font.

EXHIBIT D: PRICE AND PAYMENT TERMS

1. PRICING AND PAYMENT

Versaterm shall be paid based on the fees schedules in this Exhibit.

2. FEES SCHEDULE FOR ONBOARDING SERVICES

Project Services	Amount
Project Management	\$352,625
Configure AWS Environment	\$97,350
Business Re-Engineering	\$429,215
Training (Train-the-Trainers)	\$248,983
Additional Conversion Effort *	\$187,250
Total Project Services	\$1,315,423

* Project includes 75 Days of Conversion effort, free of charge, as per RFP Response Clarification letter

Go-Live Interface OnBoarding Services	Amount
1. Hexagon CAD to Query RMS I/F	\$20,900
2. Hexagon CAD Call-For-Service I/F	\$7,300
3. Hexagon CAD to Versaterm MDT I/F	\$172,750
4. Court Ticket Extract I/F	\$65,850
5. ADOT Crash I/F	\$44,000
6. FARO Zone 2D I/F	\$0
7. ACJIS/NCIC I/F	\$16,050
8. BuyCrash I/F	\$21,650
9. CarFax I/F	\$7,300
10. CopLogic Citizen Reporting I/F	\$0
11. Versadex GIS I/F	\$24,550
12. HR System I/F	\$12,400
13. CopLink I/F	\$12,400
14. LInX I/F	\$21,400
15. ImageWare Mugshot I/F	\$7,300
16. Lexis Nexis Accurant I/F	\$30,450
17. Sagem Morpho AFIS/Livescan I/F	\$7,300
18. VMC to VMC (Tempe & Chandler)	\$0
19. JusticeTrax LIMS I/F	\$14,350
Total Go-Live Interface Onboarding Services	\$485,950

The total amount payable for Onboarding Services is \$1,315,423 + \$485,950 = **\$1,801,373**.

3. PAYMENT SCHEDULE FOR ONBOARDING SERVICES

The following payment schedule applies to the on-boarding phase of the project and relates to the specific tasks identified in Exhibit A.1 Statement of Work.

Payment #	Payment Milestone	Percentage	Payment
1	Task #3 Project Kick-Off Meeting	10%	\$180,137
2	Task #4 Establish Communication to AWS	5%	\$90,069
3	Task #6 Configuration Workshop #1	10%	\$180,137
4	Task #11 Configuration Workshop #3	10%	\$180,137
5	Task #15 Integration Testing Completion	10%	\$180,187
6	Task #23 Declare System Ready For Use	15%	\$270,206
7	Task #27 Production Use	15%	\$270,206
8	Task #29 Final Systems Acceptance	25%	\$450,343
	Total	100%	\$ 1,801,373

4. FEES SCHEDULE FOR SAAS SERVICES

- 4.1 The subscription fee for the first full year of the Production Period shall be paid in full and in advance within thirty (30) days after the Production Period begins, which shall set the date of future annual renewals (the “Subscription Payment Date”). The annual subscription fee for subsequent years of Software as a Service (each a “Subscription Renewal Term”) shall be paid in full and in advance on each annual Subscription Payment Date.
- 4.2 During the Production Period, the annual subscription fee for the Software as a Service shall be calculated as the “Annual Number of Officers” multiplied by the “Monthly Base Rate” multiplied by 12. This calculation can be expressed by the following equation:

$$A = NPO \times B \times 12$$

Where,

A is the annual subscription fee

NPO is the Number of Officers

B is the Monthly Base Rate

- 4.3 “Monthly Base Rate” (B) is the monthly charge per sworn employee for the SaaS Services. Increases in the Monthly Base Rate shall not exceed 5% per annual subscription. The Monthly Base Rate for the first Subscription Renewal Term shall be \$50. Versaterm will notify City regarding any pricing increases at least six (6) months prior to the beginning of a renewal term.
- 4.4 “Number of Officers” (NPO) is defined as the number of sworn employees as of the date that is ninety [90] days prior to the Subscription Payment Date, as certified by the Personnel Orders of the City’s Police Department. Notwithstanding the foregoing, the “Annual Number of Officers” during the first full year of the Production Period shall be 800.

- 4.5 The annual subscription fee for the first year of the Production Period shall be **\$480,000** as calculated below

$$A = 800 \times \$50 \times 12$$

5. EGRESS AND CONNECTIVITY

- 5.1 Versaterm will provision redundant VPN end points supporting a total capacity of 550 gigabytes per month. City is responsible for providing required City Gateway VPN hardware and software.
- 5.2 The City is responsible for all costs associated to establishing a Direct Connect connection to AWS.
- 5.3 The City Data shall be made available for egress for a total of 550 gigabytes per month. Any egress connectivity beyond this rate shall be charged periodically at prevailing rates at the time and shall be paid in full when and as required, and also according to the termination provisions set forth in Section 10 "Termination" of the Head Agreement.

6. DATABASE / DISK STORAGE

- 6.1 Database storage shall be made available as follows: a maximum of 200 gigabytes each for the Production Database and Production Read-Replica Database, 200 gigabytes for the Training Database, and 50 gigabytes for the Test/Implementation Database.
- 6.2 Disk Storage (for multimedia attachments and logs) shall be made available for a total maximum of 1 terabyte.
- 6.3 Any storage beyond this allocation shall be charged at the prevailing rates at the time and shall be paid in full when and as required, and also according to the termination provisions set forth in Section 10 "Termination" of the Head Agreement.
- 6.4 Versaterm will notify the City of current database/disk storage consumption prior to the annual subscription renewal so the City can take appropriate action (e.g. increase storage as required).

7. OPTIONS

The following provides a list of options to the City that they may request during the Initial Term of the Agreement.

Services	Type	Cost
25 Additional Project Service Days. The City can purchase these days in increments of 1 day.		\$48,750

The Estimated Cost may be reviewed and adjusted based upon further clarifications. A TBD indicates the cost was not estimated as details were insufficient at the time.

Interfaces	Type	Estimated Cost
A. Municipal Court Interface (Prosecutor Karpel system)	One-Time	\$62,700
B. Maricopa County Sheriff Pre-Booking I/F	One-Time	\$24,300
C. VINE	One-Time	\$19,200
D. LEADS OnLine Pawn Property Upload I/F	One-Time	\$57,100
F. Drug Recognition Expert Date Upload I/F	One-Time	\$61,000

Optional interfaces are payable upon production use.

Police/Fire Computer Aided Dispatch (CAD) Option

Versaterm is pleased to offer the integrated Police & Fire CAD option to the City. Based on the details provided by the City, the following option is provided. Note that for many of the interfaces, the City indicated that City personnel would develop/provide the interface.

License Subscription	Type	Cost	Notes
CAD Licenses	Annual Recurring	\$246,356	

OnBoarding Services	Cost	Notes
Project (OnBoarding) Services		
Project Management	\$208,750	
Installation / Software Configuration	\$35,750	
Business Re-Engineering / Configuration	\$175,000	
Training (Train-the-Trainers)	\$126,530	
Total OnBoarding Services	\$546,030	

Interface OnBoarding Costs	Cost	Notes
CAD Call-For-Service Transfer	\$0	City to develop i/f to Fire RMS
911 I/F	\$15,800	
ASAP Alarm Interface	\$14,100	
CAD2CAD (Phoenix Fire)	\$33,050	
Verint (Mlogin client) I/F		City to Provide/Develop
Paging I/F	\$16,050	
G2 Fire Station Alerting	\$17,750	
DECCAN Analytics and LiveMum I/F	\$67,050	Assume City will extract data for Analytics
Alarms Extract	\$0	Assume City will extract or use the standard extract interface/unload
Axon Extract		Assume City will extract
LexisNexis Extract	\$0	Included with RMS
OpenData Extract		Included with RMS or City will develop/provide

Verint Extract		Included with RMS or City will develop/provide
Patrol Logs Extract		Included with RMS or City will develop/provide
TriStar Extract		Included with RMS or City will develop/provide
Off Duty Extract		Included with RMS or City will develop/provide
Total Interface OnBoarding	\$163,800	

EXHIBIT E

LICENSE TERMS

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1 COMPLIANCE

The City will be responsible to Contractor for compliance with the restrictions on use and other terms and conditions of this Agreement by City and all of its Authorized Users.

2 LICENSE FOR USE (SAAS SERVICES)

Subject to the terms and conditions of this License Agreement and the payment of the applicable license fee, Contractor hereby grants to City, for use by its Authorized Users, a non-exclusive, non-transferable, non-sublicensable license to access the SaaS Services (as described in Annex A). The SaaS Services shall be accessible through an internet platform during the Term of this Agreement solely for the City's use in conjunction with the City of Mesa's Police Department's operations (and not for resale, access by third-parties, or for other commercial purposes).

Apart from the rights enumerated in this Agreement, the SaaS Services do not include a grant to the City any right to use, nor any ownership right, title, or other interest, in or relating to the Product, nor in any copy of any part of the SaaS Services.

3 LICENSE FOR USE (ON-SITE APPLICATION SOFTWARE)

Subject to the terms and conditions of this License Agreement and payment of the applicable license fee, Contractor hereby grants to the City, for use by its Authorized Users, a non-exclusive license to use the On-Site Application Software, and is solely for the City's use in conjunction with the City of Mesa's Police Department's operations.

Apart from the rights enumerated in this License Agreement, the License does not include a grant to the City, of any right to use, nor any ownership right, title or other interest, in or relating to the On-Site Application Software, nor in any copy of any part of the On-Site Application Software.

4 COPIES OF DOCUMENTATION

Contractor will provide City with access to the Documentation, as may be updated from time to time. The City may use the Documentation solely in connection with the use of Product, and may reproduce the Documentation, provided that each copy thereby produced shall be marked with Contractor's proprietary markings as delivered to the City. The City shall not use, print, copy, translate or display the Documentation in whole or part for any reason other than those expressly authorized in this License Agreement.

5 TITLE

As between Contractor and City, Contractor retains title to and ownership of the SaaS Services, On-Site Application Software, and Documentation, including Source Code, and all Intellectual Property Rights relating thereto (collectively, "Versaterm Intellectual Property"). Contractor's licensors retain title to and ownership of the Third-Party Data and the Third-Party Software, including all copyrights and other Intellectual Property relating thereto. City will have no rights with respect to SaaS Services, On-Site Application Software and Documentation, including Source Code, the Third-Party Data or the Third-Party Software, other than those expressly granted under this Agreement.

Any suggestions for changes or improvements to the Product that City provides to Contractor, whether solicited by Contractor or not, shall be owned by Contractor, and City hereby irrevocably assigns, and shall assign, to Contractor all rights, title, and interest in and to such suggestions. Contractor shall have no obligation to incorporate such suggestion into its products or services.

6 RESTRICTIONS ON USE

The City and its Authorized Users will not (and will not knowingly permit any third party to): (i) share the City's or any Authorized User's login credentials; (ii) reverse engineer, decompile, disassemble, or otherwise attempt to discern the source code, underlying ideas, algorithms, file formats, or interface protocols of the Product or any files contained in or generated by the Product; (iii) copy, modify, adapt, translate, or make derivative works of the Product, Third Party Data, or Third Party Software, or otherwise make any use, resell, distribute or sublicense the Product, Third Party Data or Third Party Software other than in connection with this Agreement; (iv) make the Product available on a "service bureau" basis or knowingly allow any unauthorized users to use the Product; (v) remove or modify any proprietary marking or restrictive legends placed on the Product, Third Party Data, or Third Party Software; (vi) create or augment any mapping-related dataset including a mapping or navigation dataset, business listings database, mailing list, or telemarketing list for use in an implementation that is not connected to the services; (vii) introduce into the Product any viruses, worms, defects, Trojan horses, malware, or any items of a destructive nature; (viii) hide or obscure any Authorized User's location; (ix) permit access or use of the Product for any activities other than to enhance the City's own services, where reliance solely on or failure to use the Product could lead to death, personal injury, or property damage. The City and its Authorized Users will not access the Product if in direct competition with Contractor, and will not allow access to the Product by any party who is in direct competition with Contractor, except with Contractor's prior written consent.

7 THIRD PARTY APPLICATIONS

If City installs or enables a Third Party Application for use with the Product, City grants Contractor permission to access City Data stored on that Third Party Application as required for the interoperation of that Third Party Application with the Product. In no event will Contractor be responsible for any Third Party Application, or any failure of a Third Party Application to properly interoperate with the Product. If Contractor receives information that a Third Party Application may violate any applicable laws or third-party rights, City will, promptly upon receiving notice of the foregoing from Contractor, disable any connection between such Third Party Application and the Product to resolve the potential violation (and if City fails to promptly disable such connection, Contractor shall have the right to do so).

8 THIRD-PARTY SOFTWARE

- 8.1. Usage of Third Party Software. Where there are any inconsistencies or conflict between the terms and conditions of Third-Party Software and the terms of this Agreement, such additional terms shall govern the City's use of the applicable Third-Party Software. Contractor-supplied Third Party Software license(s) are restricted for use solely with Contractor Application Software.
- 8.2. Disclaimer Regarding Third-Party Software. CONTRACTOR, NOT BEING THE PROVIDER OR MANUFACTURER OF THE THIRD-PARTY SOFTWARE, NOR THE PROVIDERS' OR MANUFACTURERS' AGENT, MAKES NO EXPRESS OR

IMPLIED WARRANTY OF ANY KIND WHATSOEVER WITH RESPECT TO THE THIRD-PARTY SOFTWARE AND DISCLAIMS ANY SUCH WARRANTIES THAT MIGHT OTHERWISE EXIST.

9 THIRD-PARTY DATA

City shall access and use the Third-Party Data in accordance with the terms and conditions of the agreement between the City and the provider of such Third-Party Data. CONTRACTOR, NOT BEING THE PROVIDER OR MANUFACTURER OF THE THIRD-PARTY DATA, NOR THE PROVIDERS OR MANUFACTURERS' AGENT, MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND WHATSOEVER WITH RESPECT TO THE THIRD-PARTY DATA AND DISCLAIMS ANY SUCH WARRANTIES THAT MIGHT OTHERWISE EXIST.

10 CITY DATA

As between Contractor and City, City owns and shall retain all rights, title, and interest, including, without limitation, all Intellectual Property Rights, in and to City Data. City shall have the sole responsibility for the accuracy, quality, and legality of the City Data, including obtaining all rights and consents necessary to share the City Data with Contractor as set forth in this Agreement. Contractor shall not access City user accounts or City Data except: (i) in the course of data center operations, (ii) in response to services or technical issues, (iii) as required by the express terms of this Agreement, or (iv) at City's written request. Contractor shall not collect, access, or use user-specific City information except as strictly necessary to provide the Product to the City. Notwithstanding anything to the contrary contained herein, City hereby grants to Contractor an irrevocable, worldwide, royalty free, non-exclusive license to use the City Data to: (a) provide the Product to City and other Contractor subscribers; (b) analyze the City Data in anonymized and/or aggregate form in order to operate, maintain, manage, and improve the Product, create new products and services; and (c) for Contractor's internal purposes to improve the Product.

11 SOFTWARE ENHANCEMENTS AND OPTIONAL MODULES

Contractor shall supply the following, subject to the City's payment of applicable fees, and subject to and in accordance with the license rights, restrictions, terms, covenants, conditions, warranties, limitations, exclusions, and other provisions set forth in the Agreement:

- a. Major Enhancement Release(s) and/or Minor Enhancement Release(s) if any, to the City at no additional charge.
 - i. In the event of a Major Enhancement Release, Contractor will deploy such upgrades to the City's systems, as scheduled in advance, with appropriate notification to the City. With the goal of keeping such environments reasonably current, the City shall have 60 days to test the update, after which, the update shall become part of the program.
 - ii. In the event of a Minor Enhancement Release, Contractor will deploy such updates to the City's system, as scheduled in advance, with appropriate notification to the City. With the goal of keeping such environments reasonably current, the City shall have 30 days to test the update, after which, the update shall become part of the program.
- b. Interface modules that are developed by Contractor for interfacing the Product to other software products; provided, that such modules are specifically included in the Agreement.
- c. Changes to SaaS Services. Contractor software operates on a variety of common web browser types. Contractor reserves the right to provide the SaaS Services using only Versaterm Certified Browsers.

12 DISCLAIMER ON USE

THE AUTOMATIC VEHICLE ROUTING RECOMMENDATION COMPONENT ("AVRR COMPONENT"), IF LICENSED UNDER THIS AGREEMENT, IS INTENDED FOR USE AS ONE FACTOR IN DETERMINING THE BEST VEHICLE ROUTING FOR THE CITY, BUT IS NOT INTENDED TO BE USED AS THE SOLE SOURCE FOR DETERMINING ROUTING, NOR WHICH VEHICLES TO DEPLOY TO ADDRESS ANY EMERGENCY SITUATION. THE AVRR COMPONENT IS HEAVILY DEPENDENT ON THE QUALITY OF THE SOURCE MAPPING INFORMATION INPUTTED BY OR ON BEHALF OF CITY AND CONTRACTOR WILL HAVE NO RESPONSIBILITY OR LIABILITY FOR ANY ROUTING ERRORS AND/OR DELAYS, NOR ANY RESULTANT DAMAGE OR LOSS ARISING AS A RESULT OF THE MAPPING DATA OR FOR ANY DAMAGES OR LOSS CAUSED BY ANY DECISION MADE OR ACTION TAKEN IN RELIANCE ON THE AVRR COMPONENT.

ANNEX A – LIST OF LICENSED PROGRAMS

VERSATERM LICENSES

Versadex RMS
VGI GIS Maintenance Tool
Data Mart (VDM)
Tableau Desktop Professional
Versadex MDT: PoliceMDT Licenses
 Versadex RFLink Licenses
 MDT RMS Link Licenses
 MDT NCIC I/F Licenses
 MDT CAD Link Licenses
 MDT AVL License
 MDT Mapping Licenses
Versadex MRE: Mobile Report Entry Licenses
 Mobile Citations/Ticketing Licenses
 MRE eMVA License
Versaterm Message Controller (VMC)
vMobile

INTERFACES

CAD Call-For-Service Interface (Mesa AZ Intergraph CAD)
Versadex MDT to Intergraph CAD Interface
Faro Zone 2D Interface
Court Ticket Transfer Interface
ADOT Crash Report Interface
ACJIS/NCIC Interface
BuyCrash Accident Interface
CarFax Accident Interface
Coplogic Interface
Versadex GIS Interface (import tool)
HR System Interface
CopLink Interface
LInX Interface
ImageWare MugShot System Interface
Lexis Nexis Accurint Interface
Sagem Morpho AFIS/Livescan Interface
Query Interface to Versadex Customers (Tempe/Chandler)
Justice Trax LIMS Interface
Hexagon CAD to RMS Queries Interface

POST-LIVE INTERFACES

Drug Recognition Expert Data Export Interface
LEADS OnLine Pawn Property Ingest Interface
Maricopa County Attorney Office Interface
Maricopa County Sheriff Pre-Booking Arrest Transfer Interface
VINE Interface

EXHIBIT F

DOCUMENTATION

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OVERVIEW

This document lists all of the documentation that will be initially provided to the City, which includes product user guides and administration guides.

In future product releases of the Application Software, Versaterm will provide the City with product release notes detailing the new features included in each major product release.

RMS USER GUIDES

File Name	Document Description
01overview80us.pdf	Overview
02genoff80us.pdf	General Offense
03entities80us.pdf	Indexing Entities
04detailtextfucb80us.pdf	Details Pages, Narrative Text, Follow Ups, and Clearance Blocks
05texteditor80us.pdf	Text Editor
06textsearch80us.pdf	Text Search
07querybrowse80us.pdf	Query / Browse
08eventtrending80us.pdf	Event Trending
09ticket80us.pdf	Ticket
10streetcheck80us.pdf	Street Check
11crimdesc80us.pdf	Criminal Description
12flaggang80us.pdf	Flag and Gang Records
13registration80us.pdf	Registration
14civilprocess80us.pdf	Civil Process

15projectcase80us.pdf	Project Case
16bolo80us.pdf	BOLO
17attachments80us.pdf	Attachments
18vmail80us.pdf	Versadex Mail
19property80us.pdf	Property
20jms80us.pdf	Jail Management System
21subpoenatracking80us.pdf	Subpoena Tracking
22fastadd80us.pdf	Fast Add Towed / Stolen Vehicle
23releasetracking80us.pdf	Release Tracking
24reptapprtransrip80us.pdf	Report Approval and Transcription
25casemgmtuserguide80us.pdf	Case Management / Workflow
26remoteCADforRMS	Remote CAD for RMS
27personnel80us.pdf	Personnel
28fleetmgmt80us.pdf	Fleet Management
29cadcallmaint80us.pdf	CAD Call Maintenance
30emva80us.pdf	Electronic MVA Form
31psmuserguide80us.pdf	Property Scanning Module

RMS ADMINISTRATION GUIDES

File Name	Document Description
01configrms80us.pdf	Configuring the RMS
02security80us.pdf	Security and User maintenance
03orgtables80us.pdf	Maintaining the Organization Tables
04handles80us.pdf	Handles
05casemgmtadminguide80us.pdf	Case Management / Workflow Administrator Guide
06casemgmtimpguide80us.pdf	Case Management / Workflow Implementation Guide
07reports80us.pdf	Reports Overview
08officersched80us.pdf	Officer Scheduling
09nibrs80us.pdf	NIBRS Edit and Extract
10transentityinfo80us.pdf	Transferring Entity Information
11streetindex80us.pdf	Street Index

12proptagprint80us.pdf	Property Tag Printer
13propdisp80us.pdf	Property Disposal Process
14duplicatename80us.pdf	Duplicate Name Verification
15integncic80us.pdf	Integrated NCIC
16ncicvalidations80us.pdf	NCIC Validations
17pawnprop80us.pdf	Pawned Property
19customhardcopies80us.pdf	Custom Hardcopies
20notepad75us.pdf	Notepad
Us80datadictionary.pdf	Versadex Data Dictionary
USRMSAdvancedInternalsTraining80.pdf	Versadex Internals Training

MRE USER AND ADMINISTRATION GUIDES

File Name	Document Description
US MRE 7.5.NET Configuration Application, Admin Guide	US MRE 7.5.NET Configuration Application, Admin Guide
US MRE 7.5 Tree View - Generic Field Guide	US MRE 7.5 Tree View - Generic Field Guide

MDT USER AND ADMINISTRATION GUIDES

File Name	Document Description
Mobile Data Terminal 7.6 Generic Field Guide	Mobile Data Terminal 7.6 Generic Field Guide
MDT Designer 7.6 Administrator Guide	MDT Designer 7.6 Administrator Guide
MDT Map Configuration 7.6 Administrator Guide	MDT Map Configuration 7.6 Administrator Guide

EXHIBIT G

MINIMUM CLIENT AND PERIPHERAL SPECIFICATIONS

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OVERVIEW

This document identifies the minimum client and peripheral specifications to be supplied by the City, in order to run the Application Software and adhere to the system performance and availability standards specified in Exhibit A.8

The specifications included in this document are subject to change to support future Product Upgrades. When applicable, Versaterm will provide the City with updated specifications and recommendations.

1 WORKSTATION RECOMMENDATIONS

The following provides the recommended workstation configurations:

1.1 RMS CLIENT COMPUTERS

Computer	An IBM-compatible computer with full Windows Desktop Operating System (for desktop client installations)
Peripherals	Mouse or pointing device, COMM port, USB ports
Video	1200 x 800 resolution display monitor
Operating System	Microsoft Windows 7, 8.1, 10 (for desktop client installations)
Memory	4 GB
CPU	Intel or AMD 2 GHz dual core processor 1 GHz or faster 64-bit (x64) processor
Hard Drive	60 GB
Network Interface Card (NIC)	100 mbps Ethernet network adaptor
Other Software	Adobe Acrobat Reader, HTML5 supported browser (such as Microsoft Edge, Safari, Firefox or Chrome). Note that Chrome is the primary browser used by Versaterm and the only browser officially certified.
Usage - Versadex Records Management System (RMS) desktop client installation - webRMS - Other non-Versadex installations (e.g. Web browser, email, word processor, etc...)	

1.2 MOBILE DATA COMPUTERS (WITH MAPS)

Computer	An IBM-compatible computer with full Windows Desktop Operating System
Peripherals	Mouse or pointing device, COMM port, USB ports Touchscreen recommended
Video	Minimum: 1024 x 768 resolution, 24-bit color depth. MDT can be configured for displaying on non-standard screen aspect ratios. Accelerated graphics card: 64 MB minimum / 256 MB recommended, Shader Model 2.0 minimum, latest drivers
Operating System	Windows 7 SP1 - 32 and 64 bit, Windows 8.1 Windows 10
Memory	Recommended: 4 GB
CPU	Recommended: I5 or 2.5 GHz
Hard Drive	Recommended: 80 GB
Other Software	HTML5 supported browser (such as Microsoft Edge , Safari, Firefox or Chrome) .Net 4.5 Framework or higher
Usage - Versadex Mobile Data Terminal (MDT) installation (with the use of maps) - Versadex Mobile Report Entry (MRE) installation - webRMS - Other non-Versadex installations (e.g. Web browser, email, word processor, etc...)	

1.3 VMOBILE

Device	The vMobile application runs on Android and iOS. Devices must meet the following operating system requirements in order to run vMobile 1.3: • Android: version 6.0 or greater • iOS: version 11.0 or greater
Additional requirements:	

- VPN software to allow secure communications.
- Mobile Device Management software for deploying the application

2 HARDWARE PERIPHERALS

2.1 PROPERTY BAR CODE LABEL PRINTERS

Description / Recommendation:

- Smart Label Printer 420 (USB) (or equivalent)
- Zebra LP2844 or TLP2844 (or equivalent)

Usage:

Bar code label printers are used in the Versadex RMS Property sub-system to print bar code labels for in-custody items. They can also be used to print bar code labels for storage locations.

Note: Please refer to vConnect for the most up to date information on recommended property bar code label printers.

[vConnect > Documentation and Downloads > Information Sheets > Bar Code Printing and Scanning Equipment](#)

2.2 PROPERTY BAR CODE SCANNERS

Description / Recommendation:

- Wasp WCS3900 CCD bar code scanner (corded)
- Bluetooth™-enabled scanner LS4278 with STB 4208 (cordless)

Usage:

Bar code scanners are used in the Versadex RMS Property sub-system to read bar codes, typically when performing property control and evidence continuity group transactions. They are used to facilitate the retrieval of item information by bar code number.

Note: Please refer to vConnect for the most up to date information on recommended property bar code scanners.

[vConnect > Documentation and Downloads > Information Sheets > Bar Code Printing and Scanning Equipment](#)

2.3 DRIVERS LICENSE CARD SWIPE READERS

Description / Recommendation:

- POSH MX5 and MX5-K9
- MagTek Mini (USB) Swipe Reader (or equivalent)
- ESeek M-250 reader (or equivalent)

Usage:

The Versadex MRE and MDT support the use of both 2D and magnetic stripe readers to quickly enter person information. This is useful as users can perform quick person queries and prefill forms using driver's license information.

Note: Please refer to vConnect for the most up to date information on recommended card swipe readers.

[vConnect > Documentation and Downloads > Information Sheets > Card Scanner-Reader Support](#)

2.4 DOCUMENT SCANNERS

Description / Recommendation:

- HP ScanJet FG4050 flatbed scanner (or equivalent)
- Fujitsu FI60F flatbed scanner (or equivalent)

Usage:

Networked scanners are recommended to scan paper documents (using the native software that the scanner comes with), in order to attach the scanned files to events, entities, detail pages, property or narrative text.

Note: Please refer to vConnect for more information on how to choose a scanner.

[vConnect > Documentation and Downloads > Information Sheets > Choosing a scanner for Imaging](#)

Contract Exhibit 3

AMENDMENT NO. 1
CAD Extension

THIS FIRST AMENDMENT is made this 28th day of February, 2019, between CITY OF MESA ("City"), an Arizona municipal corporation, and VERSATERM INC. ("Versaterm"), a Canadian corporation having its office located at 2300 Carling Avenue, Ottawa, Ontario, to City and Versaterm's Police Department Records Management and Field-Based Reporting System Solution Agreement numbered #2017190 and dated July 3, 2018.

WITNESSETH

WHEREAS Versaterm and City entered into an agreement dated July 3, 2018 (the "Initial Agreement") with respect to, among other things, the purchase of a Records Management System; and,

WHEREAS Versaterm and City desire to amend the Initial Agreement to incorporate the Versaterm CAD (Computer-Aided Dispatch) extension, an option offered in "Exhibit A.9 – Options" under the Initial Agreement;

NOW THEREFORE in consideration of the mutual covenants herein contained, City and Versaterm hereby agree as follows:

1. "Annex A" and its accompanying exhibits, all of which detail the CAD extension, are incorporated into the Initial Agreement.

The Initial Agreement, as modified hereby, shall remain in full force and effect. If there is any conflict with or inconsistency between the terms of this Amendment and the terms of the Initial Agreement, then the terms of this Amendment will prevail to the extent of such conflict or inconsistency.

IN WITNESS WHEREOF, the parties have signed this Agreement Amendment No. 1 to be effective as of the date and year first written above.

Versaterm Inc.

City of Mesa

T Rosales
Signature

T ROSALES
Name

Secretary - Treasurer
Title

February 20, 2019
Date

[Signature]
Signature

Walter Wornick
Name

PRESIDENT
Title

Feb 20 / 2019
Date

Signature

Name

Title

Date

Signature

Name

Title

Date

Digitally signed by Edward
Quedens
DN: cn=Edward Quedens, o=City
of Mesa, ou=Business Services
Department,
email=ed.quedens@mesaaz.gov,
c=US
Date: 2019.02.27 06:42:07 -07'00'
Adobe Acrobat Reader version:
2019.010.20098

ANNEX A – CAD EXTENSION

For the purposes of this Annex A – CAD extension, all the terms and conditions of the Agreement apply except to the extent described in this Annex. For clarification, the terms and conditions for the RMS and Mobile Field Reporting Solution are not altered by Annex A and endure in Agreement #2017190.

1. **Definitions.** The following definitions shall have the meanings in the Annex and in any Exhibit hereto.
 - 1.1 **Add: Agreement** means the Police Department Records Management and Field-Based Reporting System Solution Agreement #2017190.
 - 1.2 **Add: Annex** means this Annex A “CAD Extension”, all exhibits attached hereto, all documents incorporated by reference herein or therein and all instruments supplemental and/or amendments hereto or thereto.
 - 1.3 **Replace Section 1.1: Application Software** means Versaterm’s proprietary programs, including both object code and source code, as described by the Versaterm-provided documentation, any subsequent release notes, and other pertinent documentation (attached hereto in Exhibit FF) which:
 - 1.1.1 Are listed on a component-by-component basis under the heading of “Application Software” in Exhibit DD to this Annex; and
 - 1.1.2 Includes any sort of Major and Minor Enhancement Releases and Customization.
 - 1.4 **Add: Contractor / Service Provider** means Versaterm Inc.
 - 1.5 **Replace Section 1.13: Documentation** means the user guides, administration guides, release notes, technical information, and training materials, and any other documentation provided by Contractor throughout the Annex for the CAD Solution that Contractor provides the City.
 - 1.6 **Replace Section 1.14: Exhibit** means one or more documents (sequentially-numbered), each of which includes a specific description of the Deliverables/Services to be provided, performance dates, price for such Deliverables/Services, and any other information necessary to document the parameters of the Deliverables/Services to be provided under this Annex .
 - 1.7 **Replace Section 1.15: Fees** means the monetary amount to be paid by the City to Contractor for the rights granted and Services provided under this Annex, as mutually agreed upon and listed in Exhibit DD.
 - 1.8 **Replace Section 1.16: Go Live** means the date on which the Onboarding Period ends, and the Production Period begins, as further defined in the Statement of Work (Exhibit AA.1).
 - 1.9 **Replace Section 1.21: On-Site Application Software** means Contractor’s proprietary software programs as described in the definition “Application Software” that are installed and used on City’s own systems or premises, on the license terms set out in Exhibit EE.
 - 1.10 **Replace Section 1.23: Onboarding Services** means the evaluation, consultation, implementation, customization, configuration, development of interfaces, and other services provided by Contractor in connection with the Product. This is including, but not limited to, project management, re-engineering/implementation, training, conversion, and installation as listed in the Price Sheet and Payment Schedule (Exhibit DD) and as further described in the Statement of Work (Exhibit AA.1), and related onboarding documentation, which are detailed in Exhibits AA through AA.10.

- 1.11 **Replace Section 1.27: Product** means the combination of the On-Site Application Software and Documentation, which the City is authorized under the License Terms in Exhibit EE to use in the course of their normal operations, and includes any sort of Major and Minor Enhancement Releases, and Customization.
 - 1.12 **Replace Section 1.32: Services** means the work provided by Contractor personnel, including but not limited to professional services, as described in the Exhibits to this Annex.
 - 1.13 **Replace Section 1.36: CAD Solution or Solution** means the **POLICE AND FIRE/EMS DEPARTMENT'S COMPUTER-AIDED DISPATCH SYSTEM** Solution, consisting of the Software, Services, and/or related items, as set forth in the RFP response and any other items to be provided as optional upon City's exercise of such option(s).
 - 1.14 **Replace Section 1.39: Support Authority** means the City's designated employee(s) authorized to approve additional, separately billable time and materials support work, beyond that included within this Annex.
2. **Replace Section 2: CAD Contract Documents, Order of Precedence.** The following Exhibits are hereby incorporated into this Annex by reference ("CAD Contract Documents"). In the event of any conflict among the CAD Contract Documents, the CAD Contract Documents will control in the following order:
- i. Exhibit AA – Onboarding Services (individual or collectively), as executed from time to time
 - a. Exhibit AA.1 – Statement of Work
 - b. Exhibit AA.2 – Project Schedule
 - c. Exhibit AA.3 – Interface Control Document (ICD)
 - d. Exhibit AA.4 – Data Conversion Statement
 - e. Exhibit AA.5 – Acceptance Testing Plan
 - f. Exhibit AA.6 – Training Plan
 - g. Exhibit AA.7 – Change Order Process
 - h. Exhibit AA.8 – System Performance and Availability Standards
 - i. Exhibit AA.9 – Enhancement Requests/Options
 - j. Exhibit AA.10 – Technical Glossary
 - ii. Exhibit BB – Insurance Requirements
 - iii. Exhibit CC – Annual Subscription Support Terms
 - iv. Exhibit DD – Price Sheet & Payment Terms
 - v. Exhibit EE – License Terms
 - vi. Exhibit FF – Documentation
 - vii. Exhibit GG – Minimum Client and Peripheral Specifications and City-Provided Hardware

All exhibits, attachments, schedules, and recitals to this are hereby incorporated into this Annex by this reference.

Mutually agreed upon changes may involve changes to software, hosting services, functionality, training, etc. with an associated additional cost, or it may entail changes to schedules, sequences, staff, etc. that do not involve changes to costs. Changes to the CAD Contract Documents, whether or

not they affect the cost, must be documented in writing. Changes without financial impact will be documented in the form of project status reports. All changes with financial impact or that result in any amendment to the terms of this Annex will follow the change order process set forth in Change Order Process (Exhibit AA.7).

3. **The Solution/Services.**

3.1 **Replace Section 4.1: Purpose.** This Annex, in addition to the Agreement, sets forth the terms and conditions under which Contractor agrees to provide the CAD Solution, as further set forth in Exhibit AA.

3.2 **Remove Section 4.4: Backup and Recovery of City Data.** As a part of the Services, Service Provider is making use of AWS high availability relational database services (RDS) supported across multiple AWS availability zones ("AZ"s) or data centers. That is, there is a both a primary database instance configured in one AZ, as well as a secondary database instance in a second AZ (or data center). The primary and secondary databases are replicated in near real time across AZ(s). Should errors be detected on the primary database instance, AWS RDS services will automatically promote the secondary database to primary. In addition to the above, Service Provider will also maintain separate backups of City Data, including daily database backups, and daily backups of multimedia file attachments and application log files.

In the case a database restore is required, the Service Provider will restore the database from the last daily database backup, and will apply database transaction logs (last complete written transaction log) to recover the database to a current point in time. The point in time recovery will only be available for database backups within the last seven days of daily backup from the current date. Otherwise, database backups will only be able to be recovered to the time the database backup was taken (weekly or monthly backup as appropriate). Database recovery from a backup is typically accomplished at a rate of 30-50MB/second, plus the time to apply the required database transaction logs. During a database recovery, the database is offline for the duration of the restore process.

Database and current file backups are stored in standard AWS cloud storage, where multiple copies are kept within different Availability Zones (data centers) in the secure GovCloud Region.

4. **Service Levels.**

4.1 **Remove Section 5.3: Performance Credits for Failure to Meet Service Levels.** As further described in an Exhibit, in the event Service Provider does not meet any (individual or collectively) of the requisite Service Levels, Service Provider shall:

5.3.1 reduce the applicable invoice to City by the amount of the applicable Performance Credits as a credit; and

5.3.2 use its best efforts to ensure that any un-met Service Level is subsequently met.

Notwithstanding the foregoing, Service Provider will use commercially reasonable efforts to minimize the impact or duration of any outage, interruption, or degradation of Service.

5. **Replace Section 6: Fees and Expenses.** City shall be responsible for and shall pay to Contractor the fees described in Exhibit DD, subject to the terms and conditions contained therein and detailed in this Annex. Any uncontested sum due to Contractor under an Exhibit for Services performed shall be due and payable forty-five (45) Days after City's receipt of a properly prepared invoice from Contractor.
- 5.1 **Replace Section 6.1: Billing Procedures.** Contractor shall bill to City the sums due pursuant to each Exhibit DD by Contractor's invoice, which shall contain:
- City purchase order number, if any, and invoice number; and
 - description of Software delivered and the amount thereof that is due, as applicable; and
 - the Services fee or portion thereof that is due, as applicable; and
 - sales/use taxes on tangible items, if any; and,
 - total amount due.
- 5.2 **Replace Section 6.2: Expense Reimbursement.** The Services Fee, set forth in Exhibit DD, includes all costs associated with Contractor's Services under the Exhibits, including without limitation, travel expenses and/or other expenses incurred during such work. Accordingly, the Contractor shall not be entitled to reimbursement for any expenses incurred as a result of the Services performed hereunder.
- 5.3 **Add Section 6.6: Subscription Fee.** The subscription fee, listed in Exhibit DD, for the first full year of the Production Period shall be paid in full and in advance within thirty (30) days after the Production Period begins, which shall set the date of future annual renewals (the "Subscription Payment Date"). The annual subscription fee for subsequent years of the subscription service (each a "Subscription Renewal term") shall be paid in full and in advance on each annual Subscription Payment Date.

6. **Information Security.**

- 6.1 **Replace Section 10.1: Undertaking by Contractor.** Without limiting Contractor's obligation of confidentiality as more fully described in Section 8, Non-Disclosure of Confidential Information, and only to the extent applicable to Contractor's remote access of the On-Site Application Software and Protected Data, Contractor shall be responsible for establishing and maintaining an information security program that is designed to:
- 10.1.1 ensure the security and confidentiality of Protected Data; and
 - 10.1.2 protect against any anticipated threats or hazards to the security or integrity of Protected Data; and
 - 10.1.3 protect against unauthorized access to or use of Protected Data; and
 - 10.1.4 ensure the proper disposal of Protected Data; and
 - 10.1.5 ensure that all subcontractors of Contractor, if any, comply with all of the foregoing.
- In no case shall the safeguards of Contractor's information security program be less stringent than the information security safeguards used by City. City's information security processes and policies are Confidential Information of City.

- 6.2 **Remove Section 10.2: Audit of Information Security Program.** City shall have the right to review Contractor's/Service Provider's information security program commencing one year following Go Live and from time to time during the term of this Annex. Commencing one year following Go Live, on an ongoing basis from time to time and with prior written notice, City, at its own expense, shall be entitled to perform, or to have performed, an on-site audit of Contractor's/Service Provider's information security program. In lieu of an on-site audit, upon request by City, Contractor/Service Provider agrees to complete, within forty-five (45 days) of receipt, an audit questionnaire provided by City regarding Contractor's/Service Provider's information security program.

For the purpose of clarity, Contractor's/Service Provider's information security program does not include that of Contractor's/Service Provider's hosted cloud service provider.

- 6.3 **Remove Section 10.3: Audit by Service Provider.** No less than annually, Service Provider shall conduct an independent third-party audit of its information security program (SOC 2 or equivalent) and provide such audit findings to City.

Contractor/Service Provider makes use of cloud services as provided by Amazon Web Services (AWS). Our hosted cloud service provider endeavours to follow best industry practices, and provides regular SOC 1, 2, and 3 audits. The results of these audits can be provided to the City upon request and upon completion of an NDA.

The hosted cloud service provider has an independent third party perform (SOC) audits of its data centers, and does not allow on-site data center access to customers.

- 6.4 **Remove Section 10.4: Audit Findings.** Contractor/Service Provider shall implement any required safeguards as reasonably identified by City or information security program audits, as it pertains to the Contractor/Service Provider's information security program.

- 6.5 **Replace Section 10.6: City Responsibilities.** The City is responsible for maintaining the security of user credentials (including user names and passwords as well as system administrator IDs and passwords, among others), and taking steps to maintain appropriate security and access to Protected Data.

The City agrees to be responsible for all activities undertaken by the City, City's Authorized Users, including City application administrators, and City end users that result in unauthorized access to the City account or Protected Data.

City is also responsible for ensuring users meet CJIS compliance for 2-factor authentication for any users accessing the Contractor/Service Provider applications.

7. **Replace Section 12: Limitation of Liability.**

EXCEPT AS OTHERWISE PROVIDED HEREIN, UNDER NO CIRCUMSTANCES SHALL EITHER PARTY'S LIABILITY WITH RESPECT TO ANY AND ALL CLAIMS ARISING FROM PERFORMANCE OR NONPERFORMANCE OF OBLIGATIONS SET FORTH UNDER THIS AGREEMENT OR ANY SUBJECT MATTER OF THIS AGREEMENT, IN TORT, INCLUDING ANY NEGLIGENCE, IN CONTRACT OR OTHERWISE, EXCEED THE AMOUNTS PAID BY CUSTOMER TO VERSATERM UNDER THIS AGREEMENT DURING ANY CONTRACT YEAR. A "Contract Year" means each twelve-month period commencing on the effective date (or any anniversary of the effective date) of this Agreement during the term.

THE FOREGOING LIMITATION SHALL NOT APPLY TO:

- A PARTY'S OBLIGATIONS OF INDEMNIFICATION, AS FURTHER DESCRIBED IN SECTION 13.3 OF THIS AGREEMENT; OR
- DAMAGES CAUSED BY A PARTY'S NEGLIGENCE OR WILFULL MISCONDUCT; OR
- A PARTY'S BREACH OF ITS OBLIGATIONS OF CONFIDENTIALITY, AS FURTHER DESCRIBED IN SECTION 8 OF THIS AGREEMENT.

Notwithstanding the aforementioned, Contractor's aggregate liability pursuant to the Data Breach Indemnification will not exceed \$1,000,000 during any Contract Year.

IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATED TO THIS AGREEMENT, WHETHER FORESEEABLE OR NOT, INCLUDING BUT NOT LIMITED TO LOST REVENUE OR PROFITS, LOSS OF DATA, LOSS OF USE OF PRODUCTS OR SERVICES, INTERRUPTION OF BUSINESS OR INCREASED OPERATING COSTS ARISING FROM ANY CAUSE OR ACTION WHATSOEVER, INCLUDING CONTRACT, WARRANTY, STRICT LIABILITY OR NEGLIGENCE.

Should City wish Contractor to enable interfaces with Third Party Systems, or in other words, the publishing and consuming of City Data by Third Party Systems published through the City network, City will assume all responsibility for Third Party System use of City Data. Contractor shall only be responsible for ensuring that the transfer of data adheres to CJIS compliance protocols. CONTRACTOR SHALL NOT, UNDER ANY CIRCUMSTANCES, BE RESPONSIBLE FOR THE MISUSE OF CITY DATA BY THIRD PARTY SYSTEMS, DATA BREACHES, DATA QUALITY, OR VIRUSES/MALWARE AS THEY RELATE TO OR ARISE OUT OF THIS SECTION. CONTRACTOR WILL NOT INDEMNIFY FOR ANY CLAIMS ARISING OUT OF ANY THIRD PARTY CLAIM FOR DATA BREACHES OR VIRUSES/MALWARE RELATED TO OR CAUSED BY THIRD PARTY SYSTEMS.

8. Indemnification.

8.1 **Replace Section 13.1: Contractor Indemnification.** Contractor agrees to indemnify, defend, and hold City, its officers, directors, agents, and employees (each, an "Indemnatee" and collectively, the "Indemnitees") harmless from and against any and all liabilities, demands, claims, suits, losses, damages, expenses, fines, or judgments (collectively "Claims"), including reasonable attorneys' witnesses' and expert witnesses' fees, costs, and expenses incidental thereto, which may be suffered by, accrued against, charged to, or recoverable from any City Indemnatee, by reason of any Claim arising out of or relating to any negligent act, error or omission, or misconduct of Contractor, its officers, directors, agents, employees, and subcontractors, during the performance of this Agreement, including, without limitation, Claims arising out of or relating to:

- bodily injury (including death) or damage to tangible personal or real property; or
- violation of any law or regulation; or
- a Virus/malware; or
- a breach of any representations made under this Annex.

Data Breach Indemnification. Subject to the Data Breach limitation outlined in Section 12, Contractor will indemnify, defend, and hold City Indemnitees harmless from and against any and all Claims arising out of any third party claim to the extent such claim is the result of a Data Breach resulting from Contractor's breach of its obligations.

For the purposes of this Section, "Data Breach" shall mean a security incident in which the Contractor transmits or provides access to data that is stored in the Services to an unauthorized person. A Data Breach does not include cases where the City transmits or otherwise provides access to data stored in the Services to un-authorized persons.

The foregoing indemnity shall not apply to the extent the applicable Claim resulted from the acts or omissions of City, its officers, directors, agents, or employees.

- 8.2 **Replace Section 13.3: Proprietary Rights Indemnification.** Contractor agrees to indemnify, defend, and hold City Indemnitees harmless from and against any and all Claims, including reasonable attorneys' fees, costs, and expenses incidental thereto, which may be suffered by, accrued against, charged to, or recoverable from any City Indemnitee, arising out of a claim that the Application Software infringes or misappropriates any United States or foreign patent, copyright, trade secret, trademark, or other proprietary right. In the event Contractor is enjoined from delivering the Application Software, either preliminary or permanently, or continuing to license such Application Software to City, and such injunction is not dissolved within thirty (30) days, or in the event City is adjudged, in any final order of a court of competent jurisdiction from which no appeal is taken, to have infringed upon or misappropriated any patent, copyright, trade secret, trademark, or other proprietary right in the use of the Application Software, then Contractor shall, at its expense:

- 13.3.1 obtain for City the right to continue using such Application Software; or
- 13.3.2 replace or modify such Application Software so that it does not infringe upon or misappropriate such proprietary right and is free to be delivered to and used by City; or
- 13.3.3 in the event that Contractor/Service Provider is unable, or determines in its reasonable judgment, that it is commercially unreasonable to take the action described in Section 13.3.1 or 13.3.2, and the issue is in the entire system or a major and critical component significantly affecting City's business operations, Contractor/Service Provider, at its sole cost and expense, shall accept return of Application Software, and refund to City an amount equal to a declining percentage of the total agreement price paid by the City, 100% of the fees during the first year of the term of this Agreement; 90%, 80%, 65%, and 50% of the fees in the second, third, fourth, and fifth years, respectively, of the term of this Agreement; and 0% thereafter.

9. Representations and Warranties.

- 9.1 **Replace Section 15.2: Contractor Representations and Warranties.** Contractor represents and warrants that:
- 15.2.1 CAD Solution/Services provided shall materially conform to all requirements of the CAD Contract Documents, all representations of Contractor, and shall be fit for all purposes and uses required by the Contract Documents;
 - 15.2.2 the Services to be performed under this Annex shall be performed in a competent and professional manner;

- 15.2.3 Contractor will utilize only experienced, responsible, and competent personnel in its performance under this Annex, and shall be fully responsible to City for the performance of its personnel;
- 15.2.4 Contractor has the experience and is qualified to perform the tasks involved with providing the CAD Solution/Services in an efficient and timely manner. Contractor acknowledges City is relying on Contractor's representation of its experience and expertise, and any substantial misrepresentation may result in damage to City;
- 15.2.5 the CAD Solution/Services will achieve in all material respects the functionality described in the CAD Contract Documents, and such functionality shall be maintained during the initial Term;
- 15.2.6 Contractor is the owner of the Services, Software and Documentation and/or Contractor has the right to license such Services, Software or Documentation, as applicable;
- 15.2.7 no portion of the Services, Software or Documentation infringes upon or violates any existing patent, copyright, trade secret or other intellectual property rights of any third party, as of the effective date of this Annex, to the best of Contractor's knowledge without further investigation;
- 15.2.8 the Software, Services, and any other work performed by Contractor hereunder shall be its own work, and shall not infringe upon any United States or foreign copyright, patent, trade secret, or other proprietary right, or misappropriate any trade secret, of any third party, and that it has neither assigned nor otherwise entered into an agreement by which it purports to assign or transfer any right, title, or interest to any technology or intellectual property right that would conflict with its obligations under this Annex;
- 15.2.9 Contractor will use its best efforts to ensure no Virus/malware is introduced into City's computer and network environment while providing or performing the CAD Solution or Services, and will adhere to City's then-current procedures to protect against the same, and, if Contractor transfers a Virus/malware to City through the CAD Solution or Services, Contractor shall reimburse City the actual cost incurred by City to remove or recover from the Virus/malware, including the costs of persons employed by City to remove or recover from the Virus/malware;
- 15.2.10 there is no outstanding litigation, arbitrated matter or other dispute to which Contractor is a party which, if decided unfavorably to Contractor, would reasonably be expected to have a potential or actual material adverse effect on Contractor's ability to fulfill its obligations under this Annex;
- 15.2.11 during the Warranty Period, Contractor warrants the CAD Solution components will function properly together without Defects.

10. Remedies.

- 10.1 **Replace Section 17.2: Notice of Failure to Perform under Exhibit AA.** The non-defaulting party shall provide written notice of such default. The defaulting party shall have 30 Days ("Cure Period") to perform after written notice is received, provided however, the defaulting party must commence performance, and diligently proceed to fulfill such obligation, within 2

Days and provide written notice to non-defaulting party of its efforts cure the default. If the defaulting party believes the nature of its default is such that more time than the Cure Period allows would reasonably be required to fulfill such obligation, then the defaulting party shall provide a written request for the additional time it deems necessary to perform, and the non-defaulting party shall not unreasonably withhold its approval for such request. In no event, however, shall any Cure Period exceed 60 Days. Any written notice shall specify the nature of the default and, if possible, the manner by which the default may be satisfactorily cured. If the default is not cured to the satisfaction of the non-defaulting party within the Cure Period, the non-defaulting party may terminate the Exhibit AA pursuant to Section 18.2, Termination of an Exhibit AA for Cause, and the termination shall be effective immediately or at such other date as specified by the terminating party.

11. Termination.

11.1 **Replace Section 18.2: Termination of Exhibit AA for Cause.** If Contractor breaches any of its duties or obligations under Exhibit AA, and such breach is not cured, or Contractor is not diligently pursuing a cure to City's sole satisfaction, as set forth in Section 17.2, then City may terminate the Exhibit AA without liability, in whole or in part, for cause as of the date specified in such notice.

11.2 **Replace Section 18.7: Transition Assistance Services.** In the event of expiration or termination of this Annex, in whole or in part, Contractor will provide to City and/or to City's replacement service provider ("Successor Service Provider") assistance reasonably requested by City to effect the orderly transition of the applicable Services to City or to Successor Service Provider ("Transition Assistance Services"). Transition Assistance Services shall be available to City, at City's sole cost and expense, during the 365 Day period prior to, and/or following, expiration or termination of this Annex ("Transition Assistance Period"). Provided that Contractor and City agree on the price and scope of the Transition Assistance Services, such Transition Assistance Services may include:

- 18.7.1 developing a plan for the orderly transition of the terminated Application Software from Service Provider to City or Successor Service Provider;
- 18.7.2 providing reasonable training to City staff or Successor Service Provider in the performance of the Services then being performed by Service Provider;
- 18.7.3 using commercially reasonable efforts to assist City, at City's sole cost and expense, in acquiring any necessary rights, where possible, to legally and physically access and use any third-party technologies and documentation then being used by Service Provider in connection with the Application Software;
- 18.7.4 using commercially reasonable efforts to make available to City, pursuant to mutually agreeable terms and conditions, any third-party services then being used by Service Provider in connection with the Application Software; and,
- 18.7.5 such other activities upon which the parties may agree.

11.3 **Replace Section 18.8: Payments Upon Termination.** Upon termination of this Annex, City shall pay to Contractor all undisputed Fees due and payable, as follows:

- 18.8.1 Contractor shall be paid the pro-rated value of all Services in progress as of the effective date of the termination notice, provided however, that such payment shall

not exceed the payment amount associated with the progress payment applicable to the Services. If termination is for Contractor's uncured breach, City will not be required to release any Hold-Back Amounts (if any) or pay for Services that resulted in the uncured breach;

18.8.2 the cost of all materials and outside services, which have been reasonably placed on order by Contractor on behalf of City under this Annex, or, as applicable, any cancellation charges (including, but not limited to, restocking fees) relating to such materials and outside services; and

18.8.3 within 30 days of receipt of invoice.

Contract Exhibit 4

Versaterm Public Safety Inc. and City of Mesa
Amendment No. 2 to Contract No. 2017190

AMENDMENT 2 TO CONTRACT NO. 2017190

RMS AND CAD

THIS SECOND AMENDMENT is made this 30th day of June, 2023, by and between **CITY OF MESA** ("City"), an Arizona municipal corporation, and **VERSATERM PUBLIC SAFETY INC.** ("Versaterm"), a British Columbia corporation having its office located at 400-1331 Clyde Avenue, Ottawa, Ontario, (individually a "Party" and collectively the "Parties") to City and Versaterm's Police Department Records Management and Field-Based Reporting System Solution Agreement.

WITNESSETH

WHEREAS Versaterm Inc. and City entered into an agreement numbered 2017190 and dated July 3, 2018 with respect to, among other things, the purchase of the Versaterm Records Management System (vRMS), as amended by Amendment 1 (CAD Extension) numbered 2017190-1 and dated February 28, 2019 with respect to the purchase of the Versaterm Computer-Aided Dispatch System (vCAD) (collectively the "Initial Agreement"); and

WHEREAS Versaterm Inc. was continued into the Province of British Columbia, and on continuance, changed its name to Versaterm Public Safety Inc., and upon amalgamation with Banneker V Acquisition Inc., the entities then collectively formed Versaterm Public Safety Inc.; and

WHEREAS the Initial Agreement was assigned to Versaterm Public Safety Inc.; and

WHEREAS the Parties now wish to amend the Initial Agreement as described herein.

NOW, THEREFORE, the Parties hereby agree as follows:

1. The Term of the Agreement is hereby extended for an additional five (5) years ending on October 31, 2028.
2. The annual Versaterm On-Site Visit Fee shall be \$24,875, and shall be invoiced with the annual Subscription Fee in advance of each annual CAD Subscription Renewal Term.
3. Section 4.3 "Monthly Base Rate" of Exhibit D "Price and Payment Terms" shall be replaced in its entirety by the following:

3.3 "Monthly Base Rate" (B) is the monthly charge per sworn employee for the SaaS Services. Increases in the Monthly Base Rate shall not exceed CPI + 4% per

Versaterm Public Safety Inc. and City of Mesa
Amendment No. 2 to Contract No. 2017190

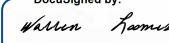
annual subscription. The Monthly Base Rate for the first Subscription Renewal Term shall be \$50. Versaterm will notify City regarding any pricing increases at least six (6) months prior to the beginning of a Subscription Renewal Term.

4. The Section titled "Software Licenses/Subscription" of Exhibit DD "Price Sheet and Payment Terms" is revised to reflect, "the annual percentage increase for application software subscription shall not exceed CPI + 4%" in the last sentence.
5. The Initial Agreement, as modified hereby, shall remain in full force and effect. If there is any conflict or inconsistency with the terms of this Amendment 2 and the terms of the Initial Agreement, then the terms of this Amendment 2 shall prevail to the extent of such conflict or inconsistency.

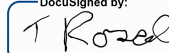
IN WITNESS WHEREOF, the Parties hereto have caused these presents to be executed as of the day and year first written above.

Versaterm Public Safety Inc.

City of Mesa

DocuSigned by:

Signature Warren Loomis
Name President & CEO
Title September 25, 2023
Date

G. Nesbit #11424
Signature Gina Nesbit
Name Assistant Chief
Title 9/15/23
Date

DocuSigned by:

Signature Terri Rosales
Name VP Finance and Admin
Title September 25, 2023
Date

Signature
Name
Title
Date

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Tiffany Antol, Zoning Code Manager
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Adoption of Resolution No. 2026-46 and Ordinance No. 2026-20: A Resolution of the City Council of the City of Flagstaff, Coconino County, Arizona, declaring as a public record that certain document filed with the City Clerk, entitled "PZ-25-00200 - Planned Community (PC) Zone" and an Ordinance of the City Council of the City of Flagstaff, Coconino County, Arizona, amending the Flagstaff City Code, Title 10, Flagstaff Zoning Code.

STAFF RECOMMENDED ACTION:

At the September 15, 2026, Council Meeting:

- 1) Read Resolution No. 2026-46 by title only
- 2) City Clerk reads Resolution No. 2026-46 by title only (if approved above)
- 3) Read Ordinance No. 2026-20 by title only for the first time
- 4) City Clerk reads Ordinance No. 2026-20 by title only (if approved above)

At the October 6, 2026 Council Meeting:

- 5) Adopt Resolution No. 2026-46
- 6) Read Ordinance No. 2026-20 by title only for the final time
- 7) City Clerk reads Ordinance No. 2026-20 by title only (if approved above)
- 8) Adopt Ordinance No. 2026-20

Executive Summary:

City's request for a Zoning Code Text Amendment to modify Zoning Code provisions in Chapter 10-40: Specific to Zones, Division 10-40.20: Establishment and Designation of Zones, Division 10-40.30: Non-Transect Zones to add Section 10-40.30.070: Planned Community Zone. The Planned Community (PC) zone is an alternative zoning district and development process to accommodate master-planned developments that allow flexibility not otherwise possible with other zoning districts and allow for adjustments to changing community and market conditions.

The Planning & Zoning Commission recommended approval of this text amendment by a vote of 5-0 at their August 12, 2026 public hearing.

Financial Impact:

There are no anticipated financial impacts affiliate with the proposed Zoning Code Text Amendment.

Policy Impact:

There are no anticipated policy impacts affiliated with the proposed Zoning Code Text Amendment.

Previous Council Decision or Community Discussion:

There has not been a previous City Council decision on this ordinance.

Options and Alternatives to Recommended Action:

The City Council may adopt, modify, or deny the proposed amendment.

Background and History:

The purpose of the proposed amendment is to add Section 10-40.30.070: Planned Community Zone standards. The PC zoning district is intended to encourage creative and efficient design; integrated land uses; preservation of natural resources; integration of Common Space areas; multimodal connectivity; and the orderly provision of infrastructure and services. The district is intended to implement the general plan, related specific plans, and the City's housing and sustainability goals. The PC zoning district accommodates developments that may include a full mix of land uses including residential, commercial, industrial, civic, and common space. The amendment includes the following changes to the Zoning Code:

- **Chapter 10-40: Specific to Zones, Division 10-40.20: Establishment and Designation of Zones, Table 10-40.20.020.A Zones** – is amended to correct the name of the Public and Open Space Zones and add a new category of zones called Special Use Zones including the Planned Community zone.
- **Chapter 10-40: Specific to Zones, Division 10-40.30: Non-Transect Zones** – is amended to standards for the new Planned Community (PC) zone including the following:
 - Applicability
 - The PC zone may be established on any lot or parcel regardless of size under unified ownership or control with a Planned Community Master Plan (PCMP).
 - Land uses not listed as a permitted use in the Zoning Code may be considered as part of the PC zone.
 - All development within a PC zone shall conform to the review process set out in City Code including Title 10 Flagstaff Zoning Code, Title 11 General Plans and Subdivisions, and Title 13 Engineering Design Standards and Specifications for New Infrastructure.
 - PCMP Requirements
 - Land Use Plan
 - Building Form and Property Development Standards
 - Common Spaces and Amenities Plan
 - Master Streets Plan
 - Infrastructure Plan
 - Phasing Plan
 - A Zoning Map Amendment is required to establish the PC zone.
 - Amendments
 - Minor amendments may be approved administratively by the Planning Director. Minor amendments include anything not considered a major amendment.
 - Major amendments include the following:
 - The addition of land uses
 - A ten percent or more increase or decrease in the square footage of nonresidential uses or the number of residential units that may be developed
 - An increase in building height
 - Increases in development intensity that requires additional impact analysis and exceed the approved infrastructure plans for the development
 - Any amendment, as determined by the Planning Director, that changes the character of the proposed development or has additional significant external impacts on adjacent properties
 - The PCMP may establish unique development standards for the development.
 - 20% of the gross land area is required to be provided as Common Space with both conservation and recreational spaces required.
 - A multi-use path/trail is required to connect all land uses areas and common spaces as well as adjacent properties.

A Zoning Code Text Amendment shall be evaluated based on the following findings:

A. Finding #1: The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan.

Core Priority Supporting Policies

HA.2 Expand access to homeownership through the development of a variety of housing types, providing resources and programs to support homebuyers; and reducing barriers to homeownership

opportunities.

HA.4 Further the development and rehabilitation of affordable and accessible rental opportunities for residents at all income levels.

NE.2 Include a range of housing options for all income levels in neighborhoods.

GM.1 Promote medium-to-high density residential developments and mixed-use developments within the Urban Growth Boundary (UGB) to resist urban sprawl.

MT.2a Improve the network connectivity and accessibility to surrounding and supporting local roads, collectors, and arterials to achieve lower Vehicle Miles Traveled (VMT) and improve the pedestrian, bike, and transit network.

MT.4 Reduce the demand for driving and vehicle dependency which will, in turn, reduce the cost of the transportation system, increase transportation equity, and achieve carbon neutrality.

MT.5 Increase the accessibility, connectivity, and use of pedestrian and bicycling infrastructure, including the Flagstaff Urban Trail System and other trail systems, as a critical element of a safe and livable community and to promote transit access.

Complementary Priority Supporting Policies

DP.1 Promote compact and pedestrian-oriented design appropriate to, and within the context of, each land use category: Urban, Suburban, and Rural.

DP.2 Support development and redevelopment with a diversity of housing types by expanding opportunities for missing middle housing.

DP.5 Support the incorporation of nature-based infrastructure solutions in new development, parks, and open space to enhance climate resilience, manage stormwater, promote land-use efficiency, and reduce impacts to significant natural resources.

DP.7 Create and enhance the sense of place in walkable mixed-use communities and public spaces.

TS.3a Provide and maintain Complete Streets and systems with functional, comfortable, and safe sidewalks, bicycle facilities, and transit stops, that provide accommodation for all users, even in temporary or interim conditions.

TS.7 Design trail systems to provide safe and comfortable connections between trails that emphasize the natural setting and Landscapes and those that provide comfortable low carbon transportation within Neighborhoods, Districts, and Centers.

PROS.1 Provide parks and complementary open spaces within a 10-minute walk of all residents, prioritizing underserved areas of the Region, to support livable, sustainable compact development and climate resilience.

PROS.3 Create and maintain opportunities for access to recreation and community centers through adaptive reuse of appropriate buildings, partnerships with non-profit organizations and neighborhoods, and new construction identified in master plans.

PROS.4 Support and incentivize public access points and trail hubs for passive and active recreation and events through interagency coordination and local trail partnerships.

RS.5 Incorporate the protection, conservation, and restoration of significant natural resources in the development of regulations and property acquisition.

Action Item:

Develop a Planned Area Development zoning district that allows for a greater mix of land uses to support a variety of housing types and economic development.

B. Finding #2: The proposed amendment will not be detrimental to the public interest, health, safety, convenience, or welfare of the City.

The amendment provisions are not anticipated to be detrimental to the public interest, health, safety, convenience, or welfare of the City. The proposed Planned Community Zone may only be utilized by a development project through a rezoning of land. The PC zone will not be assigned to any land within the City of Flagstaff and each application will need to be reviewed and evaluated on the required findings for a Zoning Map Amendment. The intention of the amendment is to create a flexible, streamlined development review for master planned developments.

C. Finding #3: The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

The amendments are internally consistent, utilize the existing format, and do not conflict with other Zoning Code provisions. The amendments maintain the Zoning Code's purpose as a comprehensive contemporary set of land uses and requirements that are straightforward, usable, and easily understood.

Connection to PBB Priorities and Objectives:

Achieve a well-maintained community through comprehensive & equitable code compliance, & development is compatible with community values.

Connection to Regional Plan:

See Background and History section.

Connection to Carbon Neutrality Plan:

This amendment has no connection to the Carbon Neutrality Plan.

Connection to 10-Year Housing Plan:

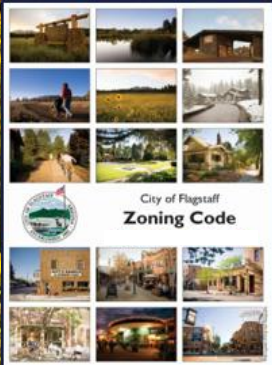
This amendment has not direct connection to the 10-Year Housing Plan.

Attachments: [Presentation](#)
 [Res. 2026-46](#)
 [Exhibit A PZ-25-00200 PC Zone](#)
 [Ord. 2026-20](#)
 [PZ-25-00200 PC Zone Housing Statement](#)

Zoning Code Amendment Planned Community Zone

PZ-25-00200

Tiffany Antol, AICP
Zoning Code Manager





Planned Community (PC) Zone

Introduction

- Purpose of the Amendment is to add the Planned Community (PC) zone to the Zoning Code which is an alternative zone providing flexibility not otherwise possible with existing zoning districts by allowing adjustments to changing community and market conditions.
 - The PC zone encourages creative and efficient design; integrated land uses; preservation of Natural Resources; integration of Common Space areas; active transportation connectivity; and the orderly provision of infrastructure and services.
 - The zone is intended to implement the General Plan, related Specific Plans, and the City's housing and sustainability goals and accommodates developments that may include a full mix of land uses including residential, commercial, industrial, civic, and common space.



Planned Community (PC) Zone

Applicability

- The PC zone may be established on any Lot or Parcel of land under unified ownership or control.
 - Requires a Planned Community Master Plan (PCMP).
 - Land uses not listed in the code may be permitted if consistent with other provisions of the Zoning Code.
 - All development within the PC zone must follow existing City review processes.



Planned Community (PC) Zone

Planned Community Master Plan (PCMP) Requirements

- ***Land Use Plan:*** Must establish maximum and minimum densities and intensities for each land use area which must be consistent with the Regional Plan and impacts can be mitigated.
- ***Building Form & Development Standards:*** Setbacks, building heights, minimum lot requirements, lot coverage, floor area ratio, Architectural Design Standards, Parking Standards, and Landscaping Standards.
- ***Common Spaces and Amenities Plan:*** 20% of gross land area
- ***Master Streets Plan:*** Transit facilities, road network, connectivity plans
- ***Infrastructure Plan:*** Utilities, Stormwater, Fire Access, Transportation Improvements
- ***Phasing Plan:*** Anticipated initiation and completion of each land use area



Planned Community (PC) Zone

Example of PCMP

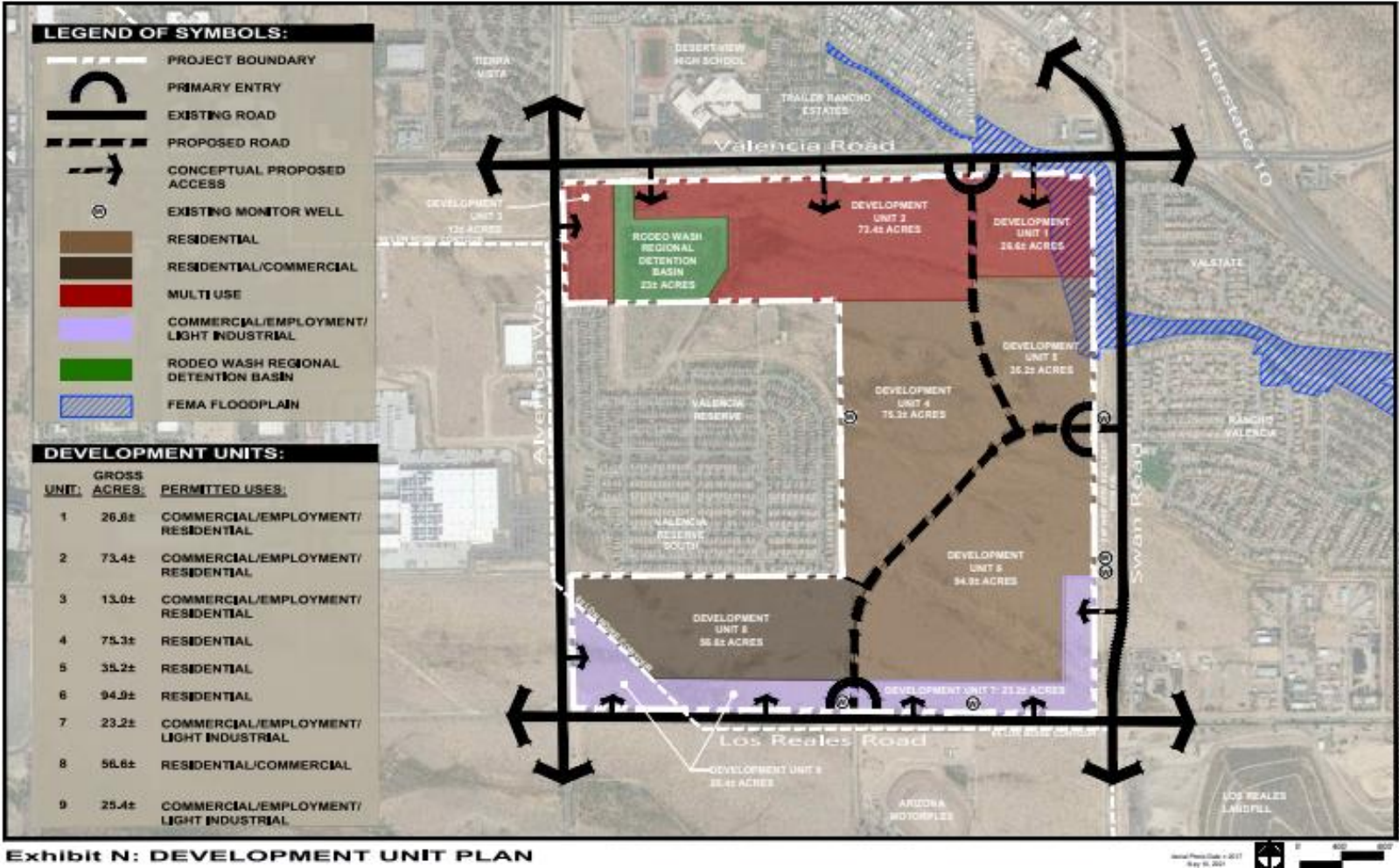


Exhibit N: DEVELOPMENT UNIT PLAN



Planned Community (PC) Zone

Amendments

- Minor Amendments may be approved administratively by the Planning Director. Minor amendments include anything that is not identified as a Major amendments.
- Major Amendments include the following:
 - The addition of land uses not included in the PCMP
 - A ten percent or more increase or decrease in the square footage of nonresidential uses or the number of residential units that may be developed
 - An increase in building height
 - Increases in development intensity that require additional impact analysis and exceed the approved infrastructure plans for the development
 - Any amendment, as determined by the Planning Director, that changes the character of the proposed development or has additional significant external impacts on properties adjacent to the PCMP.



Planned Community (PC) Zone

Enforceability

- The approved PCMP shall serve as the regulatory document governing Development within the PC zone.
- The PCMP, as amended, shall be implemented and maintained in perpetuity for the total acreage of the PC zone, even though ownership may subsequently be transferred in whole or in part. It is the responsibility of the owner to notify all prospective purchasers of all or part of the property within the PC zone the existence of the PCMP.
- If any land use area has not received Site Plan approval or Final Plat approval (not including Block Plats) within the timeframe stated in the PCMP phasing plan, the Director shall require the PCMP phasing plan to be amended to reflect current conditions prior to the acceptance of any Development application for that land use area unless the Director (in consultation with other affected City divisions) determines such amendments are not required.



Planned Community (PC) Zone

Required Findings for Zoning Code Text Amendments

- (1) The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan;**
- (2) The proposed amendment will not be detrimental to the public interest, health, safety, convenience or welfare of the City; and**
- (3) The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.**



Planned Community (PC) Zone

The proposed amendment is consistent with and conforms to the objectives and policies of the General Plan and any applicable specific plan.

Action Item:

- Develop a Planned Area Development zoning district that allows for a greater mix of land uses to support a variety of housing types and economic development.

Core Priority Supporting Policies

HA.2 Expand access to homeownership through the development of a variety of housing types, providing resources and programs to support homebuyers; and reducing barriers to homeownership opportunities.

HA.4 Further the development and rehabilitation of affordable and accessible rental opportunities for residents at all income levels.

NE.2 Include a range of housing options for all income levels in neighborhoods.

GM.1 Promote medium-to-high density residential developments and mixed-use developments within the Urban Growth Boundary (UGB) to resist urban sprawl.

MT.2a Improve the network connectivity and accessibility to surrounding and supporting local roads, collectors, and arterials to achieve lower Vehicle Miles Traveled (VMT) and improve the pedestrian, bike, and transit network.

MT.4 Reduce the demand for driving and vehicle dependency which will, in turn, reduce the cost of the transportation system, increase transportation equity, and achieve carbon neutrality.

MT.5 Increase the accessibility, connectivity, and use of pedestrian and bicycling infrastructure, including the Flagstaff Urban Trail System and other trail systems, as a critical element of a safe and livable community and to promote transit access.



Planned Community (PC) Zone

The proposed amendment will not be detrimental to the public interest, health, safety, convenience or welfare of the City.

The amendment provisions are not anticipated to be detrimental to the public interest, health, safety, convenience, or welfare of the City. The proposed Planned Community Zone may only be utilized by a development project through a rezoning of land. The PC zone will not be assigned to any land within the City of Flagstaff and each application will need to be reviewed and evaluated on the required findings for a Zoning Map Amendment. The intention of the amendment is to create a flexible, streamlined development review for master planned developments.



Planned Community (PC) Zone

The proposed amendment is internally consistent with other applicable provisions of this Zoning Code.

The amendment is internally consistent, utilizes the existing format, and does not conflict with other Zoning Code provisions. It maintains the Zoning Code's purpose as a comprehensive contemporary set of land uses and requirements that are straightforward, usable, and easily understood.



Planned Community (PC) Zone

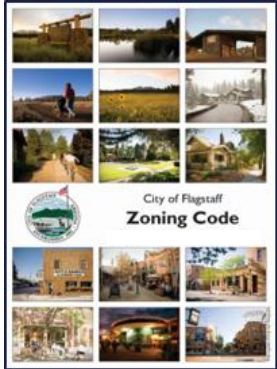
Recommendation

The Planning and Zoning Commission by a vote of 5-0, in accordance with the findings presented in this report, makes a recommendation to the City Council for approval of Zoning Code Text Amendment PZ-25-00200 Planned Community (PC) Zone.



Planned Community (PC) Zone

Questions, Comments, and Suggestions



RESOLUTION NO. 2026-46

**A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL DECLARING AS A
PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK
AND ENTITLED “PZ-25-00200 – PLANNED COMMUNITY (PC) ZONE”**

RECITALS:

WHEREAS, pursuant to A.R.S. § 9-802 a municipality may enact or amend provisions of the City Code by reference to a public record, provided that the adopting ordinance is published in full;

WHEREAS, the City of Flagstaff wishes to incorporate by reference amendments to the Flagstaff Zoning Code, Ordinance No. 2026-20, by first declaring said amendments to be a public record.

ENACTMENTS:

**NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS
FOLLOWS:**

SECTION 1. In General.

That certain document known as “*PZ-25-00200 – Planned Community (PC) Zone*” attached hereto as Exhibit A is hereby declared to be a public record, and one (1) paper copy and one (1) electronic copy shall remain on file with the City Clerk in compliance with A.R.S. § 44-7041.

SECTION 2. Effective Date.

This resolution shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 6th day of October 2026.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:

A. PZ-25-00200 Planned Community (PC) Zone

Case No. PZ-25-00200 – Planned Community (PC) Zone

Provisions that are being deleted are shown in bold ~~striketrough~~ text.

Provisions that are being added are shown in bold **red** text.

Section 1. Amend Title 10 Flagstaff Zoning Code, Chapter 10-40: Specific to Zones, Division 10-40.20: Establishment and Designation of Zones, Table 10-40.20.020.A: Zones, as follows:

Table 10-40.20.020.A: Zones

Zone Symbol	Name of Zone
Non-Transect Zones	
Residential Zones	
RR	Rural Residential
ER	Estate Residential
R1	Single-Family Residential
R1N	Single-Family Residential Neighborhood
MR	Medium Density Residential
HR	High Density Residential
MH	Manufactured Housing
Commercial Zones	
SC	Suburban Commercial
CC	Community Commercial
NCC	Neighborhood Community Commercial
HC	Highway Commercial
CS	Community Service
CB	Central Business
Industrial Zones	
RD	Research and Development

Table 10-40.20.020.A: Zones

Zone Symbol	Name of Zone
LI	Light Industrial
LI-O	Light Industrial Open
HI	Heavy Industrial
HI-O	Heavy Industrial Open
Resource Public and Open Space Zones	
PF	Public Facility
PLF	Public Lands Forest
POS	Public Open Space
Special Use Zones	
PC	Planned Community
Transect Zones	
T1	T1 Natural
T2	T2 Rural
T3N.1	T3 Neighborhood 1
T3N.2	T3 Neighborhood 2
T4N.1	T4 Neighborhood 1
T4N.2	T4 Neighborhood 2
T5	T5 Main Street
T6	T6 Downtown
TND	Traditional Neighborhood District
Overlay Zones	
AO	Airport Overlay
DO	Downtown Overlay

Table 10-40.20.020.A: Zones

Zone Symbol	Name of Zone
LO	Landmark Overlay
TO	Townsite Overlay
RPO	Resource Protection Overlay

Section 2. Amend Title 10 Flagstaff Zoning Code, Chapter 10-40: Specific to Zones, Division 10-40.30: Non Zones, as follows:

Division 10-40.30:

Non-Transect Zones

Sections:

10-40.30.010 Purpose

10-40.30.020 Applicability

10-40.30.030 Residential Zones

10-40.30.040 Commercial Zones

10-40.30.050 Industrial Zones

10-40.30.060 Public and Open Space Zones

10-40.30.070 Planned Community Zone

~~10-40.30.080~~ Sustainability Features of All Non-Transect Zones

Section 3. Amend Title 10 Flagstaff Zoning Code, Chapter 10-40: Specific to Zones, Division 10-40.30: Non Transect Zones, to add Section 10-40.30.070: Planned Community Zone, as follows:

10-40.30.070 Planned Community Zone

A. Intent.

1. **PC. The Planned Community (PC) zone is an alternative zone and Development process that accommodates Master-Planned Developments, providing flexibility not otherwise possible with other zones enabling adjustments to changing community and market conditions. The PC zone encourages creative and efficient design; integrated land uses; preservation of Natural Resources; integration of Common Space areas; active transportation connectivity; and the orderly provision of infrastructure and services. The zone is intended to implement the General Plan, related Specific Plans, and the City's housing and sustainability goals. The PC zone accommodates Master-Planned Developments that may include a full mix of land uses including Residential, Commercial, Industrial, Civic, and Common Space.**

B. Applicability.

1. **The PC zone may be established on any Lot or Parcel of land under unified ownership or control, or where evidence is provided that coordinated planning is feasible. A Planned Community Master Plan (PCMP) shall be submitted with each request for the PC zone in accordance with the provisions and requirements of this Section.**
2. **Land uses not listed as a permitted use in the Zoning Code may be considered as part of the PC zone subject to any applicable provisions of Division 10-40.60 Specific to Uses. Division 10-40.60 Specific to Uses provisions may not be amended through the PCMP.**
3. **All Development within a PC zone shall conform to the review processes set out in City Code, including Title 10 Flagstaff Zoning Code, Title 11 General Plans and Subdivisions, and Title 13 Engineering Design Standards and Specifications for New Infrastructure. All Subdivision Plats and Site Plans within a PC zone must demonstrate compliance with the adopted PCMP and all other applicable City Codes.**

C. Planned Community Master Plan and PC Zone Requirements. A Planned Community Master Plan (PCMP) shall regulate the Development of the property subject to the PC zone in conjunction with other applicable city codes, and shall contain the following:

1. **Land Use Plan. The PCMP shall include the proposed land use areas including approximate boundaries and acreage, permitted land uses for each area, and Development densities and intensities including target Residential unit ranges (minimums and maximums) and/or nonresidential square footages per land use area.**
 - a. **Any land use not identified in the PCMP is prohibited unless the plan is amended pursuant to Section 10-40.30.070.E. Each land use areas may include multiple permitted land uses.**

- a. Are consistent with the General Plan; and
 - b. Maintain overall Compatibility with existing or planned surrounding Development.
3. Common Spaces and Amenities Plan. All applications for the PC zone shall provide a minimum of 20% of the gross land area within the PCMP as Common Space. The PCMP shall identify the approximate areas and minimum acreages of the proposed Common Space as well as a list of amenities that meets the following requirements:
 - a. 10% of the total required Common Space area shall be utilized as conservation Common Space which shall include natural undisturbed landscapes such as natural washes and Floodplains, wildlife corridors, native plant habitat areas, ridgelines, geologically hazardous areas, archeological, cultural, or historic sites. Multi-use Paths and Trails may be used to meet this requirement so long as they are not used to meet the recreational Common Space requirements. The total percentage of conservation Common Space may be modified or eliminated due to existing land disturbance and lack of natural features by the Director in consultation with Parks, Recreation, Open Space, and Events (PROSE) Director so long as a minimum of 20% of the gross land area is designated as Common Space.
 - b. 10% of the total required Common Space areas shall be utilized as recreational Common Space which may include recreation amenities open to the public including

but not limited to Playgrounds, sports fields, ramadas, picnic areas, multi-use Paths, and Trails. The total percentage of recreational Common Space may be modified but not eliminated by the Director in consultation with the PROSE Director to ensure that an appropriate mix of both recreational and conservation Common Space is provided so long as a minimum of 20% of the gross land area is designated as Common Space.

- c. All required Common Space shall be held in common by the property owners unless dedicated to and accepted by the City of Flagstaff, in its sole discretion. The PCMP shall include provisions for permanent maintenance of and access to all required Common Space, including provisions addressing maintenance duties.
- d. Required Common Space shall be maintained so that their use and enjoyment are not diminished or destroyed.

4. Master Streets Plan. The PCMP shall include the following:

- a. Transit facilities and routes where applicable; and
- b. Roadway network (arterials and collectors) in conformance with the General Plan and per the approved Transportation Impact Analysis; and
- c. A connectivity plan showing how all land use areas will be linked by local Roads and/or Driveways that provides connections between all land use areas and adjacent properties outside of the PCMP; and
- d. Pedestrian and bicycle connectivity between land use areas and Adjacent properties outside of the PCMP.
 - i. A multi-use Path and Trail shall be provided and shown on the master streets plan to connect all land use areas and Common Space areas identified in the PCMP. All facilities shall be constructed in accordance with the standards of Chapter 13-14 FUTS Trails, Pedestrian and Bicycle Facilities found in Title 13 Engineering Design Standards and Specifications for New Infrastructure; and
 - ii. The multi-use Path and Trail system that is not included in the FUTS network as shown in the General Plan shall be held in common by the property owners with secured public access through an easement or other agreement. The PCMP shall include provisions for permanent maintenance, including provisions addressing maintenance duties.

5. Infrastructure Plan. The PCMP shall describe how the overall development will be served by the following infrastructure:

- a. Water, sewer, Reclaimed Water; and
- b. Stormwater; and
- c. Dry Utilities; and

- d. Fire service access; and
 - e. Transportation improvements.
- 6. **Phasing Plan.** If applicable, the PCMP shall include how infrastructure will be phased to support the overall Development project that includes the following information:
 - a. The anticipated initiation and completion of each land use area; and
 - b. A summary of infrastructure improvements needed to support the overall Development and the requirements of each land use area; and
 - c. A summary of any potential offsets to reduce infrastructure demands for the overall Development project.

D. Procedures for Review and Approval of the PC Zone

- 1. A Pre-Application meeting with City staff is required.
- 2. Adoption of the PC Zone shall follow procedures for a Zoning Map Amendment.

E. Amendments. The following procedure shall be followed for any amendment to the PCMP:

- 1. **Minor Amendments.** A minor amendment is an amendment that does not meet the criteria established for major amendments. The Director has the authority to administratively approve minor amendments.
- 2. **Major Amendments.** A major amendment involves any of the following:
 - a. The addition of land uses not included in the PCMP; or
 - b. A ten percent or more increase or decrease in the square footage of nonresidential uses or the number of residential units that may be developed; or
 - c. An increase in Building height; or
 - d. Increases in Development intensity that require additional impact analysis and exceed the approved infrastructure plans for the development; or
 - e. Any amendment, as determined by the Director, that changes the character of the proposed development or has additional significant external impacts on properties adjacent to the PCMP.

Major amendments shall be processed as a Zoning Map Amendment in accordance with Division 10-20.50 Amendments to the Zoning Code Text and Zoning Map.

F. Enforceability.

- 1. The approved PCMP shall serve as the regulatory document governing Development within the PC zone.

2. The PCMP, as amended, shall be implemented and maintained in perpetuity for the total acreage of the PC zone, even though ownership may subsequently be transferred in whole or in part. It is the responsibility of the owner to notify all prospective purchasers of all or part of the property within the PC zone the existence of the PCMP.
3. If any land use area has not received Site Plan approval or Final Plat approval (not including Block Plats) within the timeframe stated in the PCMP phasing plan, the Director shall require the PCMP phasing plan to be amended to reflect current conditions prior to the acceptance of any Development application for that land use area unless the Director (in consultation with other affected City divisions) determines such amendments are not required.

ORDINANCE NO. 2026-20

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF CITY CODE, TITLE 10, FLAGSTAFF ZONING CODE, BY ADOPTING BY REFERENCE THAT CERTAIN DOCUMENT ENTITLED “PZ-25-00200 – PLANNED COMMUNITY (PC) ZONE”; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES, SEVERABILITY, AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff wishes to amend Zoning Code provisions in Chapter 10-40: Specific to Zones to add the Planned Community (PC) Zone an alternative zone providing flexibility not otherwise possible with existing zoning districts by allowing adjustments to accommodate changing community and market conditions; and

WHEREAS, a citizen review session was held at the Planning Commission work session on July 22, 2026, to discuss the proposed Zoning Code text amendment in accordance with Section 10-20.50.040 of the Flagstaff Zoning Code; and

WHEREAS, the Planning and Zoning Commission held a public hearing on August 12, 2026, and provided a recommendation to City Council on the proposed Zoning Code text amendment; and

WHEREAS, the Council has read and considered the staff report prepared by the Planning and Development Services division and all attachments to those reports, and the Council finds that the proposed Zoning Code text amendment is in conformance with the General Plan, and the findings of Section 10-20.50.040 of the Flagstaff Zoning Code have been met; and

WHEREAS, that certain document known as “*PZ-25-00200 – Planned Community (PC) Zone*”, one (1) paper copy and one (1) electronic copy of which are on file with the City Clerk in compliance with A.R.S. § 44-7041, was declared to be a public record by Resolution No. 2026-46.

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. That certain document known as “*PZ-25-00200 – Planned Community (PC) Zone*”, one (1) paper copy and (1) electronic copy of which are on file in the office of the City Clerk of the City of Flagstaff, Arizona, and which document is declared a public record by Resolution No. 2026-46 of the City of Flagstaff, Arizona, is hereby referred to, adopted and made a part hereof as if fully set out in this ordinance and its provisions are hereby declared to amend the Flagstaff City Code, replacing and superseding the existing relevant provisions of the City Code, as set forth therein.

SECTION 3. The amendment is consistent with and conforms to the goals of the Regional Plan (General Plan).

SECTION 4. The amendment 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 5. The amendment is internally consistent with other applicable provisions of this Zoning Code.

SECTION 6. Repeal of Conflicting Ordinances

All ordinances and parts of ordinances in conflict with the provisions of the code adopted herein are hereby repealed.

SECTION 7. Severability

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 8. Clerical Corrections

The City Clerk is hereby authorized to correct clerical and grammatical errors, if any, related to this ordinance, and to make formatting changes appropriate for purposes of clarity, form, or consistency with the Flagstaff City Code.

SECTION 9. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 6th day of October 2026.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

**HOUSING IMPACT STATEMENT
PZ-25-00200 PLANNED COMMUNITY ZONE**

Pursuant to ARS 9-462.01 (J) a Housing Impact Statement shall be considered by the City Council prior to adopting a Zoning Code Text Amendment regarding the impact of the amendment on the following:

1. A general estimate of the probable impact on the average cost to construct housing for sale or rent within the zoning districts to which the zoning text amendment applies.

The proposed zoning code text amendment adds a new zoning category intend to add zoning flexibility options for planned developments. A Zoning Map Amendment voluntarily requested by the property is required to establish the provisions of this zoning district. The provisions of this district do not directly increase the cost of housing construction.

2. A description of any data or reference material on which the proposed zoning text amendment is based.

No data or reference material was used for the preparation of this zoning district.

3. A description of any less costly or less restrictive alternative methods of achieving the purpose of the proposed zoning text amendment.

None.

CITY OF FLAGSTAFF STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Amy Tressler, Building Safety & Code Compliance/ Building Official
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Adoption of Resolution No. 2026-47 and Ordinance No. 2026-24: A resolution declaring as a public record *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code"* and an ordinance adopting *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code."*

STAFF RECOMMENDED ACTION:

At the September 15, 2026, Council Meeting:

1. Read Resolution No. 2026-47 by title only for the first time
2. City Clerk reads Resolution No. 2026-47 by title only (if approved above)
3. Read Ordinance No. 2026-24 by title only for the first time
4. City Clerk reads Ordinance No. 2026-24 by title only (if approved above)

At the October 6, 2026, Council Meeting:

1. Adopt Resolution No. 2026-47
2. Read Ordinance No. 2026-24 by title only for the final time
3. City Clerk reads Ordinance No. 2026-24 by title only (if approved above)
4. Adopt Ordinance No. 2026-24

Executive Summary:

The City of Flagstaff's most recent comprehensive building code adoption updated the City from the 2012 International Codes to the 2018 International Codes and associated standards. The International Code Council (ICC), developer and publisher of the International Codes (I-Codes), publishes updated model codes on a three-year cycle. The City of Flagstaff has historically adopted the International Codes every other code cycle, or approximately every six years. Moving from the 2018 to the 2024 editions maintains this established six-year adoption cycle.

The proposed 2024 Suite of Building and Fire Codes includes the following model codes and standards:

- 2024 International Building Code (IBC)
- 2024 International Residential Code (IRC)
- 2024 International Existing Building Code (IEBC)
- 2024 International Mechanical Code (IMC)
- 2024 International Plumbing Code (IPC)
- 2024 International Fuel Gas Code (IFGC)
- 2024 International Energy Conservation Code (IECC)
- 2024 International Swimming Pool and Spa Code (ISPSC)
- 2024 International Fire Code (IFC)
- 2024 International Wildland-Urban Interface Code (IWUIC)
- 2023 NFPA 70 – National Electrical Code (NEC)
- ICC A117.1-2017 – Accessible and Usable Buildings and Facilities

The adoption package also retains the City's existing 1997 Uniform Code for the Abatement of Dangerous Buildings, 1997 Uniform Administrative Code, and 1997 Uniform Housing Code.

The 2024 codes are proposed for adoption with local amendments developed to address Flagstaff's unique climate and environmental conditions, established construction practices, housing affordability considerations, community priorities, and local administrative requirements. The proposed amendments are intended to tailor the nationally developed model codes to local conditions while maintaining appropriate standards for life safety, public health, durability, resiliency, and building performance.

****Work Session Powerpoint Presentation is included in attachments**

Financial Impact:

City Council adoption of *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code"* will not have a financial or budgetary impact on the organization.

Policy Impact:

There is no policy impact affiliated with the adoption of *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code."*

Previous Council Decision or Community Discussion:

There has been no previous Council decision regarding adoption of the proposed 2024 Suite of Building and Fire Codes. Throughout the code adoption process, staff conducted extensive community and stakeholder outreach, including two public open houses, presentations and discussions with the Building and Fire Code Board of Appeals, Housing Commission, Sustainability Commission, and Greater Flagstaff Chamber of Commerce, as well as direct engagement with contractors, design professionals, developers, and other community stakeholders. Staff also coordinated closely with Coconino County throughout the adoption process to share information and align proposed requirements where practical. Feedback received through these efforts was considered in the development and refinement of the proposed local amendments.

Options and Alternatives to Recommended Action:

1. Adopt Resolution No. 2026-XX declaring that the document entitled *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code"* to be a public record.
2. Do not adopt Resolution No. 2026-XX.
3. Adopt Ordinance No. 2026-XX to adopt the *"The 2024 Suite of Building and Fire Codes and Related Amendments to Flagstaff City Code, Title 4, Building Regulations, and Title 5, Fire Code."*
4. Modify and adopt Ordinance No. 2026-XX.
5. Do not adopt Ordinance No. 2026-XX.

Background and History:

The City of Flagstaff uses nationally developed model construction codes as the foundation for its building and fire safety regulations. The International Code Council (ICC) develops and updates the International Codes through a national consensus-based process to address changes in construction practices, technology, materials, building performance, and life-safety standards. Local jurisdictions may adopt these model codes and amend specific provisions as necessary to address local laws, administrative practices, climatic conditions, and community needs.

Flagstaff has historically adopted the International Codes with local amendments tailored to conditions unique to the community, including high elevation, significant snow loads, cold-weather construction, energy efficiency, and wildland-urban interface considerations. The City currently operates under the 2018 code cycle and is proposing to transition to the 2024 editions as part of its established six-year adoption cycle. Staff from Building Safety, Sustainability, Fire, and Wildland Fire have reviewed the 2024 codes and developed proposed local amendments intended to maintain appropriate life-safety and building-performance standards while considering constructibility, affordability, sustainability, resiliency, and local

conditions.

Connection to PBB Priorities and Objectives:

The proposed adoption of the 2024 Suite of Building and Fire Codes supports the following City of Flagstaff Priority Based Budgeting (PBB) priorities and objectives:

- Safe and Healthy Community
 - Ensure the built environment is safe through the use of consistent standards as well as best practices for building and land use.
 - Provide public safety services with resources, staff, and training responsive to the community's needs.
- Environmental Stewardship
 - Implement and enhance sustainable building practices, waste diversion programs, alternative energy programs, and multimodal transportation options.
 - Implement, maintain, and further the Carbon Neutrality Plan (CNP) with awareness of social inequities.
 - Strengthen Flagstaff's resilience to climate change impacts on built, natural, economic, health, and social systems.
 - Promote, protect, and enhance a healthy, sustainable environment and its natural resources.
- Robust and Resilient Economy
 - Enhance relationships between the development community, the City, and Flagstaff residents.
 - Support and strengthen a robust, diverse, and sustainable economy.
- Livable Community
 - Achieve a well-maintained community through comprehensive and equitable code compliance and development.
 - Actively support attainable and affordable housing through the City's 10-Year Housing Plan as well as other projects and opportunities.
- High Performing Governance
 - Serve the public by providing high quality customer service.
 - Implement and communicate innovative and efficient local government programs, new ideas, and best practices.
 - Cultivate community communication and engagement practices that are clear, consistent, and timely.

Connection to Regional Plan:

The proposed adoption of the 2024 Suite of Building and Fire Codes supports the goals and policies of the Flagstaff Regional Land Use Plan 2045, particularly those related to:

- Public Safety and Community Resilience – Adoption of current building, fire, and wildland-urban interface codes supports safe and resilient development and helps reduce risks associated with structural hazards, fire, wildfire, and other conditions affecting the built environment.
- Energy and Climate Action – Adoption of the 2024 International Energy Conservation Code and related local amendments advances building energy efficiency, reduces long-term energy consumption, supports renewable-energy readiness, and improves the performance of new buildings.
- Resource Stewardship and Resilience – Updated construction standards support buildings that are better able to respond to Flagstaff's climate and environmental conditions and contribute to long-term community resilience.
- Infrastructure and Public Safety – Current and coordinated construction codes establish consistent minimum standards for safe development and provide a regulatory framework for building, fire, electrical, mechanical, plumbing, and other building systems.
- Housing and Affordability – Local amendments have been evaluated to balance updated life-safety, energy-efficiency, and resiliency standards with housing affordability, constructibility, and development costs.
- Regional Coordination – The code adoption process has included coordination with Coconino County to promote consistency where practical for contractors, design professionals, property owners, and others working across jurisdictions.

Connection to Carbon Neutrality Plan:

The proposed adoption of the 2024 Suite of Building and Fire Codes supports implementation of the Flagstaff Carbon Neutrality Plan by advancing building energy efficiency, renewable-energy readiness, beneficial electrification, and community resilience. The Carbon Neutrality Plan specifically identifies progressively more efficient building codes and movement toward net-zero-energy construction as strategies for reducing community greenhouse gas emissions. Adoption of the 2024 IECC and proposed solar-ready and electric-ready provisions represents an incremental step toward these goals while local amendments seek to balance energy performance with housing affordability, constructibility, and Flagstaff's local climate conditions.

Connection to 10-Year Housing Plan:

The proposed adoption of the 2024 Suite of Building and Fire Codes has been evaluated in consideration of the goals and strategies of the City of Flagstaff's 10-Year Housing Plan. Staff considered potential impacts of updated construction requirements on housing affordability and development costs and developed local amendments where appropriate to maintain life-safety, durability, energy-efficiency, and resiliency objectives while reducing unnecessary regulatory or cost impacts. Current and consistently administered construction standards also provide greater predictability for developers, design professionals, contractors, and property owners and support the creation and preservation of safe, sustainable, and resilient housing.

Connection to Division Specific Plan:

The proposed adoption of the 2024 Suite of Building and Fire Codes directly supports the mission and objectives of Planning & Development Services by promoting safe, quality development and reinvestment while protecting Flagstaff's built and natural environment. Updated and coordinated construction codes provide clear and consistent standards for the development community, support efficient plan review and inspection processes, incorporate current construction technologies and best practices, and advance safe, resilient, sustainable, and durable development. The proposed local amendments further support Division objectives by adapting national model codes to Flagstaff's unique conditions while considering constructibility, affordability, and predictable development requirements.

Attachments:

Current Adopted Title 4 Building Amendments
2024 Building Codes and Amendments
Current 2018 Title 5 Fire Code Amendments
2024 IFC and IWUIC Codes and IFC Amendments
Current 2018 Title 5 Wildland Urban Interface Code Amendments
2024 International Wildland Urban Interface Code Amendments
Res. 2026-47
Ord. 2026-24
Presentation

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

TITLE 4 BUILDING REGULATIONS

CHAPTERS:

4-01 ADMINISTRATIVE ENACTMENTS

4-02 2018 INTERNATIONAL BUILDING CODE (IBC) AMENDMENTS

4-03 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AMENDMENTS

4-04 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC) AMENDMENTS

4-05 2018 INTERNATIONAL MECHANICAL CODE (IMC) AMENDMENTS

4-06 2018 INTERNATIONAL PLUMBING CODE (IPC) AMENDMENTS

4-07 2018 INTERNATIONAL FUEL GAS CODE (IFGC) AMENDMENTS

4-08 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AMENDMENTS

4-09 2018 INTERNATIONAL SOLAR ENERGY PROVISIONS (ISEP) AMENDMENTS

4-10 2018 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC) AMENDMENTS

4-11 NATIONAL ELECTRICAL CODE (NEC), 2017 EDITION, AMENDMENTS

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-01 ADMINISTRATIVE ENACTMENTS

SECTIONS:

4-01-001-0001 DEFINITIONS
4-01-001-0002 ADOPTION OF MODEL CODES
4-01-001-0003 SAVING CLAUSE
4-01-001-0004 VIOLATION AND PENALTIES

4-01-001-0001 DEFINITIONS

As used in all of the adopted model codes referenced herein, as amended, the following terms shall have the meaning herein prescribed:

A. Wherever the word "Municipality" or "[Name of Jurisdiction]" is used, it shall be mean the City of Flagstaff.

B. Wherever the term "Department of Building Safety" is used, it shall mean "Development Services Division."

C. Wherever the term "Corporation Counsel" is used in this Chapter, it shall mean the Attorney for the City of Flagstaff.

D. Wherever the term "Administrative Authority" is used in conjunction with publicly provided utilities (natural gas, electricity, internet and broad band service, telephone, and cable television), it shall mean the current contract company providing the respective service. Wherever the term "Administrative Authority" is used in conjunction with publicly provided utilities or permits (water, sewer, storm water management and/or building permits), it shall mean the City of Flagstaff.

4-01-001-0002 ADOPTION OF MODEL CODES

There are hereby adopted by the City Council of the City of Flagstaff for the purposes of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, alteration, removal, maintenance of buildings and structures, including permits and penalties, those certain model codes known and referred to with particularity as:

2018 International Building Code (IBC)*

2018 International Residential Code (IRC)*

2018 International Existing Building Code (IEBC)*

2018 International Mechanical Code (IMC)*

2018 International Plumbing Code (IPC)*

2018 International Fuel Gas Code (IFGC)*

2018 International Energy Conservation Code (IECC)*

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

2018 International Solar Energy Provisions (ISEP)*

2018 International Swimming Pool and Spa Code (ISPSC)*

National Electrical Code (NEC), 2017 Edition**

ICC A117.1-2017, Accessible and Usable Building and Facilities*

1997 Uniform Housing Code***

1997 Uniform Administrative Code***

1997 Uniform Code for the Abatement of Dangerous Buildings***

***Published by International Code Council (ICC)**

**** Published by National Fire Protection Association (NFPA)**

***** Published by International Conference of Building Officials (ICBO)**

One (1) hard copy and one (1) electronic copy of each model code, and any amendments to said codes, are on file in the office of the City Clerk of the City of Flagstaff, and the same made part hereof by this reference as if fully and completely herein set forth. The provisions of the aforesated Codes shall be controlling for construction within the corporate limits of the City of Flagstaff.

4-01-001-0003 SAVING CLAUSE

Nothing in this Chapter or in the 2018 International Codes, National Electrical Code, ICC A117.1-2017, and Uniform Codes hereby adopted shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinances replaced hereby. Nor shall any right or remedy of any character be lost, impaired, or affected by this Chapter.

4-01-001-0004 VIOLATION AND PENALTIES

A. Violations. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any building or permit the same to be done in violation of the model codes adopted in section 4-01-001-0002 above, as amended.

B. Penalties. Any person, firm, or corporation violating any provision of this Code shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by Flagstaff City Code, Title I, Chapter 1-04 General Penalty. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-02 2018 INTERNATIONAL BUILDING CODE

4-02-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 101 General

Amend 2018 IBC 101.2.1, Appendices, by adding:

The following Appendices are hereby adopted as part of the IBC:

APPENDIX C - Group U - Agricultural Buildings

APPENDIX I - Patio Covers

APPENDIX J - Grading

APPENDIX N - Replicable Buildings

Section 103 Department of Building Safety

Amend 2018 IBC 103.1, Creation of enforcement agency, by deleting and replacing with:

The Building Safety Program of the Planning & Development Services Section, Community Development Division is appointed as the regulating office and the official in charge thereof shall be known as the Building Official.

Section 104 Duties and Powers of Building Official

Amend 2018 IBC 104.7, Department records, by deleting and replacing with:

The Building Official shall keep comprehensive records of applications, permits issued, certificates issued, inspections made, reports rendered, and of notices of orders issued. All such records shall be open to public inspection at the stated office hours but shall not be removed from the office of the Building Official. All records are kept in both hard copy and electronic format. The electronic format information may be requested on a "walk-in" basis and reviewed during normal working hours. Copies or inspection of original documentation requires written notice and reasonable amount of time for Staff to collect the required records from an off-site warehouse location. Written requests will go through the City Clerk's office for processing.

Section 105 Permits

Amend 2018 IBC 105.1, Required, by adding:

Approved portable equipment used in conjunction with special events in public locations (parks, parking lots, public owned land, et cetera) of 25 kW or greater shall have an Over-the-Counter Permit issued and a licensed electrical contractor for installation or set up. The building inspector must be given immediate notice when an installation is ready for either rough or final inspection.

Amend 2018 IBC 105.1.1 Annual permit, by deleting and replacing with:

In lieu of an individual permit for minor work on an already approved electrical, gas, mechanical or plumbing installation, the Building Official may issue an annual permit upon application to any person, firm or

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

corporation regularly employing one or more qualified tradespersons on the premises owned or operated by the permit applicant.

Amend 2018 IBC 105.1.2, Annual permit records, by deleting in its entirety.

Amend 2018 IBC 105.1 Annual permit, by adding subsections 105.1.2 through 105.1.7:

105.1.2 Application and fees. Application for an annual permit shall be filed with the building official, along with the application fee set forth in the city fee schedule.

105.1.3 Renewal application and fee. Annual permits expire on December 31. Application to renew an annual permit shall be filed with the Building Official by December 15, along with the renewal application fee set forth in the city fee schedule.

105.1.4 Denial of application. If the application or renewal is denied, the fee shall be refunded. The applicant may appeal the denial to the Building and Fire Code Board of Appeals within 10 calendar days after notice of the denial.

105.1.5 Suspension and revocation. The building official may suspend or revoke an annual permit upon violation of this code, including failure to apply for permits and inspections when required. Written notice of suspension or revocation shall be sent to the permit holder at least 10 calendar days before suspension or revocation. Appeal may be made to the Building and Fire Code Board of Appeals within 10 calendar days after notice of suspension or revocation. There is no fee refund if an annual permit is suspended or revoked.

105.1.6 Inspections. The building official may inspect all work and reject work or request corrections for any work in violation of this code.

105.1.7 Annual permit records. The person to whom an annual permit is issued shall keep a detailed record of work made under the annual permit. The building official shall have access to such records at all times.

105.1.7.1 Record exceptions. Work reports are not required for:

1. Installing machines, equipment, and processes related to production or testing.
2. Repairing electrical, plumbing, or mechanical systems.
3. Moving cases, counters, and partitions not over 5 feet 9 inches tall.

Amend 2018 IBC 105.2, Work exempt from permit, as follows:

Add the following to Building Item #1: Accessory structures with floor area less than 120 square feet require a Minor Improvement Permit per Flagstaff City Code, Title 10, Flagstaff Zoning Code.

Revise Building Item #2 as follows: Fences and walls not over six (6) feet high. Fences and walls six (6) feet and under require a Minor Improvement Permit per Flagstaff City Code, Title 10, Flagstaff Zoning Code.

Revise Electrical Item #1 by deleting and replacing with: Minor repair work, including the replacement of lamps.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

Amend 2018 IBC 105.5, Expiration, by deleting and replacing with:

All Commercial Building Permits for new construction, remodels, additions, and alterations shall be valid for a maximum period of 730 days. One extension shall be granted for an additional 365 days when requested in writing and justifiable cause is demonstrated. After the one-time extension has expired, the next additional extension will require the applicant to pay one-half the original building permit fee (not including the plan review fee) for an additional 365-day extension. Permits not passing final inspection over 1095 days will be expired and the applicant must submit for a new permit and pay all associated fees.

All commercial Over-the-Counter Permits for plumbing, mechanical, electrical, and re-roofing shall be valid for a maximum period of 180 days.

Section 107 Submittal Documents

Amend 2018 IBC 107.1, General, by adding:

Pursuant to Arizona Revised Statutes governing the regulation of Registered Design Professionals (i.e. architects and engineers), all commercial occupancies for new construction, additions, alterations or repairs within the City of Flagstaff shall be prepared by an Arizona Registered Design Professional in good standing when:

1. The total square footage of any building exceeds 3,000 square feet, or
2. The total occupancy of the building exceeds twenty (20) persons, or
3. Any structural member required for the project exceeds twenty (20) feet in length.

The Arizona Registered Design Professional of Record must provide their seal upon all working drawings. Drawings not prepared by the Registered Design Professional of Record may be annotated as such, but the seal shall be affixed to all drawings in the construction working drawings set to indicate that coordination of the entire project has been done by the Registered Design Professional of Record.

An Arizona Registered Design Professional is required for any retaining walls having any imposed surcharges from adjacent structural elements or unbalanced loading that exceed four (4) feet.

An Arizona Registered Design Professional is required for electrical service entrance sections of 600 amperes and greater.

Section 109 Fees

Amend 2018 IBC 109.2, Schedule of permit fees, by adding:

The current schedule of permit fees is on file in the Office of Building Safety and available on the City of Flagstaff website (www.flagstaff.az.gov).

Amend 2018 IBC 109.4, Work commencing before permit issuance, by adding:

Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of \$94.00 or twice the permit fee, whichever is greater.

Amend 2018 IBC 109.5, Related fees, by adding:

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee are:

1. Failure to have the inspection record on the job site when the inspector arrives
2. The approved plans not on the job site for the inspector to review
3. Failure to provide access to the job site or area to be reviewed by the inspector.

Appeals for such fees are made to the Building Official. To obtain a re-inspection after the inspector has left notice that a fee shall be assessed, the applicant shall pay a \$94.00 fee to the Community Development counter.

Amend 2018 IBC 109.6, Refunds, by adding:

The applicant may receive up to 80% refund for the building permit fee (not including plan review fee) if no work has begun and no inspections have been performed. No refund of the plan review fee is authorized.

The Building Official shall determine, based upon work completed, the portion of fees paid to be refunded. There shall be no refund of any required deposit once the administrative routing and plan review process has begun.

Section 111 Certificate of Occupancy

Amend 2018 IBC 111.3, Temporary occupancy, by adding:

Temporary Certificate of Occupancies for residential construction (detached single family dwellings and duplexes) is not authorized.

Exceptions:

1. When a driveway approach cannot be poured due to weather, the Building Official can approve a Temporary Certificate of Occupancy after the applicant has posted a bond with the City of Flagstaff.
2. If the structure meets all the requirements for habitable space and sanitation, then a Temporary Certificate of Occupancy will be granted. Any unfinished items (i.e. bonus rooms, basement finishing, etc.) will be annotated in the inspection record as "not inspected" at the time of Temporary Certificate of Occupancy issuance. Applicants moving into a dwelling prior to receiving a Certificate of Occupancy may be evicted as the property is posted "NO OCCUPANCY" by the building inspector or Building Official.

Section 113 Board of Appeals

Amend 2018 IBC 113.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE

Amend 2018 IBC by adding Section 429, Electric vehicle (EV) charging.

Amend 2018 IBC by adding 429.1, General:

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

429.1 General. Every newly permitted multi-family dwelling, commercial, and industrial structure shall provide parking space with "EV-ready outlets" per Table 429.1 and shall be identified on the construction documents. Construction documents shall indicate the location of the proposed EV-ready outlet(s). At least one EV-ready outlet shall be located in common use areas and available for use by all occupants.

An EV-ready outlet is "ready-to-go" with the addition of a plug-in electric vehicle (PEV) charging station. An EV-ready outlet consists of 208/240V, 50 ampere panel capacity, conduit, wiring, receptacle, and overcurrent protection device. The end point of the system must be near the planned location of the future EV charging station. Electric vehicle supply equipment shall be installed in accordance with 2017 NFPA 70/NEC.

Table 429.1

Parking Spaces Provided	EV-ready Parking Spaces Required
1-19	None
20-50	One (1)
51-100	Two (2)
100+	Three (3)

CHAPTER 11 ACCESSIBILITY

Section 1102 Compliance

Amend 2018 IBC 1102.1, Design, by deleting and replacing with:

Buildings and facilities shall be designed and constructed to be accessible in accordance with ICC A117.1-2017.

CHAPTER 14 EXTERIOR WALLS

Section 1404 Installation of Wall Coverings

Amend 2018 IBC 1404.3, Vapor retarders, by deleting the following:

Class I or II vapor retarders are required on the interior side of frame walls in Climate Zones 5, 6, 7, 8, and Marine 4.

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

Section 1505 Fire Classification

Amend 2018 IBC 1505.4, Class C roof assemblies, by deleting in its entirety.

Amend 2018 IBC 1505.5, Nonclassified roofing, by deleting in its entirety.

Section 1506 Materials

Amend 2018 IBC 1506.3, Product identification, by adding:

All roofing materials used must be a class "A" or "B" material and rolled roofing is to be of a self-adhering polymer bitumen type material.

Section 1507 Requirements for Roof Coverings

Amend 2018 IBC 1507.8, Wood shingles, by deleting in its entirety.

Amend 2018 IBC 1507.9, Wood shakes, by deleting in its entirety.

CHAPTER 16 STRUCTURAL DESIGN

Section 1607 Live Loads

Amend 2018 IBC Table 1607.1, Minimum Uniformly Distributed Live Loads and Minimum Concentrated Live Loads, by revising the following values:

#25 Residential

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Habitable attics and attics served with fixed stairs: 40 psf
Sleeping rooms: 40 psf

Section 1608 Snow Loads

Amend 2018 IBC 1608.2, Ground snow loads, by deleting and replacing with:
The ground snow load shall be 60 psf.

Section 1612 Flood Loads

Amend 2018 IBC 1612.3, Establishment of flood hazard areas, as follows:
Replace "[INSERT DATE OF ISSUANCE]" with "09-03-2010".

APPENDIX J GRADING

Section J104 Permit Application and Submittals

Amend Appendix J by adding Section J104.5, Stormwater requirements, as follows:

1. Contractor shall submit to the Arizona Department of Environmental Quality a Notice of Intent (NOI) and a Notice of Termination (NOT) pursuant to the requirements of ARS Title 49, Chapter 2, Article 3.1. A copy of the submitted NOI and the NOT shall be provided to the City of Flagstaff Stormwater Section. The NOI shall be submitted prior to issuance of any City of Flagstaff grading, building, or offsite permits. The NOT shall be submitted prior to final acceptance of off-site improvements and the Certificate of Occupancy.
2. An Erosion Control Plan (ECP) shall be submitted to the City of Flagstaff Stormwater Section for review and approval as required by the City of Flagstaff Stormwater Manager. The ECP shall be prepared in accordance with the Arizona Department of Transportation (ADOT) Best Management Practices (BMP) Manual (or other BMPs as may be approved by the City of Flagstaff Stormwater Manager). Submittal shall be made concurrent with its respective permit application(s) and/or attached to the Civil Construction Document Plan Set submittal. Review timeframes shall be the same as the permit or civil reviews. City of Flagstaff permits that require an ECP will not be issued without review and approval by the City of Flagstaff Stormwater Section.
3. The ECP BMPs shall be set in place by the contractor, and the work inspected and approved the City of Flagstaff Stormwater Section prior to commencement of grading activities. The contractor shall contact the City of Flagstaff Stormwater Section for this pre-grading inspection.
4. During construction, the ECP BMPs shall remain in place, and shall be maintained until project completion as witnessed by a Final Grading Certification and the filing of a NOT. Failure to maintain ECP BMPs may result in a Stop Work Order. Permits will not be closed or finalized unless the site has been inspected and approved for final stabilization by the City of Flagstaff Stormwater Section. The contractor shall contact the City of Flagstaff Stormwater Section for this closure inspection.
5. In accordance with the provisions of this section, the City of Flagstaff may withhold permits, occupancy or enforce by other remedy in order to ensure compliance.

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CHAPTER 4-03 2018 INTERNATIONAL RESIDENTIAL CODE

4-03-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Residential Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section R102 Applicability

Amend 2018 IRC R102.5, Appendices, by adding:

The following Appendices are hereby adopted as part of the IRC:

APPENDIX F - Radon Control Methods

APPENDIX H - Patio Covers

APPENDIX J - Existing Buildings and Structures.

APPENDIX M - Home Day Care, R-3 Occupancy

APPENDIX Q - Tiny houses

APPENDIX R - Light straw clay construction

APPENDIX S - Strawbale construction

APPENDIX T - Solar-ready provisions - detached one- and two-family dwellings and townhouses

Section R103 Department of Building Safety

Amend 2018 IRC R103.1, Creation of enforcement agency, by deleting and replacing with:

The Building Safety Program of the Planning & Development Services Section, Community Development Division is appointed as the regulating office and the official in charge thereof shall be known as the Building Official.

Section R104 Duties and Powers of the Building Official

Amend 2018 IRC R104.7, Department records, by deleting and replacing with:

The Building Official shall keep comprehensive records of applications, permits issued, certificates issued, inspections made, reports rendered, and of notices of orders issued. All such records shall be open to public inspection at the stated office hours but shall not be removed from the office of the Building Official. All records are kept in both hard copy and electronic format. The electronic format information may be requested on a "walk-in" basis and reviewed during normal working hours. Copies or inspection of original documentation requires written notice and reasonable amount of time for Staff to collect the required records from an off-site warehouse location. Written requests will go through the City Clerk's office for processing.

Section R105 Permits

Amend 2018 IRC R105.1, Required, by adding:

All manufactured housing (housing classified as modular, factory built or manufactured house) installed within the City of Flagstaff will be designed to meet Arizona Department of Housing, Office of Manufactured Housing standards. The City of Flagstaff enforces a 60 pound per square foot ground snow load for site-built construction. Arizona Department of Housing standards for snow winter areas in Arizona is not consistent with local conditions and owners should be aware of the differences.

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For "used" manufactured housing or "resale"/relocated manufactured housing being brought into the City of Flagstaff, the following applies: As per direction from the Arizona Department of Housing, Office of Manufactured Housing, Arizona Revised Statutes Title 41, requires that all manufactured housing units be certified to meet the minimum standards of the United States Department of Housing and Urban Development and are to be designed in accordance with consistent Arizona Department of Housing standards for manufactured homes and related industries. An applicant requesting an installation permit and inspection will be required to provide proof to the Building Official of the current State certification or re-certification of the unit.

Amend 2018 IRC R105.2, Work exempt from permit, as follows:

Add the following to Building Item #1: Accessory structures with floor area less than 200 square feet require a Minor Improvement Permit per Flagstaff City Code, Title 10, Flagstaff Zoning Code.

Revise Building Item #2 as follows: Fences and walls not over six (6) feet high. Fences and walls 6 feet and under a Minor Improvement Permit per Flagstaff City Code, Title 10, Flagstaff Zoning Code.

Add the following to Building Item #10: These decks require a Minor Improvement Permit per Flagstaff City Code, Title 10, Flagstaff Zoning Code.

Amend 2018 IRC R105.5, Expiration, by deleting and replacing with:

Every Residential Building Permit issued shall become invalid unless the work authorized by such permit is completed within 365 days from the issuance date of the building permit. The Building Official is authorized to grant, when request for extension is received in writing, one extension not to exceed 180 days. The extension shall demonstrate cause such as financial, weather delays, material delivery, etc. The permit may be extended for an additional 365 days by paying one half the original permit fee (not including the plan review fee), thereby allowing a maximum time of completing the project to 910 days. Failure to obtain a Certificate of Occupancy within 910 days shall result in a report being recorded with the Coconino County Recorder's Office for incomplete work or no final inspection report of the project.

All residential Over-the-Counter Permits for plumbing, mechanical, electrical, and re-roofing shall be valid for a maximum period of 180 days.

Section R106 Construction Documents

Amend 2018 IRC R106.1, Submittal documents, by adding:

Residential, single family detached, structures are exempt from the requirements for a Registered Design Professional under Arizona Revised Statutes unless circumstances dictate the necessity for professional design submittal. Duplexes and triplex units which do not exceed 3,000 square feet, two stories or a total occupant load of twenty (20), may also be designed by a non-registrant as long as the units have only one owner.

Sub-assemblies, such as commercially manufactured roof trusses or floor beams that indicate all imposed loading may be submitted without the seal of an Arizona Registered Design Professional. If a Registered Design Professional

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has sealed the construction documents, the Registered Design Professional shall state they have reviewed and approved of the design either on the construction documents or by providing a written letter stating as such, signed, sealed, and dated.

Any retaining walls having any imposed surcharges from adjacent structural elements or unbalanced loading that exceed four (4) feet, shall be designed by an Arizona Registered Design Professional and shall be submitted at the time of permit application.

Amend 2018 IRC R106.1 Submittal documents, by adding subsection R106.1.5, Model plans:

R106.1.5 Model plans. An applicant may submit a model plan, which is a residential construction plan used two or more times. If approved, only modifications not shown on the model plan must be submitted for review. All modifications shall be clearly identified by clouded symbols, deltas, or other appropriate means. The review fee for modifications only will be hourly in accordance with city fee schedule. If, in Building Official's judgement, the modifications are excessive or inadequately defined, the full plan review fee will be charged.

Section R108 Fees

Amend 2018 IRC R108.2, Schedule of permit fees, by adding:

The current schedule of permit fees is on file in the Office of Building Safety and available on the City of Flagstaff website (www.flagstaff.az.gov).

Amend 2018 IRC 108.4, Related fees, by adding:

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee are:

1. Failure to have the inspection record on the job site when the inspector arrives
2. The approved plans not on the job site for the inspector to review
3. Failure to provide access to the job site or area to be reviewed by the inspector.

Appeals for such fees are made to the Building Official. To obtain a re-inspection after the inspector has left notice that a fee shall be assessed, the applicant shall pay a \$94.00 fee to the Community Development counter.

Amend 2018 IRC R108.5, Refunds, by adding:

The applicant may receive up to 80% refund for the building permit fee (not including plan review fee) if no work has begun and no inspections have been performed. No refund of the plan review fee is authorized.

The Building Official shall determine, based upon work completed, the portion of fees paid to be refunded. There shall be no refund of any required deposit once the administrative routing and plan review process has begun.

Amend 2018 IRC R108.6, Work commencing before permit issuance, by adding:

Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits shall

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be subject to an investigation fee of \$94.00 or twice the permit fee, whichever is greater.

Section R110 Certificate of Occupancy

Amend 2018 IRC R110.4, Temporary occupancy, by adding:

Temporary Certificate of Occupancies for residential construction (detached single family dwellings and duplexes) is not authorized.

Exceptions:

1. When a driveway approach cannot be poured due to weather, the Building Official can approve a Temporary Certificate of Occupancy after the applicant has posted a bond with the City of Flagstaff.
2. If the structure meets all the requirements for habitable space and sanitation, then a Temporary Certificate of Occupancy will be granted. Any unfinished items (i.e. bonus rooms, basement finishing, etc.) will be annotated in the inspection record as "not inspected" at the time of Temporary Certificate of Occupancy issuance. Applicants moving into a dwelling prior to receiving a Certificate of Occupancy may be evicted as the property is posted "NO OCCUPANCY" by the building inspector or Building Official.

Section R112 Board of Appeals

Amend 2018 IRC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

CHAPTER 2 DEFINITIONS

Section R202 Definitions

Amend 2018 IRC Section R202 by adding:

ACCESSORY DWELLING UNIT. Accessory dwelling units (ADU) are defined by the Flagstaff City Code, Title 10 - Flagstaff Zoning Code.

ACCESSORY ENERGY SYSTEM. An accessory energy system will include wind turbines, PV solar, thermal solar, geo-thermal, bio-mass and other technologies that provide heating, cooling or electrical energy. The systems will be subject to a building permit and limited by zoning ordinances for visual, design, height and setback requirements.

CHAPTER 3 BUILDING PLANNING

Section R301 Design Criteria

Amend 2018 IRC Table R301.2(1), Climatic and Geographic Design Criteria, as follows:

Ground snow load: 60 psf
Wind design - Speed (mph): 115
Wind design - Topographic Effects: NO
Wind design - Special wind region: NO
Wind design - Windborne debris zone: NO
Seismic design category: C
Subject to damage from - Weathering: Moderate
Subject to damage from - Frost line depth: 30 inches

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Subject to damage from - Termite: Moderate to heavy
Winter design temperature: 4 degrees F
Ice barrier underlayment required: YES
Flood hazards: a)12-16-1975, b)01-19-1983, c)09-03-2010*
Air freezing index: 1013
Mean annual temperature: 45.4 degrees F

Residential heating and cooling equipment sizing using Manual J is optional per 2018 IRC M1401.3. When opting to use ACCA Manual J for HVAC system design, the criteria shall be from ACCA Manual J, Table 1A for Arizona, Flagstaff AP.

*The flood hazard dates reflect the current National Flood Insurance Program and the date of the currently effective "FIRM" Map (used by the City of Flagstaff). These maps are updated by the issuing agency and adopted by Storm Water Management without notice.

Amend 2018 IRC Table R301.5, Minimum Uniformly Distributed Live Loads, by revising the following values:

Habitable attics and attics served with fixed stairs: 40 psf
Sleeping rooms: 40 psf

Section R302 Fire-Resistant Construction

Amend 2018 IRC R302.13, Fire protection of floors, by adding the following to Exceptions:

5. Floor assemblies located directly over crawl spaces with fuel-fired or electric-powered heating appliances where the maximum distance from crawl space floor to finish floor above does not exceed four (4) feet at any point.

Section R303 Light, Ventilation and Heating

Amend 2018 IRC R303.4, Mechanical ventilation, by deleting and replacing with:

Where the air infiltration rate of a *dwelling unit* is 5 air changes per hour or less where tested with a blower door at a pressure of 0.2 inch wg (50 Pa) in accordance with Section N1102.4.1.2, the *dwelling unit* may be provided with whole-house mechanical ventilation in accordance with Section M1505.4.

Section R309 Garages and Carports

Amend 2018 IRC R309.5, Fire sprinklers, by deleting in its entirety.

Section R313 Automatic Fire Sprinkler Systems

Amend 2018 IRC R313.2, One- and two-family dwellings automatic fire sprinkler systems, by deleting and replacing with:

An automatic residential fire sprinkler system may be installed in one- and two-family dwellings. Arizona Revised Statutes prohibits jurisdictions from adopting any ordinance that mandates fire sprinklers in newly constructed one- and two-family dwellings.

CHAPTER 4 FOUNDATIONS

Section R410 General

Amend 2018 IRC R401.4.1, Geotechnical evaluation, by deleting and replacing with:

Construction in all new residential subdivisions require a geotechnical evaluation with foundation recommendations. In established areas of the City

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of Flagstaff, "in-fill" lots or vacant lots in subdivisions established prior to 1996, the designer may use a load-bearing pressure of 1500 pounds per square foot in lieu of a geotechnical evaluation. Upon site excavation of foundation, where the Building Official determines that in-place soils with an allowable bearing capacity of less than 1500 pounds per square foot (psf) are likely to be present at the site, then allowable bearing capacity shall be determined by a geotechnical evaluation at the expense of the permit applicant.

Section R403 Footings

Amend 2018 IRC R403.1, General, by adding:

All footings located less than eighteen (18) inches below existing grade to be air entrained, 3,500 psi concrete (severe weather), and pinned to rock at intervals specified for foundation wall vertical reinforcements or as specified by the Arizona Registered Design Professional of Record.

CHAPTER 5 FLOORS

Section R502 Wood Floor Framing

Amend 2018 IRC R502.3, Allowable joist spans, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R502.3.1(1) and R502.3.1(2)

Amend 2018 IRC R502.3.1, Sleeping areas and attic joists, by deleting and replacing with:

Table R502.3.1(1) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and *attics* that are accessed by means of a fixed stairway in accordance with Section R311.7 provided that the design live load does not exceed 40 pounds per square foot (1.44 kPa) and the design dead load does not exceed 20 pounds per square foot (0.96 kPa). The allowable span of ceiling joists that support attics used for limited storage or no storage shall be determined in accordance with Section R802.5.

Section R507 Exterior Decks

Amend 2018 IRC R507.5, Deck beams, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R507.5.

Amend 2018 IRC R507.6, Deck joists, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R507.6.

Amend 2018 IRC R507.9.2, Lateral connection, by adding:

Exception: Attached first floor decks that do not exceed 30 inches above grade at any point.

CHAPTER 7 WALL COVERING

Section R702 Interior Covering

Amend 2018 IRC R702.7, Vapor retarders, by deleting the following:

Class I or II vapor retarders are required on the interior side of frame walls in Climate Zones 5, 6, 7, 8, and Marine 4.

CHAPTER 8 ROOF-CEILING CONSTRUCTION

Section R802 Wood Roof Framing

Amend 2018 IRC R802.4.1, Rafter size, by adding:

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The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R802.4.1(1) through R802.4.1(8).

CHAPTER 9 ROOF ASSEMBLIES

Section R904 Materials

Amend 2018 IRC R904.3, Material specifications and physical characteristics, by adding:

All roofing materials used shall be Class "A" or "B" and rolled roofing shall be a Class A or B material and shall be a self-adhering, polymer modified bitumen material.

Section R905 Requirements for Roof Coverings

Amend 2018 IRC R905.7, Wood shingles, by deleting in its entirety.

Amend 2018 IRC R905.8, Wood shakes, by deleting in its entirety.

CHAPTER 11 ENERGY EFFICIENCY

Section N1102 Building Thermal Envelope

Amend 2018 IRC N1102.1.2, Insulation and fenestration criteria, by revising/adding the following to Table N1102.1.2 as follows:

Climate Zone 5, Wood frame wall R-value, shall be 15 high density in existing 2x4 framed walls in remodel work only.

Footnote b, add Exception: Windows used for the installation of glazing for an approved passive solar design.

Amend 2018 IRC N1102.2, Equipment sizing and efficiency rating (Mandatory), by adding:

Furnaces installed in new construction shall be 90% condensing type furnaces. Exception: For replacement furnaces, installation of a 90% condensing type furnaces is voluntary.

CHAPTER 20 BOILERS AND WATER HEATERS

Section M2005 Water Heaters

Amend 2018 IRC M2005.1, General, by adding:

Water heaters shall be capable of being removed without first removing a permanent portion of the building structure or any other appliance.

CHAPTER 24 FUEL GAS

Section G2445 Unvented Room Heaters

Amend 2018 IRC Section G2445, Unvented Room Heaters, by deleting in its entirety.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS

Section P2602 Individual Water Supply and Sewage Disposal

Amend 2018 IRC P2602.1, General, by adding:

Building sanitary drainage piping and systems that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality prior to installation.

SECTION P2603 STRUCTURAL AND PIPING PROTECTION

Amend 2018 IRC P2603.5.1, Sewer depth, by deleting and replacing with:

Building sewers that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality. *Building sewers* that

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connect to the City of Flagstaff's sewage disposal system shall be not less than twelve (12) inches below grade.

CHAPTER 29 WATER SUPPLY AND DISTRIBUTION

Section P2903 Water Supply System

Amend 2018 IRC Table P2903.2, Maximum Flow Rates and Consumption for Plumbing Fixtures and Fixture Fittings, by revising and adding as follows:

Maximum Flow Rate or Quantity for a Water Closet to 1.3 gallons.

Dual-flush water closets: The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 31 VENTS

Section P3103 Vent Terminals

Amend 2018 IRC P3103.1.1, Roof termination, as follows:

Replace "6" with "twelve (12)" and delete "or 6 inches (mm) above the anticipated snow accumulation, whichever is greater".

CHAPTER 39 POWER AND LIGHTING DISTRIBUTION

Section E3901 Receptacle Outlets

Amend 2018 IRC E3901.9, Basements, garages and accessory buildings, by adding:

At least one required garage receptacle shall be a 208/240-volt individual branch circuit for purposes of electric vehicle (EV) charging. The service panel or subpanel circuit directory shall provide a 50-ampere minimum dedicated branch circuit and a branch circuit overcurrent device. Electric vehicle supply equipment shall be installed in accordance with 2017 NFPA 70/NEC.

Exception: Additions and alterations to existing one- or two-family dwellings and townhouses constructed per the IRC are exempt from the EV charging requirement.

APPENDIX M HOME DAY CARE - R-3 OCCUPANCY

Section A101 General

Amend 2018 IRC Appendix M, AM101.1, General, by adding:

AM101.1.1 A Home Occupation Permit issued by the City of Flagstaff is required prior to receiving any building permits for conversions or improvements.

APPENDIX T SOLAR-READY PROVISIONS - DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES

Section T101 Scope

Amend 2018 IRC Appendix T, T101.1, General, by deleting and replacing with:

These provisions shall be applicable for new construction.

Section T103 Solar-Ready Zone

Amend 2018 IRC Appendix T, T103.6, Capped roof penetration sleeve, by deleting in its entirety.

Amend 2018 IRC Appendix T, T103.8, Interconnection pathway, by deleting in its entirety.

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Amend 2018 IRC Appendix T, T103.9, Electrical service reserved space, by deleting and replacing with:

When feasible, the main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

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CHAPTER 4-04

2018 INTERNATIONAL EXISTING BUILDING CODE

4-04-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Existing Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 105 Permits

Amend 2018 IEBC 105.1, Required, by adding:

Refer to the 2018 Amendments to Flagstaff City Code, Title 4, Building Code to the 2018 International Building Code (IBC) and 2018 and International Residential Code (IRC) for building permit requirements.

Amend 2018 IEBC 105.5, Expiration, by deleting and replacing with:

Refer to the 2018 Amendments to Flagstaff City Code, Title 4, Building Code to the 2018 International Building Code (IBC) and 2018 and International Residential Code (IRC) for the duration of building permits.

Section 112 Board of Appeals

Amend 2018 IEBC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

CHAPTER 3 PROVISIONS FOR ALL COMPLIANCE METHODS

Section 301 Administration

Amend 2018 IEBC 301.5, Compliance with accessibility, by deleting and replacing with:

Accessibility requirements for existing buildings shall comply with the 2017 edition of ICC A117.1.

CHAPTER 4 REPAIRS

Section 408 Plumbing

Amend 2018 IEBC 408.2, Water closet replacement, by deleting and replacing with:

The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.3 gallons per flushing cycle.

Dual-flush water closets: The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 12 HISTORIC BUILDINGS

Section 1201 General

Amend 2018 IEBC 1201.2, Report, by adding subsection 1201.2.1, Heritage Preservation Commission:

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1201.2.1, Heritage Preservation Commission. Any changes to a structure in a historic district or to buildings listed on the City of Flagstaff Historic Registry shall be reviewed by the Community Investment Division, Heritage Preservation Officer, and Current Planning Program, Planning & Development Services Section, prior to issuing a building permit. The project may be referred to the City's Inter-Division Staff (IDS) committee and/or the Heritage Preservation Commission for review.

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CHAPTER 4-05 2018 INTERNATIONAL MECHANICAL CODE

4-05-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Mechanical Code (IMC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 106 Permits

Amend 2018 IMC 106.5.2, Fee schedule, by deleting and replacing with:

The fees for all plumbing work shall be in accordance with 2018 IBC 109.2, as adopted and amended by the City of Flagstaff.

Amend 2018 IMC 106.5.3, Fee refunds, by deleting and replacing with:

Refunds shall be in accordance with 2018 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 108 Violations

Amend 2018 IMC 108.4, Violation penalties, by deleting and replacing with:

Violation penalties shall be in accordance with 2018 IBC 114.4 as adopted and amended by the City of Flagstaff.

Amend 2018 IMC 108.5, Stop work orders, by deleting and replacing with:

Stop work orders shall be in accordance with 2018 IBC Section 115, as adopted and amended by the City of Flagstaff.

Section 109 Means of Appeal

Amend 2018 IMC 109.1, Application for appeal, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

CHAPTER 3 GENERAL REGULATIONS

Section 304 Installation

Amend 2018 IMC 304.2, Conflicts, by deleting and replacing with:

Where conflicts between this code and the conditions of the listing or the manufacturer's installation instructions occur, the listing and manufacturer's installation requirements shall apply.

CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

Section 903 Factory-Built Fireplaces

Amend 2018 IMC 903.3, Unvented gas log heaters, by deleting and replacing with:

An unvented gas log heater shall not be installed at any time unless first approved by the local gas utility company. A signed and dated letter of such approval shall be submitted to the Building Official before a permit can be issued.

CHAPTER 10 BOILERS, WATER HEATERS AND PRESSURE VESSELS

Section 1002 Water Heaters

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Amend 2018 IMC 1002.1, General, by revising the second sentence to read:

Water heaters shall be capable of being removed without first removing a permanent portion of the building structure or any other appliance.

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CHAPTER 4-06 2018 INTERNATIONAL PLUMBING CODE

4-06-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Plumbing Code (IPC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 106 Fees

Amend 2018 IPC 106.6.2, Fee schedule, by deleting and replacing with:

The fees for all plumbing work shall be in accordance with 2018 IBC 109.2, as adopted and amended by the City of Flagstaff.

Amend 2018 IPC 106.6.3, Fee refunds, by deleting and replacing with:

Refunds shall be in accordance with 2018 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 109 Means of Appeal

Amend 2018 IPC 109.1, Application for appeal, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2018 IPC Sections 109.2 through 109.7, by deleting in their entirety.

CHAPTER 3 GENERAL REGULATIONS

Section 301 General

Amend 2018 IPC 301.7, Conflicts, by deleting and replacing with:

Where conflicts between this Code and the conditions of the listing or the manufacturer's installation instructions occur, the listing or manufacturer's installation requirements shall apply.

Section 305 Protection of Pipes and Plumbing System Components

Amend 2018 IPC 305.4, Freezing, by revising the last sentence to read:

Exterior water supply piping shall be installed not less than thirty (30) inches below grade.

Amend 2018 IPC 305.4.1, Sewer depth, by deleting and replacing with:

Building sewers that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality prior to installation. Building sewers that connect to City-provided sewer shall be a minimum of twelve (12) inches below grade.

Section 312 Tests and Inspections

Amend 2018 IPC 312.1, Required tests, by replacing the fourth sentence with:

All plumbing system piping shall be tested with either water or air.

Amend 2018 IPC 312.3, Drainage and vent air test, by deleting the first sentence.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

Amend 2018 IPC 312.4, Drainage and vent final test, by deleting in its entirety.

Amend 2018 IPC 312.6, Gravity and sewer test, by deleting in its entirety.

Amend 2018 IPC 312.7, Forced sewer test, by deleting in its entirety.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

Section 604 Design of Building Water Distribution System

Amend 2018 IPC Table 604.4, Maximum flow rates and consumption for plumbing fixtures and fixture fittings, by revising the following values:

Maximum Flow Rate or Quantity for a Urinal to 1 pint.

Maximum Flow Rate or Quantity for a Water Closet to 1.3 gallons.

Dual-flush toilets: The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 7 SANITARY DRAINAGE

Section 703 Building Sewer

Amend 2018 IPC 703, Building sewer, by adding section 703.7, Building sewer locating means:

703.7 Building Sewer Locating Means. All non-metallic building sewer piping shall be installed with a plastic covered No. 12 AWG Type UF 600V tracer wire taped to the top of the piping with a minimum 10 mil tape. The building sewer tracer wire shall be green in color.

CHAPTER 9 VENTS

Section 903 Vent Terminals

Amend 2018 IPC 903.1, Roof termination, as follows:

Replace "[NUMBER OF INCHES]" with "twelve (12)".

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-07 2018 INTERNATIONAL FUEL GAS CODE

4-07-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Fuel Gas Code (IFGC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 106 Fees

Amend 2018 IFGC 106.6.2, Fee schedule, by deleting and replacing with:

The fees for work shall be in accordance with 2018 IBC 109.2, as adopted and amended by the City of Flagstaff.

Amend 2018 IPC 106.6.3, Fee refunds, by deleting and replacing with:

Refunds shall be in accordance with 2018 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 109 Means of Appeal

Amend 2018 IFGC 109.1, Application for appeal, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2018 IFGC Sections 109.2 through 109.7, by deleting in their entirety.

CHAPTER 3 GENERAL REGULATIONS

Section 303 Appliance Location

Amend 2018 IFGC 303.3, Prohibited locations, by deleting numbers 3 and 4.

CHAPTER 4 GAS PIPING INSTALLATIONS

Section 403 Piping Materials

Amend 2018 IFGC 403.4.3, Copper and copper alloy, by deleting and replacing with:

Copper and brass, threaded copper, brass, and aluminum piping shall not be used for gas piping installations within the City of Flagstaff.

CHAPTER 6 SPECIFIC APPLIANCES

Section 621 Unvented Room Heaters

Amend 2018 IFGC Section 621, Unvented Room Heaters, by deleting in its entirety.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-08 2018 INTERNATIONAL ENERGY CONSERVATION CODE

4-08-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Energy Conservation Code (IECC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

COMMERCIAL PROVISIONS

CHAPTER 1 SCOPE AND ADMINISTRATION

Section C101 Scope and General Requirements

Amend 2018 IECC, by adding Section C101.2.1, Appendices:

Provisions in the appendices shall not apply unless specifically adopted. The following Appendices are hereby adopted as part of the IECC:

APPENDIX CA - SOLAR-READY ZONE - COMMERCIAL

Section C109 Board of Appeals

Amend 2018 IECC C109.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2018 IECC C109.3, Qualifications, by deleting in its entirety.

CHAPTER 2 DEFINITIONS

Section C202 General Definitions

Amend 2018 IECC C202, General definitions, by replacing the following definition with:

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and townhouses as well as Group R-2, R-3, and R-4 buildings three stories or less in height above grade plane or concrete podium, and without interior conditioned common entry/exit corridors. Where the building includes accessory common uses and/or commercial spaces, those portions of the building shall comply with the applicable commercial provisions of the IECC.

RESIDENTIAL PROVISIONS

CHAPTER 1 SCOPE AND ADMINISTRATION

Section R101 Scope and General Requirements

Amend 2018 IECC, by adding Section R101.2.1, Appendices.

Provisions in the appendices shall not apply unless specifically adopted. The following Appendices are hereby adopted as part of the IECC:

APPENDIX RA - SOLAR-READY ZONE - RESIDENTIAL

Section R109 Board of Appeals

Amend 2018 IECC R109.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation

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of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2018 IECC R109.3, Qualifications, by deleting in its entirety.

CHAPTER 2 DEFINITIONS

Section R202 General Definitions

Amend 2018 IECC R202, General definitions, by replacing the following definition with:

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and townhouses as well as Group R-2, R-3, and R-4 buildings three stories or less in height above grade plane or concrete podium, and without interior conditioned common entry/exit corridors. Where the building includes accessory common uses and/or commercial spaces, those portions of the building shall comply with the applicable commercial provisions of the IECC.

CHAPTER 4 RESIDENTIAL ENERGY EFFICIENCY

Section R402 Building Thermal Envelope

Amend 2018 IECC R402.1.2, Insulation and fenestration criteria, by adding the following to Table R402.1.2 as follows:

Climate Zone 5, Wood frame wall R-value: 15 high density in existing 2x4 framed walls in remodel work only.

Footnote b, Exception: Windows used for the installation of glazing for approved passive solar design.

Amend 2018 IECC R403.7, Equipment sizing and efficiency rating (Mandatory), by adding:

Furnaces installed in new construction shall be 90% condensing type furnaces. Exception: Replacement furnaces are to be voluntary 90% condensing type furnaces.

APPENDIX RA SOLAR-READY PROVISIONS – DETACHED ONE-AND TWO-FAMILY DWELLING AND TOWNHOUSES

Section RA101 Scope

Appendix RA Amend 2018 IECC Appendix RA, RA101.1, General, by deleting and replacing with:

These provisions shall be applicable for new construction.

Section RA103 Solar-Ready Zone

Amend 2018 IECC Appendix RA, RA103.6, Interconnection pathway, by deleting in its entirety.

Amend 2018 IECC Appendix RA, RA103.7, Electrical service reserved space, by deleting and replacing with:

When feasible, the main electrical service panel shall have a reserved space to allow installation of a dual pole circuit breaker for future solar electric installation and shall be labeled "For Future Solar Electric." The reserved space shall be positioned at the opposite (load) end from the input feeder location or main circuit location.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-09

2018 INTERNATIONAL SOLAR ENERGY PROVISIONS

4-09-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Solar Energy Provisions (ISEP) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

The 2018 ISEP is a compilation of all solar energy provisions found throughout the 2018 International Codes (IBC, IRC, IECC, IMC, IPC, IFC, and ISPSC). As such, each code section contained within this document is also identified by its corresponding section number from the original International Code source, as detailed in the Letter Designations located in the Preface of the ISEP. Amendments to any section from the source codes, including the 2018 International Fire Code (IFC) as adopted under Flagstaff City Code, Title 5, shall apply to the 2018 ISEP.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-10 2018 INTERNATIONAL SWIMMING POOL AND SPA CODE

4-10-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2018 International Swimming Pool and Spa Code (ISPSC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 108 Means of Appeal

Amend 2018 ISPSC 108.1, Application for appeal, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2018 ISPSC Sections 108.2 through 108.7, by deleting in their entirety.

CHAPTER 2 DEFINITIONS

Section 202 Definitions

Amend 2018 ISPSC Section 202, Definitions, by adding:

RESIDENTIAL SWIMMING POOL (RESIDENTIAL POOL). A pool intended for use that is accessory to a residential setting and available only to the household and its guests including any structure intended for swimming or recreational bathing that contains water over eighteen (18) inches in depth. This includes in-ground, above ground, and on-ground swimming pools, hot tubs, spas, and fixed in place wading pools. Other pools shall be considered to be public pools for purposes of this code.

CHAPTER 3 GENERAL COMPLIANCE

Section 305 Barrier Requirements

Amend 2018 ISPSC 305.2.1, Barrier height and clearances, by revising as follows:

1. The top of the barrier shall be not less than sixty (60) inches above grade where measured on the side of the barrier that faces away from the pool or spa. Such height shall exist around the entire perimeter of the barrier and for a distance of three (3) feet measured horizontally from the outside of the required barrier.

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

CHAPTER 4-11 NATIONAL ELECTRICAL CODE

4-11-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the National Electrical Code (NEC), 2017 Edition, adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 GENERAL

Article 110 Requirements for Electrical Installations

Part I General

Amend 2017 NEC Article 110.5, Conductors, to read:

Conductors used to carry current shall be of copper only. Where the conductor material is not specified, the material and the sizes given in this Code shall apply to copper conductors. The use of aluminum wire shall be approved for feeders and service entrance conductors only and shall not be used for branch circuit wiring.

Amend 2017 NEC Article 110.7, Wiring integrity, by adding:

All equipment rated at 1000 amperes or more shall be tested for insulation breakdown, mechanical integrity, and workmanship prior to the equipment being energized. A certified high potential voltage test (hi-pot) shall be performed and a certificate issued to the Building Official. This test shall be performed in the presence of a Building Inspector and conducted by a testing firm approved by the Building Official.

Said test shall be performed for a period of one (1) minute, the application of a 60 hertz alternating potential of 1000 volts plus twice the rated phase to phase voltage of the equipment.

This test shall be performed between all phases to ground, phase to phase, and neutral if isolated.

CHAPTER 2 WIRING AND PROTECTION

Article 210 Branch Circuits

Part I General Provisions

Amend 2017 NEC Article 210.5, Identification for Branch Circuits, by adding:

(D) **Color Code.** Where 15, 20, or 30 ampere branch circuits requiring a neutral are installed in raceways or cable assemblies, the conductor of branch circuits connected to the same system shall conform to the following color code:

<u>Volts</u>	<u>Phase</u>	<u>System</u>	<u>Phase A</u>	<u>Phase B</u>	<u>Phase C</u>	<u>Neutral</u>
120/208	3	Wye	Black	Red	Blue	White
120/240	3	Delta	Black	Orange	Blue	White
277/480	3	Wye	Brown	Orange	Yellow	Gray

Article 250 Grounding and Bonding

Part II System Grounding

Amend 2017 NEC Article 250.30, Grounding Separately Derived Alternating-Current Systems, (A) Grounded Systems, (2) Supply-Side Bonding Jumper, by adding:

FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS

(c) All new building construction shall have a one-piece concrete-encased electrode and electrode conductor (Ufer ground), a minimum twenty (20) feet length in the footing, sized from the following table:

0-200 ampere service: 1 piece #4 copper (electrode and electrode conductor)

201-400 ampere service: 1 piece 1/0 copper (electrode and electrode conductor)

401-800 ampere service: 1 piece 2/0 copper (electrode and electrode conductor)

Larger than 800 ampere service: 1 piece 3/0 copper (electrode and electrode conductor)

Where the Ufer has been lost, damaged, or cannot be located, a ground ring or modification of the same consisting of thirty (30) feet of #2 bare copper wire, buried a minimum of thirty (30) inches deep in a trench, or a plate electrode per Article 250.53 (H) shall be required in lieu of a concrete-encased electrode.

“The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code”

**TITLE 4
BUILDING REGULATIONS**

CHAPTERS:

4-01 ADMINISTRATIVE ENACTMENTS

4-02 2024 INTERNATIONAL BUILDING CODE (IBC) AMENDMENTS

4-03 2024 INTERNATIONAL RESIDENTIAL CODE (IRC) AMENDMENTS

4-04 2024 INTERNATIONAL EXISTING BUILDING CODE (IEBC) AMENDMENTS

4-05 2024 INTERNATIONAL MECHANICAL CODE (IMC) AMENDMENTS

4-06 2024 INTERNATIONAL PLUMBING CODE (IPC) AMENDMENTS

4-07 2024 INTERNATIONAL FUEL GAS CODE (IFGC) AMENDMENTS

4-08 2024 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) AMENDMENTS

4-10 2024 INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC) AMENDMENTS

4-11 NATIONAL ELECTRICAL CODE (NEC), 2023 EDITION, AMENDMENTS

CHAPTER 4-01 ADMINISTRATIVE ENACTMENTS

SECTIONS:

4-01-001-0001 DEFINITIONS

4-01-001-0002 ADOPTION OF MODEL CODES

4-01-001-0003 SAVING CLAUSE

4-01-001-0004 VIOLATION AND PENALTIES

4-01-001-0001 DEFINITIONS

As used in all of the adopted model codes referenced herein, as amended, the following terms shall have the meaning herein prescribed:

A. Wherever the word “Municipality” or “[Name of Jurisdiction]” is used, it shall mean the City of Flagstaff.

B. Wherever the term “Department of Building Safety” is used, it shall mean “Planning & Development Services Division.”

C. Wherever the term “Corporation Counsel” is used, it shall mean the Attorney for the City of Flagstaff.

D. Wherever the term “Administrative Authority” is used in conjunction with publicly provided utilities (natural gas, electricity, internet and broadband service, telephone, and cable television), it shall mean the current contract company providing the respective service. Wherever the term “Administrative Authority” is used in conjunction with publicly provided utilities or permits (water, sewer, storm water management and/or building permits), it shall mean the City of Flagstaff.

4-01-001-0002 ADOPTION OF MODEL CODES

There are hereby adopted by the City Council of the City of Flagstaff for the purposes of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, maintenance of buildings and structures, including permits and penalties, those certain model codes known and referred to with particularity as:

2024 International Building Code (IBC)*

2024 International Residential Code (IRC)*

2024 International Existing Building Code (IEBC)*

2024 International Mechanical Code (IMC)*

2024 International Plumbing Code (IPC)*

2024 International Fuel Gas Code (IFGC)*

2024 International Energy Conservation Code (IECC)*

2024 International Swimming Pool and Spa Code (ISPSC)*

National Electrical Code (NEC), 2023 Edition**

ICC A117.1-2017, Accessible and Usable Building and Facilities*

1997 Uniform Housing Code***

1997 Uniform Administrative Code***

1997 Uniform Code for the Abatement of Dangerous Buildings***

***Published by International Code Council (ICC)**

**** Published by National Fire Protection Association (NFPA)**

***** Published by International Conference of Building Officials (ICBO)**

One (1) electronic copy of each model code listed above, and any amendments to said codes, are on file in the office of the City Clerk of the City of Flagstaff, and the same is made part hereof by this reference as if fully and completely herein set forth. The provisions of the aforestated codes shall be controlling for construction within the corporate limits of the City of Flagstaff.

4-01-001-0003 SAVING CLAUSE

Nothing in this Chapter or in the 2024 International Codes, 2023 National Electrical Code, ICC A117.1-2017, and Uniform Codes hereby adopted shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinances replaced hereby. Nor shall any right or remedy of any character be lost, impaired, or affected by this Chapter.

4-01-001-0004 VIOLATION AND PENALTIES

A. Violations. It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any building or permit the same to be done in violation of the model codes adopted in section 4-01-001-0002 above, as amended.

B. Penalties. Any person, firm, or corporation violating any provision of this Code shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by Flagstaff City Code, Title I, Chapter 1-04 General Penalty. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

CHAPTER 4-02 2024 INTERNATIONAL BUILDING CODE

4-02-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 101 Scope and General Requirements

Amend 2024 IBC 101.2, Scope, by deleting and replacing with:

The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every *building* or *structure* or any appurtenances connected or attached to such *buildings* or *structures*.

Exception: Attached and detached one- and two-family *dwelling*s, triplexes, fourplexes, and *townhouses* not more than three *stories above grade plane* in height with a separate *means of egress*, and their accessory *structures* not more than three stories above grade plane in height, shall comply with this code or the *International Residential Code*.

Amend 2024 IBC 101.2.1, Appendices, by adding:

The following Appendices are hereby adopted as part of the IBC:

APPENDIX C – Group U – Agricultural Buildings

APPENDIX I – Patio Covers

APPENDIX J – Grading

APPENDIX N – Replicable Buildings

Section 103 Code Compliance Agency

Amend 2024 IBC 103.1, Creation of enforcement agency, by deleting and replacing with:

The City of Flagstaff Building Safety & Code Compliance Section is appointed as the enforcement agency for purposes of this code, and the official in charge thereof shall be known as the Building Official. The function of the Section shall be the implementation, administration, and enforcement of the provisions of this code.

Section 105 Permits

Amend 2024 IBC 105.1, Required, by adding:

Approved portable equipment used in conjunction with special events in public locations (parks, parking lots, publicly owned land, et cetera) of 25 kW generator or greater shall have an Over-the-Counter Permit issued and a licensed electrical contractor for installation or setup. The Building Inspector must be given immediate notice when an installation is ready for either rough or final inspection.

Amend 2024 IBC 105.1 by adding subsections 105.1.3 through 105.1.7.1:

105.1.3 Application and fees. Application for an annual permit shall be filed with the Building Official, along with the application fee set forth in the City Fee Schedule.

105.1.4 Renewal application and fee. Annual permits expire on December 31. Application to renew an annual permit shall be filed with the Building Official by December 15, along with the renewal application fee set forth in the City Fee Schedule.

105.1.5 Denial of application. If the application or renewal is denied, the fee shall be refunded. The applicant may appeal the denial to the Building and Fire Code Board of Appeals within 10 calendar days after notice of the denial.

105.1.6 Suspension and revocation. The Building Official may suspend or revoke an annual permit upon violation of this code, including failure to apply for permits and inspections when required. Written notice of suspension or revocation shall be sent to the permit holder at least 10 calendar days before suspension or revocation. Appeal may be made to the Building and Fire Code Board of Appeals within 10 calendar days after notice of suspension or revocation. There is no fee refund if an annual permit is suspended or revoked.

105.1.7 Inspections. The Building Official, or their designee, may inspect all work and reject work or request corrections for any work in violation of this code.

105.1.7.1 Record exceptions. Work reports are not required for:

1. Installing machines, equipment, and processes related to production or testing.
2. Moving cases, counters, and partitions not over 5 feet 9 inches tall.

Amend 2024 IBC 105.4 Validity of permit, by adding:

A permit shall not be valid until a copy of the issued permit is signed and returned to the Building Safety & Code Compliance Section.

Amend 2024 IBC 105.5, Expiration, by deleting, replacing and adding sub sections 105.5.1 through 105.5.3:

Commercial Building Permits issued for new construction, remodels, additions, and alterations shall expire 24 months (730 days) from the date of issuance, unless extended as provided herein.

105.5.1: A permit shall become invalid if the work authorized by such permit is not commenced within 180 days from the date of issuance, or if the work is suspended or abandoned for a period of 180 days after commencement.

105.5.2: Only one extension not to exceed 365 days, may be granted by the Building Official upon written request and payment of a fee equal to one-half of the original building permit fee (excluding plan review fees).

Permits that exceed 1095 days (3 years) from the date of issuance, including extensions, and have not received final inspection approval shall expire. A new permit shall be required to complete the work, and all applicable fees shall be paid.

105.5.3: Over the counter permits (plumbing, mechanical, electrical, and re-roofing) shall expire if the work authorized by the permit is not commenced within 180 days from the date of issuance, or if the work is suspended or abandoned for a period of 180 days. Such permits shall not remain valid for more than 180 days from the date of issuance unless an extension is approved by the Building Official.

Section 107 Construction Documents

Amend 2024 IBC 107.1, General, by adding:

Where required by Arizona Revised Statutes, construction documents for new construction, additions, alterations, or repairs to commercial occupancies within the City of Flagstaff shall be prepared by an Arizona-registered design professional (i.e. architect and engineers) in good standing when:

1. The total square footage of any building exceeds 3,000 square feet, or
2. The total occupancy of the building exceeds twenty (20) persons, or
3. Any structural member required for the project exceeds twenty (20) feet in length

The Arizona Registered Design Professional of Record shall affix their seal to all construction documents. Construction documents not prepared by the Registered Design Professional of Record shall be identified as such; and the design professional's seal shall be affixed to all sheets in the construction document set to indicate that the project was prepared under the responsible control and coordination of the Registered Design Professional of Record.

Construction documents for retaining walls subject to surcharge loads from adjacent structural elements or other unbalanced loading that exceeds four (4) feet in height, shall be prepared by an Arizona Registered Design Professional.

Construction documents for electrical service equipment rated at 600 amperes or greater shall be prepared by an Arizona Registered Design Professional.

Section 109 Fees

Amend 2024 IBC 109.2, Schedule of permit fees, by adding:

The current schedule of permit fees is on file in the Office of Building Safety and available on the City of Flagstaff website (www.flagstaff.az.gov).

Amend 2024 IBC 109.4, Work commencing before permit issuance, by adding:

Any person who commences any work to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of \$94.00 or twice the permit fee, whichever is greater.

Amend 2024 IBC 109.5, Related fees, by adding:

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee are:

1. Failure to have the inspection record on the job site when the inspector arrives.
2. The approved plans are not on the job site at the time of inspection.
3. Failure to provide access to the job site or area to be reviewed by the inspector.

Appeals for such fees are made to the Building Official. A \$94.00 re-inspection fee shall be paid through the Building Permit Portal before a re-inspection may be scheduled, after the inspector has issued notice that such fee will be assessed.

Amend 2024 IBC 109.6, Refunds, by adding:

A refund of up to 80 percent of the building permit fee, excluding plan review fees, may be authorized by the Building Official, provided that no work has commenced and no inspections have been performed. Plan review fees shall not be refundable.

The Building Official is authorized to determine the amount of any refund based on the extent of administrative processing and work completed. No refund shall be issued for any required deposit once administrative routing or plan review has commenced.

Section 111 Certificate of Occupancy

Amend 2024 IBC 111.3, Temporary occupancy, by deleting and replacing with:

The Building Official is authorized to issue a Temporary Certificate of Occupancy (TCO) for residential construction, including detached one- and two-family dwellings, where the structure is safe for occupancy and no substantial hazard to life, health, or safety exists.

A Temporary Certificate of Occupancy shall only be issued when:

1. All required life-safety systems are complete and operational, including but not limited to means of egress, smoke and carbon monoxide alarms, required guards and handrails, and all utilities.
2. Any remaining work is limited to non-life-safety items, including but not limited to exterior flatwork, landscaping, or unfinished accessory spaces such as basements or bonus rooms, which shall be documented as “not inspected.”
3. A bond or other financial assurance is provided when required by the Building Official for incomplete exterior improvements, including driveway approaches, where weather or other conditions prevent completion.
4. The Temporary Certificate of Occupancy shall be valid for a period not to exceed 60 days, unless extended by the Building Official for good cause.
5. Failure to complete the remaining work prior to expiration of the Temporary Certificate of Occupancy may result in revocation of occupancy approval and/or issuance of enforcement actions.

Occupancy of a structure prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy is prohibited and may result in enforcement action, including issuance of a “No Occupancy” notice.

Section 113: Means of Appeals

Amend 2024 IBC 113.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IBC Sections 113.2 through 113.4, by deleting in their entirety.

Section 1505 Fire Classification

Amend 2024 IBC 1505.4, Class C roof assemblies, by deleting in its entirety.

Amend 2024 IBC 1505.5, Nonclassified roofing, by deleting in its entirety.

Section 1506 Materials

Amend 2024 IBC 1506.3, Product identification, by adding:

All roofing materials used must be a class “A” or “B” material and rolled roofing is to be of a self-adhering polymer bitumen type material.

Section 1507 Requirements for Roof Coverings

Amend 2024 IBC 1507.8, Wood shingles, by deleting in its entirety.

Amend 2024 IBC 1507.9, Wood shakes, by deleting in its entirety.

CHAPTER 16 STRUCTURAL DESIGN

Section 1607 Live Loads

Amend 2024 IBC Table 1607.1, Minimum Uniformly Distributed Live Loads and Minimum Concentrated Live Loads, by revising the following values:

Habitable attics and sleeping areas: 40 psf

Section 1608 Snow Loads

Amend 2024 IBC 1608.2, Ground snow loads, by deleting and replacing with:

The ground snow *loads* to be used in determining the design snow *loads* for roofs shall be determined in accordance with the reliability-targeted (strength based) ground snow load values in Chapter 7 of ASCE/SEI 7. Site-specific case studies shall be determined in accordance with Chapter 7 of ASCE/SEI 7 and shall be *approved* by the *building official*.

Section 1612 Flood Loads

Amend 2024 IBC 1612.3, Establishment of flood hazard areas, as follows:

Replace “[INSERT DATE OF ISSUANCE]” with “09-03-2010”.

APPENDIX J GRADING

Section J104 Permit Application and Submittals

Amend Appendix J by adding Section J104.5, Stormwater requirements, as follows:

1. Contractor shall submit to the Arizona Department of Environmental Quality a Notice of Intent (NOI) and a Notice of Termination (NOT) pursuant to the requirements of ARS Title 49, Chapter 2, Article 3.1. A copy of the submitted NOI and the NOT shall be provided to the City of Flagstaff Stormwater Section. The NOI shall be submitted prior to issuance of any City of Flagstaff grading, building, or offsite permits. The NOT shall be submitted prior to final acceptance of off-site improvements and the Certificate of Occupancy.
2. An Erosion Control Plan (ECP) shall be submitted to the City of Flagstaff Stormwater Section for review and approval as required by the City of Flagstaff Stormwater Manager. The ECP shall be prepared in accordance with the Arizona Department of Transportation (ADOT) Best Management Practices (BMP) Manual (or other BMPs as may be approved by the City of Flagstaff Stormwater Manager). Submittal shall be made concurrent with its respective permit application(s) and/or attached to the Civil Construction Document Plan Set submittal. Review timeframes shall be the same as the permit or civil reviews. City of Flagstaff permits that require an ECP will not be issued without review and approval by the City of Flagstaff Stormwater Section.
3. The ECP BMPs shall be set in place by the contractor, and the work inspected and approved by the City of Flagstaff Stormwater Section prior to commencement of grading activities. The contractor shall contact the City of Flagstaff Stormwater Section for this pre-grading inspection.
4. During construction, the ECP BMPs shall remain in place, and shall be maintained until project completion as witnessed by a Final Grading Certification and the filing of a NOT. Failure to maintain ECP BMPs may result in a Stop Work Order. Permits will not be closed or finalized unless the site has been inspected and approved for final stabilization by the City of Flagstaff Stormwater Section. The contractor shall contact the City of Flagstaff Stormwater Section for this closure inspection.

5. In accordance with the provisions of this section, the City of Flagstaff may withhold permits, occupancy or enforce by other remedy in order to ensure compliance.

CHAPTER 4-03

2024 INTERNATIONAL RESIDENTIAL CODE

4-03-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Residential Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section R101: Scope and General Requirements

Amend 2024 IRC R101.1, Title, by deleting and replacing with:

These provisions shall be known as the *Residential Code* for One- and Two-family *Dwellings*, triplexes, fourplexes, and *townhouses* of the City of Flagstaff, and shall be cited as such and will be referred to herein as “this code.”

Amend 2024 IRC R101.2, Scope, by deleting and replacing with:

The provisions of this code shall apply to the construction, *alteration*, movement, enlargement, replacement, *repair*, equipment, use and occupancy, location, removal and demolition of attached and detached one- and two-family *dwellings*, triplexes, fourplexes, and *townhouses* not more than three *stories above grade plane* in height with a separate means of egress and their *accessory structures* not more than three *stories above grade plane* in height.

Where a provision of this code does not specifically address a triplex or fourplex configuration, the Building Official is authorized to approve an alternative method or applicable code provision that provides an equivalent level of safety, provided such requirement does not conflict with A.R.S. § 9-462.13.

Compliance with this section shall not preclude an applicant from voluntarily electing to design and construct the building in accordance with the International Building Code where otherwise permitted.

Exception: The following shall be permitted to be constructed in accordance with this code where provided with an automatic sprinkler system complying with Section P2904:

1. Live/work units located in *townhouses* and complying with the requirements of Section 508.5 of the *International Building Code*.
2. Owner-occupied *lodging houses* with five or fewer *guestrooms*.
3. A care facility with five or fewer *persons* receiving custodial care within a *dwelling unit*.
4. A care facility with five or fewer *persons* receiving medical care within a *dwelling unit*.
5. A day care facility for five or fewer *persons* of any age receiving care within a *dwelling unit*.

Amend 2024 IRC R101.2.1, Appendices, by adding:

The following Appendices are hereby adopted as part of the IRC:

APPENDIX BE — Radon Control Methods

APPENDIX BB — Tiny Houses

APPENDIX BI — Light Straw-Clay Construction
APPENDIX BJ — Strawbale Construction
APPENDIX NB — Solar-Ready Provisions
APPENDIX NE — Electric Vehicle Charging Infrastructure
APPENDIX NK — Electric-Ready Building Provisions
APPENDIX NL — Renewable Energy Infrastructure
IBC APPENDIX J — Grading (as amended)

Section R103 Code Compliance Agency

Amend 2024 IRC R103.1, Creation of agency, by deleting and replacing with:

The City of Flagstaff Building Safety & Code Compliance Section is appointed as the regulating office and the official in charge thereof shall be known as the Building Official.

Section R105 Permits

Amend 2024 IRC R105.1, Required, by adding:

All manufactured housing (housing classified as modular, factory built or manufactured house) installed within the City of Flagstaff will be designed to meet Arizona Department of Housing, Office of Manufactured Housing standards. The City of Flagstaff enforces a 70 pound per square foot (psf) ground snow load for site-built construction. Arizona Department of Housing standards for snow winter areas in Arizona is not consistent with local conditions and owners should be aware of the differences.

For “used” manufactured housing or “resale”/relocated manufactured housing being brought into the City of Flagstaff, the following applies: As per direction from the Arizona Department of Housing, Office of Manufactured Housing, Arizona Revised Statutes Title 41, requires that all manufactured housing units be certified to meet the minimum standards of the United States Department of Housing and Urban Development and are to be designed in accordance with consistent Arizona Department of Housing standards for manufactured homes and related industries. An applicant requesting an installation permit and inspection will be required to provide proof to the Building Official of the current State certification or re-certification of the unit.

Amend 2024 IRC R105.5, Expiration, by deleting, replacing with new section R105.5, and adding subsections 105.5.1 through 105.5.5:

Section R105.5 Expiration.

Every residential building permit issued shall become invalid unless the work authorized by such permit is completed and a Certificate of Occupancy is issued within two (2) years from the date of permit issuance.

R105.5.1: A permit shall become invalid if the work authorized by such permit is not commenced within 180 days from the date of issuance, or if the work is suspended or abandoned for a period of 180 days after commencement.

R105.5.2: The Building Official is authorized to grant, upon written request submitted prior to permit expiration, one (1) extension of time not to exceed three hundred sixty-five (365) days, provided that:

1. The request includes documentation demonstrating justifiable cause, including but not limited to financial hardship, weather delays, or material delivery issues; and
2. Payment of a fee equal to one-half (½) of the original building permit fee, excluding plan review fees, is received.

R105.5.3: Under no circumstances shall a permit remain valid for more than three (3) years from the date of issuance.

105.5.4: Failure to obtain a Certificate of Occupancy within the maximum time allowed shall result in the permit expiring. In such cases, the Building Official may record a notice with the Coconino County Recorder's Office identifying the property as having incomplete construction or lacking a final inspection or Certificate of Occupancy.

105.5.5: All residential Over the Counter Permits for plumbing, mechanical, electrical, and re-roofing shall be valid for a maximum period of 180 days.

Section R106 Construction Documents

Amend 2024 IRC R106.1, Submittal documents, by adding:

Residential, single family detached, structures are exempt from the requirements for a Registered Design Professional under Arizona Revised Statutes unless circumstances dictate the necessity for professional design submittal. Duplexes and triplex units which do not exceed 3,000 square feet, two stories or a total occupant load of twenty (20), may also be designed by a non-registrant as long as the units have only one owner.

Sub-assemblies, such as commercially manufactured roof trusses or floor beams that indicate all imposed loading may be submitted without the seal of an Arizona Registered Design Professional. If a Registered Design Professional has sealed the construction documents, the Registered Design Professional shall state they have reviewed and approved of the design either on the construction documents or by providing a written letter stating as such, signed, sealed, and dated.

Construction documents for retaining walls subject to surcharge loads from adjacent structural elements or other unbalanced loading that exceeds four (4) feet in height, shall be prepared by an Arizona Registered Design Professional.

Amend 2024 IRC R106.1 Submittal documents, by adding subsection R106.1.6, Model plans:

R106.1.5 Model plans. An applicant may submit a model plan, which is a residential construction plan used two or more times. If approved, only modifications not shown on the model plan must be submitted for review. All modifications shall be clearly identified by clouded symbols, deltas, or other appropriate means. The review fee for modifications only will be hourly in accordance with the City Fee Schedule. If, in Building Official's judgement, the modifications are excessive or inadequately defined, the full plan review fee will be charged.

Section R108 Fees

Amend 2024 IRC R108.2, Schedule of permit fees, by adding:

The current schedule of permit fees is on file in the Office of Building Safety and available on the City of Flagstaff website (www.flagstaff.az.gov).

Amend 2024 IRC 108.4, Related fees, by adding:

Re-inspection fees may be assessed for each inspection or re-inspection when the portion of work for which the inspection was scheduled is not complete or when corrections from a previous inspection are not made. Other events which may require the imposition of a re-inspection fee are:

1. Failure to have the inspection record on the job site when the inspector arrives.
2. The approved plans are not on the job site at the time of inspection.
3. Failure to provide access to the job site or area to be reviewed by the inspector.

Appeals for such fees are made to the Building Official. A \$94.00 re-inspection fee shall be paid through the Building Permit Portal before a re-inspection may be scheduled, after the inspector has issued notice that such fee will be assessed.

Amend 2024 IRC R108.5, Refunds, by adding:

A refund of up to 80 percent of the building permit fee, excluding plan review fees, may be authorized by the Building Official, provided that no work has commenced and no inspections have been performed. Plan review fees shall not be refundable.

The Building Official is authorized to determine the amount of any refund based on the extent of administrative processing and work completed. No refund shall be issued for any required deposit once administrative routing or plan review has commenced.

Amend 2024 IRC R108.6, Work commencing before permit issuance, by adding:

Any person who commences any work on a building, structure, electrical, gas, mechanical, or plumbing system before obtaining the necessary permits shall be subject to an investigation fee of \$94.00 or twice the permit fee, whichever is greater.

Amend 2024 IRC R109, Inspections, by adding the following subsections:

R109.1.1.1: Damp-proofing and waterproofing: Damp-proofing and waterproofing and foundation drainage as required in Chapter 4 shall be inspected prior to covering.

R109.1.1.2: Utility service provisions: Underground utility service provisions for water, building sewer, and electricity shall be inspected prior to covering.

R109.1.4.1: Roofing underlayment: Roofing underlayment shall be inspected prior to installation of roof covering materials as required in Chapter 9 of this code.

R109.1.4.2: Weather resistive barrier and window flashing: Weather resistive barrier and window flashing shall be inspected prior to installation of exterior wall coverings as required in Chapter 7 of this code.

R109.1.4.3: Energy efficiency inspections: Inspections shall be made to determine compliance with Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water-heating equipment efficiency.

Section R112 Means of Appeals

Amend 2024 IRC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IRC Sections 112.2 through 112.4, by deleting in their entirety.

CHAPTER 2 DEFINITIONS

Section R202 Definitions

Amend 2024 IRC Section R202 by adding:

ACCESSORY DWELLING UNIT. Accessory dwelling units (ADU) are defined by the Flagstaff City Code, Title 10 - Flagstaff Zoning Code.

ACCESSORY ENERGY SYSTEM. An accessory energy system will include wind turbines, PV solar, thermal solar, geothermal, biomass and other technologies that provide heating, cooling or electrical energy. The systems will be subject to a building permit and limited by zoning ordinances for visual, design, height and setback requirements.

CHAPTER 3 BUILDING PLANNING

Section R301 Design Criteria

Amend 2024 IRC Table R301.2, Climatic and Geographic Design Criteria, as follows:

Ground snow load: 70 psf
Wind design – Speed (mph): 115mph (Vult) Exposure B
Wind design - Topographic Effects: NO
Wind design – Special wind region: NO
Wind design – Windborne debris zone: NO
Seismic design category: C
Subject to damage from – Weathering: Moderate
Subject to damage from – Frost line depth: 30 inches
Subject to damage from - Termite: Slight to moderate
Winter design temperature: 4 degrees F
Ice barrier underlayment required: YES
Flood hazards: a)12-16-1975, b)01-19-1983, c)09-03-2010*
Mean annual temperature: 45 degrees F

Residential heating and cooling equipment sizing using Manual J is optional per 2024 IRC M1401.3. When opting to use ACCA Manual J for HVAC system design, the criteria shall be from ACCA Manual J, Table 1A for Arizona, Flagstaff AP.

*The flood hazard dates reflect the current National Flood Insurance Program and the date of the currently effective "FIRM" Map (used by the City of Flagstaff). These maps are updated by the issuing agency and adopted by Storm Water Management without notice.

Amend 2024 IRC R301.2.3, Snow Loads, by deleting and replacing with:

Ground snow loads shall be 70psf or shall be determined in accordance in with Section 1608 of the *International Building Code*. Wood-framed construction, cold-formed, steel-framed construction and masonry and concrete construction, and *structural insulated panel* construction in regions with allowable stress design ground snow loads, $p_{g(asd)}$, 70 pounds per square foot (3.35 kPa) or less, shall be in accordance with Chapters 5, 6 and 8. *Buildings* in regions with allowable stress design ground snow loads, $p_{g(asd)}$, greater than 70 pounds per square foot (3.35 kPa) shall be designed in accordance with accepted engineering practice.

Amend 2024 IRC Table R301.5, Minimum Uniformly Distributed Live Loads, by revising the following values:

Residential - Habitable attics and sleeping areas: 40 psf

Section R302 Fire-Resistant Construction

Amend 2024 IRC R302.13, Fire protection of floors, by adding the following to Exceptions:

6. Floor assemblies located directly over crawl spaces with fuel-fired or electric-powered heating appliances where the maximum distance from crawl space floor to finish floor above does not exceed four (4) feet at any point.

Section R309 Automatic Fire Sprinkler Systems

Amend 2024 IRC R309.2, One- and two-family dwellings automatic fire sprinkler systems, by deleting and replacing with:

An automatic residential fire sprinkler system may be installed in one- and two-family dwellings. Arizona Revised Statutes prohibits jurisdictions from adopting any ordinance that mandates fire sprinklers in newly constructed one- and two-family dwellings.

Section R317 Garages and Carports

Amend 2024 IRC R317.5, Fire sprinklers, by deleting in its entirety.

Section R325 Light, Ventilation and Heating

Amend 2024 IRC R325.3, Mechanical ventilation, by deleting and replacing with:

Where the air infiltration rate of a *dwelling unit* is 5 air changes per hour or less where tested with a blower door at a pressure of 0.2 inch wg (50 Pa) in accordance with Section N1102.4.1.2, the *dwelling unit* may be provided with whole-house mechanical ventilation in accordance with Section M1505.4.

CHAPTER 4 FOUNDATIONS

Section R401 General

Amend 2024 IRC R401.4.1, Geotechnical evaluation, by deleting and replacing with:

Construction in all new residential subdivisions require a geotechnical evaluation with foundation design recommendations. In established areas of the City of Flagstaff, “in-fill” lots or vacant lots in subdivisions established prior to 1996, the designer may use a load-bearing pressure of 1500 pounds per square foot (psf) in lieu of a geotechnical evaluation. Upon site excavation of foundation, where the Building Official determines that in-place soils with an allowable bearing capacity of less than 1500 pounds per square foot (psf) are likely to be present at the site, then allowable bearing capacity shall be determined by a geotechnical evaluation at the expense of the permit applicant.

Section R403 Footings

Amend 2024 IRC R403.1, General, by adding:

All footings located less than eighteen (18) inches below existing grade to be air entrained, 3,500 psi concrete (severe weather), and pinned to rock at intervals specified for foundation wall vertical reinforcements or as specified by the Arizona Registered Design Professional of Record.

CHAPTER 5 FLOORS

Section R502 Wood Floor Framing

Amend 2024 IRC R502.3, Allowable joist spans, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R502.3.1(1) and R502.3.1(2)

Amend 2024 IRC R502.3.1, Sleeping areas and attic joists, by deleting and replacing with:

Table R502.3.1(1) shall be used to determine the maximum allowable span of floor joists that support sleeping areas and *attics* that are accessed by means of a fixed stairway in accordance with Section R318.7 provided that the design live load does not exceed 40 pounds per square foot (1.44 kPa) and the design dead load does not exceed 20 pounds per square foot (0.96 kPa). The allowable span of ceiling joists that support attics used for limited storage or no storage shall be determined in accordance with Section R802.5.

Section R507 Exterior Decks

Amend 2024 IRC R507.5, Deck beams, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R507.5(4).

Amend 2024 IRC R507.6, Deck joists, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Table R507.6.

Amend 2024 IRC R507.9.2, Lateral connection, by adding:

Exception: Attached first floor decks that do not exceed 30 inches above grade at any point.

CHAPTER 7 WALL COVERING

Section R702 Interior Covering

Amend 2024 IRC R702.7, Vapor retarders, by deleting the following:

The requirement for Class I or Class II vapor retarders on the interior side of frame walls in Climate Zones 5, 6, 7, 8, and Marine 4. The use of vapor retarders shall be permitted but not required.

CHAPTER 8 ROOF-CEILING CONSTRUCTION

Section R802 Wood Roof Framing

Amend 2024 IRC R802.4.1, Rafter size, by adding:

The Western Lumber Span Tables for Floor and Ceiling Joists and Roof Rafters is adopted as a secondary reference to Tables R802.4.1(1) through R802.4.1(8).

CHAPTER 9 ROOF ASSEMBLIES

Section R904 Materials

Amend 2024 IRC R904.3, Material specifications and physical characteristics, by adding:

All roofing materials used shall be Class “A” or “B” and rolled roofing shall be a Class A or B material and shall be a self-adhering, polymer modified bitumen material.

Section R905 Requirements for Roof Coverings

Amend 2024 IRC R905.7, Wood shingles, by deleting in its entirety.

Amend 2024 IRC R905.8, Wood shakes, by deleting in its entirety.

CHAPTER 11 ENERGY EFFICIENCY

Section N1102 (R402) Building Thermal Envelope

Amend 2024 IRC N1102.1.2, Insulation and fenestration criteria, by revising/adding the following to Table N1102.1.2 as follows:

Climate Zone 5, Wood frame wall R-value, shall be 15 high density in existing 2x4 framed walls in remodel work only.

Footnote b, add Exception: Windows used for the installation of glazing for an approved passive solar design.

Amend 2024 IRC table N1102.1.3, Insulation Minimum R-Values and Fenestration Requirements by Components, column 5 and 4 Marine, row Wood-Framed Wall R-Value by revising as follows:

21, or 13+5ci, or 0+15 ci

Section N1103 (R403) Systems

Amend Section N1103.7 (R403.7), Equipment sizing and efficiency rating, by deleting and replacing with the following:

Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. Furnaces installed in new construction shall comply with the standards in Section N1103.7.2 and air source heat pumps installed in new construction shall comply with the standards in Section N1103.7.3. Replacement heating and cooling equipment in existing buildings shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location

where the equipment is installed. Replacement heating and cooling equipment is encouraged, but not required, to comply with the standards in Section N1103.7.2 and Section 1103.7.3.

Add Section N1103.7.2 (R403.7.2), Furnaces, to read as follows:

Furnaces installed in new construction shall be not less than 95 percent annual fuel utilization efficiency (AFUE) and shall be condensing-type furnaces.

Exception: Replacement furnaces in existing buildings are encouraged, but not required, to meet the provisions of this section.

Add Section N1103.7.3 (R403.7.3), Air Source Heat Pumps, to read as follows:

Air-source heat pumps installed in new construction shall be cold-climate heat pumps and shall comply with all of the following:

1. Have a coefficient of performance (COP) at 5°F of not less than 1.75 at maximum capacity operation, or a heating capacity at 5°F of not less than 70 percent of the maximum rated capacity.
2. Ducted systems shall have a heating seasonal performance factor (HSPF2) of not less than 7.7 and a seasonal energy efficiency ratio (SEER2) of not less than 14.3.
3. Non-ducted systems shall have an HSPF2 of not less than 8.5 and a SEER2 of not less than 15.0.

Exception: Replacement air-source heat pumps in existing buildings are encouraged, but not required, to meet the provisions of this section.

Section N1104 Electric Power, Lighting and Renewable Energy Systems

Amend 2024 IRC N1104, Electrical Power, Lighting, and Renewable Energy Systems, by deleting Sections N1104.2 through N1104.3.1 in their entirety.

CHAPTER 20 BOILERS AND WATER HEATERS

Section M2005 Water Heaters

Amend 2024 IRC M2005.1, General, by adding:

Water heaters shall be capable of being removed without first removing a permanent portion of the building structure or any other appliance.

CHAPTER 24 FUEL GAS

Amend 2024 IRC, section G2415.3, Prohibited locations, by adding: Piping shall not be installed to a structure that is not attached to a permanent foundation.

Section G2415.12 Minimum Burial Depth

Amend 2024 G2415.12, Minimum burial depth, by deleting and replacing with:

Underground piping systems shall be installed a minimum depth of 18 inches below grade, except as provided for in Section G2415.12.1.

Section G2445 Unvented Room Heaters

Amend 2024 IRC Section G2445, Unvented Room Heaters, by deleting in its entirety.

CHAPTER 26 GENERAL PLUMBING REQUIREMENTS

Section P2601 General

Amend 2024 IRC Section P2601, General, by adding subsection P2601.4, Prohibited Locations, as follows:

P2601.4: Prohibited locations.

Water and waste plumbing systems shall not be installed to a structure that is not attached to a permanent foundation.

Section P2602 Individual Water Supply and Sewage Disposal

Amend 2024 IRC P2602.1, General, by adding:

Building sanitary drainage piping and systems that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality prior to installation.

Section P2603 Structural and Piping Protection

Amend 2024 IRC P2603.5.1, Sewer depth, by deleting and replacing with:

Building sewers that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality. *Building sewers* that connect to the City of Flagstaff's sewage disposal system shall be not less than twelve (12) inches below grade.

CHAPTER 29 WATER SUPPLY AND DISTRIBUTION

Section P2903 Water Supply System

Amend 2024 IRC Table P2903.2, Maximum Flow Rates and Consumption for Plumbing Fixtures and Fixture Fittings, by revising and adding as follows:

<u>PLUMBING FIXTURE OR FIXTURE FITTING</u>	<u>MAXIMUM FLOW RATE OR QUANTITY</u>
Lavatory faucet	1.5 gpm at 60 psi and WaterSense labeled
Showerhead ^a	1.8 gpm at 80 psi and WaterSense labeled
Sink faucet	2.2 gpm at 60 psi and WaterSense labeled
Water closet	1.28 gallons per flushing cycle and WaterSense labeled and has a Maximum Performance (MaP) rating score of at least 600 grams per flush. Dual-flush water closets: The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 31 VENTS

Section P3103 Vent Terminals

Amend 2024 IRC P3103.1.1, Roof extension, as follows:

Replace "6" with "twelve (12)" and delete "or 6 inches (mm) above the anticipated snow accumulation, whichever is greater".

CHAPTER 39 POWER AND LIGHTING DISTRIBUTION

Section E3901 Receptacle Outlets

Amend 2024 IRC E3901.4.2, Island and peninsular countertops and work surfaces, by deleting and replacing with:

At least one receptacle outlet shall be installed at each island countertop space with a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. [210.52(C)(2)]. Not less than one receptacle outlet shall be installed at each peninsular countertop long dimension space having a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall. [210.52(C)(3)].

Amend 2024 IRC E3902.5, Basement receptacles, by deleting in its entirety.

APPENDIX BE – RADON CONTROL METHODS

Section BE101 General

Amend 2024 IRC Section BE101.1, General, by deleting (including Figure BE101.1 and Table BE101.1) and replacing with the following:

Radon-resistant construction in accordance with this appendix shall be required for all new construction.

APPENDIX NB – SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES

Section NB103.6 (RB103.6)

Amend 2024 IRC NB103.6 (RB103.6), Capped roof penetration sleeve, by deleting in its entirety.

APPENDIX NE – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Section NE101(RE101)

Amend 2024 IRC Section NE101.1 (RE101.1), Definitions, by deleting and replacing the definition of “Electric Vehicle Supply Equipment (EVSE)” with the following:

Electric Vehicle Supply Equipment (EVSE).

Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*. There are three types of EVSE, categorized by voltage and charging speed: Level 1, Level 2, and Direct Current Fast Charging (DCFC).

Amend 2024 IRC Section NE101.2.1 (RE101.2.1), Quantity, by deleting and replacing with the following:

New one- and two-family dwellings and townhouses with a designated attached or detached garage or other on-site private parking provided adjacent to the *dwelling unit* shall be provided with one *EV ready space* or *Level 2 EVSE space* per *dwelling unit*. Two-family dwellings without a designated attached or detached garage shall be permitted to provide one *EV ready space* or *Level 2 EVSE space* for use by both dwelling units. It shall be located in a common-use area and be accessible to all occupants.

Exception:

1. New detached garages or carports where electricity is not provided shall not be required to provide EV charging infrastructure.

Amend 2024 IRC Section NE101.2.3 (RE101.2.3), EV Ready Spaces, by deleting and replacing with the following:

Each branch circuit serving an EV ready space shall comply with all of the following:

1. Be a 208/240-volt, 50-ampere branch circuit.
2. Terminate in a NEMA 14-50R receptacle outlet located within 6 feet (1828 mm) of each EV ready space it serves and marked “For electric vehicle supply equipment (EVSE).”

3. Be designated on the panelboard or other electrical distribution equipment directory as “For electric vehicle supply equipment (EVSE).”
4. Be installed in compliance with the currently adopted International Residential Code and National Electrical Code.

Amend 2024 IRC Section NE101.2.4 (RE101.2.4), EVSE Spaces, by deleting and replacing with the following:

An installed *Level 2 EVSE* with multiple output connections shall be permitted to serve multiple *Level 2 EVSE spaces*. Each *Level 2 EVSE* serving either a single *Level 2 EVSE space* or multiple *Level 2 EVSE spaces* shall comply with all of the following:

1. Be served by an electrical distribution system in accordance with Section NE101.2.5.
2. Have a nameplate charging capacity of not less than 8.3 kVA (or 50A at 208/240V) per *Level 2 EVSE space* served. Where a *Level 2 EVSE* serves three or more *Level 2 EVSE spaces* and is controlled by an energy management system in accordance with Section RE101.2.5, the nameplate charging capacity shall be not less than 2.1 kVA per *Level 2 EVSE space* served.
3. Be located within 6 feet (1828 mm) of each *Level 2 EVSE space* it serves.
4. Be installed in accordance with NFPA 70 and be *listed* and *labeled* in accordance with UL 2202 or UL 2594.

Amend 2024 IRC Section NE101.2.5 (RE101.2.5), Electrical Distribution System Capacity, by deleting and replacing with the following:

The branch circuits and electrical distribution system serving each *EV capable space*, *EV ready space* and *Level 2 EVSE space* used to comply with Section NE101.2.1 (RE101.2.1) shall comply with all of the following:

1. Sized for a calculated *EV* charging load of not less than 8.3 kVA per *Level 2 EVSE*, *EV ready* or *EV capable space*. Where a circuit is shared or managed, it shall be in accordance with NFPA 70.
2. The capacity of the electrical distribution system and each branch circuit serving multiple *Level 2 EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management system in accordance with NFPA 70 shall be sized for a calculated *EV* charging load of not less than 2.1 kVA per space. Where an energy management system is used to control *EV* charging loads for the purposes of this section, it shall not be configured to turn off electrical power to *Level 2 EVSE* or *EV ready spaces* used to comply with Section NE101.2.1 (RE101.2.1).

Amend 2024 IRC Section NE101.2: (RE101.2), Electric vehicle power transfer infrastructure, by adding subsection NE101.2.6 (RE101.2.6), Construction Documents, as follows:

NE101.2.6: (RE101.2.6) Construction Documents.

Construction documents shall designate all *EVSE spaces*, *EV ready spaces*, and *EV capable spaces*, and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE spaces*, *EV ready spaces*, and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV capable spaces* and *EV ready spaces* shall be clearly identified at both the panel or subpanel, and the termination point at the parking space.

**APPENDIX NK –
ELECTRIC READY RESIDENTIAL PROVISIONS
Section NK101 (RK101)**

Amend 2024 IRC Section NK101.1 (RK101.1), Electric Readiness, by adding:

Exception:

1. New one- and two-family dwellings and townhomes can request an exception to the requirements in this appendix from the Building Official if electrical load calculations indicate a 400-amp electric service panel is required to meet the minimum requirements of the 2024 International Residential Code. Exceptions will be granted at the discretion of the Building Official.

Amend 2024 IRC Section NK101.1.1 (RK101.1.1), Cooking appliances, by deleting and replacing with the following:

A dedicated branch circuit outlet with a rating not less than 240 volts and not less than 50 amperes shall be installed and terminate within 3 feet (914 mm) of conventional cooking tops, conventional ovens or cooking appliances combining both.

Exception: Cooking appliances not installed in an individual *dwelling unit*.

CHAPTER 4-04

2024 INTERNATIONAL EXISTING BUILDING CODE

4-04-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Existing Building Code adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 105 Permits

Amend 2024 IEBC 105.1, Required, by adding:

Refer to the 2024 Amendments to Flagstaff City Code, Title 4, Building Regulations to the 2024 International Building Code (IBC) and 2024 International Residential Code (IRC) for building permit requirements.

Amend 2024 IEBC 105.5, Expiration, by deleting and replacing with:

Refer to the 2024 Amendments to Flagstaff City Code, Title 4, Building Regulations to the 2024 International Building Code (IBC) and 2024 International Residential Code (IRC) for the duration of building permits.

Section 112 Means of Appeals

Amend 2024 IEBC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IEBC Sections 112.2 through 112.4, by deleting in their entirety.

CHAPTER 4 REPAIRS

Section 408 Plumbing

Amend 2024 IEBC 408.2, Water closet replacement, by deleting and replacing with:

The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.28 gallons (4.84 liters) per flushing cycle or lower.

Dual-flush water closets: The effective flush volume for dual-flush toilets shall not exceed 1.28 gallons (4.84 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

CHAPTER 12 HISTORIC BUILDINGS

Section 1201 General

Amend 2024 IEBC 1201.2, Report, by adding subsection 1201.2.1, Heritage Preservation Commission:

1201.2.1: Heritage Preservation Commission. Any exterior changes to a structure over 50 years old at the time of application shall be reviewed by the Heritage Preservation Officer and Current Planning Section, Planning & Development Services Division, prior to issuing a building permit. The project may be referred to the City's Inter-Division Staff (IDS) committee and/or the Heritage Preservation Commission for review. Heritage Preservation review will be conducted pursuant to Flagstaff Zoning Code Division 10-30.30: Heritage Preservation.

CHAPTER 4-05

2024 INTERNATIONAL MECHANICAL CODE

4-05-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Mechanical Code (IMC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 108 Fees

Amend 2024 IMC 108.6, Refunds, by deleting and replacing with:

Refunds shall be in accordance with 2024 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 112 Means of Appeal

Amend 2024 IMC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IMC Sections 112.2 through 113.1, by deleting in their entirety.

Section 114 Violations

Amend 2024 IMC 114.4, Violation penalties, by deleting and replacing with:

Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

Amend 2024 IMC 115, Stop work orders, by deleting and replacing with:

Stop work orders shall be in accordance with 2024 IBC Section 115, as adopted and amended by the City of Flagstaff.

CHAPTER 3 GENERAL REGULATIONS

Section 304 Installation

Amend 2024 IMC 304.2, Conflicts, by deleting and replacing with:

Where conflicts occur between the provisions of this code and the conditions of the listing or the manufacturer's installation instructions, the listing and manufacturer's installation instructions shall govern.

CHAPTER 4 VENTILATION

Amend 2024 IMC Chapter 4, Ventilation, by adding Section 408, Cannabis Related Occupancies, as follows:

408.1 General.

Any building used to cultivate, produce, infuse, or dispense cannabis shall be designed such that there shall be no emission of dust, fumes, vapors, or odors into the environment from the premises. A ventilation system shall be designed to prevent the distribution of odors to other occupied parts of the building or adjacent properties. Design of the odor control system shall be based on accepted engineering practices. All equipment and filter media shall be listed and labeled for the application. Exhaust systems used in odor control systems shall meet the requirements of Section 501. 408.1.1 Exhaust outlets. The termination point for exhaust outlets shall be in 65 accordance with Section 501.3. Exhaust from cultivation and production facilities shall be in accordance with Section 501.3.1(2) and for dispensaries in accordance with Section 501.3.1(3).

CHAPTER 5 EXHAUST SYSTEMS

Section 511, Sub-slab Soil Exhaust Systems

Amend 2024 IMC 511.1, General, by deleting and replacing with:

Sub-slab soil exhaust systems shall be required for all new construction within the jurisdiction where buildings are constructed in contact with the ground. Where a sub-slab soil exhaust system is provided, the system shall comply with the requirements of this section.

CHAPTER 9 SPECIFIC APPLIANCES, FIREPLACES AND SOLID FUEL-BURNING EQUIPMENT

Section 903 Factory-Built Fireplaces

Amend 2024 IMC 903.3, Unvented gas log heaters, by deleting and replacing with:

An unvented gas log heater shall not be installed at any time unless first approved by the local gas utility company. A signed and dated letter of such approval shall be submitted to the Building Official before a permit can be issued.

CHAPTER 10 BOILERS, WATER HEATERS AND PRESSURE VESSELS

Section 1002 Water Heaters

Amend 2024 IMC 1002.1, General, by revising the second sentence to read:

Water heaters shall be capable of being removed without first removing a permanent portion of the building structure or any other appliance.

CHAPTER 4-06 2024 INTERNATIONAL PLUMBING CODE

4-06-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Plumbing Code (IPC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 108 Fees

Amend 2024 IPC 108.2, Schedule of permit fees, by deleting and replacing with:

The fees for all plumbing work shall be in accordance with 2024 IBC 109.2, as adopted and amended by the City of Flagstaff.

Amend 2024 IPC 108.6, Fee refunds, by deleting and replacing with:

Refunds shall be in accordance with 2024 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 112 Means of Appeal

Amend 2024 IPC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IPC Sections 112.2 through 113.1, by deleting in their entirety.

Section 114 Violations

Amend 2024 IPC 114.4, Violation penalties, by deleting and replacing with:

Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

CHAPTER 3 GENERAL REGULATIONS

Section 301 General

Amend 2024 IPC 301.6, Prohibited locations, by adding:

Water and waste plumbing systems shall not be installed to a structure that is not attached to a permanent foundation.

Amend 2024 IPC 301.7, Conflicts, by deleting and replacing with:

Where conflicts between this Code and the conditions of the listing or the manufacturer's installation instructions occur, the listing or manufacturer's installation requirements shall apply.

Section 305 Protection of Pipes and Plumbing System Components

Amend 2024 IPC 305.4, Freezing, by revising the last sentence to read:

Exterior water supply piping shall be installed not less than thirty (30) inches below grade.

Amend 2024 IPC 305.4.1, Sewer depth, by deleting and replacing with:

Building sewers that connect to private sewage disposal systems shall be approved by Coconino County Environmental Quality prior to installation. Building sewers that connect to City-provided sewer shall be a minimum of twelve (12) inches below grade.

Section 312 Tests and Inspections

Amend 2024 IPC 312.1, Required tests, by replacing the fourth sentence with:

All plumbing system piping shall be tested with either water or air.

Amend 2024 IPC 312.3, Drainage and vent air test, by deleting the first sentence.

Amend 2024 IPC 312.5, Drainage and vent final test, by deleting in its entirety.

Amend 2024 IPC 312.7, Gravity sewer test, by deleting in its entirety.

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

Section 604 Design of Building Water Distribution System

Amend 2024 IPC Table 604.4, Maximum flow rates and consumption for plumbing fixtures and fixture fittings, by revising the following values:

<u>PLUMBING FIXTURE OR FIXTURE FITTING</u>	<u>MAXIMUM FLOW RATE OR QUANTITY^b</u>
Lavatory faucet, private	1.5 gpm at 60 psi and WaterSense labeled
Lavatory faucet, public (metering)	0.25 gallon per metering cycle and WaterSense labeled
Lavatory faucet, public (other than metering)	0.5 gpm at 60 psi and WaterSense labeled
Showerhead ^{a, c}	1.8 gpm at 80 psi and WaterSense labeled
Sink faucet	2.2 gpm at 60 psi and WaterSense labeled
Urinal	0.125 gallons (1 pint) per flushing cycle and WaterSense labeled
Water closet	1.28 gallons per flushing cycle and WaterSense labeled and has a Maximum Performance (MaP) rating score of at least 600 grams per flush. Dual-flush water closets: The effective flush volume for dual-flush toilets shall not exceed 1.28 gallons (4.84 liters). The effective flush volume is the average flush volume of two reduced flushes and one full flush. Flush volumes shall be tested in accordance with ASME A112.19.2/CSA B45.1 and ASME A112.19.14.

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

- A hand-held shower spray is a shower head.
- Consumption tolerances shall be determined from referenced standards.
- Shower heads shall comply with all requirements for high-efficiency showerheads in [ASME A112.18.1-2020/CSA B125.1](#).

CHAPTER 7 SANITARY DRAINAGE

Section 703 Building Sewer

Amend 2024 IPC 703, Building sewer, by adding section 703.7, Building sewer locating means:

703.7 Building Sewer Locating Means. All non-metallic building sewer piping shall be installed with a plastic covered No. 12 AWG Type UF 600V tracer wire taped to the top of the piping with a minimum 10 mil tape. The building sewer tracer wire shall be green in color.

CHAPTER 9 VENTS

Section 903 Vent Terminals

Amend 2024 IPC 903.1.1, Roof extension unprotected, as follows:

Replace “[NUMBER]” with “twelve (12)” and replace “(mm)” with “(304.8 mm)”.

CHAPTER 4-07

2024 INTERNATIONAL FUEL GAS CODE

4-07-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Fuel Gas Code (IFGC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND APPLICATION

Section 108 Fees

Amend 2024 IFGC 108.6, Refunds, by deleting and replacing with:

Refunds shall be in accordance with 2024 IBC 109.6, as adopted and amended by the City of Flagstaff.

Section 112 Means of Appeals

Amend 2024 IFGC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IFGC Sections 112.2 through 112.4, by deleting in their entirety.

Section 113 Violations

Amend 2024 IFGC 113.4, Violation penalties, by deleting and replacing with:

Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

CHAPTER 3 GENERAL REGULATIONS

Section 303 Appliance Location

Amend 2024 IFGC 303.3, Prohibited locations, by deleting numbers 3 and 4.

CHAPTER 4 GAS PIPING INSTALLATIONS

Section 403 Piping Materials

Amend 2024 IFGC 403.3.3, Copper and copper alloy, by deleting and replacing with:

Copper and brass, threaded copper, brass, and aluminum piping shall not be used for gas piping installations within the City of Flagstaff.

Section 404 Piping System Installation

Amend 2024 IFGC 404.3, Prohibited locations, by adding:

Piping shall not be installed to a structure that is not attached to a permanent foundation.

Amend 2024 IFGC 404.12, Minimum burial depth, by deleting and replacing with:

Underground piping systems shall be installed a minimum depth of 18 inches below grade, except as provided for in Section 404.12.1.

CHAPTER 6 SPECIFIC APPLIANCES

Section 621 Unvented Room Heaters

Amend 2024 IFGC Section 621, Unvented Room Heaters, by deleting in its entirety.

CHAPTER 4-08

2024 INTERNATIONAL ENERGY CONSERVATION CODE

4-08-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Energy Conservation Code (IECC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

COMMERCIAL PROVISIONS

CHAPTER [CE] 1 SCOPE AND ADMINISTRATION

Section C101 Scope and General Requirements

Section C101.2 Scope

Amend 2024 IECC Section C101.2, Scope, by adding the following:

Group R-2 buildings, where defined as residential buildings by Section C202, shall be permitted to comply with the Residential Provisions of this code, regardless of height. Such election shall be indicated on the construction documents at the time of submittal.

Section C101.2.1 Appendices

Amend 2024 IECC Section C101.2.1, Appendices, by adding:

The following Appendices are hereby adopted as part of the IECC:

APPENDIX CB – Solar-Ready Zone – Commercial

APPENDIX CG – Electric Vehicle Charging Infrastructure

APPENDIX CH – Electric – Ready Commercial Building Provisions

APPENDIX CI – Demand Responsive Controls

Section C101.4 Compliance

Amend 2024 IECC Section C101.4, Compliance, by adding the following:

Residential buildings shall comply with the Residential Provisions of this code. Commercial buildings shall comply with the Commercial Provisions of this code. Group R-2 buildings, where defined as residential buildings by Section C202, shall be permitted to comply with the Residential Provisions of this code, regardless of height. Where such election is made, all applicable Residential Provisions shall be followed in their entirety. Once selected, the compliance path shall not be changed without approval of the Building Official.

Section C109 Means of Appeals

Amend 2024 IECC C109.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IECC Sections C109.2 through 109.4, by deleting in their entirety.

CHAPTER [CE] 2 DEFINITIONS

Section C202 General Definitions

Amend 2024 IECC Section C202, General definitions, by deleting and replacing the definition of “Residential Building” with the following:

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and townhouses, as well as Group R-2, R-3, and R-4 buildings. Group R-2 buildings, regardless of height, shall

be permitted to comply with the Residential Provisions of this code, provided such designation is identified on the construction documents. Where a building includes accessory common uses and/or commercial spaces, those portions of the building shall comply with the applicable commercial provisions of the International Energy Conservation Code.

CHAPTER [CE] 4 COMMERCIAL ENERGY EFFICIENCY

Amend 2024 IECC table C402.1.3, Opaque Building Thermal Envelope Insulation Component Minimum Requirements, R-Value Method, Column 5 and Marine 4, sub-columns All other and Group R, row Wood framed and other by revising as follows:

R-0+R-16ci, or R-13+R-7.5ci, or R20+R3.8, or R-21

Section C405.12 Automatic Receptacle Control

Amend 2024 IECC C405.12 & 405.12.1, Automatic Receptacle Control, by deleting in their entirety.

Section C405.13 Energy Monitoring

Amend 2024 IECC Section C405.13, Energy Monitoring, by adding the following:

Compliance with the provisions of this section is optional.

Section C405.15 Renewable Energy Systems

Amend 2024 IECC Section C405.15, Renewable Energy Systems, as follows:

Replace “shall” with “may” and add the following second sentence: Compliance with the provisions of Sections C405.15.1 through C405.15.4 is optional.

APPENDIX CG – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Section CG101.1 Definitions

Amend 2024 IECC Section CG101.1, Definitions, by deleting and replacing the definition of “Electric Vehicle Supply Equipment (EVSE)” with the following:

Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle. There are three types of EVSE, categorized by voltage and charging speed: Level 1, Level 2, and Direct Current Fast Charging (DCFC).

Section CG101.2.1 Quantity

Amend 2024 IECC Section CG101.2.1, Quantity, by deleting and replacing with the following:

The number of required *Level 2 electric vehicle supply equipment (EVSE)* spaces, *EV capable spaces* and *EV ready spaces* shall be determined in accordance with this section and Table CG101.2.1 based on the total number of *automobile parking spaces* and shall be rounded up to the nearest whole number. For Group R-2 buildings, the Table CG101.2.1 requirements shall be based on the total number of *dwelling units* or the total number of *automobile parking spaces*, whichever is less.

1. Where more than one parking facility is provided on a *building site*, the number of required *automobile parking spaces* required to have EV power transfer infrastructure shall be calculated separately for each parking facility.
2. Where one shared parking facility serves multiple building occupancies, the required number of spaces shall be determined proportionally based on the floor area of each building occupancy.
3. Installed *Level 2 EVSE spaces* that exceed the minimum requirements of this section may be used to meet the minimum requirements for *EV ready spaces* and/or *EV capable spaces* on a one-to-one ratio.

4. Installed *EV ready spaces* that exceed the minimum requirements of this section may be used to meet the minimum requirements for *EV capable spaces* on a one-to-one ratio.
5. Where the number of *EV ready spaces* allocated for R-2 occupancies is equal to the number of *dwelling units* or to the number of *automobile parking spaces* allocated to R-2 occupancies, whichever is less, requirements for *Level 2 EVSE spaces* for R-2 occupancies shall not apply.
6. Requirements for a Group S-2 parking garage shall be determined by the occupancies served by that parking garage. Where new automobile spaces do not serve specific occupancies, the values for Group S-2 parking garage in Table CG101.2.1 shall be used.
7. For buildings that install *DCFC EVSE* spaces, each *DCFC EVSE* space shall be permitted to substitute up to 10 required *EV capable, EV ready, or Level 2 EVSE* spaces.
8. Group R-2 occupancies shall be permitted to install three *Level 1 EVSE* spaces for every required *Level 2 EVSE space* or *EV ready space* but cannot exceed 50 percent of the required Level 2 EVSE spaces or EV ready spaces.
9. All attached garages with direct connection to a *dwelling unit* will be required to have one *EV ready or Level 2 EVSE space*.
10. When the calculation of required *EV capable, EV ready, and/or Level 2 EVSE spaces* results in a decimal number, a decimal of 0.5 or more shall be adjusted to the next higher whole number, and a decimal of less than 0.5 shall be adjusted to the next lower whole number.

Exception: Parking facilities serving occupancies other than R2 with fewer than 15 *automobile parking spaces*.

Amend 2024 IECC table CG101.2.1, Required EV Power Transfer Infrastructure, by deleting and replacing with the following:

TABLE CG101.2.1 REQUIRED EV POWER TRANSFER INFRASTRUCTURE

OCCUPANCY	LEVEL 2 EVSE SPACES	EV READY SPACES	EV CAPABLE SPACES
Group A	5%	0%	10%
Group B	5%	5%	10%
Group E	5%	5%	10%
Group F	2%	0%	5%
Group H	1%	0%	0%
Group I	5%	0%	10%
Group M	5%	0%	10%
Group R-1	5%	10%	15%
Group R-2	5%	10%	15%

Groups R-3 and R-4	0%	2%	5%
Group S exclusive of parking garages	1%	0%	0%
Group S-2 parking garages	15%	0%	30%

CG101.2.2 EV Capable Spaces.

Amend 2024 IECC Section CG101.2.2, EV Capable Spaces, by deleting and replacing with the following:

Each *EV capable space* used to meet the requirements of Section CG101.2.1 shall comply with all of the following:

1. A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the *EV capable space* and electrical distribution equipment.
2. Installed raceway or cable assembly shall be sized and rated to supply a minimum circuit capacity in accordance with Section CG101.2.5.
3. The electrical distribution equipment to which the raceway or cable assembly connects shall have dedicated overcurrent protection device space and electrical capacity to supply a calculated load in accordance with Section CG101.2.5.
4. The enclosure or outlet and the electrical distribution equipment directory shall be marked: "For electric vehicle supply equipment (EVSE)."

CG101.2.3 EV Ready Spaces.

Amend 2024 IECC Section CG101.2.3, EV Ready Spaces, by deleting and replacing with the following:

Each branch circuit serving *EV ready spaces* used to meet the requirements of Section CG101.2.1 shall comply with all of the following:

1. Be a 208/240-volt, 50-ampere branch circuit.
2. Terminate in a NEMA 14-50R receptacle outlet located within 3 feet (914 mm) of each EV ready space it serves.
3. Have a minimum system and circuit capacity in accordance with Section CG101.2.5.
4. The electrical distribution equipment directory shall designate the branch circuit as "For electric vehicle supply equipment (EVSE)" and the outlet or enclosure shall be marked "For electric vehicle supply equipment (EVSE)."
5. Be installed in compliance with the currently adopted National Electrical Code.

CG101.2.4: EVSE Spaces

Amend 2024 IECC Section CG101.2.4, EVSE Spaces, by deleting and replacing with the following:

CG101.2.4.1: Level 2 EVSE spaces.

An installed *Level 2 EVSE* with multiple output connections shall be permitted to serve multiple *Level 2 EVSE spaces*. Each *Level 2 EVSE* installed to meet the requirements of Section CG101.2.1, serving either a single *Level 2 EVSE* or multiple *Level 2 EVSE*, shall comply with all of the following:

1. Have a minimum system and circuit capacity in accordance with Section CG101.2.5.
2. Have a nameplate rating not less than 8.3 kW.
3. Be located within 3 feet (914 mm) of each *Level 2 EVSE space* it serves.
4. Be installed in accordance with Section CG101.2.6.

CG101.2.4.2: Level 1 EVSE Spaces.

Each *Level 1 EVSE space* shall comply with all the following:

1. The receptacle shall be located within 3 feet (914 mm) of each *Level 1 EVSE space* it serves.
2. Have a minimum circuit capacity of 1.8 kVA (15 amperes 120 volts).
3. The electrical panel, electrical distribution equipment directory, and all receptacles or enclosures shall be marked “Level 1 Electric vehicle supply equipment (EVSE).”

CG101.2: Electric Vehicle Power Infrastructure.

Amend 2024 IECC Section CG101.2, Electric Vehicle Power Infrastructure, as follows:

Change “CG101.2.6” to “CG101.2.7”.

Amend 2024 IECC Section CG101.2, Electric Vehicle Power Infrastructure, by adding Section CG101.2.7, Construction Documents, to read as follows:

Construction documents shall designate all *EVSE spaces*, *EV ready spaces*, and *EV capable spaces*, and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE spaces*, *EV ready spaces*, and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV ready spaces* and *EV capable spaces* shall be clearly identified at both the panel or subpanel, and the termination point at the parking space.

APPENDIX CI: DEMAND RESPONSIVE CONTROLS

Section CI103.1 Demand Responsive Lighting Controls

Amend 2024 IECC Section CI103, Demand Responsive Lighting Controls, by deleting in its entirety.

RESIDENTIAL PROVISIONS

CHAPTER [RE] 1 SCOPE AND ADMINISTRATION

Section R101 Scope and General Requirements

Amend 2024 IECC Section R101.2.1, Appendices, by adding.

The following Appendices are hereby adopted as part of the IECC:

APPENDIX RB– SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO – FAMILY DWELLINGS AND TOWNHOUSES

APPENDIX RE – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

APPENDIX RK – ELECTRIC READY RESIDENTIAL BUILDING PROVISIONS

APPENDIX RL – RENEWABLE ENERGY INFRASTRUCTURE

Section R109 Means of Appeals

Amend 2024 IECC R109.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 IECC Sections R109.2 through 109.4, by deleting in their entirety.

CHAPTER [RE] 2 DEFINITIONS

Section R202 General Definitions

Amend 2024 IECC R202, General definitions, by replacing the definition of “Residential Building” with the following:

RESIDENTIAL BUILDING. For this code, includes detached one- and two-family dwellings and townhouses, as well as Group R-2, R-3, and R-4 buildings. Group R-2 buildings, regardless of height, shall be permitted to comply with the Residential Provisions of this code, provided such designation is identified on the construction documents. Where a building includes accessory common uses and/or commercial spaces, those portions of the building shall comply with the applicable commercial provisions of the International Energy Conservation Code.

CHAPTER [RE] 4 RESIDENTIAL ENERGY EFFICIENCY

Section R402 Building Thermal Envelope

Amend 2024 IECC Table R402.1.2, Maximum Assembly U-Factors and Fenestration Requirements, by adding the following:

Footnote b, Exception: Windows used for the installation of glazing for approved passive solar design.

Amend 2024 IECC Table R402.1.3, Insulation Minimum R-Values and Fenestration Requirements by Component, column 5 and 4 Marine, row Wood-Framed Wall R-Value by revising as follows:

21, or 13+5ci, or 0+15 ci (R15 high density shall be permissible in existing 2x4 framed walls)

Section R403 Systems

Amend 2024 IECC Section R403.7, Equipment sizing and efficiency rating, by deleting and replacing with the following:

Heating and cooling equipment shall be sized in accordance with ACCA Manual S based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies. Furnaces installed in new construction shall comply with the standards in Section N1103.7.2 and air source heat pumps installed in new construction shall comply with the standards in Section N1103.7.3. Replacement heating and cooling equipment in existing buildings shall have an efficiency rating equal to or greater than the minimum required by federal law for the geographic location where the equipment is installed. Replacement heating and cooling equipment is encouraged, but not required, to comply with the standards in Section R403.7.2 and R403.7.3.

Amend 2024 IECC Section R403.7, Equipment sizing and efficiency rating, by adding Section R403.7.2, Furnaces, as follows:

R403.7.2: Furnaces.

Furnaces installed in new construction shall be not less than 95 percent annual fuel utilization efficiency (AFUE) and shall be condensing-type furnaces.

Exception: Replacement furnaces in existing buildings are encouraged, but not required, to meet the provisions of this section.

Amend 2024 IECC Section R403.7, Equipment sizing and efficiency rating, by adding Section R403.7.3, Air Source Heat Pumps, as follows:

R403.7.3: Air source heat pumps.

Air-source heat pumps installed in new construction shall be cold-climate heat pumps and shall comply with all of the following:

1. Have a coefficient of performance (COP) at 5°F of not less than 1.75 at maximum capacity operation, or a heating capacity at 5°F of not less than 70 percent of the maximum rated capacity.
2. Ducted systems shall have a heating seasonal performance factor (HSPF2) of not less than 7.7 and a seasonal energy efficiency ratio (SEER2) of not less than 14.3.
3. Non-ducted systems shall have an HSPF2 of not less than 8.5 and a SEER2 of not less than 15.0.

Exception: Replacement air-source heat pumps in existing buildings are encouraged, but not required, to meet the provisions of this section.

Section R404 Electric Power, Lighting and Renewable Energy Systems

Amend 2024 IRC R404, Electrical Power, Lighting, and Renewable Energy Systems, by deleting Sections R404.2 through R404.3.1 in their entirety.

APPENDIX RB – SOLAR-READY PROVISIONS – DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES

Amend 2024 IECC RB103.6, Capped roof penetration sleeve, by deleting in its entirety.

APPENDIX RE – ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Section RE101.1

Amend 2024 IECC Section RE101.1, Definitions, by deleting and replacing the definition of “Electric Vehicle Supply Equipment (EVSE)” with the following:

Electric Vehicle Supply Equipment (EVSE). Equipment for plug-in power transfer, including ungrounded, grounded and equipment grounding conductors; electric vehicle connectors; attached plugs; any personal protection system; and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*. There are three types of EVSE, categorized by voltage and charging speed: Level 1, Level 2, and Direct Current Fast Charging (DCFC).

Section RE101.2

Amend 2024 IECC Section RE101.2, Electric vehicle power infrastructure, as follows:

Change “RE101.2.5” to “RE101.2.6”.

Amend 2024 IECC Section RE101.2, Electric vehicle power transfer infrastructure, by adding:

Exceptions:

New detached garages or carports where electricity is not provided shall not be required to provide EV charging infrastructure.

Amend 2024 IECC Section RE101.2.1, Quantity, by deleting and replacing with the following sections RE101.2.1.1 - RE101.2.1.4.3:

Section RE101.2.1.1 One- and Two- Family Dwellings and Townhouses

New one- and two-family dwellings and townhouses with a designated attached or detached garage or other on-site private parking provided adjacent to the *dwelling unit* shall be provided with one *EV ready space* or *Level 2 EVSE space* per *dwelling unit*. Two-family dwellings without a designated attached or detached garage shall be permitted to provide one *EV ready space* or *Level 2 EVSE space* for use by both dwelling units. It shall be located in a common-use area and be accessible to all occupants.

Section RE101.2.1.2 Other Residential Occupancies

R-2 occupancies, allocated parking for R-2 occupancies in mixed-use *buildings*, R-3 occupancies (excluding one- and two-family dwellings and townhomes), and R-4 occupancies shall meet the requirements in Table RE101.2.1.2(1) for *EV capable*, *EV ready*, or *EVSE* spaces. At least one *EV capable*, *EV ready* or *EVSE space* shall be located in a common-use area and be available for use by all occupants.

When the calculation of required *EV capable*, *EV ready*, and *EVSE spaces* results in a decimal number, a decimal of 0.5 or more shall be adjusted to the next higher whole number, and a decimal of less than 0.5 shall be adjusted to the next lower whole number.

Table RE101.2.1.2(1) EV Infrastructure Requirements for Other Residential Occupancies

Building Type	Level 2 EVSE spaces	EV capable or EV ready spaces
Group R-2 occupancies three stories or less in height above grade plane with 15 or fewer parking spaces	20% of spaces shall be either <i>Level 2 EVSE</i> , <i>EV ready</i> , or <i>EV capable</i> (not fewer than 1 space).	
Group R-2 occupancies less than three stories in height above grade plane with more than 15 parking spaces	5%	15%
Group R-2 occupancies taller than three stories in height above grade plane	5%	25%
Group R-3 and R-4 occupancies three stories or less in height above grade plane with more than 15 parking spaces	0	7%

Exceptions:

1. R-3 and R-4 occupancies where fewer than 15 parking spaces are provided.
2. Where the local electric distribution entity certifies in writing that it is not able to provide 100 percent of the necessary distribution capacity within 2 years after the estimated certificate of occupancy date, the required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity.
3. Where substantiation is approved that meeting the requirements of Section RE101.2.5 will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the builder or developer by more than \$450 per dwelling unit.

RE101.2.1.3 Attached garages. All attached garages with direct connection to a dwelling unit shall be required to have one EV ready space or EVSE space.

RE101.2.1.4 Parking Space Type Substitutions. Group R-2, R-3, and R-4 occupancies shall be permitted to substitute EV parking spaces required in Table 101.2.1.2(1) according to sections RE101.2.1.4.1 – RE101.2.1.4.3.

RE101.2.1.4.1 DC Fast Charging. For Group R-2, R-3, R-4 buildings that install *DCFC EVSE* spaces, each *DCFC EVSE* space shall be permitted to substitute up to 10 required *EV capable*, *EV ready*, or *Level 2 EVSE spaces* in Table RE101.2.1.2(1).

RE101.2.1.4.2 Level 1 EV Charging. For Group R-2 buildings that install *Level 1 EVSE spaces* in accordance with section RE101.2.5, three *Level 1 EVSE spaces* shall be permitted to substitute every *Level 2 EVSE space*, but cannot exceed 50 percent of the required *Level 2 EVSE spaces* in Table RE101.2.1.2(1).

RE101.2.1.4.3 Excess Level 2 EVSE Spaces. *Level 2 EVSE spaces* installed in accordance with Section RE101.2.4 that exceed the minimum requirements in Table RE101.2.1.2(1) are permitted to be used to meet the minimum requirements for *EV capable* or *EV ready spaces* on a one-to-one ratio.

Amend 2024 IECC Section RE101.2.3, EV Ready Spaces, by deleting and replacing with the following:

Each branch circuit serving an EV ready space shall comply with all of the following:

1. Be a 208/240-volt, 50-ampere branch circuit.
2. Terminate in a NEMA 14-50R receptacle outlet located within 6 feet (1828 mm) of each EV ready space it serves and marked “For electric vehicle supply equipment (EVSE).”
3. Be designated on the panelboard or other electrical distribution equipment directory as “For electric vehicle supply equipment (EVSE).”
4. Installation shall comply with the currently adopted National Electrical Code.

Amend 2024 IECC Section RE101.2.4, EVSE Spaces, by deleting and replacing with the following:

RE101.2.4.1 Level 2 EVSE Spaces

An installed *Level 2 EVSE* with multiple output connections shall be permitted to serve multiple *Level 2 EVSE spaces*. Each *Level 2 EVSE* serving either a single *Level 2 EVSE space* or multiple *Level 2 EVSE spaces* shall comply with all of the following:

1. Be served by an electrical distribution system in accordance with Section RE101.2.5.
2. Have a nameplate charging capacity of not less than 8.3 kVA (or 50A at 208/240V) per *Level 2 EVSE space* served. Where a *Level 2 EVSE* serves three or more *Level 2 EVSE spaces* and is controlled by an energy management system in accordance with Section RE101.2.5, the nameplate charging capacity shall be not less than 2.1 kVA per *Level 2 EVSE space* served.
3. Be located within 6 feet (1828 mm) of each *Level 2 EVSE space* it serves.
4. Be installed in accordance with NFPA 70 and be *listed* and *labeled* in accordance with UL 2202 or UL 2594.

RE101.2.4.2 Level 1 EVSE Spaces.

Each *Level 1 EVSE space* shall comply with all the following:

1. The receptacle shall be located within 6 feet (1828 mm) of each *Level 1 EVSE space* it serves.
2. Have a minimum circuit capacity of 1.8 kVA (15A 120V).

3. The electrical panel, electrical distribution equipment directory, and all receptacles or enclosures shall be marked “Level 1 Electric vehicle supply equipment (EVSE).”

Amend 2024 IECC Section RE101.2.5, Electrical Distribution System Capacity, by deleting and replacing with the following:

The branch circuits and electrical distribution system serving each *EV capable space*, *EV ready space* and *Level 2 EVSE space* used to comply with Section RE101.2.1 shall comply with one of the following:

1. Sized for a calculated *EV* charging load of not less than 8.3 kVA per *Level 2 EVSE*, *EV ready* or *EV capable space*. Where a circuit is shared or managed, it shall be in accordance with NFPA 70.
2. The capacity of the electrical distribution system and each branch circuit serving multiple *Level 2 EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management system in accordance with NFPA 70 shall be sized for a calculated *EV* charging load of not less than 2.1 kVA per space. Where an energy management system is used to control *EV* charging loads for the purposes of this section, it shall not be configured to turn off electrical power to *Level 2 EVSE* or *EV ready spaces* used to comply with Section RE101.2.1.

Amend 2024 IECC Section RE101.2, Electric vehicle power transfer infrastructure, by adding Section RE101.2.6, Construction Documents, as follows:

RE101.2.6: Construction documents.

Construction documents shall designate all *EVSE spaces*, *EV ready spaces*, and *EV capable spaces*, and indicate the locations of raceway and/or conduit and termination points serving them. The circuits or spaces reserved for *EVSE spaces*, *EV ready spaces*, and *EV capable spaces* shall be clearly identified in the panel or subpanel directory. The raceway and/or conduit for *EV ready spaces* and *EV capable spaces* shall be clearly identified at both the panel or subpanel, and the termination point at the parking space.

APPENDIX RK – ELECTRIC READY RESIDENTIAL CONSTRUCTION

Section RK101

Amend 2024 IECC Section RK101.1, Electric readiness, to add:

Exception:

1. New one- and two-family dwellings and townhomes can request an exception to the requirements in this appendix from the Building Official if electrical load calculations indicate a 400-amp electric service panel is required to meet the minimum requirements of the 2024 International Residential Code. Exceptions will be granted at the discretion of the Building Official.

Amend 2024 IECC Section RK101.1.1, Cooking appliances, by deleting and replacing with the following:

A dedicated branch circuit outlet with a rating not less than 240 volts and not less than 50 amperes shall be installed and terminate within 3 feet (914 mm) of conventional cooking tops, conventional ovens or cooking appliances combining both.

Exception: Cooking appliances not installed in an individual *dwelling unit*.

APPENDIX RL – RENEWABLE ENERGY INFRASTRUCTURE

Section RL101

Amend 2024 IECC Section RL101.1, Renewable energy infrastructure, by deleting and replacing with the following:

The *building* shall comply with the requirements of Section RL101.1.2.

Solar-ready construction in accordance with this appendix shall be required for all new Group R occupancies, excluding one- and two-family dwellings and townhouses regulated under the 2024 International Residential Code.

Amend 2024 IECC Section RL101.1.1, One- and two-family dwellings and townhouses, by deleting entirely

CHAPTER 4-10

2024 INTERNATIONAL SWIMMING POOL AND SPA CODE

4-10-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the 2024 International Swimming Pool and Spa Code (ISPSC) adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 112 Means of Appeals

Amend 2024 ISPSC 112.1, General, by deleting and replacing with:

In order to hear and decide appeals of orders, decisions or determinations made by the Building Official relative to the application and interpretation of this code, there shall be and is hereby created a Building and Fire Code Board of Appeals per Flagstaff City Code, Title 2, Boards and Commissions.

Amend 2024 ISPSC Sections 112.2 through 112.4, by deleting in their entirety.

Section 113 Violations

Amend 2024 IMC 113.4, Violation penalties, by deleting and replacing with:

Violation penalties shall be in accordance with Flagstaff City Code Section 4-01-001-004, Violation and Penalties.

CHAPTER 2 DEFINITIONS

Section 202 Definitions

Amend 2024 ISPSC Section 202, Definitions, by deleting and replacing the definition of “Residential Swimming Pool (Residential Pool)” with the following:

RESIDENTIAL SWIMMING POOL (Residential Pool). A pool intended for use that is accessory to a residential setting and available only to the household and its guests including any structure intended for swimming or recreational bathing that contains water over eighteen (18) inches in depth. This includes in-ground, above ground, and on-ground swimming pools, hot tubs, spas, and fixed in place wading pools. Other pools shall be considered to be public pools for purposes of this code.

CHAPTER 3 GENERAL COMPLIANCE

Section 305 Barrier Requirements

Amend 2024 ISPSC 305.2.1, Barrier height and clearances, by revising subsection 1 as follows:

Replace “48 inches” with “60 inches” and “1219 mm” with “1524 mm”.

CHAPTER 4-11 NATIONAL ELECTRICAL CODE

4-11-001-0001 AMENDMENTS, ADDITIONS, AND DELETIONS

The following provisions shall have the effect of either amending, adding to, or deleting from the National Electrical Code (NEC), 2023 Edition, adopted in Flagstaff City Code, Title 4, Building Regulations, Chapter 4-01, Administrative Enactments, Section 4-01-001-0002, Adoption of Model Codes.

CHAPTER 1 GENERAL

Article 110 General Requirements for Electrical Installations

Part I General

Amend 2023 NEC Article 110.2, Approval, by deleting and replacing with:

All electrical conductors, components, material, and equipment shall be listed and labeled.

Amend 2023 NEC Article 110.5, Conductors, by deleting and replacing with:

Conductors used to carry current shall be copper. Aluminum or copper-clad aluminum conductors shall be permitted only for feeders and service-entrance conductors, where installed in accordance with this Code. Aluminum and copper-clad aluminum conductors shall not be used for branch-circuit wiring.

Where conductor material is not specifically identified, the conductor sizes and requirements of this Code shall be based on copper conductors.

Amend 2023 NEC Article 110.7, Wiring Integrity, by deleting and replacing with:

All equipment rated at 1000 amperes or more shall be tested for insulation breakdown, mechanical integrity, and workmanship prior to the equipment being energized. A certified high potential voltage test (hi-pot) shall be performed and a certificate issued to the Building Official. This test shall be performed in the presence of a Building Inspector and conducted by a testing firm approved by the Building Official.

Said test shall be performed for a period of one (1) minute, the application of a 60 hertz alternating potential of 1000 volts plus twice the rated phase to phase voltage of the equipment.

This test shall be performed between all phases to ground, phase to phase, and neutral if isolated.

CHAPTER 2 WIRING AND PROTECTION

Article 210 Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal

Part I General

Amend 2023 NEC Article 210.5, Identification for Branch Circuits, by adding:

(D) **Color Code.** Where 15, 20, or 30 ampere branch circuits requiring a neutral are installed in raceways or cable assemblies, the conductor of branch circuits connected to the same system shall conform to the following color code:

<u>Volts</u>	<u>Phase</u>	<u>System</u>	<u>Phase A</u>	<u>Phase B</u>	<u>Phase C</u>	<u>Neutral</u>
120/208	3	Wye	Black	Red	Blue	White
120/240	3	Delta	Black	Orange	Blue	White
277/480	3	Wye	Brown	Orange	Yellow	Gray

Article

Amend 2023 NEC Article 210.8, Ground-Fault Circuit-Interrupter Protection for Personnel, by deleting subsection 210.8(A)(5) in its entirety.

Article 210.52

Amend 2023 NEC Article 210.52(C)(2), Island and peninsular countertops and work surfaces, by deleting and replacing with the following:

At least one receptacle outlet shall be installed at each island countertop space with a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. Not less than one receptacle outlet shall be installed at each peninsular countertop long dimension space having a long dimension of 24 inches (610 mm) or greater and a short dimension of 12 inches (305 mm) or greater. A peninsular countertop is measured from the connected perpendicular wall. Receptacle outlets shall be installed in accordance with 210.52(C)(3).

Article 250 Grounding and Bonding

Part II System Grounding

Amend 2023 NEC Article 250.30, Grounding Separately Derived Alternating-Current Systems, (A) Grounded Systems, (4) Grounding Electrode, by adding:

All new building construction shall have a one-piece concrete-encased electrode and electrode conductor (Ufer ground), a minimum twenty (20) feet length in the footing, sized from the following table:

0-200 ampere service: 1 piece #4 copper (electrode and electrode conductor)

201-400 ampere service: 1 piece 1/0 copper (electrode and electrode conductor)

401-800 ampere service: 1 piece 2/0 copper (electrode and electrode conductor)

Larger than 800 ampere service: 1 piece 3/0 copper (electrode and electrode conductor)

Where the Ufer has been lost, damaged, or cannot be located, a ground ring or modification of the same consisting of thirty (30) feet of #2 bare copper wire, buried a minimum of thirty (30) inches deep in a trench, or a plate electrode per Article 250.53 (H) shall be required in lieu of a concrete-encased electrode.

*International Fire Code, 2018 Edition and Amendments, Additions and Deletions Thereto
and 2018 Amendments to the Flagstaff City Code, Title 5, Fire Code*

5-02-001-0005 AMENDMENTS

The following provisions shall have the effect of either amending, adding to, or deleting from the International Fire Code, 2018 Edition:

CHAPTER 1. IFC. Administration

Amend Section 101.1 Title, to read:

These regulations shall be known as the Fire Code of City of Flagstaff, hereinafter referred to as "this code."

Amend Section 102.7 entitled "Reference codes and standards", by adding:

Referenced codes and standards as listed in Chapter 80, and in this document are adopted in their entirety.

Amend Section 104.6, Official Records, to read:

The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained as prescribed by state and city archival regulations.

Amend Section 105.6.3 Open Burning, by deleting

Exception: Recreational fires.

Amend Section 109.1 entitled "Board of appeals established", to read:

The Building and Fire Code Board of Appeals created in Chapter 2-02 of the Flagstaff City Code shall hear and decide appeals of orders, decisions or determinations made by the fire official relative to the application and interpretation of this code.

Amend Section 110.4 entitled "Violation penalties", to read:

Persons who violate a provision of this code or fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under a provision or provisions of this code, shall be guilty of a class one misdemeanor and upon conviction shall be punishable by a fine and/or imprisonment set forth by the governing laws of the jurisdiction. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

CHAPTER 2. IFC. Definitions

Amend Section 202 entitled "Definitions; Detached Building" to read:

DETACHED BUILDING: A separate standalone structure that is separated from other buildings in accordance with the requirements of the International Building Code, greater than 200 square foot and/or within 15 feet of the existing or primary structure. This classification shall include, but not limited to the following:

Casitas
Gazebos
Storage
Sheds
Garages
Green
Houses
Ramadas
Barns
Shops

Amend Section 202 entitled Definitions, by adding:

SPECULATIVE WAREHOUSE. A building designed for high piled combustible storage without a known type or commodity designation specified.

SKY LANTERN. A device designed to carry an open flame as an airborne light. Also known as, but not limited to, Kongming Lantern, Whish Lantern, Sky Candle, Fire Balloon.

CHAPTER 3. IFC. General Requirements

Amend Section 319 Mobile Food Preparation Vehicles, by adding

319.4.3 Location Mobile food preparation vehicles shall not be located within 20 feet of tents, canopies, or membrane structures.

CHAPTER 5. IFC. Fire Service Features

Amend Section 503.1.2 Additional Access, by adding:

Approved secondary access shall be provided to all subdivisions and developments when fire access exceeds 1200 feet in length. Secondary access shall be provided for all one or two family residential developments that exceed 30 units/lots.

Amend Section 503.2.3 Surface, to read:

Fire apparatus access roads shall be designed and maintained to support a minimum 80,000 pounds gross vehicle weight shall be surfaced as to provide all weather driving capabilities. A maintenance agreement for private roads or other fire access may be required showing the responsibility for roadway maintenance and snow plowing.

Amend Section 503.2.4 entitled "Fire Service Features; Fire Apparatus Access Roads; Specifications; Turning Radius", to read:

The required minimum turning radius of a fire apparatus access road shall be 35 feet inside, 55 feet outside, or 45 feet on center

Amend Section 503.2.5 Dead ends, by adding:

There shall be no parking or other obstructions in fire apparatus turnaround areas that would impair turning of apparatus. When parking or other design features are desired, the proper design must be approved. Accumulation of snow must also be accounted for to prevent winter time obstructions.

Amend Section 503.2.7 entitled "Fire Service Features; Fire Apparatus Access Roads;

Specifications; Grade, to read:

The gradient for a fire apparatus access road shall not exceed 10 percent on straight sections of roadway and 5 percent side slope on turnarounds and curves

Amend Section 504.2 Maintenance of exterior doors and openings, by adding:

Exterior doors and openings required by this code or the building code shall be maintained readily accessible for emergency access by the fire department. Exterior doors shall be supplied with an approved exterior handle.

Amend Section 505.1 Address Numbers, by adding:

Commercial address numbers shall be a minimum of 6 inches high with a minimum stroke width of 0.5 inch. Buildings in multi-building complexes must be marked with 12" minimum numbers. When address numbers attached to buildings are insufficient to be seen from the street, additional numbers may be required at a location approved by the Chief. Approved identification shall also be provided on the rear door(s) at any location where access into the building may be difficult to determine.

Amend Section 507 Fire Protection Water Supply, by adding:

507.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises on which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. When automatic fire sprinkler systems or other approved fire protection systems or features are installed, the specifications of this section may be modified at the discretion of the Chief, when in his opinion, firefighting or rescue operations will not be impaired.

Amend Section 507.2 Type of water supply, by adding:

Water supply for a major system component as described by the American Water Works Association must provide a continuous and uninterrupted supply of fire protection water through redundancy. Fire mains in excess of 1,000 feet in length or which have more than 3 hydrants affixed shall be looped to a second source of water. All fire mains hereafter constructed shall be a minimum of 8-inch diameter but in all cases shall be of sufficient size to adequately supply the required fire flow.

Amend Section 507.3 Fire Flow, to read:

Fire flow tests used to design sprinkler systems, standpipe systems, and fire supply mains shall be performed by a contractor licensed by the State of Arizona, and who has a current business license issued by the City of Flagstaff. The test shall be witnessed by the Flagstaff Fire Department. The method for determining fire flow requirements for buildings and subdivisions shall be Appendix B Fire Flow Requirements for Buildings.

Amend Section 507.5 Fire Hydrant Systems, by adding:

507.5.1 When any portion of the facility or building protected is in excess of 400 300 feet from a water supply on a public street for commercial occupancies and 500 feet from a water supply for residential single family and duplex occupancies, as measure by an approved route around the exterior of the facility or building, on-site fire hydrants and mains capable of supplying the required fire flow shall be provided when required by the Fire Chief

CHAPTER 6. IFC. Building Services and Systems**Amend Section 605.8 Refrigerant detection, to read:**

Machinery rooms shall contain a refrigerant detector with an approved and distinctive audible and visual alarm. The alarm notification devices shall comply with the audible and visual requirements of the *National Fire Alarm Code*, NFPA 72. A supervisory alarm shall be activated when the mechanical ventilation system fails. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be activated at a value not greater than the corresponding TLV-TWA values shown in the International Mechanical Code. Detectors and alarms shall be placed in one or more locations to assure notifications of all occupants.

CHAPTER 9. IFC. Fire Protection Systems**Amend Section 901.2 entitled "Construction documents", by adding:**

Automatic sprinkler systems designed in accordance with NFPA 13, 13D and 13R shall be submitted and reviewed bearing a review certification and signature of a minimum level NICET III Certified Engineering Technician (CET) or Arizona registrant. Fire alarm systems designed in accordance with NFPA 72 shall be reviewed and submitted bearing a review certification and signature of a minimum level III NICET Technician or Arizona registrant.

Amend Section 901.3 entitled Permits, by adding:

901.3.1 Modifications. No person shall remove or modify any fire protection system installed or maintained under the provisions of this code without prior approval by the fire chief or fire code official.

Amend Section 901.6 entitled Inspection, testing and maintenance by adding:

Fire detection and alarm systems, emergency alarm systems, gas detection systems, fire- extinguishing systems, mechanical smoke exhaust systems and smoke and heat vents, fire pumps shall be maintained in an operative condition at all times and shall be replaced or repaired where defective. Nonrequired fire protection systems and equipment shall be inspected, tested and maintained or removed. All fire protection systems shall be inspected and tested annually by a contractor licensed by the State of Arizona and who possesses an Arizona State Revenue License to work on the specific type of fire protection system being inspected or tested. Contractors shall provide current copies to the fire department annually.

Amend Section 901.6.3 entitled "Records", to read:

Records of all system inspections, tests and maintenance required by the referenced standards shall be maintained on the premises for a minimum of three years and deficiencies shall be copied to the authority having jurisdiction within thirty (30) business days.

Amend Section 901.6, by adding:

901.6.3.1 Inspection and testing. All fire protection systems shall be inspected and tested annually by a contractor licensed by the State of Arizona and who has a current ~~business license issued by the City of Flagstaff~~ Arizona State Revenue License to work on the specific type of fire protection system being inspected or tested.

Amend Section 903 entitled Automatic Sprinkler Systems by adding

903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. In addition to the requirements of the fire and building codes, an approved automatic monitored sprinkler system shall be installed throughout all levels of all new Group B, E, F, M, U and S occupancies 5,000 square feet (464m²) or greater and in all buildings over 3 stories in height regardless of the total square footage. Such systems shall be in accordance with the International Fire Code, International Building Code and installed in accordance with NFPA 13, 13D or 13R as specified by the fire code official.

Notwithstanding the foregoing, an automatic monitored fire sprinkler system may be installed in any building regardless of floor area.

Amend Section 903.2.1.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-1, to read:

An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multi theater complex.

Amend Section 903.2.1.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-3", to read:

An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Amend Section 903.2.1.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-4", to read:

An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
2. The fire area has an occupant load of 300 or more.

3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Amend Section 903 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required; by adding:

903.2.2.1 Group B

An automatic monitored sprinkler system shall be provided throughout all Group B occupancies where any of the following exist:

1. Where Group B fire area is 5,000 square feet (464m²) and greater, or
2. Fire area is located more than three stories above grade

Amend Section 903.2.2 Ambulatory care facilities, to read:

903.2.2.2 Ambulatory care facilities

An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation, whether rendered incapable by staff or staff has accepted responsibility for care recipients already incapable.
2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

*In buildings where ambulatory care is provided on levels other than the *level of exit discharge*, an *automatic sprinkler system* shall be installed throughout the entire floor where such care is provided as well as all floors below, and all floors between the level of ambulatory care and the nearest *level of exit discharge*, including the *level of exit discharge*.*

Amend Section 903.2.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group E", to read:

An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 5000 square feet (462m²) in area.
2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

3. The Group E area has an occupant load of 300 or more.

Amend Section 903.2.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group F-1", to read:

An automatic sprinkler system shall be provided throughout all buildings containing Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 5,000 square feet (464m²).
2. A Group F-1 fire area is located more than three stories above grade plan.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).
4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Amend Section 903.2.4.1 Woodworking operations, to read:

An automatic sprinkler system shall be provided throughout all F-1 occupancy fire area that conation woodworking operations in excess of ~~2500~~ 5000 square feet in area (464 m²) which generate finely divided combustible waste or which use finely divided combustible materials.

Amend Section 903.2.7 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required; Group M", to read:

An automatic sprinkler system shall be provided throughout buildings containing Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 5,000 square feet (464m²).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).
4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).

Amend 903.2.8 entitled Group R, to read:

An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R-1 and R-2 fire area.

Amend Section 903.2.9 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-1", to read:

An automatic sprinkler system shall be provided throughout all buildings containing Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 5,000 square feet (464m²).
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).

4. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).

Amend Section 903.2.9.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Repair Garages", to read:

An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the International Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5,000 square feet (464m²).
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 5,000 square feet (464m²).
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).

Amend Section 903.2.10 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-2 enclosed parking garages", to read:

An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the International Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 5,000 square feet (464m²)
2. Where the enclosed parking garage is located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

Amend Section 903.3.1.1.1 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Installation requirements; Exempt locations", to read:

Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from any room merely because it is damp, of fire-resistance rated construction or contains electrical equipment.

1. Any room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. Any room or space where sprinklers are considered undesirable because of the nature of the contents, when approved by the fire code official.
3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a fire resistance rating of not less than 2 (t w o) hours.
4. Fire service access elevator machine rooms and machinery spaces.
5. Machine rooms and machinery spaces associated with occupant evacuation elevators designed in accordance with Section 3008 of the International Building Code.

Amend Section 903.3.5 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Installation requirements; Water supplies", by adding:

The introduction of any toxic substance shall be prohibited. If a sprinkler system is connected to a potable water supply, the use of solutions other than that of pure glycerin (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall not be permitted."

Amend Section 903.3 installation requirements, by adding:**903.3.9 Speculative warehouse special requirements**

Speculative warehouses shall comply with Chapter 32, and this Chapter. Where the maximum allowable storage height can exceed 12 feet (3658mm) but less than 22 feet (6706mm) the following shall apply:

1. Design for a Class IV non-encapsulated commodity, double row rack storage, 8 foot (2,438mm) aisles and 286 degrees sprinklers; and
2. Hydraulically design to protect the maximum possible clear height of storage without in-rack sprinklers; and
3. Add 500 GPM at the base of the riser for inside hose to hydraulic calculations, and provide the hose stub-outs for future installation or use existing columns for hose installing locations.

Where the maximum allowable storage height can exceed 22 feet (6706mm) the following shall apply:

1. Hydraulically design system to protect the maximum possible clear height of storage without in-rack sprinklers; and
2. Provide .64 GPM per square foot over the hydraulically most remote 2,000 square feet (609600mm); or use an approved alternative design such as ESFR sprinklers.

Amend Section 905 Standpipe Systems, by adding:

Section 905.13 Other Standpipe Systems Required Locations. Notwithstanding the previously specified required locations, approved standpipe systems shall also be required in: Commercial buildings greater than two stories in height.

Amend Section 912.2 Location, to read:

With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located such that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. Fire department connections (FDC) shall be remote from the building if possible.

Amend Section 912.2.1 Visible Location, to read:

Fire department connections shall be located at the primary entrance to the site, fully visible and recognizable.

Amend Section 1103.5 Sprinkler systems, deleting section 1103.5.1;

1103.5.1 Group A-2 ~~Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with a n automatic sprinkler system in accordance with section 903.3.1.1.~~

Amend Section 3106 Outdoor Assembly Events, addition table 3106.3**Outdoor Assembly Events Table 3106.3**

Occupant Load	Minimum number of Exits
1-500	2
501-1000	3
1001-1500	4
Each additional 500 Persons	36" of additional exit width for each exit

3106.3.3 Exit Width The aggregate clear width of exits shall be a minimum of 36 "width wide for each 500 persons to be accommodated

3106.3.4 Exit Signs Exits shall be identified with signs that read -EXIT – The signs shall be weather resistant with letters on a contrasting background. Lettering shall be of sufficient height and brush stroke to be visible within 100 feet. Placement of the exit signs shall be approved by the fire code official.

3106.4 - Outdoor Concerts / Crowd Management, section added

3106.4.1 Front Stage Isle/Separation Minimum 10 foot aisle space for front of stage, adequate crowd manager's during the concert or event to maintain minimum widths. Main isle shall be a minimum of 10 feet in width.

CHAPTER 50. IFC. Hazardous Materials – General Provisions**Amend Section 5003.2.2.1 Design and construction to read:**

(2) Piping and tubing shall be identified indicate the material conveyed and the direction of flow. Pipe labels shall be provided at a maximum spacing of 20 feet at each change of direction and on both sides of walls or floor/ceiling penetrations.

Amend section 5003.2.2.1 Design and construction and add:

(6) Pressure tests of piping constructed of non-metallic material used to convey hazardous materials shall be limited to hydrostatic tests. Pneumatic pressure testing of non-metallic piping shall not be permitted.

Amend Section 5004.9 Emergency alarm to read:

An approved manual emergency alarm system shall be provided in buildings, rooms or areas used for storage of hazardous materials. The emergency alarm system shall be designed using the manual fire alarm requirements of the *National Fire Alarm Code*, NFPA

72. Emergency alarm initiating devices shall be installed outside of each interior exit or exit access door of the storage buildings, rooms or areas. Activation of an emergency alarm-initiating device shall sound an audible signal distinctly different than that of the fire alarm signal. Emergency alarm notification devices shall be yellow or amber in color.

CHAPTER 53, IFC, Compressed Gases**Amend Section 5301.1 Scope, to read:**

Storage, use and handling of compressed gases in compressed gas containers, cylinders, tanks and systems shall comply with this chapter, and National Fire Protection Association standard, NFPA 55, Compressed Gases and Cryogenic Fluids, 2016 edition. Where there is a conflict between the International Fire Code, 2018 edition and NFPA 55, 2016 edition, the more restrictive provision shall apply. Partially full compressed gas containers, cylinders or tanks containing residual gases shall be considered as full for the purpose of the controls required.

Amend Section 5302.1 Definitions to add:

Point of Use means detection shall be provided at each location where material or chemical is placed into action.

Amend Section 5303.16.10.1 Insulated Liquid Carbon Dioxide Systems to add:

(A) Gas detection shall be provided at each point of use whether the cylinder vessel, and/or container are located inside or outside the structure. Basements and/or subterranean spaces that could be physically entered, and which contain CO2 process lines, shall have gas detection.

(B) When a CO2 gas detection device reaches 15,000 ppm a local warning/supervisory alarm shall sound at a normally occupied location, and/or transmit a supervisory signal to a supervising station if system is monitored off-site.

(C) When a CO2 gas detection device reaches 30,000 ppm a general evacuation signal shall sound for the occupancy and transmit a gas specific alarm to a supervisory station if system is monitored off-site.

(D) Where there are DOT approved non-insulated cylinders stored and/or used inside or outside the structure, per system, gas detection and alarm systems shall not be required.

CHAPTER 55, IFC, Cryogenic Fluids

Amend Section 5501.1 Scope to read:

Storage, use and handling of *cryogenic fluids* shall comply with this chapter and National Fire Protection standard NFPA 55, Compressed Gases and Cryogenic Fluids Code, **2016** edition. Where there is a conflict between the International Fire Code, 2018 edition and NFPA 55, **2016** edition, the more restrictive provision shall apply. *Cryogenic fluids* shall also comply with Chapter 50 for general requirements. Partially full containers containing residual *cryogenic fluids* shall be considered as full for the purposes of the controls required.

CHAPTER 56. IFC. Explosives and Fireworks**Amend Section 5601.2.4 Financial responsibility, to read:**

Before a permit is issued, as required by Section 5601.2, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of \$1,000,000 or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The *fire code official* is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

Amend Section 5608 by deleting it in its entirety. Amend Section 5609 by deleting it in its entirety. APPENDIX D Fire Apparatus Access

Roads**Amend Section D102 Required Access to read:**

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 80,000 pounds.

Amend Section D107 One- or Two-family dwelling residential developments to read:

D107.1 One- or two- family dwelling residential developments. Developments of one- or two-family dwellings where the number of dwelling units exceeds 30 shall be provided with two separate and approved fire apparatus access roads.

Exceptions:

1. Where there are more than **30 to 50** dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, access from two directions shall not be required.

**Section 5-02-001
FIRE CODE**

Sections:

- 5-02-001-0001 ADOPTION OF 2024 INTERNATIONAL FIRE CODE AND 2024 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE
- 5-02-001-0002 FIRE PREVENTION DIVISION: ESTABLISHMENT, DUTIES:
- 5-02-001-0003 SAVING CLAUSE
- 5-02-001-0004 VIOLATION AND PENALTIES
- 5-02-001-0005 AMENDMENTS

5-02-001-0001 ADOPTION OF 2024 INTERNATIONAL FIRE CODE AND 2024 INTERNATIONAL WILDLAND-URBAN INTERFACE CODE

There are hereby adopted by the City of Flagstaff for the purpose of prescribing regulations governing conditions hazardous to life and property from fire or explosion, those certain Codes known as the 2024 International Fire Code and the 2024 International Wildland-Urban Interface Code, as amended below.

Said codes have been adopted as part of a public record through Resolution No. 2026-47 on October 6, 2026, entitled "The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code," one hard copy and one electronic copy of which are on file in the office of the City Clerk, made a part hereof as if fully set out in this chapter.

5-02-001-0002 FIRE PREVENTION DIVISION: ESTABLISHMENT, DUTIES:

- A. The International Fire Code and International Wildland Urban Interface Code shall be enforced by the Fire Prevention Division.
- B. The Fire Chief of the City shall be in charge of the Fire Prevention Division and may detail such members of the Fire Department as necessary to administer fire prevention efforts.

5-02-001-0003 SAVING CLAUSE

Nothing in this chapter or in the International Fire Code or International Wildland-Urban Interface Code hereby adopted shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinances replaced hereby. Nor shall any right or remedy of any character be lost, impaired, or affected by this chapter.

5-02-001-0004 VIOLATION AND PENALTIES

- A. Violations. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert, demolish, equip, use or maintain any building or property, or permit the same to be done in violation of this code.
- B. Penalties. Any person, firm, or corporation violating any provision of this Code shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by Flagstaff City Code, Title I, Chapter 1-04 General Penalty. Each separate day

or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

5-02-001-0005 AMENDMENTS

The following provisions shall have the effect of either amending, adding to, or deleting from the International Fire Code, 2024 Edition:

CHAPTER 1, IFC, Administration

Amend Section 101.1 Title, to read:

These regulations shall be known as the Fire Code of City of Flagstaff, hereinafter referred to as "this code."

Delete and replace section 101.2.1 as follows:

[A] 101.2.1 Appendices: The following appendices are adopted and amended as part of this Code by the City of Flagstaff: B, C, D, E, F, G, H, I, J, L, and N as added and/or amended.

Appendix B Fire-Flow Requirements for Buildings

Appendix C Fire Hydrant Locations and Distribution

Appendix D Fire Apparatus Access Roads

Appendix E Hazard Categories

Appendix F Hazard Ranking

Appendix G Cryogenic Fluids – Weight and Volume Equivalents

Appendix H Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions

Appendix I Fire Protection Systems—Noncompliant Conditions

Appendix J Building Information Sign

Appendix L Requirements for Fire Fighter Air Replenishment Systems

Appendix N Indoor Trade Shows and Exhibitions

Amend Section 102.7 entitled "Reference codes and standards", by adding:

Referenced codes and standards as listed in Chapter 80, and in this document are adopted in their entirety.

Amend Section 105.5.36 Open Burning, by deleting

Exception: Recreational fires.

Add Section 105.6.26 Electronic access control systems:

Construction permits are required to install or modify an electronic access control system, as specified in Chapter 10. A separate construction permit is required to install or modify a fire alarm system that may be connected to the access control system. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Add Section 105.6.27 Electric vehicle (EV) charging stations:

Construction permits are required to install or modify an electric vehicle charging station. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.

Add to section 110.3 as follows: [A] 110.3 Recordkeeping:

Fire system annual maintenance inspection reports shall be submitted through the web-based third-party reporting service, The Compliance Engine.

Amend Section 113.4 entitled "Violation penalties", to read:

Persons who violate a provision of this code or fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under a provision or provisions of this code, shall be guilty of a class one misdemeanor and upon conviction shall be punishable by a fine and/or imprisonment set forth by the governing laws of the jurisdiction. Each separate day or any portion thereof, during which any violation of this Code occurs or continues, shall be deemed to constitute a separate offense.

CHAPTER 2, IFC, Definitions

Amend Section 202 entitled "Definitions; Detached Building" to read:

DETACHED BUILDING: A separate standalone structure that is separated from other buildings in accordance with the requirements of the International Building Code, greater than 200 square foot and/or within 15 feet of the existing or primary structure. This classification shall include, but not limited to the following

Casitas
Gazebos
Storage Sheds
Garages
Green Houses
Ramadas
Barns
Work Shop

Chapter 3, IFC, General requirements

Add Section 323 Electric Vehicles (EVs).

323.1 Electric Vehicle Charging Stations. Electric vehicle (EV) charging stations shall not be located inside buildings, except where approved for parking garage locations as per the National Electrical Code.

323.1.1 Charging Stations Inside Parking Garage. EV charging stations located in parking garages shall be located at grade level along the exterior perimeter walls and shall be within 150 feet of fire apparatus access roadway or shall be located on the top level of the garage with no roof above.

323.1.2 Charging Stations inside R-3 and R-4 occupancies. Approved charging stations in the private garage shall have a listed heat alarm installed in the garage and interconnected to the smoke alarms inside the dwelling.

323.2 Disconnect. Locations containing electric vehicle charging stations shall be provided with a clearly identified and readily accessible emergency disconnect installed in an approved location. The emergency disconnects for exterior electric vehicle charging stations shall be

located within 100 feet (30 480 mm) of, but not less than 20 feet (6096 mm) from the charging stations, unless otherwise approved by the fire code official.

323.2.1 Height. The height of the emergency disconnect switch shall be not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) measured vertically, from the floor level to the activating button.

323.2.2 Emergency Disconnect Sign. Emergency disconnect devices shall be distinctly labeled as: "EMERGENCY ELECTRIC VEHICLE CHARGER DISCONNECT." Signs shall be placed in an approved location and shall consist of all of the following:

1. White reflective background with red letters.
2. Weather-resistant durable material.
3. Lettering not less than 2 inches (51 mm) high.
4. Permanently affixed to the building or structure in an approved manner.

CHAPTER 5, IFC, Fire Service Features

Amend Section 503.2.3 Surface, to read:

Fire apparatus access roads shall be designed and maintained to support a minimum 80,000 pounds gross vehicle weight shall be surfaced as to provide all-weather driving capabilities. A maintenance agreement for private roads or other fire access may be required showing the responsibility for roadway maintenance and snow plowing.

Amend Section 503.2.4 entitled "Fire Service Features; Fire Apparatus Access Roads; Specifications; Turning Radius", to read:

The required minimum turning radius of a fire apparatus access road shall be 30 feet inside, 50 feet outside, or 40 feet on center

Amend Section 503.2.5 Dead ends, by adding:

There shall be no parking or other obstructions in fire apparatus turnaround areas that would impair turning of apparatus. When parking or other design features are desired, the proper design must be approved. Accumulation of snow must also be accounted for to prevent winter time obstructions.

Amend Section 503.2.7 entitled "Fire Service Features; Fire Apparatus Access Roads;

Specifications; Grade, to read:

The gradient for a fire apparatus access road shall not exceed 10 percent on straight sections of roadway and 5 percent side slope on turnarounds and curves

Amend Section 505.1 Address Numbers, to Read:

505.1 Address Identification. New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 6 inches (152.4 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate

emergency response. Where access is by means of a private road, buildings do not immediately front a street, and/or the building cannot be viewed from the public way, a monument, pole or other sign with approved 6 inch (152.4 mm) height building numerals or addresses and 4 inch (101.6 mm) height suite/apartment numerals of a color contrasting with the background of the building or other approved means shall be used to identify the structure. Buildings in multi-building complexes must be marked with 12" minimum height numbers. Approved identification shall also be provided on the rear door(s) at any location where access into the building may be difficult to determine.

Address identification shall be maintained.

Exception: R-3 Single Family occupancies shall have approved numerals of a minimum 4 inches (88.9 mm) in height and a color contrasting with the background clearly visible and legible from the street fronting the property.

Amend Section 507.2 Type of water supply, by adding:

Water supply for a major system component as described by the American Water Works Association must provide a continuous and uninterrupted supply of fire protection water through redundancy. Fire mains in excess of 1,000 feet in length or which have more than 3 hydrants affixed shall be looped to a second source of water. All fire mains hereafter constructed shall be a minimum of 8-inch diameter but in all cases shall be of sufficient size to adequately supply the required fire flow.

Add a new section as follows: 510.5.6 Emergency responder communication enhancement system (ERCES) infrastructure:

New buildings or structures shall be required to install, at a minimum, two-inch (2") Electrical Metallic Tubing (EMT) conduit (between floors where applicable) dedicated for potential ERCES use. The conduit will have a breakout box in an equipment room for cables to be pulled. Guide wire will be provided in the conduit (between each floor, where applicable) in the breakout box. Conduit and breakout boxes shall be installed in accordance with NFPA 70. The conduit and breakout box will be labeled "PUBLIC SAFETY USE ONLY!". If it is determined that after all construction is complete that ERCES equipment is required, the conduit will make installation easier and more economical to the building owner. Such ERCES infrastructure shall be provided for the following:

1. New multi-story or multi-level buildings or structures;
2. New single-story buildings or structures totaling 45,000 square feet (4180 m²) or more in size;
3. New buildings or structures containing a basement or other subterranean space totaling 250 square feet (23 m²) in size.
4. Any new building or structure that the fire code official has determined to have been constructed in a manner which may limit, or with materials likely to limit, the ability of emergency response personnel to effectively use emergency radio communication while within that building or structure.

New building or structures containing any underground parking areas will be required to provide the capability for a future rooftop antenna to be installed, if deemed necessary, in addition to the above requirements for ERCES infrastructure.

CHAPTER 9. IFC. Fire Protection Systems

Add to section 901.4 as follows:

901.4.8 Installation: The layout, calculation, and installation of fire protection systems shall be performed by persons knowledgeable and trained in such systems. Only qualified professionals (NICET Level III or higher) or qualified Arizona registrants shall design or modify fire alarm systems or sprinkler systems requiring hydraulic calculation engineered to the standards outlined in Section 903.3.1.1. Contractors are required to possess a current Arizona License from the Register of Contractors to install fire protection systems. The installer shall follow all manufacturer guidelines for installation, inspection and testing. Contractors shall maintain certification when required by the manufacturer.

Add a new subsection as follows:

901.4.7.5 Minimum size: Rooms containing fire pump equipment and fire riser rooms for sprinkler systems installed in accordance with Section 903.3.1.1 shall be a minimum of four feet (121 cm) by four feet (121 cm) in size.

Add a new subsection as follows:

901.4.7.6 Room access: Pump and fire riser rooms shall have a door directly accessible from the exterior of the building.

Amend Section 903 entitled Automatic Sprinkler Systems by adding

903.2 Where Required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12. In addition to the requirements of the fire and building codes, an approved automatic monitored sprinkler system shall be installed throughout all levels of all new Group A, B, E, F, M, U and S occupancies 5,000 square feet (464m²) or greater and in all buildings over 3 stories in height regardless of the total square footage. Such systems shall be in accordance with the International Fire Code, International Building Code and installed in accordance with NFPA 13, 13D or 13R as specified by the fire code official. Notwithstanding the foregoing, an automatic monitored fire sprinkler system may be installed in any building regardless of floor area.

Amend Section 903.2.1.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-1, to read:

An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

4. The fire area contains a multi theater complex.

Amend Section 903.2.1.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-3", to read:

An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Amend Section 903.2.1.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group A-4", to read:

An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet (464m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Amend Section 903.2.2 entitled Group B, by adding:

An automatic monitored sprinkler system shall be provided throughout all Group B occupancies where any of the following exist:

1. Where Group B fire area is 5,000 square feet (464m²) and greater, or
2. Fire area is located more than three stories above grade

Amend Section 903.2.3 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group E", to read:

An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 5000 square feet (462m²) in area.
2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

3. The Group E area has an occupant load of 300 or more

Amend Section 903.2.4 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group F-1", to read:

An automatic sprinkler system shall be provided throughout all buildings containing Group F-1

occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 5,000 square feet (464m²).
2. A Group F-1 fire area is located more than three stories above grade plan.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).
4. A group F-1 occupancy is used to manufacture lithium-ion or lithium metal batteries.
5. A group F-1 occupancy is used to manufacture vehicles, energy storage, or equipment containing lithium-ion or lithium batteries where the batteries are installed during manufacturing process.

Amend Section 903.2.7 entitled "Fire Protection Systems; Automatic Sprinkler Systems; Where required; Group M", to read:

An automatic sprinkler system shall be provided throughout buildings containing Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 5,000 square feet (464m²).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 5,000 square feet (464m²).

Amend 903.2.8 entitled Group R, to read:

An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exception: As limited by Arizona Revised Statutes

Amend Section 903.2.9 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-1", to read:

An automatic sprinkler system shall be provided throughout all buildings containing Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 5,000 square feet (464m²).
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 5,000 square feet.
4. A Group S-1 fire area used for the storage of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).
5. A group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet.

Amend Section 903.2.9.1 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Repair Garages", to read:

An automatic sprinkler system shall be provided throughout all buildings used as repair

garages in accordance with Section 406.8 of the International Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5,000 square feet (464m²).
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 5,000 square feet (464m²).
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial trucks or buses where the fire area exceeds 5,000 square feet (464 m²).
5. A group S-1 fire area used for the storage of lithium-ion or lithium metal powered vehicles where the fire area exceeds 500 square feet.

Amend Section 903.2.10 entitled "Fire Protection Systems, Automatic Sprinkler Systems; Where required; Group S-2 enclosed parking garages", to read:

An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 of the International Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 5,000 square feet (464m²)
2. Where the enclosed parking garage is located beneath other groups.
Exception: Enclosed parking garages located beneath Group R-3 occupancies.
3. Where the fire area of open parking garage exceeds 48,000 square feet.

Amend Section 1103.5 Sprinkler systems, deleting section 1103.5.1;

~~**1103.5.1 Group A-2** Where alcoholic beverages are consumed in a Group A-2 occupancy having an occupant load of 300 or more, the fire area containing the Group A-2 occupancy shall be equipped with a n automatic sprinkler system in accordance with section 903.3.1.1.~~

Amend Section 3107 Outdoor Assembly Events, by adding table 3107.3

Outdoor Assembly Events Table 3107.3

Occupant Load	Minimum number of Exits
1-500	2
501-1000	3
1001-1500	4
Each additional 500 Persons	36" of additional exit width for each exit

Amend Section 3107 by adding:

3107.3.3 Exit Width The aggregate clear width of exits shall be a minimum of 36 "width wide for each 500 persons to be accommodated

3107.3.4 Exit Signs Exits shall be identified with signs that read -EXIT – The signs shall be weather resistant with letters on a contrasting background. Lettering shall be of sufficient height and brush stroke to be visible within 100 feet. Placement of the exit signs shall be approved by the fire code official.

3107.3.5 Front Stage Isle/Separation Minimum 10 foot aisle space for front of stage, adequate crowd manager's during the concert or event to maintain minimum widths. Main isle shall be a minimum of 10 feet in width.

CHAPTER 50, IFC, Hazardous Materials – General Provisions

Amend Section 5004.9 Emergency alarm to read:

An approved manual emergency alarm system shall be provided in buildings, rooms or areas used for storage of hazardous materials. The emergency alarm system shall be designed using the manual fire alarm requirements of the *National Fire Alarm Code*, NFPA

72. Emergency alarm initiating devices shall be installed outside of each interior exit or exit access door of the storage buildings, rooms or areas. Activation of an emergency alarm-initiating device shall sound an audible signal distinctly different than that of the fire alarm signal. Emergency alarm notification devices shall be yellow or amber in color.

APPENDIX D Fire Apparatus Access Roads

Amend Section D102 Required Access to read:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved all-weather driving surface capable of supporting the imposed load of fire apparatus weighing at least 80,000 pounds.

Amend Section D107 Exception 1. to read:

1. Where there are ~~more than~~ 31 to 50 dwelling units on a single public or private fire apparatus access road and all dwelling units are equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, access from two directions shall not be required. 51 or more dwelling units will require two separate and approved fire access roads regardless of automatic sprinkler system installation.

CHECK W/ STACY SALLBERG

CHAPTER 1, IWUIC, ADMINISTRATION

Amend Section 101.2 Scope. By adding:

When determining which conditions constitute a distinct danger to life or property, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property.

In coordination with the Community Development Department, the provisions of this code shall be applied to all future developments to make properties FireWise prior to the application of resource protection standards found in the Land Development Code.

Amend Section 101.3, Objective, to read:

The unrestricted use of property in wildland-urban interface areas is a potential threat to life and property from fire, economic, and resulting environmental impacts.

(Remainder unchanged)

Amend Section 102.1, Powers and Duties of the Code Official, by deleting the sentence:

"For such purposes, the code official shall have the powers of a law enforcement officer."

Amend Section 106.1, General, by deleting the sentence:

"When such plans are not prepared by an architect or engineer, the code official may require the applicant submitting such plans or other data to demonstrate that state law does not require that the plans be prepared by a licensed architect or engineer."

CHAPTER 2, IUWIC, DEFINITIONS

Amend Section 202, Definitions, by adding the following definitions:

FIRE RESISTIVE VEGETATION is those plants that burn at a relatively low intensity, slow rates of spread, and with short flame lengths. Characteristics include:

1. Growth with little or no accumulation of dead vegetation (either on the ground or standing upright)
2. Non-resinous plants (ex: flowers or aspen trees)
3. Low volume of total vegetation (ex: grass vs. brush)
4. Plants with high live fuel moisture (large amount of water in relation to their dry weight)
5. Drought tolerant plants
6. Stands without ladder fuels (plants without small, fine branches and limbs or adjacent shorter plants that create a ready-avenue for fire to move upward from the ground to the top of the vegetation)
7. Plants requiring little maintenance
8. Plants with woody stems and branches that require prolonged heating to ignite

FOREST STEWARDSHIP PLAN is a comprehensive land-management plan that includes all lands within the city boundary, as well as any parcels or areas served by an emergency response/suppression contract.

HAZARDOUS FUELS are weeds, grass, needles, straw, brush, trees, vines, wood chips, firewood, or other vegetation – living or dead – that a) if ignited, will present a risk to life or property, or b) if left in it's current or natural state, will create an impediment to access, pose a threat to improvements, infrastructure, or public safety, or may cause a fire to ignite.

VEGETATION MANAGEMENT is a plan or operational activity, described below, that is undertaken by property owners at their own discretion or directed/approved by the Code Official designed or required to reduce wildfire threat, promote environmental sustainability, public welfare, and/or community well-being.

1. **Debris Disposal** – Removal of cut, dead, dying, and/or downed vegetation or other combustible materials, including flammable landscaping plants.
2. **Marking** – Designating trees or other vegetation, by location, paint, flagging, or other identification system, that are to be either removed or retained.
3. **Prescribed Fire** – The planned use of fire under specific environmental conditions to achieve forest management or community protection objectives. Used to reduce hazardous fuel levels, control unwanted vegetation, recycle nutrients, favor desired vegetation, and improve visibility and wildlife habitat.
4. **Selective Tree Thinning** – The periodic removal of individual trees or groups of trees to reduce threat of wildfire, improve individual tree vigor and forest health, or achieve other desired objectives.

CHAPTER 3, IWUIC, WILDLAND-URBAN INTERFACE AREAS

Amend Section 301.1 Scope. To read:

The provisions of this chapter provide methodology to establish and record wildland-urban interface areas based on the following findings of fact: high temperatures, low relative humidity, breezy/windy conditions, low fuel moistures, weather-related ignition potential, human-related ignition potential, historical fire data, natural fire-adapted ecosystem, ember lofting and carrying potential, tree densities, crown closure, ladder fuels, surface fuels, and other fire risk factors.

CHAPTER 5, IWUIC, SPECIAL BUILDING CONSTRUCTION REGULATIONS

Amend Table 502.1 Fire Hazard Severity. To read:

TABLE 502.1

FIRE HAZARD SEVERITY

FUEL MODEL^a	CRITICAL FIRE WEATHER FREQUENCY								
	≤ 1 Day			2 to 7 days^a			≥ 8 days^a		
	Slope (%)			Slope (%)			Slope (%)		
	≤ 10	11-20	≥ 30	≤ 10	11-20	≥ 30	10	11-29	≥ 30
Light fuel	M	M	M	M	M	M	M	M	H
Medium fuel	M	M	H	H	H	H	M	H	E
Heavy fuel	H	H	H	H	E	E	H	E	E

^a Days per annum

^b When required by the code official, fuel classification shall be based on the historical fuel type for the area.

E = Extreme hazard.

H = High hazard.

M = Moderate hazard.

Amend Section 504.2, Roof Covering, as follows:

Roofs shall have a non-combustible roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers.

Amend Section 504.3, Protection of Eaves, to read as follows:

Eaves and soffits shall be protected on the exposed underside by materials approved as non-combustible or heavy timber/log construction.

Amend Section 504.5, Exterior Walls, to read as follows:

Exterior walls of buildings or structures shall be constructed with approved materials having a minimum Class A Flame Spread Rating or heavy timber/log construction.

Amend Section 504.6, Unenclosed Underfloor Protection by deleting:

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction.

Amend Section 504.7, Appendages and Projections, to read:

Unenclosed accessory structures with habitable spaces and projections, such as decks, shall be constructed with approved noncombustible or limited-combustible materials or heavy timber/log construction. Approved noncombustible or limited-combustible materials shall be those approved by the Flagstaff Fire Department as a result of approved fire tests.

Amend Section 504.10, Vents, by changing 1/4 inch to 1/8 inch.

Amend Section 504.10 Vents, by adding:

Exception: Vents installed with compliant mesh and located on fascia or soffits as far from the exterior wall as practical and as approved by the Code Official. Vent size may exceed 144 square inches (0.0929 m²) when approved by the Code Official.

Amend Section 504.11, Detached Accessory Structures, by deleting:

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5 or underfloor protection in accordance with Section 504.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as

required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction.

Amend Section 505.2, Roof Covering, to read:

Roofs shall have a non-combustible roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers.

Amend Section 505.3, Protection of Eaves, to read as follows:

Combustible eaves, fascias, and soffits shall be enclosed with solid material with a minimum thickness of 1/2 inch.

Amend Section 505.5, Exterior Walls, to read as follows:

Exterior walls of buildings or structures shall be constructed with approved materials having a minimum Class B Flame Spread Rating or heavy timber/log construction.

Exception: Exterior walls protected with a non-combustible wainscoting extending a minimum 4 feet above adjoining grades, or fire resistive vegetation/landscaping provided for a distance of a minimum of 30 feet adjoining the wall.

Amend Section 505.6, Unenclosed Underfloor Protection, by deleting:

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction.

Amend Section 505.7, Appendages and Projections, to read as follows:

Unenclosed accessory structures with habitable spaces and projections, such as decks, shall be constructed with approved noncombustible or limited-combustible materials or heavy timber/log construction. Approved noncombustible or limited-combustible materials shall be those approved by the Flagstaff Fire Department as a result of approved fire tests.

Amend Section 505.10, Vents, by changing 1/4 inch to 1/8 inch.

Amend Section 505.10, Vents, by adding:

Exception: Vents installed with compliant mesh and located on fascia or soffits as far from the exterior wall as practical and as approved by the Code Official. Vent size may exceed 144 square inches (0.0929 m²) when approved by the Code Official.

Amend Section 505.11, Detached Accessory Structures, by deleting:

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 504.5 or underfloor protection in accordance with Section 504.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction.

Amend Section 506.2, Roof Covering, to read:

Roofs shall have a non-combustible roof covering. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers.

Amend Section 506.3, Unenclosed Underfloor Protection, by deleting:

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction.

Amend Section 506.4, Vents, by changing 1/4 inch to 1/8 inch.

Amend Section 506.4, Vents, by adding:

Fireworks issued under permit by the Fire Department will be prohibited in the wildland-urban interface by the Code Official during periods of Very High or greater fire danger as determined by the Coconino National Forest.

Amend Section A104.7.1 Outdoor fires, Exception, to read:

Exception: Outdoor fires within inhabited premises or designated campsites where such fires are in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator, grill, or any other outdoor fire appliance listed for such purposes and are a minimum of 15 feet (9144 mm) from any combustible material or non fire-resistive vegetation.

Amend Section A107.3, Fuel Modification area, by deleting:

Of not less than 30 feet (9144 mm).

Amend Section A107.4, Trees, to read:

Hazard trees, as determined by the Code Official, shall be removed.

Portions of trees that extend to within 30 feet (9144 mm) of combustible portions of water storage and pumping facilities shall be removed unless permitted to remain under a vegetation management plan approved by the Code Official.

Tree crowns within the defensible space shall be pruned to remove limbs located less than 6 feet (1829 mm) or one-third of the canopy height above the ground surface adjacent to the trees.

Portions of trees that extend within 10 feet (3048 mm) of the outlet of a chimney shall be pruned to maintain a minimum horizontal clearance of 10 feet (3048 mm).

APPENDIX B, IWUIC, VEGETATION MANAGEMENT PLAN

Amend Section B101.2, Plan content, to read:

Vegetation management plans shall describe all action that will be taken to prevent a surface fire from extending vertically and a canopy or crown fire from extending across a piece of property. Vegetation management practices shall be maintained

regularly or at least annually. A vegetation management plan shall include at least the following information:

1. A copy of the site plan.
2. Methods and timetables for controlling, changing or modifying areas on the property. Elements of the plan shall include fuel reduction to include removal of slash, snags, vegetation that may grow into overhead electrical lines, other ground fuels, ladder fuels and dead trees, and the thinning of live trees.
3. Methods to be used to provide for ecosystem sustainability, specifically methods to provide for age and size class distribution over the areas of the property.
4. A plan for maintaining the proposed fire protection measures.

APPENDIX C, IWUIC, FIRE HAZARD SEVERITY FORM

Amend Appendix C, Fire Hazard Severity Form, to read:

Vents shall be installed with compliant mesh and located on fascia or soffits as far from the exterior wall as practical and as approved by the Code Official.

Amend Section 507.1, General, to read:

The roof covering on buildings or structures in existence prior to the adoption of this code that are replaced or have more than a 10 foot by 10 foot section replaced in a 12-month period shall be replaced with a roof covering required for new construction based on the type of ignition-resistant construction specified in accordance with Section 503.

CHAPTER 6, IWUIC, FIRE PROTECTION REQUIREMENTS

Amend Section 603.2, Fuel Modification, to read:

Defensible space shall be required on new structures and subdivisions within the Wildland-Urban Interface containing a moderate, high or extreme fire danger rating.

In order to qualify as a conforming defensible space for the purposes of this code, fuel modification shall be provided for an entire property or development as prescribed by a vegetation management plan approved by the Code Official using best management practices and industry standards. When approving a vegetation management plan, the Code Official may be guided by individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property.

Persons owning, leasing, controlling, operating or maintaining buildings, structures, or property requiring defensible spaces are responsible for modifying or removing non-fire-resistive vegetation on the property owned, leased or controlled by said person.

Amend Section 604.4, Trees, to read:

Trees adjacent to any structure shall be allowed to remain in place when in conformity to the approved vegetation management plan. Tree crowns shall be required to be pruned to remove limbs located less than 6 feet (1829 mm) above the

ground surface or no more than one-third of the live crown when required by the vegetation management plan.

Portions of tree crowns that extend within 10 feet (3048 mm) of the outlet of a chimney shall be pruned to maintain a minimum horizontal clearance of 10 feet (3048 mm). At no time may tree crowns or limbs extend into the vertical plane of a chimney outlet. Tree limbs shall not touch roof coverings at any time.

Deadwood and litter shall be regularly removed from trees and the surrounding area.

Hazard trees, as determined by the Code Official, shall be removed. When determining hazard trees, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property. Trees that are in such a position that they may fall endangering life or property are determined to be hazard trees.

APPENDIX A, IWUIC, GENERAL REQUIREMENTS

Delete Section A103.4, Use of Motorcycles, Motor Scooters, Ultra Light Aircraft and Motor Vehicles.

Amend Section A104.4, Smoking, by adding the following sentence:

Smoking may be prohibited in the wildland-urban interface by the Code Official during periods of Very High or greater fire danger as determined by the Coconino National Forest.

Amend Section A104.5 Equipment and devices generating heat, sparks or open flames, by adding:

Equipment and devices generating heat, sparks or open flames may be prohibited in the wildland-urban interface by the Code Official during periods of Very High or greater fire danger as determined by the Coconino National Forest.

Amend Section A104.6, Fireworks, by adding:

APPENDIX C - 1 (NEIGHBORHOOD)

FLAGSTAFF FIRE DEPARTMENT WILDLAND FIRE HAZARD SEVERITY ASSESSMENT FORM Building Construction Requirements

For Use on non-developed Properties following Hazard Fuel (Defensible Space) Work
** When utilized, replaces Table 502.1 **

Name: _____ Date: _____
Address: _____ Phone: _____
Assessor: _____

Element	Points	Score	Comments
A. Means of Access			
1. Ingress and Egress			
a. Two or more roads in/out	0	_____	_____
b. One road in/out	7	_____	_____
2. Road Width			
a. greater/equal to 24 feet	0	_____	_____
b. greater/equal to 20 feet & less than 24 feet	2	_____	_____
c. less than 20 feet	7	_____	_____
3. All-season road condition			
a. Surfaced road, grade less than 5%	0	_____	_____
b. Surfaced road, grade greater than 5%	2	_____	_____
c. Non-surfaced road, grade less than 5%	5	_____	_____
d. Non-surfaced road, grade greater than 5%	7	_____	_____
e. Other than all-season	10	_____	_____
B. Topography – within 300 feet of property center-point			
1. Slope less than 5%	1	_____	_____
2. Slope 6% to 19%	4	_____	_____
3. Slope greater than 20%	10	_____	_____
C. Water Source Availability			
1. Conforming	0	_____	_____
2. Nonconforming	10	_____	_____

Total for HOME 0

RESULTS

Construction Requirements

Ignition Resistant Construction (IR) 3
Ignition Resistant Construction (IR) 2
Ignition Resistant Construction (IR) 1

Total Points

Less than 20
21-29
Greater than 30

Remarks: _____

more about property 1
maintenance
(individual homes & lots)

APPENDIX C - 2
FLAGSTAFF FIRE DEPARTMENT
WILDLAND FIRE HAZARD SEVERITY ASSESSMENT FORM
Property Maintenance

Name: _____ Date: _____
Address: _____ Phone: _____
Assessor: _____

PROPERTY	Points	Score	Comments
A. Vegetation - Predominate over entire property			
1. Light (grasses, forbs, scattered brush, etc.)	5	_____	_____
2. Medium (brush, open pine stands, limited ladder fuels)	10	_____	_____
3. Heavy (dense brush/timber, abundant ladder fuels and/or downed/dead material)	20	_____	_____
B. Additional Rating Factors (rate all that apply)	N Y		
1. Topographical features that adversely affect wildland fire behavior (<i>chimneys, steep slopes, etc.</i>)	0 5	_____	_____
2. Area has history or evidence of high fire occurrence (<i>campfires, children, arson, etc.</i>)	0 5	_____	_____
3. Non-conforming water supply	0 5	_____	_____
Total for PROPERTY	0		

STRUCTURE	Points	Score	Comments
A. Driveway Access			
1. Length			
a. Less than/equal to 100 feet with turnaround or park on/work from street	0	_____	_____
b. Greater than 100 feet with turnaround	2	_____	_____
c. Less than/equal to 100 feet with no turnaround or unable to park on/work from street	5	_____	_____
d. Greater than 100 feet with no turnaround	7	_____	_____
2. Width: <i>as influenced by cut-bank, vegetation, drop-off, etc.</i>			
a. Greater than 20 ft. or able to park on street/not block access	0	_____	_____
b. Less than 19 ft., or unable to park on street/not block access	10	_____	_____
B. Roof Covering			
1. Non-combustible	0	_____	_____
2. Combustible	20	_____	_____
C. Building Construction			
1. Materials (predominate)			
a. Non-combustible siding, eaves, deck, or ground fire unable to contact structure	0	_____	_____
b. Fire-resistive siding and deck or ground fire likely to contact structure	3	_____	_____
c. Combustible siding and deck or ground fire likely to contact structure	10	_____	_____
2. Location: <i>Building setback relative to slopes of 30% or more</i>			
a. No such slope present	0	_____	_____
b. Greater/equal to 50 feet	2	_____	_____
c. Less than 50 feet	5	_____	_____
D. Additional Rating Factors (rate all that apply)	N Y		
1. Fire-prone landscaping with 50 ft. of structure	0 5	_____	_____
2. Flammable materials stored under deck or adjacent to structure	0 5	_____	_____
3. Needles/leaves accumulated on roof	0 5	_____	_____
Total for STRUCTURE	0		

INDIVIDUAL HAZARD TREE(S)	Points	Score	Comments
A. Healthy and Safety (rate all that apply)			
1. Dead or dying	1	_____	_____
2. Damaged	1	_____	_____
3. Adjacent to street/road, structure, fence, wires, yard, etc.	1	_____	_____
4. Interfering with electrical wires, visibility, etc.	1	_____	_____
Total for INDIVIDUAL HAZARD TREES	0		

RESULTS	Property	Structure	Individual Hazard Tree(s)
No Action Needed:	5 or less	5 or less	0
Action Recommended:	6 - 13	6 - 29	1
Action Required (Sec 107)	14 or more	30 or more	2 or more
Remarks:	_____		

The following provisions shall have the effect of either amending, adding to, or deleting from the International Wildland Urban Interface Code, 2024 Edition:

Add this to section 101.2 Scope: When determining which conditions constitute a distinct danger to life or property, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property.

In coordination with the Community Development Department, the provisions of this code shall be applied to all future developments to make properties Fire Adapted prior to the application of resource protection standards found in the Land Development Code.

Amend 101.2.1 Appendices by adding:

The following Appendices are hereby adopted as part of the IWUIC:

APPENDIX A – General Requirements

Amend 101.3 Purpose to read: The purpose of this code is to establish minimum regulations for the safeguarding of life and for property protection.

Regulations in this code are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels. The extent of this regulation is intended to be tiered commensurate with the relative level of hazard present.

The unrestricted use of property in wildland-urban interface areas is a potential threat to life and property from fire, economic, and resulting environmental impacts. Safeguards to prevent the occurrence of fires and to provide adequate fire protection facilities to control the spread of fire in *wildland-urban interface areas* shall be in accordance with this code.

This code shall supplement the jurisdiction's building and fire codes, if such codes have been adopted, to provide for special regulations to mitigate the fire- and life-safety hazards of the *wildland-urban interface areas*.

Amend 106.4 Vegetation management plans to read: Where utilized by the permit applicant pursuant to Section 502 forest stewardship plans shall be prepared and shall be submitted to the *code official* for review and approval as part of the plans required for a permit.

Insert to SECTION 202—DEFINITIONS:

FIRE RESISTIVE VEGETATION is those plants that burn at a relatively low intensity, slow rates of spread, and with short flame lengths. Characteristics include:

1. Growth with little or no accumulation of dead vegetation (either on the ground or standing upright)
2. Non-resinous plants (ex: flowers or aspen trees)
3. Low volume of total vegetation (ex: grass vs. brush)
4. Plants with high live fuel moisture (large amount of water in relation to their dry weight)
5. Drought tolerant plants
6. Stands without ladder fuels (plants without small, fine branches and limbs or adjacent shorter plants that create a ready-avenue for fire to move upward from the ground to the top of the vegetation)
7. Plants requiring little maintenance
8. Plants with woody stems and branches that require prolonged heating to ignite

FOREST MANAGEMENT PLAN is a comprehensive management plan that is applied to all lands within the city boundary, as well as any parcels or areas served by an emergency response/suppression contract.

FOREST STEWARDSHIP PLAN applies to subdivisions, multi-family residential, commercial, and industrial development both inside and outside the Resource Protection Overlay. It does not apply to individual hazard tree removal or individual single family residential parcels. Specific determination of need will be made by Staff.

- Forest Stewardship Plan must include both narrative and descriptive maps documenting how existing forest conditions will be modified to align with the desired conditions and tree density as stated in the Forest Management Plan.

- The Forest Stewardship Plan is in addition to the Flagstaff Zoning Code standards.

- If a parcel falls within the Resource Protection Overlay, a Forest Stewardship Plan must be reviewed and approved prior to the submittal of the Natural Resource Protection Plan that aligns with the Resource Protection Standards (10-50.90).

The Forest Stewardship Plan template is available on the Flagstaff Fire Department Wildland Fire Management website.

HAZARDOUS FUELS are weeds, grass, needles, straw, brush, trees, vines, wood chips, firewood, or other vegetation - living or dead - that a) if ignited, will present a risk to life or property, or b) if left in its current or natural state, will create an impediment to access, pose a threat to improvements, infrastructure, or public safety, or may cause a fire to ignite.

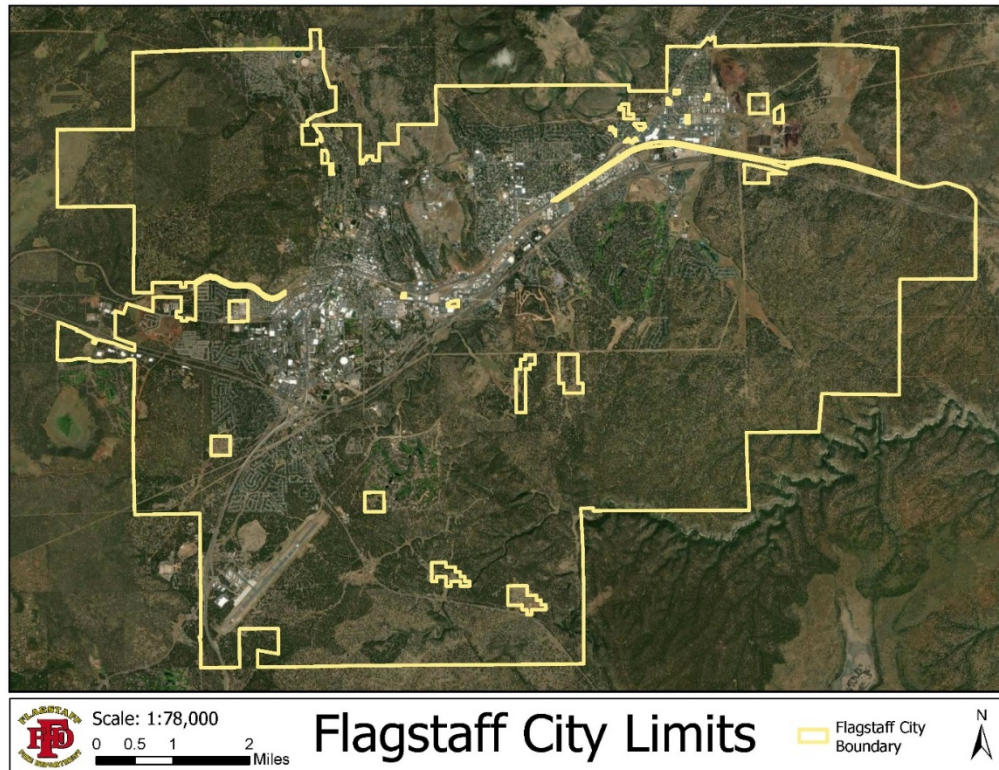
VEGETATION MANAGEMENT is a plan or operational activity, described below, that is undertaken by property owners at their own discretion or directed/approved by the Code Official designed or required to reduce wildfire threat, promote environmental sustainability, public welfare, and/or community well-being.

1. **Debris Disposal** - Removal of cut, dead, dying, and/or downed vegetation or other combustible materials, including flammable landscaping plants.
2. **Marking** - Designating trees or other vegetation, by location, paint, flagging, or other identification system, that are to be either removed or retained.
3. **Prescribed Fire** - The planned use of fire under specific environmental conditions to achieve forest management or community protection objectives. Used to reduce hazardous fuel levels, control unwanted vegetation, recycle nutrients, favor desired vegetation, and improve visibility and wildlife habitat.
4. **Selective Tree Thinning** - The periodic removal of individual trees or groups of trees to reduce threat of wildfire, improve individual tree vigor and forest health, or achieve other desired objectives.

Amend 301.1 Scope to read: The provisions of this chapter provide methodology to establish and record *wildland-urban interface areas* based on the findings of fact: high temperatures, low relative humidity, breezy/windy conditions, low fuel moistures, weather-related ignition potential, human-related ignition potential, historical fire data, natural fire adapted ecosystem, ember lofting and carrying potential, tree densities, crown closure, ladder fuels, surface fuels, and other fire risk factors.

Amend 302.3 Review of wildland-urban interface areas to read:

All land within the Flagstaff City Limits is considered Wildland Urban Interface.



Section 4 WILDLAND-URBAN INTERFACE AREA REQUIREMENTS

Delete: User notes:

About this chapter: Chapter 4 provides requirements that apply to all occupancies in the wildland-urban interface and pertain to all the following:

1. Fire service access to the property that is to be protected, including fire apparatus access roads and off-road driveways.
2. Premises identification.
3. Key boxes to provide ready access to properties secured by gated roadways or other impediments to rapid fire service access.
4. Fire protection water supplies, including adequate water sources, pumper apparatus drafting sites, fire hydrant systems and system reliability.
5. Fire department access to equipment such as fire suppression equipment and fire hydrants.
6. Fire protection plans.

Amend 402.2.2 Water supply to read: Individual structures hereafter constructed or relocated into or within *wildland-urban interface areas* shall be provided with a conforming water supply in accordance with Section 404.

Exceptions:

Buildings containing only private garages, carports, sheds and agricultural buildings with a floor area of not more than 600 square feet (56 m²).

Delete Section 5 and replace with:

SECTION 501—GENERAL

501.1 Scope. Buildings and structures shall be constructed in accordance with the *International Residential Code and International Building Code* and this code.

Exceptions:

1. Accessory structures not exceeding 120 square feet (11 m²) in floor area where located greater than or equal to 50 feet from buildings containing habitable spaces.
2. Agricultural buildings greater than or equal to 50 feet from buildings containing habitable spaces.

501.2 Objective. The objective of this chapter is to establish minimum standards to locate, design and construct buildings and structures or portions thereof for the protection of life and property, to resist damage from wildfires, and to mitigate building and structure fires from spreading to wildland fuels. The minimum standards set forth in this chapter vary with the critical *fire weather*, slope and fuel type to provide increased protection, above the requirements set forth in the *International Building Code*, from the various levels of hazards.

501.3 Fire-resistance-rated construction. Where this code requires 1-hour *fire-resistance-rated construction*, the fire-resistance rating of building elements, components or assemblies shall be determined in accordance with the test procedures set forth in ASTM E119 or UL 263.

Exceptions:

1. The fire-resistance rating of building elements, components or assemblies based on the prescriptive designs prescribed in Section 721 of the *International Building Code*.
2. The fire-resistance rating of building elements, components or assemblies based on the calculation procedures in accordance with Section 722 of the *International Building Code*.

SECTION 503 NON-COMBUSTIBLE CONSTRUCTION AND MATERIAL

503.1 General. Buildings and structures hereafter constructed, modified or relocated into the City of Flagstaff, shall meet the construction requirements in accordance with Section 503.2 and 504.

503.2.1 Noncombustible material. Material shall comply with the definition of *noncombustible* materials in Section 202.

SECTION 504 EXTERIOR CONSTRUCTION

504.2 Roof assembly. Roofs shall have a *roof assembly* that complies with a Class A rating when tested in accordance with ASTM E108 or UL 790. For *roof assemblies* where the profile allows a space between the *roof covering* and *roof deck*, the space at the eave ends shall be fire stopped to preclude entry of flames or embers or have one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 installed over the combustible *roof deck*.

Class A rated roof covering types include, but are not limited to:

- Cement shingles or sheets.
 - Exposed concrete slab roof.
 - Ferrous or copper shingles or sheets.
 - Slate shingles.
 - Clay or concrete roofing tile.
- o Where provided, barrel tile or corrugated roof coverings shall include noncombustible bird stops at the eave ends to prevent the entry of embers and debris.
- The use of wood shake, wood shingle, or any wood roof covering material regardless of test rating are not permitted.

504.2.1 Roof valleys. Where provided, valley flashings shall be not less than 0.019 inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed

over a minimum 36-inch-wide (914 mm) underlayment consisting of one layer of 72-pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

504.3 Protection of eaves. Eaves shall be enclosed or protected on the exposed underside using noncombustible materials.

504.4 Gutters and downspouts. Gutters and downspouts shall be constructed of *noncombustible* (metal) material. Gutters shall be covered with a noncombustible material to prevent the accumulation of leaves and debris in the gutter.

504.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with:

1. *Approved noncombustible materials.* (e.g., metal, fibercement, masonry veneer, stucco, brick, concrete).
 - Where provided, all shutters (e.g., decorative and operable) shall be made of noncombustible material.
 - Note: Combustible wall cover material (e.g., wood shake, wood shingle, or any other wood siding material including ignition-resistant treatments and coatings) by construction or assembly are not permitted.
3. Heavy timber or *log wall construction may be permitted for projects based on Fire Code Official approval and Community Development review.*

504.5.1 Flashing. A minimum of 6 inches (152 mm) of metal flashing or noncombustible material applied vertically on the exterior of the wall shall be installed at the ground, decking and roof intersections where any noncombustible-gaps may occur.

504.6 Underfloor enclosure. Buildings or structures shall have underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5 with noncombustible corrosion-resistant mesh not to exceed 1/8-inch in diameter covering any openings.

Exception: Complete enclosure shall not be required where underfloor areas are elevated more than 4 feet above the ground. In such a case, columns and supporting walls must either be non-combustible or covered with non-combustible material.

504.7 Appendages, projections, attached patios, decks, and overhead structures (e.g., Covered Porches, Pergolas, Carports, and Gazebos). Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be constructed in accordance with one of the following methods:

1. All the components including posts, joists, railings, stairs, and walking surfaces are constructed with noncombustible materials.
2. Deck walking surfaces constructed with a solid (no gaps), noncombustible material such as metal or light-weight concrete; railings within 5 feet of the home constructed of a noncombustible material, including where railings attach to the home; and deck posts with a minimum of 6 vertical inches of noncombustible material at grade.

Staircases 4 feet in width or less that attach to a deck and are open underneath, shall meet one of the following requirements:

- Open risers (no solid risers)
 - shall have a minimum of 6 vertical inches of the bottom of stairs made from noncombustible material.
 - Stair treads should be a solid (no gaps), noncombustible material, such as metal or light-weight concrete.
- Closed risers
 - shall have a minimum of 6 vertical inches of the bottom of stairs made from noncombustible material.
 - Stair treads and risers should be a solid (no gaps), noncombustible material, such as metal or light-weight concrete.
 - Staircases wider than 4 feet that attach to a deck, the staircase shall be cleared underneath and enclosed with a noncombustible corrosion-resistant mesh with openings not to exceed 1/8-inch in diameter and meet the following requirements:

3: Retrofits

- Deck Walking Surfaces shall be constructed with a solid, noncombustible material (e.g., metal or lightweight concrete) with no gaps.

- o Deck Railings within 5 feet of the home shall be constructed with noncombustible material, including where they attach to the home.
 - o Deck posts shall have a minimum of 6-inches of noncombustible material (e.g., metal flashing or fiber-cement board) applied vertically to the base.
 - o Stairs Attached to a Deck shall meet one the following requirements:
- Stairs Less than 4 Feet Wide and Open Underneath:
 - o A minimum of 6-inches of noncombustible material (e.g., metal flashing or fiber-cement) shall be applied vertically at the exterior base, measured from the ground at grade.
 - o Stair treads shall be a solid (no gaps) and made of noncombustible material (e.g., metal or lightweight concrete).
 - o Exception: If stairs are constructed with closed risers, they shall also be solid (no gaps) and made of noncombustible material.
- Stairs Wider Than 4 Feet:
 - o The area underneath shall be enclosed with noncombustible, corrosion-resistant mesh with openings not to exceed 1/8-inch in diameter.
 - o A minimum of 6-inches of noncombustible material (e.g., metal flashing or fiber-cement) shall be applied vertically at the exterior base, measured from the ground at grade.
 - o Stairs shall have closed risers. Stair treads and risers shall be a solid, and made of noncombustible material (e.g., metal or light-weight concrete) with no gaps.
- **Roof Covering** – Shall meet one of the following requirements:
 - o A solid roof covering material with a Class A rating when tested in accordance with ASTM E108 or UL 790, or
 - o Constructed of combustible slats (e.g., pergola) that cover no more than 15% of the total surface area.

- **Setback** – A detached combustible overhead structure (e.g., pergola and gazebo) on an attached deck shall be at least 10 feet from all exterior walls of the home.

- o *Exception:* An overhead structure constructed entirely of noncombustible materials is permitted with no setback requirement.

- **Posts** – exterior surface of the post must be non-combustible

- **Other** – Shall be free of any vegetation, curtains, drapes, and shade screens.

- o *Exception:* Shade screens that retract into noncombustible housing are permitted.

- **Carports and Garages** – Must have noncombustible wall covering material and the 0–5 Foot Noncombustible Zone under and around the structure.

- o An open carport with exposed combustible interior wall covering (e.g., wood), shall be enclosed.

- **6-inch Vertical Noncombustible Clearance** – Shall have noncombustible covering material for all posts, supporting walls, and stairs measured from the ground at grade.

- **Lattice and Mesh** – Must be noncombustible material (e.g., metal). Where noncombustible corrosion-resistant metal mesh is provided, the mesh shall be installed on the outside of the lattice.

- o *Exception:* An open outdoor living area under the deck shall meet the same requirements (see “Top of walking surfaces” above).

- Additionally, decks with a walking surface of 4 feet or less above the ground, shall be enclosed with the following:

- o When measured from the walking surface to the ground, the underdeck area with this height or less shall be enclosed with noncombustible, corrosion-resistant mesh. The mesh openings shall not exceed 1/8-inch in diameter and shall fully enclose the outer edge of the deck from the walking surface to the ground. This enclosure is required to reduce debris accumulation and limit ember intrusion beneath the deck.

Detached Decks and Overhead Structures (e.g., Covered Porches, Pergolas, Carports, and Gazebos) Where provided, detached decks and overhead structures within 10 feet of the home shall meet the same requirements as attached decks

504.7.1 Underfloor areas. Where the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed with exterior wall construction in accordance with Section 504.5.

504.8 Exterior glazing. *Exterior Glass (Windows, Skylights, and Glazed Openings within Doors)*

All exterior windows, skylights, and glazed openings within doors shall comply with one of the following requirements:

- Multipaned glass with at least two tempered panes.
- Glass with a minimum of 20-minutes fire-resistance rating when tested in accordance with NFPA 257.
- Glass blocks (windows only).
- Operable skylights shall be protected by a noncombustible mesh screen where mesh openings shall not exceed 1/8-inch in diameter
 - All retrofit/replacement windows must comply

504.9 Exterior doors. All exterior doors shall comply with one of the following requirements:

- Exterior doors shall be approved noncombustible construction, or solid-core wood not less than 1-3/4 inches thick (44 mm). The exterior doors shall be constructed with noncombustible threshold. Windows within doors and glazed doors shall be in accordance with this standard's exterior glass requirements (see 3.1.5 Exterior Glass).
- Exterior door assembly shall have a fire-resistance rating of not less than 20-minutes when tested according to NFPA 252.
- Doors made of combustible material (e.g. non-solid core wood doors) are permissible provided a noncombustible exterior storm door is installed as the outermost door.

504.10 Vents. Where provided, ventilation openings for enclosed attics, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations and crawl spaces, or any other opening

intended to permit ventilation, either in a horizontal or vertical surface, shall meet one of the following requirement options:

- **Performance-based Option** – Corrosion-resistant vents installed, conforming with the following ASTM E2886 test requirements for flame- and ember-resistance:

- o No flaming ignition of the cotton material during the Ember Intrusion Test.
- o No flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
- o Temperature of the unexposed side of the vent does not exceed 662°F.
- o *Note:* Joints around such vents shall be sealed with sealants in accordance with vent manufacturer installation instructions to avoid ember and flame intrusion through the joints.

- **Prescriptive Option** – Vents shall be covered with a noncombustible, corrosion-resistant mesh with openings not to exceed 1/8-inch in diameter for ember-resistance.

- o *Exceptions:*

- o Forced air vents (e.g., dryer and central vacuum) shall have a functional louver or flap made of non-combustible material in lieu of mesh.
 - o Plumbing vents are excluded from this requirement.

504.10.3 Vent locations. Attic ventilation openings shall not be located in soffits, in eave overhangs, between rafters at eaves or in other overhang areas. Gable-end and dormer vents shall be located not less than 10 feet (3048 mm) from lot lines. Underfloor ventilation openings shall be located as close to grade as practical.

504.11 Detached accessory dwelling units and accessory structures. All accessory structures with a footprint greater than or equal to 120 square feet shall fully comply with Section 5 Construction, unless more than 50 feet away from habitable spaces.

SECTION 507—REPLACEMENT OR REPAIR

507.1 General. The *roof covering and siding* on buildings or structures in existence prior to the adoption of this code that have 25 percent or more replaced in a 12-month period shall be replaced with new construction requirements specified in

accordance with Section 5. All *windows, eaves, vents, and exterior doors* on buildings or structures in existence prior to the adoption of this code must be replaced with new construction requirements specified in accordance with Section 5.

Additional information regarding eligibility, designation levels, requirements, process, and timing for the Insurance Institute for Business and Home Safety Wildfire Prepared Home program is available here: <https://wildfireprepared.org/>

Amend SECTION 602—AUTOMATIC SPRINKLER SYSTEMS to read: 602.1 General. Sprinkler systems must comply with ARS 9-807.

Amend 603.2 Fuel modification to read: Buildings or structures, shall comply with the 0-5 foot non-combustible info below, and with the City of Flagstaff Forest Management Plan, Landscaping Code and Resource Protection Standards.

Delete table 603.2

Insert 603.2.1 The 0–5 Foot Noncombustible Zone shall meet all the following requirements:

0–5 Foot Noncombustible Zone – Area within 5 Feet of the Home and Attachments

The first five feet surrounding the home and its attachments (e.g., decks, patios, overhead structures, stairs) is the **most critical area of defensible space**. This zone shall be established and maintained as noncombustible. The 0-5 Foot Noncombustible Zone is measured horizontally from the edge of the home's exterior walls and, if present, the outermost posts of a deck or overhead structure, extending outward to 5 feet (see Figure 2). This noncombustible area also extends vertically to the sky. The 0–5 Foot Noncombustible Zone shall meet all the following requirements:

• Vegetation –

o Shall remove all vegetation (e.g., grass, artificial turf, weeds, flowers, succulents, cacti, plants, shrubs, bushes, and vegetative debris) within 5 feet to bare mineral soil.

o Shall remove all trees, limbs, branches, and vines that are within and that overhang the 0–5 Foot Noncombustible Zone.

- **Groundcover –**

- o Shall remove all combustible groundcover materials (e.g., wood and rubber mulch and exposed weed cloth) within 5 feet to bare mineral soil.

- **Note:** Noncombustible hardscape materials (e.g., gravel, pavers, river rocks, decomposed granite, steppingstones, and concrete) are permitted.

- **Fencing and Retaining Walls –**

- o Shall remove combustible fencing materials (e.g., wood and vinyl), posts, gates, and retaining walls within 5 feet or replace with noncombustible material.

Parallel Fences within 5 to 30 feet

Back-to-back (parallel) combustible fencing (meaning separate fences that are combustible and closer than 5 feet apart) are not permitted.

- *Exception:* If one or both back-to-back (parallel) fences are constructed with noncombustible materials (e.g., concrete or metal).

- *Note:* Meeting this requirement may necessitate coordination with neighbors or an HOA to eliminate at least one of the combustible parallel fences.

Refer to City of Flagstaff Forest Management Plan and Landscaping Code for Tree and Shrub Spacing outside of the 0-5 foot zone.

Insert 603.2.2 Trees. Tree stems and canopies are allowed outside of the 0-5 foot zone, provided that they meet City of Flagstaff Forest Management Plan and Landscaping Code.

Other Requirements

- o Tree limbs may not extend into the vertical plane of a chimney outlet
 - o Tree limbs shall not touch roof coverings at any time
 - o Hazard trees, as determined by the Code Official, shall be removed. When determining hazard trees, the Code Official may be guided by industry standards, individual site conditions, hazard ratings, risk assessments, basal area calculations, and/or tree densities determined to be effective in identifying and mitigating fire danger and/or protecting property. Trees that are in such a position fall and endangering life or property are determined to be hazard trees.

Amend 603.2.3 Ground cover to read: Deadwood and litter shall be regularly removed from trees. Needles and/or duff layer shall not exceed 3 inches in depth.

Delete 604.4, 604.4.1, 604.4.2

Amend A104.4 Smoking to read: Where required by the *code official*, signs shall be posted stating NO SMOKING. Persons shall not smoke within 15 feet (4572 mm) of combustible materials or nonfire-resistive vegetation.

Smoking and use of electronic cigarettes is always prohibited in all public places within the City of Flagstaff.

Amend A104.5 Equipment and devices generating heat, sparks or open flames to read: Equipment and devices generating heat, sparks or open flames capable of igniting nearby combustibles may be prohibited in the wildland urban interface by the Code Official during periods of very high or greater fire danger as determined by the Coconino National Forest

Amend A104.6 Fireworks to read: The sale or use of consumer-grade fireworks within the City of Flagstaff may be prohibited based on fire restrictions

Amend A104.7.1 General. No person shall build, ignite, or maintain any outdoor fire of any kind for any purpose within the City of Flagstaff, except by the authority of a written permit from the Fire Department.

Exception: Outdoor fires within inhabited premises or designated campsites where such fires are in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator or grill, or any other outdoor fire appliance for such purposes, and are not less than 15 feet (9144 mm) from any combustible material or nonfire-resistive vegetation.

Amend A107.4 Trees. Portions of trees that extend to within 30 feet (9144 mm) of combustible portions of water storage and pumping facilities shall be removed unless approved by the Code Official.

RESOLUTION NO. 2026-47

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL DECLARING AS A PUBLIC RECORD THAT CERTAIN DOCUMENT FILED WITH THE CITY CLERK AND ENTITLED “THE 2024 SUITE OF BUILDING AND FIRE CODES AND RELATED AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND TITLE 5, FIRE CODE” WHICH INCLUDE THE FOLLOWING CODES, AS AMENDED: THE INTERNATIONAL BUILDING CODE, 2024 EDITION; INTERNATIONAL RESIDENTIAL CODE, 2024 EDITION; INTERNATIONAL EXISTING BUILDING CODE, 2024 EDITION; INTERNATIONAL MECHANICAL CODE, 2024 EDITION; INTERNATIONAL PLUMBING CODE, 2024 EDITION; INTERNATIONAL FUEL GAS CODE, 2024 EDITION; INTERNATIONAL ENERGY CONSERVATION CODE, 2024 EDITION; INTERNATIONAL SWIMMING POOL AND SPA CODE, 2024 EDITION; NFPA 70 – NATIONAL ELECTRICAL CODE, 2023 EDITION; ICC A117.1-2017 STANDARD FOR ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES; UNIFORM HOUSING CODE, 1997 EDITION; UNIFORM ADMINISTRATIVE CODE, 1997 EDITION; UNIFORM CODE FOR THE ABATEMENT OF DANGEROUS BUILDINGS, 1997 EDITION; INTERNATIONAL FIRE CODE, 2024 EDITION; INTERNATIONAL WILDLAND URBAN INTERFACE CODE, 2024 EDITION; AND THE RELATED AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND TITLE 5, FIRE CODE

RECITALS:

WHEREAS, pursuant to A.R.S. § 9-802 a municipality may enact or amend provisions of the City Code by reference to a public record, provided that the adopting ordinance is published in full; and

WHEREAS, the City Council of the City of Flagstaff (“City”) wish to declare the document entitled *“The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code”* to be a public record and to permit its adoption by reference into the City Code; and

WHEREAS, the City Council has determined that adopting *“The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code”* is necessary for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of buildings and structures; and

WHEREAS, the City Council has determined that adopting *“The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code”* is necessary for providing the standards for supplied utilities, facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and

WHEREAS, the City Council has determined that adopting *“The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code”* is necessary for providing the standards to provide safety to the public and first responders; and

WHEREAS, the City Council has determined that adopting "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*" is necessary for establishing requirements for the built environment in Flagstaff using prescriptive and performance provisions, and providing a comprehensive and holistic approach to enhancing building resilience from wildfires; and

WHEREAS, the City Council has determined that adopting "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*" is necessary for the issuance of permits and collection of fees pursuant thereto, and for implementing and enforcing each and all of the regulations, provisions, penalties, conditions and terms of an updated Flagstaff Building Code, Fire Code, and International Wildland Urban Interface Code.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General.

That certain document known as "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*" attached hereto as Exhibit A is hereby declared to be a public record, and one (1) paper copy and one (1) electronic copy, maintained in compliance with A.R.S. § 44-7041, shall remain on file with the City Clerk and kept available for public use and inspection.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 6th day of October, 2026.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:

A - The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code.

ORDINANCE NO. 2026-24

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF, AMENDING THE FLAGSTAFF CITY CODE, TITLE 4, BUILDING REGULATIONS, AND TITLE 5, FIRE CODE, BY ADOPTING BY REFERENCE THAT CERTAIN DOCUMENT ENTITLED “*THE 2024 SUITE OF BUILDING AND FIRE CODES AND RELATED AMENDMENTS TO CITY CODE, TITLE 4, BUILDING REGULATIONS, AND TITLE 5, FIRE CODE*” AND FIXING THE EFFECTIVE DATE OF THE CODES AND AMENDMENTS; REPEALING ALL SECTIONS OF THE CITY CODE IN CONFLICT WITH THIS ORDINANCE; PRESERVING RIGHTS AND DUTIES THAT HAVE ALREADY MATURED AND PROCEEDINGS THAT HAVE ALREADY BEGUN UNDER THE PRIOR CODES; PROVIDING PENALTIES FOR VIOLATIONS; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE

RECITALS:

WHEREAS, that certain document known as “*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*”, one hard copy and one electronic copy of which are on file in the office of the City Clerk of the City of Flagstaff, Arizona, was made a public record by the City Council's adoption of Resolution No. 2026-47; and

WHEREAS, the City Council has determined that adopting “*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*” is necessary for regulating and governing the construction, alteration, movement, enlargement, replacement, repair, equipment, location, removal and demolition of buildings and structures; and

WHEREAS, the City Council has determined that adopting “*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*” is necessary for providing the standards for supplied utilities, facilities and other physical things and conditions essential to ensure that structures are safe, sanitary and fit for occupation and use; and

WHEREAS, the City Council has determined that adopting “*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*” is necessary for providing the standards to provide safety to the public and first responders; and

WHEREAS, the City Council has determined that adopting “*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*” is necessary for establishing requirements for the built environment in Flagstaff using prescriptive and performance provisions, and providing a comprehensive and holistic approach to enhancing building resilience from wildfires; and

WHEREAS, the City Council has determined that adopting “*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*” is necessary for the issuance of permits and collection of fees pursuant thereto, and for implementing and enforcing each and all of the regulations, provisions, penalties, conditions and

terms of an updated Flagstaff Building Code, Fire Code, and International Wildland Urban Interface Code.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. That certain document known as "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*", one(1) paper copy and (1) electronic copy of which are on file in the office of the City Clerk of the City of Flagstaff, Arizona, has been declared a public record by Resolution No. 2026-47 of the City of Flagstaff, Arizona, and is hereby referred to, adopted and made a part hereof as if fully set out in this ordinance.

SECTION 2. That the current Building Regulations and Fire Codes, as amended, will remain effective through December 31, 2026, to provide a grace period for projects that are being planned based on the current codes. Applicants for building permits who submit applications prior to January 1, 2027, may choose to have the current Building Regulations and Fire Codes, as amended, or the "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*", apply to the construction that is the subject of the permit.

SECTION 3. That the Flagstaff City Code and all ordinances and parts of ordinances in conflict with the provisions of this ordinance or any part of the code adopted herein by reference are hereby repealed, effective as of the 1st day of January 2027.

SECTION 4. The repeal of prior ordinances and parts of ordinances referenced in Section 3 above does not affect the rights and duties that matured or penalties that were incurred and proceedings that were begun before the effective date of the repeal.

SECTION 5. Any person, firm, or corporation violating any provision of "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*" shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine and/or imprisonment set forth by Flagstaff City Code, Title I, Chapter 1-04 (General Penalty). Each separate day or any portion thereof, during which any violation of "*The 2024 Suite of Building and Fire Codes and Related Amendments to City Code, Title 4, Building Regulations, and Title 5, Fire Code*" occurs or continues, shall be deemed to constitute a separate offense.

SECTION 6. That 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 7. Clerical Corrections

The City Clerk is hereby authorized to correct clerical and grammatical errors, if any, related to this ordinance, and to make formatting changes appropriate for purposes of clarity, form, or consistency with the Flagstaff City Code.

SECTION 8. Effective Date

This Ordinance shall be effective thirty (30) days following adoption by the City Council.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 6th day of October , 2026.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

2024 Suite of Building & Fire Codes

Amy Tressler, Building Official

Tamara Lawless, Water Conservation Manager

Genevieve Pearthree, Senior Sustainability Planner

Neil Chapman, Wildland Fire Captain

Chris Jack, Fire Marshal

First Reading • September 15, 2026



Why Update Now

2018 → 2024

- Flagstaff currently operates under the 2018 International Codes
- Moving to 2024 maintains the City's six-year adoption cycle
- A six-year cycle is consistent with many Arizona jurisdictions
- Local amendments allow Flagstaff to address community priorities and local conditions

Community Outreach & Regional Coordination

PUBLIC OUTREACH

- May 12 – Murdoch Center
- May 13 – City Hall

STAKEHOLDER & COMMISSION ENGAGEMENT

- Greater Flagstaff Chamber of Commerce
- Housing Commission
- Sustainability Commission
- Building & Fire Code Board of Appeals

REGIONAL COORDINATION

- Ongoing collaboration with Coconino County
- Shared research and proposed amendments
- Alignment where practical

Key Building Safety Amendments

SNOW LOAD

60 psf → 70 psf ground snow load

Engineered design options remain available

TEMPORARY CERTIFICATE OF OCCUPANCY

Limited residential TCO option when life-safety requirements are complete

PERMIT EXPIRATION

2-year base permit + one 365-day extension

Maximum: 3 years

PLUMBING EFFICIENCY

Updated water-efficiency and performance rating requirements

Triplexes & Fourplexes | IRC Applicability

Arizona Middle Housing Requirements

- 2024 IBC & IRC Scope Amendments
- Clarifies that qualifying triplexes and fourplexes may be constructed under the 2024 IRC or 2024 IBC
- Applies where buildings meet applicable residential-code limitations, including:
 - Not more than 3 stories above grade plane
 - Separate means of egress
- Provides a clear code path for applicants and staff
- Aligns Flagstaff's construction-code requirements with Arizona middle-housing legislation
- Supports consistent review of one and two family dwellings, triplexes, fourplexes and townhouses

Adopt Energy Code “Option 2”

1. Adopt the 2024 Residential and Commercial Energy Codes as part of the 2024 Suite of Building and Fire Codes, including:

- Amendments to improve HVAC efficiency (residential) and to reduce costs
- Readiness appendices:
 - *Solar-ready*
 - *EV charging*
 - Electric-ready
 - Demand-responsive controls (commercial)

2. Adopt radon mitigation standards for new construction

NEW Energy Code & IRC Amendments

- **Amend the following IRC and IECC appendices to support triplexes and fourplexes being built under the IRC**
 - Solar-Ready Appendices (NB/RB, NL/RL)
 - EV Charging Appendix (NE/RE)
 - Electric-Ready Appendix (NK/RK)
- **Fix incorrect code reference**
 - IECC Section R404 Electric Power, Lighting and Renewable Energy: reference the IECC, not the IRC

Solar-Ready Appendices

- **Appendix NB/RB: Solar-Ready Provisions—Detached One- and Two-Family Dwellings and Townhouses**
 - Title change: Solar-Ready Provisions—Attached and Detached One- and Two-Family Dwellings, Triplexes, Fourplexes, and Townhouses
 - Scope update: Include triplexes and fourplexes
 - Applicability: IRC & IECC
- **Appendix NL/RL: Renewable Energy Infrastructure**
 - Delete Appendix NL from the IRC: Appendix NB/RB applies solar-ready standards to all buildings constructed under the IRC with the proposed amendment
 - Keep Appendix RL in the Residential IECC: this appendix applies solar-ready requirements to larger residential buildings only

Electric-Ready Appendices

- **Appendix NK/RK: Electric Ready Residential Provisions**
 - Scope update: Allow triplexes and fourplexes to request an exception if electrical load calculations indicate a 400-amp panel is needed to meet the minimum requirements of the 2024 IRC
 - Note: *This exception is already proposed for single-family homes, duplexes, and townhouses*

Electric Vehicle Charging Appendices

- **Appendix NE/RE: Electric Vehicle Charging Infrastructure (Residential)**
 - Scope update: Extend EV charging standards for one- and two- family dwellings to triplexes and fourplexes
 - Clarify EV requirements for other residential building types
 - Ensure EV-ready infrastructure standards are consistent across IRC and IECC appendices
- **Appendix CG: Electric Vehicle Power Transfer (Commercial)**
 - Clarify rounding in EV parking space calculations

2024 IWUIC – Key Proposal

- Adopt the 2024 International Wildland Urban Interface Code
- Amendments are based on local wildfire risk and heat transfer science
 1. Embers
 2. Radiant Heat
 3. Direct Flame
- Simplify Construction Requirements - eliminate uncertainty with fire hazard severity and defensible space calculations
- Move from ignition resistant to non-combustible construction
- Align with the Regional Plan, City of Flagstaff Zoning Code, and Forest Management Plan
- Align with Best Available Science - Insurance Institute for Business and Home Safety's Wildfire Prepared Home and Wildfire Prepared Neighborhood Standards

IFC Amendments

- 2018 Amendments carried forward to 2024
 - Some removed – now base code
- New for 2024
- Section 323 - Electric Vehicles
 - Parking garage locations
 - Disconnect (location, signage)
- Section 510 – ERCES (emergency responder communication)
 - Building criteria to install conduit/junction boxes

Estimated Building and Fire Code cost impacts

	Single family and duplexes		Multifamily
Code Section	Upfront Cost 2,000 sf	Upfront Cost 1,250 sf	Upfront Cost 800 sf
2024 IECC (Base Code + Appendices)	~\$8,200	~\$6,800	~\$4,000
2024 Wildland Urban Interface	~\$8,000	~\$5,000	~\$3,200
Radon Mitigation	~\$3,100*	~\$3,100*	~\$3,100*
Other Building and Fire Codes	Negligible	Negligible	Negligible
Total costs	~\$19,300	~\$14,900	~\$10,300

*Includes the cost of a radon fan, which may not be needed in all homes.

These numbers represent average cost estimates based on the best available data.

Future Amendments and Connection to LASS+CAP

- LASS + CAP Phase 1

- Purpose of LASS+CAP

- Address housing and climate
 - Not a 1 to 1 relationship with building code – dependent on type and size of project

- What are we doing now

- Current suite of codes
 - Zoning code updates

- Coming up next

- Phase 1 LASS+CAP Proposed Amendments
 - Options 3 & 4 won't be brought back without the fuller picture of proposed CAP amendments

First Reading & Next Steps

September 8, 2026 - Council Work Session

- Presentation of proposed 2024 codes and local amendments
- Council discussion, feedback, and direction

September 15, 2026 - First Reading

- Proposed 2024 Suite of Construction Codes and local amendments presented for formal consideration

October 6, 2026 - Second Reading & Adoption

- Final consideration and adoption of ordinance

Mid-November 2026 - Anticipated Implementation

- New codes become effective following completion of the adoption process

Thank you.



**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Gail Brockman, Park Flag
Co-Submitter: David McIntire
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE:

Consideration and Adoption of Resolution No. 2026-45: A resolution of the Flagstaff City Council, approving the Curbside Management Plan; providing for delegation of authority; and establishing an effective date.

STAFF RECOMMENDED ACTION:

1. Read Resolution No. 2026-45 by title only
2. City Clerk reads Resolution No. 2026-45 by title only (if approved above)
3. Adopt Resolution No. 2026-45

Executive Summary:

Since January 2026, the City of Flagstaff has worked with Dixon Resources Unlimited to evaluate parking and curbside operations within the Downtown Parking District. The assessment examined parking occupancy, utilization and turnover, loading and delivery activity, employee parking, accessible curb access, passenger pickup and drop-off, rideshare activity, oversized vehicle parking, enforcement practices, technology, and other uses of the downtown curbside.

The project included on-site assessments, multiple rounds of parking occupancy and turnover counts, stakeholder meetings, outreach to local businesses and delivery operators, and an online community survey. Community and external stakeholders included representatives from the Downtown Business Alliance, Barrier Free Flagstaff, Strong Towns Flagstaff, downtown businesses, delivery operators, and members of the public. Internal stakeholders included representatives from the City's Commission on Inclusion and Adaptive Living, Traffic Engineering, Code Compliance, Sustainability, Finance, Planning, and other City departments and divisions whose work affects downtown access and curbside operations.

Following the assessment, Dixon Resources Unlimited developed the City of Flagstaff Curbside Management Action Plan. The Plan consolidates the assessment findings, collected data, and stakeholder feedback into recommendations intended to guide downtown parking and curbside management over the next three to five years. The recommendations are organized into seven focus areas:

1. Operational Enhancements and Personnel Development
2. Technology and Equipment
3. Accessibility and Infrastructure
4. Customer Experience
5. Signage, Wayfinding, and Branding
6. Policy and Program Development
7. Curb Management

The Plan organizes recommendations into near-term and mid-term strategies. However, the timing and sequencing of individual recommendations will ultimately depend on City priorities, available funding, staffing capacity, operational needs, stakeholder input, and lessons learned as strategies are evaluated and

advanced.

The Action Plan builds upon the Comprehensive Parking Management Program adopted through Resolution No. 2016-01 and provides an updated framework for addressing current and emerging downtown parking and curbside needs.

Staff is requesting that Council adopt a resolution accepting the final Plan as a framework for future planning, budgeting, and decision-making. Acceptance of the Plan does not, by itself, approve or authorize funding or implementation of every recommendation. Recommendations requiring an ordinance amendment, appropriation, contract award, or other formal Council authorization will return to Council as separate items.

Financial Impact:

There is no immediate financial impact associated with accepting the City of Flagstaff Curbside Management Action Plan. The Plan includes recommendations with varying potential costs; however, the actual financial impact of each recommendation cannot be determined until its scope, timing, implementation method, and resource requirements have been further evaluated.

Individual recommendations will be considered through the City's normal budget development, procurement, and approval processes. Any recommendation requiring additional funding, a budget appropriation, or a contract award will be presented for approval through the appropriate process. The use of ParkFlag revenues will remain subject to applicable funding restrictions and reserve requirements.

Project Name: City of Flagstaff Curbside Management Action Plan

Cost: No immediate cost associated with acceptance of the Plan; future implementation costs will be determined individually

Account Number: Not applicable at the time of Plan acceptance

Budgeted: Not applicable at the time of Plan acceptance

FY Budgeted Amount: Not applicable

Grant Funded: Not applicable

Funding Source: ParkFlag is a special revenue fund and costs are anticipated to be paid through parking generated revenue.

Policy Impact:

Acceptance of the City of Flagstaff Curbside Management Action Plan does not immediately amend or replace the Comprehensive Parking Management Program adopted through Resolution No. 2016-01, the Comprehensive Parking Management Program Administrative Guidelines, City Code, or other existing City policies. The Action Plan is generally consistent with and builds upon the goals and phased approach established by the Comprehensive Parking Management Program.

As individual recommendations are prioritized and evaluated for implementation, staff will review the Comprehensive Parking Management Program, Administrative Guidelines, City Code, and other applicable policies, procedures, and operating practices. Necessary updates will be pursued through the appropriate City process. Any recommendation requiring an amendment to City Code, an appropriation, a contract award, or other formal Council authorization will return to Council as a separate item.

Previous Council Decision or Community Discussion:

On May 26, 2026, Dixon Resources Unlimited and City staff presented the assessment process, key findings, and draft recommendations to City Council. Council provided feedback regarding loading zones, alleyway enforcement, Parking Aide staffing, signage and wayfinding, signage clarity, and parking enforcement during special events.

Two rounds of parking occupancy and turnover counts had been completed at that stage of the assessment; however, the data did not fully represent downtown parking and curbside activity during weekend and evening hours after 5:00 p.m. An additional round of data collection was therefore completed to provide a more comprehensive understanding of parking demand, utilization, and turnover across a broader range of days and times. Community outreach included an online parking questionnaire that received 451 responses from residents, business owners, employees, and visitors. Additional engagement

included meetings and presentations with the Downtown Business Alliance, Barrier Free Flagstaff, Strong Towns Flagstaff, representatives from the Commission on Inclusion and Adaptive Living, downtown businesses, commercial delivery operators, community members, and multiple City departments and divisions.

Dixon Resources Unlimited incorporated the additional data, Council feedback, and stakeholder input into the final City of Flagstaff Curbside Management Action Plan.

Options and Alternatives to Recommended Action:

- Adopt the resolution accepting the City of Flagstaff Curbside Management Action Plan as presented.
- Adopt the resolution with amendments or provide additional direction regarding future prioritization and evaluation of the Plan's recommendations.
- Postpone consideration of the resolution and direct staff to provide additional information or conduct further public or stakeholder engagement.
- Do not adopt the resolution accepting the City of Flagstaff Curbside Management Action Plan.

Background and History:

The City Council adopted the Comprehensive Parking Management Program through Resolution No. 2016-01 on January 19, 2016. The program established a framework for managing parking in downtown, the Southside, and surrounding areas through residential and employee permit programs, time-limited parking, pay-to-park operations, enforcement, technology, signage, and phased infrastructure improvements.

ParkFlag was implemented in 2017 with the goal of creating a fair and balanced parking system that supports residents, visitors, employees, businesses, and the continued economic vitality of downtown Flagstaff. From the beginning, the program has managed pay-to-park and time-limited parking, residential permit zones, employee parking, loading zones, and other parking-related uses. Enforcement has also been a core responsibility, with an emphasis on education, warning citations, customer assistance, and ambassador-style engagement.

Comprehensive curbside management has always been part of the program's broader vision. As ParkFlag has become more established, the program has been able to evaluate additional curbside uses and consider how they can be managed more effectively as part of an integrated system.

In January 2026, the City contracted with Dixon Resources Unlimited to conduct a comprehensive assessment of parking and curbside operations within the Downtown Parking District. The assessment included two on-site evaluations, multiple rounds of parking occupancy and turnover counts, stakeholder meetings, outreach to downtown businesses and delivery operators, and an online community survey.

Initial findings and draft recommendations were presented to City Council on May 26, 2026. Two rounds of parking occupancy and turnover counts had been completed at that stage; however, the data did not fully represent downtown parking and curbside activity during weekend and evening hours after 5:00 p.m. An additional round of data collection was completed to provide a more comprehensive understanding of demand, utilization, and turnover across a broader range of days and times.

Dixon Resources Unlimited incorporated the additional data, Council feedback, and stakeholder input into the final City of Flagstaff Curbside Management Action Plan. The Action Plan builds upon the Comprehensive Parking Management Program and provides a three-to-five-year framework for evaluating, prioritizing, and advancing improvements to downtown parking and curbside management.

Connection to PBB Priorities and Objectives:

The City of Flagstaff Curbside Management Action Plan supports several Priority Based Budgeting priorities and objectives:

High Performing Governance:

- Serve the public by providing high-quality customer service.

- Maintain the organization's fiscal stability through strong financial policies and best practices.
- Implement and communicate innovative and efficient local government programs, new ideas, and best practices.

Safe and Healthy Community:

- Ensure the built environment is safe through consistent standards, rules, regulations, and land-use practices.
- Provide public safety services with resources, staffing, and training responsive to community needs.

Inclusive and Engaged Community:

- Ensure City facilities, services, and programs are accessible to all residents.
- Encourage public involvement and strengthen relationships between the City, community members, businesses, and other stakeholders.

Sustainable, Innovative Infrastructure:

- Deliver outstanding services through healthy and well-maintained infrastructure.
- Use existing long-range plans to identify future infrastructure needs and associated costs.
- Provide, manage, and maintain effective infrastructure for multimodal and active transportation.

Robust and Resilient Economy:

- Support and strengthen a robust, diverse, and sustainable economy in ways that reflect community values.
- Support existing businesses, responsible tourism, and a positive downtown experience.

The Action Plan advances these objectives by providing a data-informed framework for improving safety, accessibility, customer service, parking availability, enforcement, technology, loading operations, and the efficient use of public curb space.

Connection to Regional Plan:

The City of Flagstaff Curbside Management Action Plan is consistent with the Flagstaff Regional Land Use Plan 2045, particularly the City's Parking Goal: to manage the supply and cost of public and private parking to support a safe and walkable environment, successful and consistent enforcement, and the efficient use of parking infrastructure for all users.

The Action Plan supports the following policies:

- Policy PK.1: Reduce demand for private parking in areas served by transit to address carbon neutrality and increase affordability.
- Policy PK.2: Encourage the conversion of underutilized parking lots to walkable residential, commercial, or mixed-use development.
- Policy PK.3: Pursue year-round on-street public parking and related operations and maintenance to support reductions in private parking and promote affordability.
- Policy PK.4: Provide accessible parking in central and convenient locations in parking lots and managed parking plans.

The Action Plan also supports Regional Plan goals related to walkability, accessibility, multimodal transportation, economic vitality, climate action, efficient use of existing infrastructure, and safe and equitable access to public facilities.

Acceptance of the Action Plan does not authorize a specific land-use, infrastructure, or parking change. Individual recommendations will be reviewed for consistency with the Regional Plan as they are prioritized and advanced.

Connection to Carbon Neutrality Plan:

The Curbside Management Action Plan indirectly supports the City's Carbon Neutrality Plan by encouraging more efficient use of existing parking and curbside infrastructure, reducing unnecessary vehicle circulation,

and improving access to walking, biking, public transit, and micromobility options.

Connection to 10-Year Housing Plan:

The Curbside Management Action Plan does not directly create, preserve, or fund housing.

Connection to Division Specific Plan:

The Curbside Management Action Plan builds upon the City's Comprehensive Parking Management Program, adopted through Resolution, and its associated Administrative Guidelines. It supports the program's goals of providing a fair, balanced, self-supporting, and phased parking-management system. The Action Plan provides updated guidance related to parking facilities, regulations, enforcement, technology, customer service, signage and wayfinding, multimodal connections, loading and delivery management, and adjustments based on operational experience and evolving community needs.

Attachments: [AmendedPresentation](#)
[Res. 2026-45](#)
[Curbside Management Action Plan](#)
[Appendix A](#)
[Appendix B](#)
[Appendix C](#)
[Appendix D](#)
[Appendix E](#)

City of Flagstaff

Curbside Management Action Plan

City Council
September 15, 2026

DIXON
Resources Unlimited

Our Team



Julie Dixon
President



Vanessa Solesbee, PTMP, CCTM
Principal-in-Charge



Erin Thomas
Associate



Cameron Clark
Data Principal



Peter MacDonald
Director of Operations

Project Goals

- Evaluate existing parking programs, policies, use of technology and asset management.
- Assess current curbside use; recommend strategies to optimize parking and curbside access for all users.
- Listen to the needs and concerns of local businesses, residents, visitors and customers.

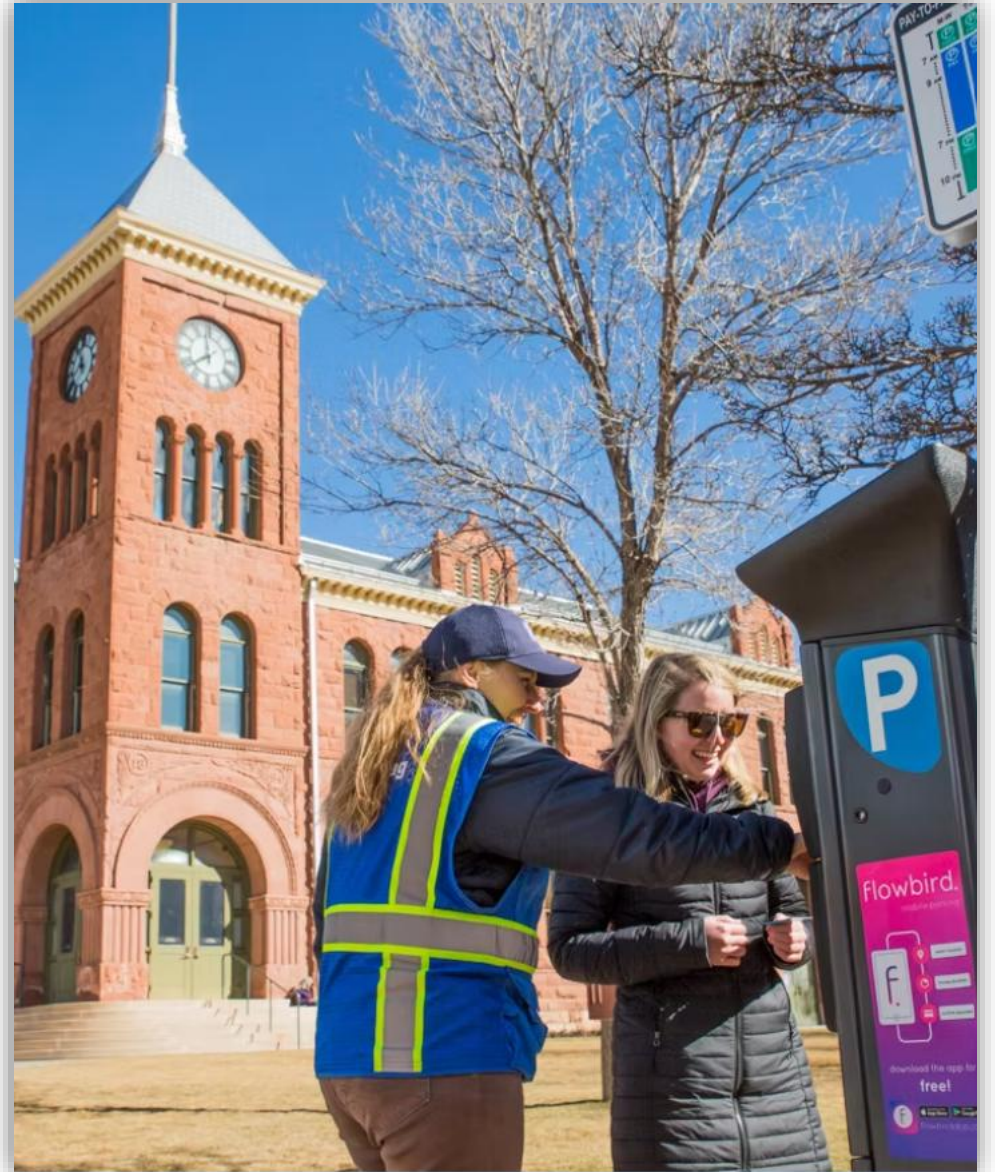
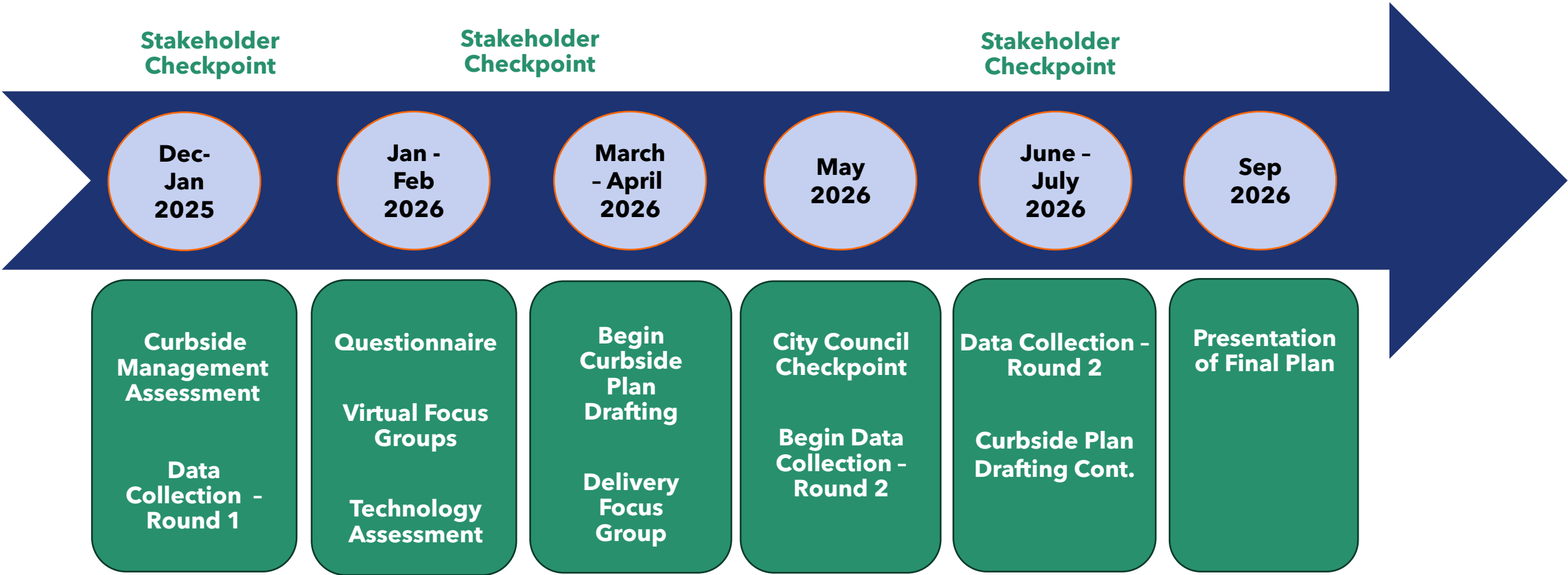


Photo credit: ParkFlag

Schedule

Important note: Project cadence was adjusted mid-project to accommodate additional data collection and stakeholder engagement, resulting in a more tailored set of recommendations.



Project Overview

Curbside Needs Assessment

- ✓ Existing conditions review
- ✓ Job shadowing
- ✓ Staff interviews
- ✓ Stakeholder conversations

Technology Review

- ✓ Functionality
- ✓ Ease of Use
- ✓ Data reporting and usability
- ✓ Upgrades versus replacements

Stakeholder Engagement

- ✓ Project steering committee
- ✓ Online questionnaire
- ✓ Downtown Business Alliance board and member presentation
- ✓ Commercial delivery focus group
- ✓ Interdepartmental coordination
- ✓ City Council check-in
- ✓ City Commission open house



Data Collection: What Was Included?

- Study Area: Downtown and Southside Neighborhood
- Data collection included:
 - On-street
 - Off-street (parking lots)
 - Permit areas
 - Unregulated areas
 - Loading zones
- Collection times: 9am, 12pm, 3pm, 6pm
- Peak and average occupancy
- Turnover

Data Collection Rounds

Winter collection: December – January 2026

Summer collection: May – July 2026

Historical collection: January – December 2023

Data Collection - Round 1 (Winter)

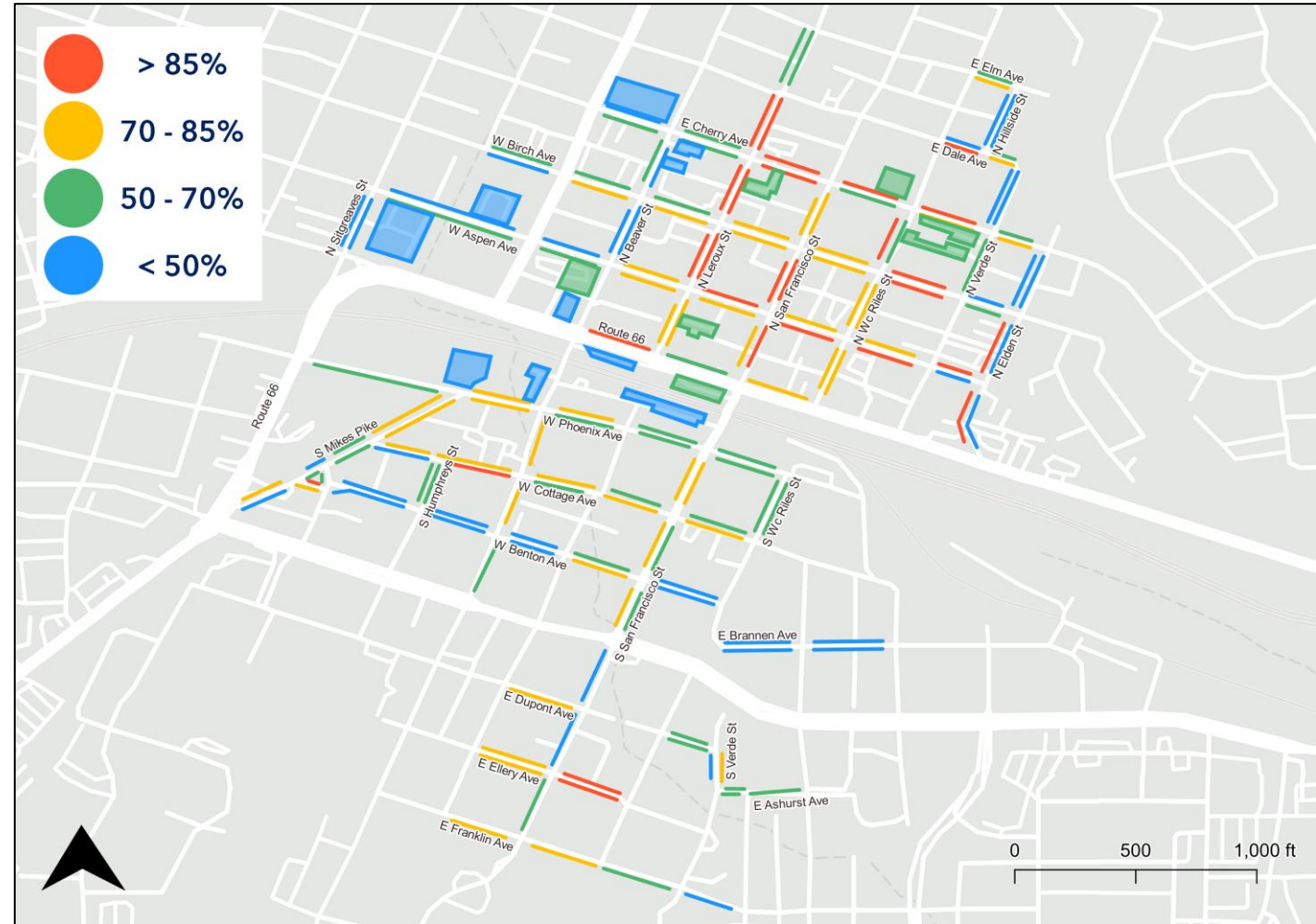
On-Street Occupancy

Day of the Week	9 a.m.	12 p.m.	3 p.m.	Average
Monday	68%	69%	72%	69%
Tuesday	69%	69%	70%	69%
Wednesday	60%	67%	56%	63%
Thursday	64%	74%	73%	70%
Friday	64%		77%	69%
Saturday	62%	67%		63%
Average	64%	68%	73%	67%

Off-Street Occupancy

Day of the Week	9 a.m.	12 p.m.	3 p.m.	Average
Monday	40%	46%	42%	42%
Tuesday	46%	53%	48%	48%
Wednesday	39%	45%	19%	42%
Thursday	32%	63%	46%	42%
Friday	37%		43%	40%
Saturday	28%	38%		29%
Average	39%	48%	44%	42%

Winter 2025 Average Occupancy - All Times



Data Collection - Round 2 (Summer)

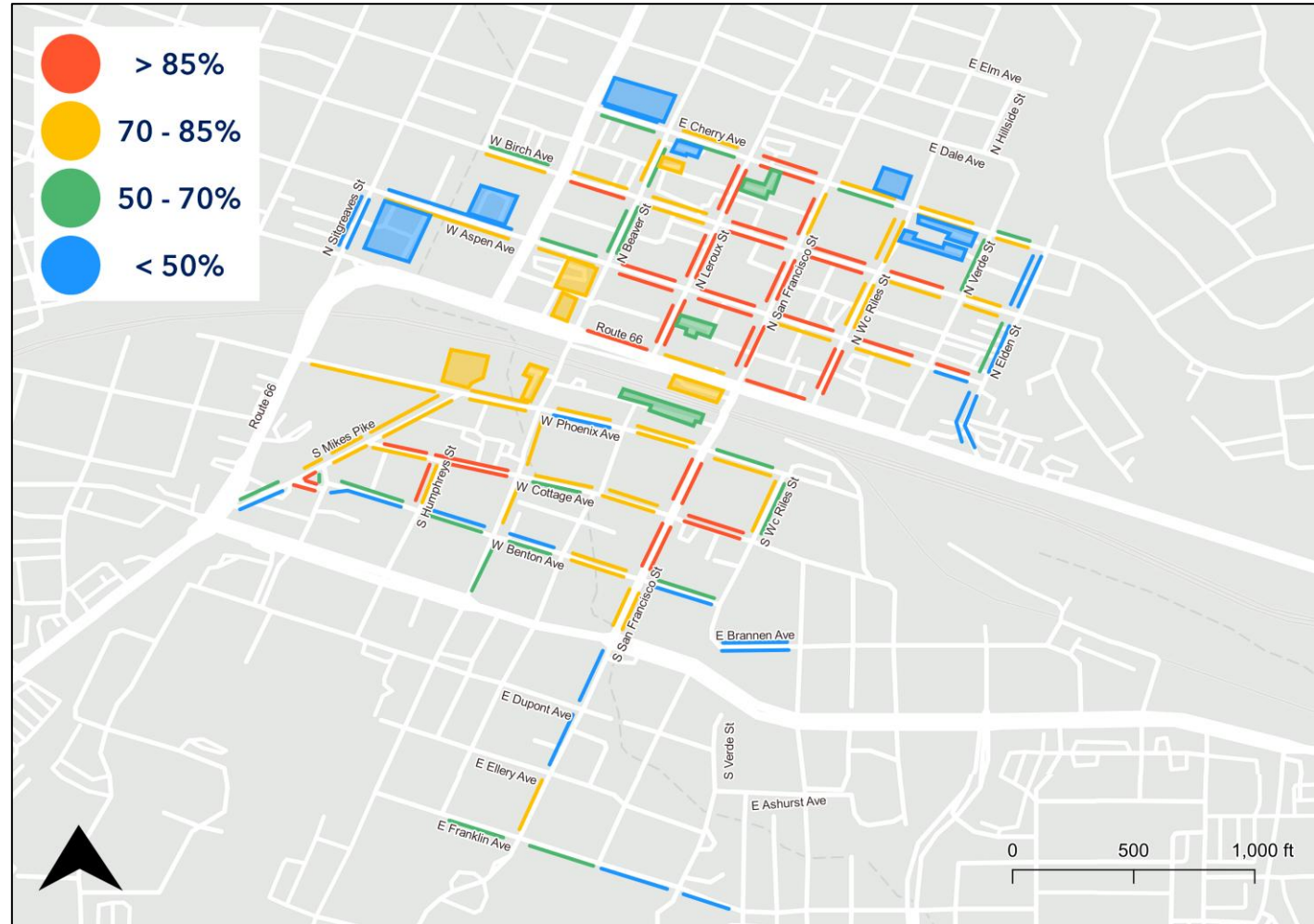
On-Street Occupancy

Day of the Week	9 a.m.	12 p.m.	3 p.m.	6 p.m.	Average
Monday	69%	67%	58%		64%
Tuesday	67%	66%	62%	71%	67%
Wednesday	71%	71%	67%	82%	73%
Thursday	63%	73%	71%	81%	72%
Friday	56%	76%	85%	87%	82%
Saturday				88%	88%
Average	66%	71%	71%	83%	74%

Off-Street Occupancy

Day of the Week	9 a.m.	12 p.m.	3 p.m.	6 p.m.	Average
Monday	48%	58%	42%		51%
Tuesday	51%	58%	53%	42%	50%
Wednesday	56%	56%	57%	54%	55%
Thursday	53%	53%	53%	52%	53%
Friday	54%	56%	69%	64%	63%
Saturday				64%	64%
Average	53%	56%	57%	55%	56%

Summer 2026 Average Occupancy - All Times



Curbside Plan - Focus Areas



**Operational
Enhancement
& Personnel
Development**



**Technology &
Equipment**



**Accessibility &
Infrastructure**



**Customer
Experience**



**Signage,
Wayfinding, &
Branding**



**Policy &
Program
Development**



**Curb
Management**

Curbside Plan Recommendations

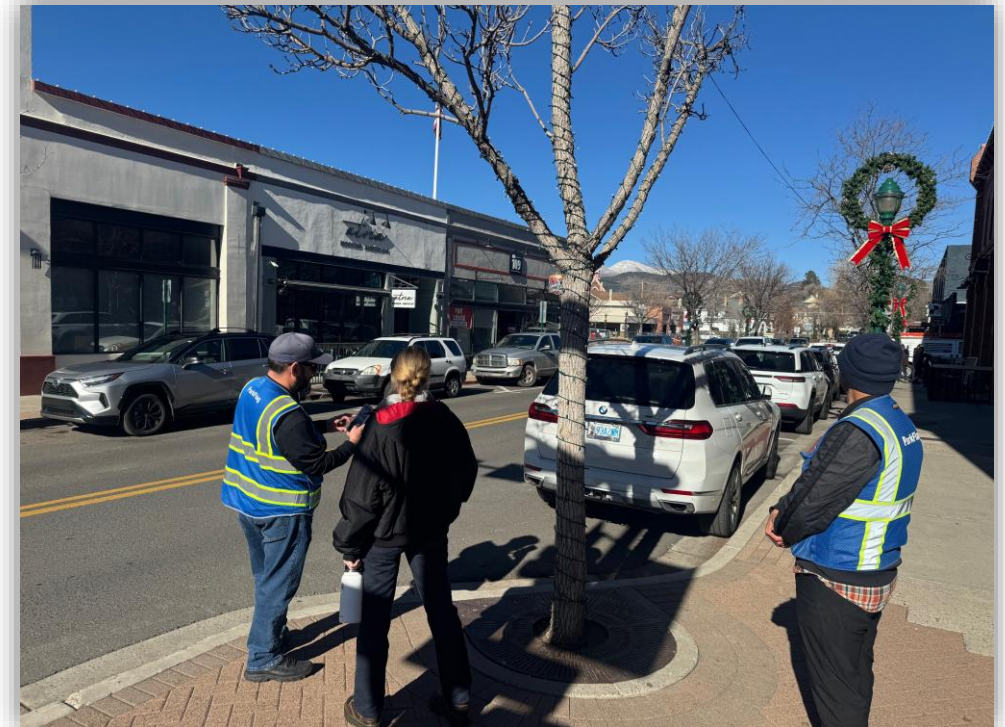
**In progress!*

Near-Term (12-18 months):

- ☐ **Implement annual parking utilization data collection - peak and non-peak seasons.**
- ☐ **Complement efforts to recruit and retain Parking Aides with refreshed and optimized coverage.**
- ☐ Conduct a Parking Aide wage evaluation.
- ☐ Continue documenting current business practices in the ParkFlag Standard Operating Procedures, adding new content/organizational artifacts as appropriate.*



**Operational
Enhancement
& Personnel
Development**



Curbside Plan Recommendations

**In progress!*

Near-term:

- ☐ **Combine (mandatory) pay station compliance updates with investment in upgraded pay station technology**
- ☐ Address data collection and enforcement gaps.*

Mid-term (24 months+):

- ☐ Explore customer-facing parking availability information.
- ☐ Strategically expand ParkFlag's use of data collection and enforcement technology.
- ☐ Implement gateless Parking Access and Revenue Control (PARCS) in future structured parking assets.



Technology & Equipment



Curbside Plan Recommendations

Progress note!

Near-term:

- ☐ Complete an American with Disabilities Act (ADA) Transition Plan.

Mid-term:

- ☐ Implement ADA Transition Plan recommendations.
- ☐ Identify opportunities for additional bike racks in underutilized and/or difficult to program areas.



Accessibility & Infrastructure



Curbside Plan Recommendations

Near-term:

- ☐ Develop a campaign to increase mobile app adoption.
- ☐ Implement an annual customer experience survey.
- ☐ Share ParkFlag's contribution to planned parking and traffic Community Enhancements.
- ☐ Partner with local marketing resources to create a public awareness campaign about downtown parking options - with a special focus on seasonal visitors. Leverage the DBA to amplify messaging through its membership.



Customer Experience



Curbside Plan Recommendations

**In progress!*

Near-term:

- ☐ Reduce regulatory and informational sign stacking.
- ☐ Continue exploring creative and visually-appealing solutions for communicating seasonal, event-based and temporary program changes.*

Mid-term:

- ☐ Expand ParkFlag's colorful and clever brand work, including branded equipment decals, staff apparel and pedestrian-level signage.
- ☐ Expand parking auto-directional and parking destination signage



Signage, Wayfinding, & Branding



Curbside Plan Recommendations

**In progress!*

Near-term:

- ☐ Pursue additional opportunities for Shared Parking Agreements.*
- ☐ Explore a Parking Fee-in-Lieu Program (Fee in lieu of onsite parking).*

Mid-term:

- ☐ **Identify a predictable process and cadence for parking fee adjustments.**
- ☐ Complete a municipal code review to ensure alignment with existing parking and curbside management practices.
- ☐ Conduct a comprehensive review of ParkFlag's parking permit offerings.



**Policy &
Program
Development**



Curbside Plan Recommendations

Near-term:

- ☐ Strategically implement 15-minute flex zones in high-demand locations.
- ☐ Increase enforcement of loading zones, ADA spaces and drive aisle infractions.
- ☐ Continue – and expand where appropriate – ParkFlag's role as an active participant and Subject Matter Expert (SME) in City conversations about curbside programming.*

Mid-term:

- ☐ Conduct a new Curbside Management Study. (~5 yrs)

****In progress!***



**Curb
Management**



Thank You!

DIXON
Resources Unlimited

RESOLUTION NO. 2026-45

A RESOLUTION OF THE FLAGSTAFF CITY COUNCIL, APPROVING THE CURBSIDE MANAGEMENT PLAN; PROVIDING FOR DELEGATION OF AUTHORITY; AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City is authorized to regulate standing or parking of vehicles, pursuant to A.R.S. § 28-627(A)(1); and

WHEREAS, the City is authorized to regulate the use and improve City streets, alleys, and sidewalks pursuant to A.R.S. § 9-276(A)(1); and

WHEREAS, in 2016 the City adopted a Comprehensive Parking Management Program as set forth in the Flagstaff City Code Section 9-01-001-0014, to regulate traffic and make street improvements in Downtown, the Southside, and the surrounding areas impacted by high parking demand ("the ParkFlag District"); and

WHEREAS, in 2025 the City retained a consultant to assist with preparation of a Curbside Management Plan for the ParkFlag District.

ENACTMENTS:

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1. In General

The Curbside Management Plan attached hereto is hereby approved.

SECTION 2. Delegation of Authority

The Economic Vitality Director, City Engineer, and Parking Manager are hereby authorized to implement and administer the Curbside Management Plan consistent with Comprehensive Parking Management Program.

SECTION 3. Effective Date.

This resolution shall be immediately effective upon adoption.

PASSED AND ADOPTED by the City Council of the City of Flagstaff this 15th day of September, 2026.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:
Curbside Management Plan



City of Flagstaff Curbside Management Action Plan

Prepared for the City of Flagstaff

By Dixon Resources Unlimited

August 27, 2026

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I. Executive Summary

The City of Flagstaff's (City) Parking Program, ParkFlag, engaged Dixon Resources Unlimited (DIXON) to evaluate curbside conditions, technologies, operations, and policies in Flagstaff to identify opportunities for improved management and long-term program sustainability in the Downtown and Southside parking areas managed by the City ParkFlag program.

The engagement included review of the Comprehensive Parking Management Program and the Administrative Guidelines, on-site field reviews, coordination with City staff, and data collection to document parking utilization, turnover, and compliance. These efforts were supported by stakeholder engagement activities and an operational review of enforcement, use of technology, customer service orientation, and current municipal policies influencing parking and curbside management program performance.

This Curbside Management Action Plan (Plan) consolidates findings from those efforts and presents focused strategies to guide the City's management of downtown parking and curbside access for the next three to five years. This Plan's recommendations are supported by industry best practices, local context, and community input to create an equitable, data-driven, and adaptable framework for future investment in the ParkFlag program as a vital part of the downtown ecosystem.

Plan recommendations are organized by the following categories:

Table 1. Strategy Category

Strategy Category		Description
 A. Operational Enhancements and Personnel Development	Build on and refine field operation practices, ensuring continued investment in office and field personnel training and support.	
 B. Technology and Equipment	Optimize existing resources and implement efficient, streamlined technology solutions.	
 C. Accessibility and Infrastructure	Confirm Americans with Disabilities (ADA) compliance and improve curb accessibility for all users.	
 D. Customer Experience	Strengthen public engagement and improve understanding of parking policies and programs.	
 E. Signage, Wayfinding, and Branding	Enhance signage, improve wayfinding, and create a cohesive Downtown Flagstaff identity.	



F. Policy and Program Development

Develop and refine ParkFlag's service delivery and program offerings.



A. Curb Management

Expand loading zone availability and improve overall curb space utilization.

This Plan is organized into two implementation phases based on the consultant's experience building and managing municipal parking operations: **Near-Term Strategies** (12-24 months) and **Mid-Term Strategies** (3-5 years). Each Strategy will identify implementation Champions (Partners), a high-level magnitude of cost, urgency and implementation steps.

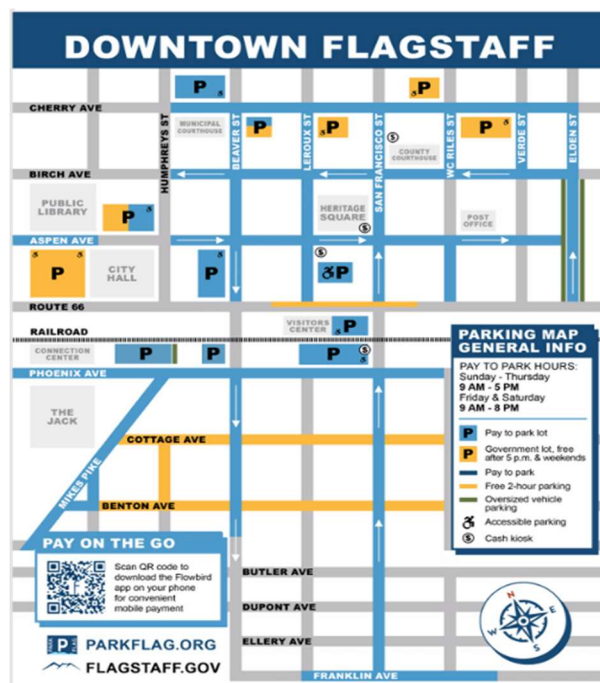
Implementation timing will depend on Flagstaff prioritization, staff bandwidth, stakeholder input, funding availability, and the ongoing evaluation of initial implementation steps.

II. Introduction

Background

Launched in 2017, ParkFlag is a program of the City of Flagstaff, responsible for managing 1,907 public parking spaces. ParkFlag's service area stretches across on-street and off-street locations in Downtown Flagstaff, the Southside, and nearby neighborhoods. ParkFlag manages 18 off-street lots, 13 residential zones with permit requirements, and a robust set of permit offerings. ParkFlag's mission is "to provide fair and efficient customer-focused parking management that supports downtown vitality, ensures equitable access, and improves the parking experience for employees, residents, and visitors."

Figure 1. ParkFlag Service Area



Existing Conditions

In December 2025, DIXON conducted a comprehensive onsite assessment (Assessment) to evaluate existing curbside conditions and guide development of this Plan.

The Assessment was informed by materials provided by the City, including current parking and curbside programs, policy information, vendor agreements, development plans, previous consultant reports, and other relevant operational documentation.

Assessment goals included:

1. Document ParkFlag's current operation, including key programs, use of technology, policies, assets, and customer service orientation.
2. Identify areas for potential program refinement and/or growth to ensure that ParkFlag is well-positioned to meet the parking and curbside access needs of residents, visitors, and the business community – not only today but over the next five years.

Over the course of a two-day site visit, DIXON engaged in multiple activities to verify and deepen understanding of curbside operations in Flagstaff, including:

- **Small group meetings with City and ParkFlag staff** to confirm findings from background documentation, review daily operations, understand program strengths and pain points, and learn about upcoming parking and curbside initiatives.
- **Study Area tour**, during which DIXON covered the entire ParkFlag service area by foot and/or by vehicle.
- **Job shadowing and ride-alongs** with ParkFlag frontline team members, to observe and discuss curbside management practices, customer behavior, service orientation, and operational challenges.
- **Stakeholder engagement activities**, including in-person interviews with other city departments, Downtown Business Alliance (DBA) staff, presentation to the City's Community Enhancement Committee, and an open house for several City Commissions, were all leveraged to gather feedback on curb use, future land use changes, and improvement opportunities.

Onsite Assessment - Key Insights



As an organization, ParkFlag stood out in terms of:

- ✔ Customer service orientation
- ✔ Organizational transparency, communication, and collaboration
- ✔ Mission and service delivery alignment

DIXON also noted opportunities for continued organizational growth:

- ✔ Increased operational efficiency
- ✔ Enhanced use of technology tools
- ✔ Commitment to data-driven decision making

For detailed insight on the current state of parking and curbside operations in Flagstaff, see **Appendix A: Curbside Management Assessment**.

III. Stakeholder Engagement

The stakeholder engagement plan for this project was designed to provide valuable insight into the current experience of parking and curbside access in downtown Flagstaff. Feedback from stakeholders was used to form the recommended strategies outlined in Appendix D and Appendix E.

Stakeholder engagement strategies were selected in coordination with City staff.

Table 2. Stakeholder Engagement Strategies

Stakeholder Engagement Strategies	
In-Person	Virtual
 Small group meetings and/or presentations	 Focus group sessions
 City Council presentation	 Online survey
 Program Assessment & Job Shadowing	 Project Steering Committee

Project Steering Committee

A Project Steering Committee was assembled early in the planning process and included the City's Community Investment Director, ParkFlag Parking Program Manager, and the Executive Director of the Downtown Business Alliance. The Steering Committee met on a bi-weekly basis throughout the duration of the project and played a pivotal role in determining how community, business, and City stakeholder interests should be represented in the strategies set forth in the Curbside Management Action Plan.

Downtown Business Alliance Engagement

In addition to the participation of the Flagstaff DBA's Executive Director on the Project Steering Committee, DIXON joined ParkFlag staff for presentations at a DBA membership meeting on February 25, 2026, and presented to the DBA Board of Directors on June 25, 2026. Comments or opinions of DBA members in attendance at those two meetings include the following:

- Food delivery service providers (e.g. DoorDash, UberEats) find it difficult to park; improved communication about when/how to park would be helpful.
- Interest in adding more short-term (15-minute) parking zones.
- Strong interest in adding new parking supply paired with a request to not remove any parking for other curbside uses.
- Pay stations are sometimes unreliable and sometimes cause user frustration.

- Interest in motorcycle parking information and improved communication.
- Request for a current record of total public parking spaces – existing inventory, anticipated supply additions, etc.
- Interest in plans for alleyway activation, such as increased pedestrian and café use.

These items are addressed in the recommended strategies outlined in Appendix D and Appendix E.

Figure 2. DBA Handout



Interdepartmental Coordination

Over the course of the project, DIXON engaged with several City departments, including:

- **Community Enhancements Committee**, which includes representatives from multiple City departments focused on right-of-way use and downtown needs. The Committee raised concerns about accessibility impacts from the growing number of curbside cafés and emphasized the need to support multimodal transportation downtown, including e-scooters and bikeshare. The group also expressed support for the mobile payment platform.
- **Finance Department**, who provided insight into how recent rate increases are funding enhanced services, as well as an overview of the program’s financial stability and current financial procedures.
- **Planning, Engineering & Traffic**, who highlighted the need for a parklet policy for use of parking spaces and updating City Code provisions (City Code Division 8-03-002) for sidewalk café permitting. They noted community support for removing parking minimums, transitioning to parking maximums, and strategically adding parking downtown, as there is a perception that supply is insufficient. They also identified an

opportunity to explore a fee-in-lieu program and expressed interest in expanding micromobility infrastructure to better support public transit.

- **Sustainability and Code Enforcement**, who expressed interest in improving parking management on the south side of Flagstaff and noted ongoing efforts to expand micromobility options, including shared bikes and scooters. They emphasized the importance of public engagement and transparent communication about the costs of parking. Code Enforcement highlighted the need to improve accessibility and ensure compliance along downtown curbs. They raised concerns about sidewalk cafés encroaching on limited pedestrian space, particularly for wheelchair access, noting that Flagstaff’s narrow sidewalks are a challenge for accommodating pedestrians, wheelchair access, and café seating.

Commercial Delivery Vendor Outreach

DIXON and the City met with representatives from Nackard Pepsi to better understand delivery operations in Downtown Flagstaff. Representatives emphasized that alleyways are essential for deliveries, particularly during the snowy season. Deliveries are scheduled twice weekly, on Tuesdays and Fridays, typically beginning between 6:00 and 7:00 a.m. However, street closures, especially along Aspen Avenue between N. Leroux Street and San Francisco Street, disrupt planned routes and often require drivers to remain on-site longer than anticipated. They noted that increased enforcement of loading zones during early morning hours could help improve efficiency. Representatives also shared positive feedback, highlighting that ParkFlag Parking Aides are consistently helpful and courteous.

Online Questionnaire

In coordination with the Project Steering Committee, DIXON prepared the City’s first parking questionnaire. The questionnaire was designed to gather information on the downtown parking experience, including parking permits, paid parking technology, and curbside/loading zone access. The questionnaire was posted on the ParkFlag website and shared through various City and partner channels.

The online questionnaire was open for 32 days starting on February 10, 2026, and closing on March 13, 2026. A total of 451 responses were received from Flagstaff’s residents, business owners, employees, and visitors regarding their parking experience.

Stakeholder Engagement - Key Insights



- ✔ Both in-person and online outreach indicated a positive to very positive experience with ParkFlag
- ✔ Majority of questionnaire participants indicated difficulty finding a parking space downtown
- ✔ Challenges using the pay stations and mobile app were expressed, however 40% of questionnaire respondents have never used the app
- ✔ Delivery vehicles blocking roads and lack of short-term spaces were highlighted
- ✔ Interest in return of 15-minute parking spaces

For full questionnaire results, see **Appendix B: Downtown Flagstaff Parking Questionnaire Results**.

City Council Check-In

On May 26, 2026, DIXON and the City presented the assessment process, key findings, and draft recommendations to the Flagstaff City Council. In response, the Council provided the following feedback on the initial recommendations:

- Loading zones: Support for expanding 15-minute loading zones.
- Alleyway enforcement: Interest in increasing enforcement of alleyways used for loading.
- Staffing: Desire to ensure adequate Parking Aide staffing levels was noted, along with acknowledgement that recruitment/retention can be challenging.
- Signage and wayfinding: Interest in partnering with Discover Flagstaff to improve and beautify existing signage and wayfinding.
- Signage clarity: Support for reducing visual clutter from excess signage.
- Special events: Ensure consistent enforcement of parking during special events.

City Commission Open House

On June 24, 2026, the City and DIXON met with representatives from multiple commissions and interest groups to discuss the proposed Curbside Management Action Plan draft recommendations. Attendees included representatives from Barrier Free Flagstaff, Commission for Inclusion and Adaptive Living, and Strong Towns. Key items raised during the discussion included:

- ADA accessibility: Interest in additional ADA parking, occupancy data, and wayfinding.
- ADA Transition Plan: Support for completing an ADA Transition Plan.
- Dynamic pricing: Requests for consideration of dynamic or demand/zone-based pricing strategies.
- Alternative transportation: Support for promotion of public transit and micromobility options.
- Shared parking: Support for pursuing additional shared parking agreements.
- ParkFlag district boundaries: Interest in the expansion of the ParkFlag service area to adjacent residential neighborhoods
- Explore the feasibility of parking benefit districts.

IV. Parking Utilization Study

Dixon Resources Unlimited (DIXON) conducted a parking utilization study to inform the City of Flagstaff's 2026 Curbside Management Action Plan. The study evaluated on- and off-street parking occupancy and length of stay throughout Downtown Flagstaff and the Southside Neighborhood using vehicle-mounted license plate recognition (LPR) data collected during both winter (non-peak) and summer (peak) conditions. Collection coverage and schedules were similar across the two seasons, however due to high demand observed during DIXON's June 2026 site visit, summer collection was expanded to include early evening.

As anticipated in a seasonal community like Flagstaff, parking demand increased from winter to summer (Figure 3). Although most of the Study Area remained below the industry-recognized 85% utilization threshold, summer conditions showed heavier demand across both on- and off-street parking areas with on-street locations regularly experiencing constrained

parking availability, most notably during the 6 p.m. (evening) collection period. Additionally, parking utilization was also generally higher in areas closer to the downtown core, tapering off in locations farther from downtown.

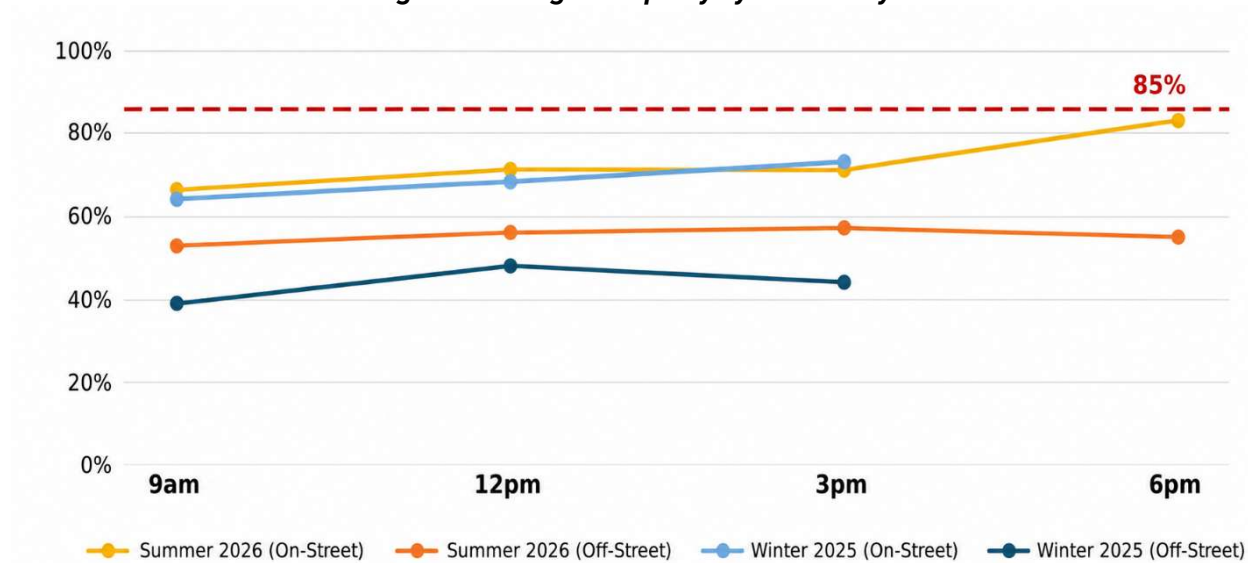
Parking demand was consistently strongest north of Route 66, where several Downtown Flagstaff streets experienced high utilization. The Southside Neighborhood was generally underutilized during winter, although E Ellery Avenue remained a consistent hotspot, in part due to its free time-limited parking. By summer evenings, overutilization had expanded along portions of the W Phoenix Avenue/W Cottage Avenue/W Benton Avenue corridor, indicating that peak-period parking pressure extended beyond the downtown core.

Parking Utilization Study - Key Insights



- ✔ Overall demand grew significantly from winter to summer. Average on-street occupancy rose from 67% to 74%.
- ✔ During the summer collection, on-street occupancy peaked at 83% at 6 p.m. Off-street occupancy was 55% at 6 p.m.
- ✔ Most vehicles were parked for three hours or less during both the winter and summer collection periods.

Figure 3. Average Occupancy by Time of Day



For more information, see **Appendix C: Parking Utilization Study**.

V. Technology Assessment

In January 2026, DIXON held two technology working sessions with the Project Steering Committee. The sessions explored current use of technology, areas of staff and reported user concern and upcoming technology projects, including:

- Pay stations, including user issues and desired hardware upgrades and software updates
- Mobile payment adoption; feasibility of a multi-app environment

- Use of License Plate Recognition for citation and parking data collection
- Permit Management System, including planned software updates and new service offerings
- Revenue reporting tools
- Sensor and camera-based occupancy solutions
- Parking guidance systems

With the ParkFlag program nearing its 10-year anniversary, the technology assessment highlighted a need to modernize the City's parking system by improving both customer-facing tools and back-end operations. A key priority is upgrading existing infrastructure, particularly pay stations, to enhance usability and overall customer experience.

These improvements, along with clearer communication and branding, are intended to make the system more intuitive and encourage greater use of mobile payment options. Equally important is expanding the use of LPR to support enforcement, improve data collection, and provide insights to guide future decision-making. Specific recommendations from the Technology Assessment can be found in the next section (Implementation Plan) under Category B: Technology and Equipment.

Technology Assessment - Key Insights



- ✔ Need for upgraded pay stations to improve user experience and payment options
- ✔ Increase use of LPR for utilization data and enforcement efficiency
- ✔ Explore possibility of a Parking Guidance System to improve wayfinding

VI. Implementation Plan Overview

The City of Flagstaff, through its parking program, ParkFlag, has built something notable among municipal parking programs of their size: an organization defined by a demonstrable commitment to customer service and a deliberate, right-sized approach to technology and infrastructure. The result is a downtown parking operation that reflects both operational integrity and a clear sense of public purpose – one that serves residents, visitors, and businesses with genuine care. The recommendations that follow are offered in that same spirit, as tools to build on and refine an already strong foundation rather than to redirect or reimagine it.

The strategies presented in this section reflect eight months of collaboration between DIXON and the City with support from the Downtown Business Alliance. They take findings from a robust operational analysis, parking data collection, and stakeholder input and translate them into a clear roadmap for advancing downtown parking and curbside management over the next three to five years.

Organized across seven Focus Areas, each recommendation is designed to strengthen ParkFlag's role as an integral part of the broader downtown experience:

A. Operational Enhancements and Personnel Development

B. Technology and Equipment

- C. Accessibility and Infrastructure**
- D. Customer Experience**
- E. Signage, Wayfinding, and Branding**
- F. Policy and Program Development**
- G. Curb Management**

Near-Term Implementation Guide

Implementation is sequenced into two phases: **Near-Term** (12-24 months) and **Mid-Term** (3-5 years), drawing on DIXON's experience building and managing municipal parking programs.

Beginning with the Near-Term Strategies, each phase includes an Implementation Quick Guide - designed to be an "At-A-Glance" tool for recommended Strategies within each Focus Area - followed by more narrative detail sharing specific implementation steps. Each Strategy is also accompanied by suggested Champions (Partners), a high-level magnitude of cost, urgency, and defined implementation steps.

DIXON has identified priorities, sequencing, and timing, however, the Parking Manager, in consultation with City leadership and the ParkFlag team, will decide how to implement based on available resources, program staff capacity, and lessons learned as early actions move forward.

The Implementation Quick Guide for both Near-Term and Mid-Term Strategies are included below. A detailed description of each strategy included in the Implementation Plan can be found in **Appendix D: Near-Term Strategies** and **Appendix E. Mid-Term Strategies, respectively.**

Table 3. Estimated Cost Key

Estimated Cost Key				
N/A	\$	\$ \$	\$ \$ \$	\$ \$ \$ \$
No new cost anticipated	Less than \$10,000	\$10,000-\$25,000	\$25,000 - \$50,000	Over \$50,000

VII. Near-Term Strategies – Implementation Quick Guide

Strategy	Champions (Partners)	Cost	Urgency	Implementation Steps
A. Operational Enhancement and Personnel Development				
A-1. Budget for and begin annual data collection - during peak and off-peak seasons.	Parking Program Manager (Lead Parking Aide)			☐ Determine if annual data collection will be done in-house, outsourced or hybrid. ☐ If hybrid/outsourced, develop a budget for annual data collection. ☐ If in-house/hybrid: ○ Develop weekday and weekend collection dates, collection hours, and preferred routes. ○ Identify collection periods to accommodate seasonality (e.g., summer, spring/fall, and winter). ○ Collect parking data across all off- and on-street parking locations, paid and free. ○ Identify a process (or partner) for data processing and presentation. ☐ Publish data reports quarterly or bi-annually to facilitate data-driven policy decisions and ensure transparency with the community. ☐ Actively monitor occupancy trends over time.
A-2. Refresh and optimize Parking Aide coverage.	Parking Program Manager (Lead Parking Aide)			☐ Evaluate current coverage routes to assess their effectiveness and identify any gaps in enforcement coverage. ☐ Increase LPR use to address gaps in current routes.

				☐ Define routes based on collected data, Parking Aide availability/shifts and enforcement needs.
A-3. Increase consistency and regularity of Southside area time limited parking.	Parking Program Manager (Lead Parking Aide)	N/A	High	☐ Refresh the enforcement coverage plan for Southside time-limited parking. ☐ Utilize LPR to track turnover and noncompliance. ☐ Proactively communicate with the Southside Neighborhood Association and Northern Arizona University (NAU) about increased monitoring, including areas of concern and/or ideas for increasing compliance.
A-4. Conduct a Parking Aide wage evaluation and explore options for increasing the applicant pool.	Parking Program Manager (Community Investment Director, Finance, Human Resources, HR)	\$-\$-\$	High	☐ Engage HR to conduct a wage evaluation and to define options for increasing applicant eligibility and/or expansion of the applicant pool. ☐ Continue to develop compensation adjustment budget proposals in partnership with Finance. ☐ Discuss with City Council and seek approval for inclusion in the upcoming Fiscal Year budget (or as a budget amendment if timing for budget inclusion is not achievable).
A-5. Continue documenting current business practices in the ParkFlag Standard Operating Procedures, adding new	Parking Program Manager (Lead Parking Aide, Human Resources)	\$	High	☐ Identify and document investment in annual staff development. ☐ Add a new Onboarding & Training section to the Parking Enforcement Standard Operating Procedures.

content/organizational artifacts as appropriate.				
B. Technology and Equipment				
B-1. Combine required bank card payment acceptance updates to the pay stations with investment in upgraded pay station technology.	Parking Program Manager, Community Investment Director (Finance, Flowbird)	\$\$\$\$	High	☐ Conduct vendor demonstrations. ☐ Discuss upgrade "needs, wants and nice to haves." ☐ Explore the feasibility of a full replacement/upgrade or a phased approach that prioritizes upgrades to pay stations in key (high traffic) locations. ☐ Budget for planned pay station technology updates. ☐ Develop an implementation plan for upgrades that includes lead time (ordering), installation, staff training, and customer communication.
B-2. Continue to address License Plate Recognition system gaps.	Parking Program Manager (Parking Aides, Passport, MinuteMan)	N/A	High	☐ Set up regular meetings to discuss system gaps with Passport, MinuteMan, and Genetec.
C. Accessibility and Infrastructure				
C-1. Complete an American with Disabilities Act (ADA) Transition Plan	Community Investment Director (Parking Program Manager, Code Enforcement, City Attorney, ADA Coordinator, City Accessibility Office, Commission on Inclusion and Adaptive Living)	\$\$	High	☐ Conduct a comprehensive ADA transition plan, including all on- and off-street parking assets, technology, programming, and communication channels. ☐ Create an annual budget for implementation of plan results.
D. Customer Experience				

D-1. Develop a marketing and/or promotional plan to increase mobile app adoption	ParkFlag (ParkMobile, Communications, local marketing partners)		Medium	☐ Identify current mobile app adoption percentage as the baseline for the campaign. ☐ Create digital graphics and/or flyers that provide step by step instructions on how to use the mobile app and the benefits of paying by mobile app. ☐ Create a video tutorial for the ParkFlag website on how to navigate the mobile app and pay successfully. ☐ Partner with local marketing partners to promote app use as the fastest, and most convenient, way to pay. ☐ Review the adoption percentage at least annually to gauge the efficacy of promotional strategies.
D-2. Implement an annual customer experience survey.	Community Investment Director (Parking Program Manager)		Medium	☐ Conduct an online survey each year to solicit feedback from the public and confirm program and budget priorities. ☐ Analyze results and share feedback on the ParkFlag website, with the DBA and in ParkFlag's Annual Report. ☐ Use community input to identify and/or adjust annual ParkFlag workplan priorities.
D-3. Promote ParkFlag's contribution to planned parking and traffic-related Community Enhancements.	Community Investment Director, (Parking Program Manager)		Medium	☐ Encourage the City and/or Contractor to provide details on where parking revenues will be reinvested into the downtown parking and traffic-related community enhancements, including specific projects and timing. ☐ Utilize approved City press and social media channels to promote the investments and include them in ParkFlag's Annual Report.

D-4. Partner with local marketing resources to create a public awareness campaign about downtown parking options - with a special focus on seasonal visitors. Leverage the DBA to amplify messaging through its membership.	ParkFlag, local marketing resources/partners (Communications, DBA)	\$	Medium	❑ Building off ParkFlag's investment in brand awareness, utilize local marketing resources to identify key messaging for visitor engagement. ❑ Create digital promotional materials. ❑ Distribute materials via social media, partner communication channels, and DBA membership
E. Signage, Wayfinding, and Branding				
E-1. Reduce regulatory and informational sign stacking	ParkFlag (Public Works)	\$	High	❑ Document all existing physical ParkFlag regulatory and informational signage. ❑ Assess which signage needs to be retained, which signage is seasonal and should be covered for part of the year, and which signage can be consolidated. ❑ Create and order magnetic covers or vinyl decals for seasonal signage. ❑ Consolidate signage where possible across the ParkFlag service area.
F. Policy and Program Development				
F-1. Pursue additional opportunities for Shared Parking.	Community Investment Director (City Attorney, Risk Manager, ParkFlag)	\$\$	Low	❑ Identify a list/map of desired shared parking locations based on parking utilization data and known supply needs. ❑ Develop a Shared Parking Agreement policy and template that identifies responsibilities for each party (private lot owner and City), including maintenance, enforcement, liability, and insurance requirements.

				☐ Seek City Attorney and Risk Manager approval of Shared Parking Agreement policy and template. ☐ Reach out to property owners and garner interest in a potential shared parking agreement.
F-2. Explore a Parking Fee-in-Lieu Program (Fee in lieu of onsite parking).	Planning and Development Services, Community Investment Director (ParkFlag)	N/A	Low	☐ Assess the City's policy and regulatory foundation (Zoning code). ☐ Leverage annual data collection efforts to confirm program viability. ☐ Outline a potential fee structure. ☐ Gather input from the development community.
G. Curb Management				
G-1. Increase 15-minute "flex zones" in high-demand locations.	Parking Program Manager, Lead Parking Aide (Public Works/Streets, DBA, commercial delivery vendors)	\$-\$\$	High	☐ Use parking utilization data and DBA/vendor input to identify locations. ☐ Work with the DBA to communicate preferred locations with business and property owners to gather feedback and/or concerns. ☐ Identify impacts on enforcement and/or monitoring feasibility. ☐ Identify signage and/or curb painting needs. ☐ Actively communicate the coming change to downtown stakeholders and the public. ☐ Include new spaces in annual data collection and user surveys to gauge efficacy and impact.
G-2. Increase monitoring and enforcement of loading zones, ADA spaces, and drive aisle infractions.	Parking Program Manager, Lead Parking Aide (commercial delivery)	\$	High	☐ Map hot spots and incorporate active monitoring into daily enforcement rounds. ☐ Refresh ADA training and documentation.

	drivers, Transportation Network Companies)			☐ Use LPR and business outreach to enhance coverage.
G-3. Continue positioning ParkFlag as an active participant and Subject Matter Expert (SME) in City planning discussions about curbside programming.	ParkFlag (Community Investment, Planning, Traffic, Engineering, Sustainability, Downtown Business Alliance)	N/A	Medium	☐ Continue participation in the Community Enhancements Committee. ☐ Work with the Community Investment Director to identify opportunities to partner with/support City departments on current and upcoming projects that pertain to curb use or parking. ☐ Implement a regular meeting cadence with the DBA Executive Director (and Board, if appropriate) to ensure open and active dialogue about parking projects, needs and/or concerns.

VIII. Mid-Term Strategies - Implementation Quick Guide

Strategy	Champions (Partners)	Cost	Urgency	Implementation Steps
B. Technology and Equipment				
B-3. Strategically expand ParkFlag's use of LPR.	Parking Program Manager, Lead Parking Aide (Community Investment Director, Finance)	\$\$\$\$	High	☐ Identify priority deployment location(s) and unit type. ☐ Identify available budget and preferred implementation timing. ☐ Develop an RFP and select a vendor. ☐ Install, test and accept new system(s).

B-4. Implement gateless Parking Access and Revenue Control (PARCS) in future structured parking assets.	Community Investment Director (Parking Program Manager, City Information Technology, mobile payment vendor(s), Flowbird)	\$\$	Low	☐ Adopt gateless access as the preferred management approach for off-street facilities. ☐ Establish new mobile payment zone(s). ☐ Configure LPR for off-street enforcement. ☐ Install Flowbird pay stations and signage. ☐ Install mobile app signage.
B-5. Explore customer-facing parking availability information.	Parking Program Manager, Community Investment Director (Information Technology, Procurement, Selected Vendor)	\$\$\$\$	Low	☐ Conduct vendor demonstrations. ☐ If demonstrated systems align with ParkFlag's goals, develop RFP requirements for a parking availability system. ☐ Evaluate and select one or more vendors. ☐ Implement the parking availability system.
C. Accessibility and Infrastructure				
C-2. Identify opportunities for additional bike racks in underutilized and/or difficult to program areas.	Community Investment Director, ParkFlag (Sustainability, Downtown Business Alliance)	\$\$\$	Low	☐ Identify high-demand locations in partnership with Sustainability, DBA, and/or the appropriate bicycle advocacy group. ☐ Identify implementation steps, required permitting, and project budget. ☐ Install bike racks, prioritizing high-demand locations. ☐ Promote availability and community benefit as part of ParkFlag's commitment to demand management alternatives.
E. Signage, Wayfinding, and Branding				
E-2. Expand ParkFlag's colorful and clever brand work.	ParkFlag (Discover Flagstaff)	\$\$	Medium	☐ Create a ParkFlag brand guide/book. ☐ Develop an annual budget for brand implementation and expansion. ☐ Prioritize creation of branded decals for parking equipment (e.g., pay stations, informational signage, vehicles).

				☐ Include ParkFlag branding whenever possible online, including special event parking materials and social media posts. ☐ Carry the ParkFlag brand through apparel worn by front line staff, including shirts, hats and outerwear. ☐ Place ParkFlag branding and mobile payment stickers on the pay stations where deemed appropriate.
E-3. Expand auto-directional and destination parking signage.	Parking Program Manager (Community Investment Director, City Public Works)	\$\$\$	Medium	☐ Confirm current signage inventory. ☐ Assess MUTCD compliance and ParkFlag brand alignment. ☐ Develop a prioritized replacement and gap-fill plan.
F. Policy and Program Development				
F-3. Identify a predictable, documented process and cadence for parking fee adjustments.	Community Investment Director, Parking Program Manager (City Council, Finance)	N/A	Medium/Low	☐ Establish a preferred cadence for parking fee review and adjustment. ☐ Define occupancy-based adjustment thresholds and strategies. ☐ Explore a more diverse Pay-to-Park rate structure. ☐ Commit to a transparent process.
F-4. Complete a municipal code review to ensure alignment with existing parking and curbside management practices.	ParkFlag, Community Investment Director (City Attorney)	N/A - \$	Medium	☐ Review municipal code to ensure all parking and curbside policies and regulations are up to date and appropriately documented. This work can be done in-house or outsourced. ☐ Where appropriate, future-proof the municipal code to allow for changes to parking rates, regulations and technology. ☐ Review code with City Attorney.

				☐ Bring code updates to City Council for review and approval.
F-5. Conduct a comprehensive review of ParkFlag's parking permit offerings, to ensure program regulations are meeting customer needs.	Parking Program Manager, Community Investment Director, Parking Aides (DBA, Southside Neighborhood Association, NAU)	\$	Medium	☐ Convene an ad-hoc stakeholder committee to evaluate current offerings. ☐ Seek City Council approval. ☐ Review and update permit policies. ☐ Utilize the annual survey to track results over time and adjust as needed.
G. Curb Management				
G-4. Conduct a new Curbside Management Study.	Parking Program Manager, Community Investment Director	\$	Low	☐ Plan and budget for a future Curbside Management Study.

Appendix A: Curbside Management Assessment

City of Flagstaff Curbside Management Assessment

Prepared for the City of Flagstaff

By Dixon Resources Unlimited

January 30, 2026

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Executive Summary

In December 2025, Dixon Resources Unlimited (DIXON) conducted a comprehensive onsite assessment to evaluate existing curbside conditions and inform the development of a Curbside Needs Assessment (Assessment) for the City of Flagstaff, Arizona (City) and ParkFlag. This Assessment was informed by materials provided by the City and ParkFlag, including current parking and curbside programs, policy information, vendor agreements, development plans, previous consultant reports and other relevant operational documentation.

The Assessment took place over a two-day site visit (December 10-11, 2025), during which DIXON engaged in multiple activities to verify and deepen understanding of curbside operations, including:

- **Small group meetings with City and ParkFlag staff** to confirm findings from background documentation, review daily operations, understand program strengths and pain points, and learn about upcoming parking and curbside initiatives.
- **Study Area tour**, during which DIXON covered the entire ParkFlag service area by foot and/or by vehicle.
- **Job shadowing and ride-alongs** with ParkFlag frontline team members, to observe and discuss curbside management practices, customer behavior, service orientation, and operational challenges.
- **Stakeholder engagement activities**, including in-person interviews with other city departments, Downtown Business Alliance (DBA) staff, and a presentation to the City's Community Enhancement Committee, were all leveraged to gather feedback on curb use, future land use changes, and improvement opportunities.

Figure 1. ParkFlag Service Area



During the site visit, DIXON had multiple opportunities to observe the great care and thoughtfulness with which both City and ParkFlag leadership and staff approach their daily work. As an organization, ParkFlag stood out in terms of:

- Customer service orientation
- Organizational transparency, communication and collaboration
- Mission and service delivery alignment

DIXON also noted opportunities for continued organizational growth:

- Increased operational efficiency

- Enhanced use of technology tools
- Commitment to data-driven decision making

The following Assessment was crafted to serve two purposes:

1. Document ParkFlag’s current operation, including key programs, use of technology, policies, assets and customer service orientation.
2. Identify areas for potential program refinement and/or growth to ensure that ParkFlag is well-positioned to meet the parking and curbside access needs of residents, visitors and the business community – not only today but over the next five years.

The information documented during this Assessment will be used to develop specific strategies and associated implementation steps for the Curbside Management Action Plan.

Introduction

Background

Launched in 2017, ParkFlag manages 1,907 public parking spaces on behalf of the City of Flagstaff, Arizona. ParkFlag’s service area stretches across on-street and off-street locations in Downtown Flagstaff, the Southside, and nearby neighborhoods. ParkFlag manages 18 off-street lots, 13 residential zones with permit requirements, and a robust set of permit offerings. ParkFlag’s mission is “to provide fair and efficient customer-focused parking management that supports downtown vitality, ensures equitable access, and improves the parking experience for employees, residents, and visitors.”

Assessment Overview

In December 2025, DIXON conducted a comprehensive onsite assessment to evaluate existing parking and curbside conditions, which informed the development of this Curbside Needs Assessment. During this site visit, DIXON conducted small group conversations with the stakeholders listed in Table 1. Additionally, DIXON participated in both walk-and ride-alongs with members of the ParkFlag’s frontline (Parking Aide) team to evaluate the current parking operation and related procedures.

Table 1. December 2025 Site Visit Participants

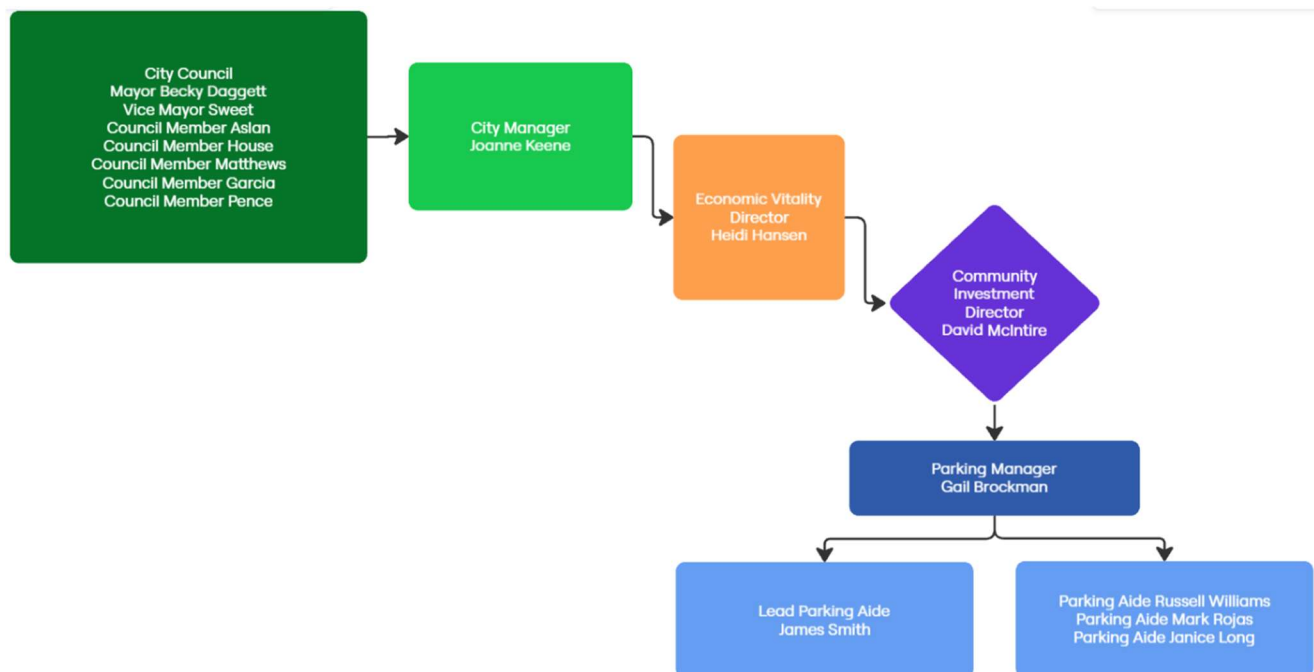
Small Group Conversations	
Community Investment Director	Parking Program Manager
Community Enhancement Committee	Finance Department
Planning Department	Traffic Department
ParkFlag Parking Aides	Downtown Business Alliance Director

In addition to the onsite assessment, DIXON gathered information regarding ParkFlag operations from written materials provided by the City and from the ParkFlag website. The following Assessment describes current parking and curbside operations and provides key takeaways that will be used to inform the recommendations made in the Curbside Management Action Plan.

Authorizing Legislation and Organizational Overview

The City has authority under Arizona state law and its City Charter to manage public rights-of-way and other City-owned property, including off-street public parking lots. To manage public parking resources, Flagstaff established ParkFlag, a City program within the Economic Vitality Division, under Flagstaff City Code Section 9-01-001-0014 Office of Parking Manager. Both the Police Department and Economic Vitality divisions participate in the hiring and onboarding of ParkFlag employees with the Community Investment Director providing guidance and supervision to the ParkFlag Parking Program Manager.

Figure 2. Organization Chart



The Parking Program Manager oversees all daily operations, including hiring, onboarding, and supervising one Lead Parking Aide and five Parking Aides. Parking Aides are authorized to enforce parking regulations under the City of Flagstaff Chapter 9-01-001-0003 which declares, "The Chief of Police and his authorized agents, including the Office of the Parking Manager (ParkFlag), are responsible for parking enforcement."

The following Municipal Codes define parking operations in Flagstaff:

Chapter 9-01-001-0003 STOPPING, STANDING OR PARKING REGULATIONS	Defines where stopping, standing, or parking a vehicle is disallowed, including specific locations. Authorizes the Chief of Police and his authorized agents, including ParkFlag, to enforce parking violations.
Chapter 9-01-001-0011 RESTRICTION OF TRUCKS AND HEAVY VEHICULAR TRAFFIC	Defines regulations for trucks and heavy vehicular traffic, including loading and unloading.

Local Context

Financial Oversight

To promote clarity and responsible financial oversight, all ParkFlag revenues and expenditures are managed in a Special Revenue Fund that was established under the Flagstaff City Code Section 9-01-001-0015. This structure ensures that all parking-related revenues and expenses are tracked independently from the City's General Fund. All funds generated by ParkFlag are dedicated solely to running, maintaining, and enhancing the parking program.

Both the City and ParkFlag should be commended for the transparency of the Special Revenue Fund structure. This structure is in line with industry best practice as it promotes transparency and facilitates clear reinvestment of parking revenues back into the district from which they were collected.

Additionally, a minimum of 20% of all gross parking revenue is placed into a designated reserve. This reserve is intended specifically to support the future acquisition and construction of needed parking facilities.

Upcoming Rate Increase

On street (Pay to Park) rates will increase from \$1.00 per hour to \$2.00 per hour in the Spring 2026. Part of the additional revenue from this increase will be used to support Parking District Enhancements (Enhancements). Anticipated Enhancements will include expanded municipal

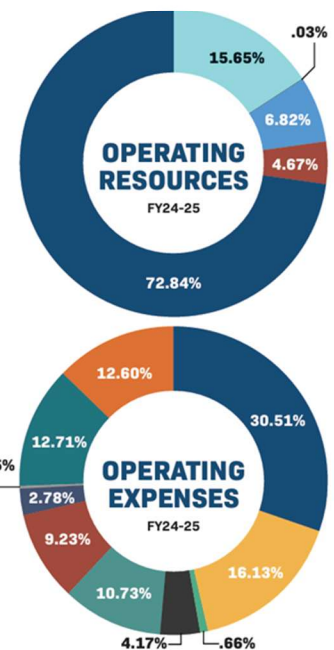
Figure 3. Special Revenue Fund

FINANCIALS

Summary of Resources & Expenditures/Uses

Resources	FY24-25
Pay to Park Revenue	\$1,156,042 72.84%
Parking Permit Revenue	\$74,213 4.67%
Interest Income	\$108,299 6.82%
Other Miscellaneous	\$441 0.03%
Parking Contributions*	\$248,472 15.65%
Total Resources	\$1,587,467
Expenditures/Uses	FY24-25
Salaries & Wages	\$278,567 30.51%
Employee Benefits	\$147,251 16.13%
Utilities	\$6,004 0.66%
Rent	\$38,037 4.17%
Credit Card Fees/Other Fees	\$97,942 10.73%
Other Misc. Services	\$84,217 9.23%
Maintenance	\$25,358 2.78%
Operating Supplies	\$4,554 0.50%
Computer Equipment & Software	\$115,978 12.71%
Debt Service Payments	\$115,025 12.60%
Total Expenditures/Uses	\$912,933
Lockbox Contributions (Restricted Funds)	
20% of Parking Revenues + Parking Contributions	\$516,271
Total Expenditures and Restricted Funds	\$1,429,204

*Parking Contributions were one-time funds paid to ParkFlag by Mountain Line for the purchase of parking spaces within the existing Phoenix Avenue lot for the continued construction of the Downtown Connection Center.



services in the downtown area, including restroom maintenance, graffiti removal, snow and cinder clearing from sidewalks and alleys, infrastructure painting, trash collection, pressure washing, weed removal, and other services as needed.

As not all requested Enhancements are directly related to public parking – and therefore eligible for Special Revenue Fund support – additional funding contributions will be made by other City departments.

The City is considering several approaches to service delivery for the planned Enhancements: managing a contract for these services directly, hiring additional staff to provide them, or partnering with a third-party provider to manage and deliver the services. Parking revenue will likely be allocated to support maintenance of parking spaces and curbs, improved signage, streetscape improvements, and other amenities that directly benefit the parking system and the downtown environment. This allocation and ParkFlag’s financial support of the Enhancements, presents an opportunity for positive community messaging about how paid parking revenues will be actively reinvested back into the community.

Prior to requesting City Council approval of the proposed Spring rate increase, ParkFlag hosted four stakeholder meetings to hear from residents and business owners about the proposed change. ParkFlag held one meeting with the Southside Neighborhood Association, one meeting targeting residents in the northern part of Flagstaff, and two other general community meetings in August 2025.

Anticipated Parking Inventory Development

The City of Flagstaff is working to identify strategic partnerships that will expand parking inventory in and around downtown Flagstaff. Together, these projects are expected to provide at least 185 new public parking spaces, with potential to reach over 200 new spaces through re-striping and other design efficiencies.

Site	Additional Spaces	Development Context
Foundation for Senior Living (FSL)	100-120	Negotiating purchase of the FSL parcel’s southern half to secure long-term Courthouse parking and preserve a future structured parking site.
The Graduate	50	Hotel project in design / historic preservation review; informal agreement for public spaces in place.
Sierra Trigo	35	Redevelopment of the Old Courthouse parcel with Sierra Trigo providing public spaces in updated designs.

Existing Conditions

Parking Locations & Rates

Public on-street spaces are monitored by ParkFlag:

- **Weekday:** Sunday through Thursday: 9 a.m. – 5 p.m.
- **Weekend:** Friday and Saturday: 9 a.m. – 8 p.m.

As previously mentioned, Pay to Park rates in the ParkFlag district are set to \$1.00 per hour for both on-street and off-street parking locations. This rate is set to change in 2026, increasing to \$2.00 per hour. Notably, private off-street locations in the ParkFlag district average a rate of \$4.00 per hour.

Figure 3. ParkFlag Parking Inventory

Location	30 minute	ADA	Amtrak Employee	Carpool	Council & Commission	EV Charging	F1 Permit	Facility	Mayor	Pay to Park	Permit	Reserved Permit	RV	TOTAL
Aspen/Beaver Lot		5								75				80
City Hall		5				4			1		106			116
County Building (NW Riles & Cherry)	3	8			3			2			16			32
County Building (SE Riles & Cherry)	2	3			5	4		3			50			67
County Courthouse Reserved Lot		1										12		13
County Fiduciary Building (Leroux)		2									26			28
Foundation for Senior Living	3	5								82				90
Leroux Lot		9								2				11
Lumberyard		4								45				49
Phoenix Lot East (U-Shape)		1								38			6	45
Phoenix Lot West		5								62				67
South Beaver Lot		2								22				24
Train Lot	7	5	3			4				26				45
Wheeler Lot	6	3		1	8		15	1		17				51
TOTAL	21	58	3	1	16	12	15	6	1	369	198	12	6	718

Parking Permit Programs

Flagstaff offers several types of parking permits to accommodate the needs of employees, residents, agencies, and special users.

- **Employee permits** cost \$10.00 per month. Employee permits are separated by the North and South regions of the ParkFlag district. They are also available for contractors doing work in the ParkFlag district.
- **Facility permits** are provided at no cost and are designated for specific public agencies or facilities, including County F5, City F1/F2, Visitor Center (VS), and the Airport (FA).
- **Encroachment permits** are issued for short-term use of public parking spaces by trailers, dumpsters, maintenance crews, or delivery vehicles. These permits are issued at a rate of \$5 per space, per day.
- **Amtrak permits**, priced at \$8 per day, support Amtrak passengers and rideshare users, such as participants in large events like Cocodona.
 - Amtrak permit holders are allowed to park in the Phoenix Avenue Parking Lot and are exempt from posted pay-to-park requirements
 - Permit holder must be an Amtrak rider
- **Residential permit** options depend on housing type. Single-family residential permits are free, with one permit available per water meter, while non-single family residential permits cost \$60.00 per month and apply during the winter season (November through March) from midnight to 9 a.m.
 - Residential permit holders are allowed to park in any "Pay by Plate Parking - E Permit Exempt" space, and when parked, are exempt from posted pay-to-park and/or parking time-limit requirements.
 - Additionally, in established residential permit zones, households receive one free annual permit, with tiered annual pricing for any additional permits needed.

Figure 4. Employee Parking Locations



The ParkFlag Parking Rate & Fee Analysis Report (2025) identified potential updates to the ParkFlag district permit program, including the addition of two new permit types priced at \$10.00 per month in accordance with the existing fee schedule:

- **Construction Employee Permit:** For construction workers in the downtown area. Permits follow the same process and restrictions as Employee Permits; permits must be purchased and managed through the online permit portal, with parking restricted to designated employee zones.
- **Vendor Employee Permit:** For sales representatives from various industries (e.g., beer, food, retail). Permits must be purchased and managed through the online permit portal, with parking restricted to designated employee zones.

Other Curb Activities & Programs

Several other curb lane activities and/or programs were observed during the site visit or through conversations with City staff. Each program is briefly described below, including activity type or program purpose and cost (if applicable). All programs are managed by ParkFlag, unless otherwise noted.

Loading Zones

Commercial trucks may use designated commercial loading zones, which are located primarily in alleyways, for up to 45 minutes between 9 a.m. and 6 p.m., except on Sundays. Several alleyways have been improved for pedestrian access and activation, some with street furniture and aesthetic features. These improvements contribute to the walkability and activation of downtown; however, a noted tradeoff is less space for necessary commercial loading activities.

Figure 5. Loading Zone



There are two designated on-street loading zones within the study area, one located on Leroux Street and another at the intersection of Aspen Avenue and Beaver Street. Both loading zones are limited to 30-minute use and are active from 6 a.m. to 10 a.m. These spaces are intended to support commercial loading and unloading activities serving nearby businesses.

Despite the presence of these designated zones, loading and unloading frequently occurs within active travel lanes rather than within the marked loading areas. Taxis and rideshare vehicles were observed frequently loading and unloading passengers in the commercial core - taking any available curb or drive aisle space - which contributes to congestion within the Pay to Park district.

Current enforcement practices were observed to allow flexibility for unloading activities on one-way streets, where temporary stopping is less likely to impede traffic flow. In contrast, on two-way streets, enforcement staff report issuing warnings to drivers who block travel lanes, as these activities can disrupt traffic circulation and create safety concerns.

Parklets

Parklets are small, sidewalk-level areas created by converting one or more curbside parking spaces into an extension of an existing downtown business, such as a restaurant or brewery.

Flagstaff has one active parklet pilot, and the City is currently developing an application to guide review and implementation of future requests. For the pilot, the City is charging a fee per parking space occupied of \$2,920, or \$8 per day. As part of the Curbside Management Action Plan, DIXON committed to providing recommendations on industry best practice language, lessons learned and pricing to include in the application.

Food Delivery Services and Transportation Network Companies (TNCs)

Food delivery services such as Uber Eats, DoorDash, and Grubhub are commonly used as a convenient way to have meals directly delivered to individuals or businesses. Many establishments in downtown Flagstaff subscribe to these services. Additionally, ride-sharing is a popular and convenient transportation solution for individuals visiting Downtown Flagstaff. Transportation Network Companies (TNCs) and food delivery services have been observed by ParkFlag staff – and by DIXON during the site visit – using loading zones and/or Pay-to-Park spaces for passenger food delivery and passenger pick-up/drop-off. Most notably, ParkFlag reported that food delivery services and TNCs have been observed to utilize available Americans with Disabilities Act (ADA) spaces or/and double park in travel lanes. These parking behaviors lead to congestion and noncompliance in the ParkFlag district and will be addressed in the recommendations of this planning effort.

Mountain Line

Mountain Line is Flagstaff's public transit system and plays an important role in providing mobility throughout the city. The system connects key destinations, including downtown Flagstaff, Northern Arizona University (NAU), residential neighborhoods, and major employment and commercial centers. Mountain Line offers regular service on core routes and expanded service during peak periods, supporting both residents and visitors. By providing an alternative to driving and parking, Mountain Line helps reduce demand for downtown parking, supports access to local businesses, and contributes to the City's broader transportation and sustainability goals.

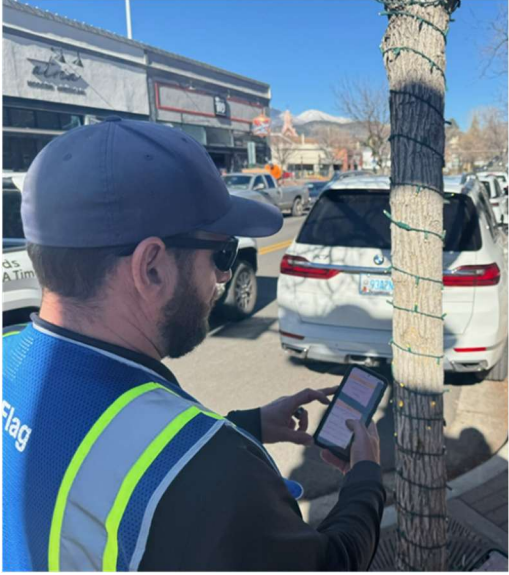
Figure 6. Mountain Line



Technology Overview

ParkFlag uses the following technology vendors for parking operations and enforcement purposes.

Technology Type	Description	Site Visit Notes
Flowbird Multi-Space Payment Kiosks	104 multi-space pay-by-plate Parkeon kiosks, which receive scheduled bi-annual maintenance, with trouble shooting and repairs performed as needed.	Occasionally, kiosks fail to display active sessions. Customers show payment receipts on the vehicle's dashboard. Currently, the City is interested in tap-to-pay upgrades. Figure 4. Pay Station 
Flowbird (ParkMobile) Mobile Payment	Mobile payment is offered as an option throughout the Pay-to-Park service area. This convenient option is available for transient parking payments both on-street meter transactions and in off-street parking lots.	City staff reported that approximately 3% of users are experiencing issues with the mobile payment system and unable to access the app at ParkFlag's specific site location.
Passport Citation and Permit Management	Parking citation and permit management are contracted with Passport.	City staff are satisfied with Passport for citation issuance. Citation, appeal, and permit reports are performed daily.
Android Phones + Printers	Parking Aides use Android phones and Bluetooth Zebra ZQ32 printers to check permit privileges, scofflaw lists and issue citations in the field.	Android phones are replaced every five to seven years. The handhelds and printers are working well with minimal issues reported.

	Figure 5. Android Phone 	
Genetec Mobile License Plate Recognition (LPR)	One vehicle-mounted LPR unit Figure 6. LPR Vehicle 	ParkFlag reported several ongoing operational issues with its LPR system. Plate reads remain inconsistent, especially for vehicles parked at angles, back-in spaces, corner spots, or those with Electric Vehicle and/or temporary paper plates, all of which reduce the reliability of enforcement. While recent software updates have improved mapping, location accuracy still reaches only about 70-80% in some areas, leading to misplaced reads and limiting the usefulness of occupancy data.

ParkFlag also maintains active vendor contracts that support these technologies, including a Flowbird contract through the OMNIA cooperative, which recently completed a two-year extension, and a Passport contract amendment currently in progress that will provide a four-year extension for citation and permit management services.

Signage & Wayfinding

Within the ParkFlag district, destination signage is provided at each public parking lot and along on-street spaces to help guide users to available parking. However, public parking areas

Figure 8. Stacked signage **Figure 7. Private parking signage**



can at times be confused with nearby private parking facilities, which are actively enforced and subject to towing. Enhancing the distinction between public and private parking would help reduce unintentional violations, particularly for visitors unfamiliar with the area.

The City has also installed signs identifying permit parking zones and seasonal parking restrictions. While this information is valuable, some signs contain multiple layers of information and may be challenging for users to interpret

quickly. On the Southside of the district, several signs have been vandalized with stickers placed over them, which can affect visibility and clarity. Addressing these issues would improve overall legibility and user experience.

In addition, there is an opportunity to strengthen wayfinding and directional signage leading to public parking facilities. More consistent and visible wayfinding could help drivers locate public parking more efficiently, reduce unnecessary circulation, and improve overall traffic flow within the district.

Electric Vehicle (EV) Charging

Electric vehicle (EV) charging stations are conveniently located in Downtown Flagstaff at these key spots:

- Near the Downtown Flagstaff Visitors Center entrance, just off Beaver Street. 1 E. Rte. 66
- In the Flagstaff City Hall parking lot. 211 W. Aspen Ave.
- In the County parking lot, specifically the southern lot with an entrance off Verde St. 219 E. Cherry Ave.

ParkFlag plans to add an additional four EV charging stations in the Wheeler lot.

Figure 9. Electric vehicle parking



Enforcement

Staffing

ParkFlag currently has one full-time equivalent (FTE) Parking Program Manager, one FTE lead Parking Aide, and five (5) FTE Parking Aides. Additionally, the Community Investment Director oversees ParkFlag operations. Parking Aides are considered unarmed police aides with the

authority to issue parking citations as well as enter citation data into parking and police information systems. One of the five FTEs is funded by the Flagstaff Municipal Airport for enforcement and gate maintenance.

The current enforcement staffing shift schedule follows:

Day of Week	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Shift Coverage	2 Parking Aides	2 Parking Aides	2 Parking Aides	2 Parking Aides	2 Parking Aides	2 Parking Aides	No coverage
Enforcement Hours	9 a.m. to 5 p.m.	9 a.m. to 5 p.m.	9 a.m. to 5 p.m.	9 a.m. to 5 p.m.	9 a.m. to 8 p.m.	9 a.m. to 8 p.m.	9 a.m. to 5 p.m.

ParkFlag is currently interviewing candidates to fill one additional position, which will bring the total to six FTE Parking Aides.

Parking Aide duties include:

- Regulation of paid parking spaces
- Enforcement of parking ordinances
- Issuance of citations and warnings of violations
- Placing and removing boots on scofflaw vehicles
- Testifying in court
- Community relations and customer service
- Facilitation of towing non-compliant vehicles

Training

All new Parking Aides are trained using a combination of classroom and field-based learning. ParkFlag uses written training materials, including:

Figure 10. ParkFlag Parking Aides



Standard Operating Procedures (SOP) Manual (2020), which provides direction on recording citations and issuing citations, expectations for court appearances and court statements, direction on ParkFlag permits and enforcement guidelines, guidance on de-escalation and reporting misconduct.

Parking Aides also receive comprehensive field training - with up to two weeks of job shadowing with a more seasoned Aide - to ensure citations are issued accurately, fairly, and consistently. They are trained to exercise discretion in determining whether a violation should result in a courtesy warning (no fine) or a formal citation (monetary fine).

For vehicles with no prior record, a warning is typically issued first unless the violation clearly warrants an immediate citation. For vehicles with previous violations, certain infractions, such as Pay-to-Park, Parked Without Permit, and Expired Meter codes, are issued in a consecutive order based on the vehicle's

citation history.

ParkFlag ADA Citation Policies and Procedures, which supports uniform and equitable enforcement of ADA parking requirements while recognizing applicable legal and operational considerations. These standards guide officers in carrying out their duties in a manner that advances accessibility and regulatory compliance.

Scope of Authority for Unarmed Police Aides, which defines and records the responsibilities and enforcement boundaries of unarmed police aides working for the City of Flagstaff. Under state statute, Parking Aides in Flagstaff are designated as unarmed police aides, and this policy applies specifically to ParkFlag.

Booting Policy, which outlines the procedure for booting vehicles.

Policy Update: Overtime Parking & Reparking Citations (2024), which explains that overtime citations must be issued within 2 hours and 30 minutes of the initial chalking and reparking citations must be issued within 4 hours of the first chalking.

Customer Service Orientation

It was immediately clear during DIXON's December 2025 site visit that ParkFlag has an organizational culture that prioritizes education over citation, including issuance of warning notices for first-time parking violations. This approach reflects ParkFlag's commitment to helping the public understand parking regulations before enforcement actions are taken. It

also is true to the original intent of the ParkFlag program, and it was very refreshing to see such strong alignment with the organization's founding goals nearly a decade later.

ParkFlag Parking Aides were observed delivering a positive and customer-first service experience by applying parking regulations fairly while serving as a valuable resource for the downtown community. In one instance, a Parking Aide stopped to assist a motorist who was having trouble with a payment kiosk. The Aide quickly helped the customer, so they could continue on and patronize a local ice cream shop. The Aide then immediately performed a diagnostic test on the kiosk. Parking Aides were observed striking a positive balance between providing outreach and education, while also performing regulatory duties. This type of ambassadorial approach fosters a welcoming and informed environment for visitors and residents alike, which is truly meaningful in a tourist-supported community like Flagstaff.

Citations & Adjudication

Citation Process

Parking Aides reported active adherence to the following citation issuance guidelines:

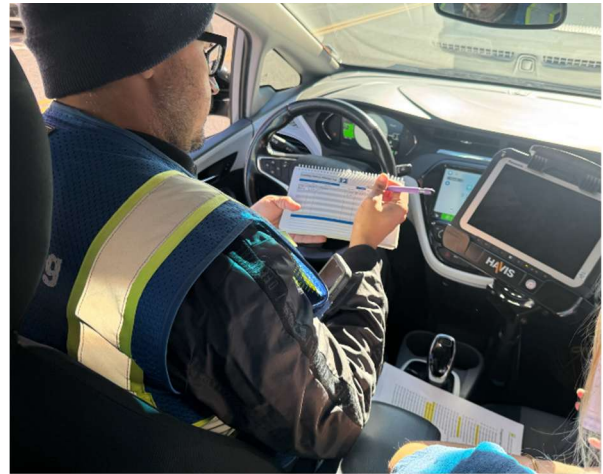
- **Warnings First:** Parking Aides issue a warning prior to issuing a citation, consistent with the approach used for pay-to-park violations.
- **Annual Reset:** Each vehicle is eligible for one warning per year. If no citation is issued within a 12-month period, the warning cycle resets.

During the DIXON site visit, Parking Aides were also observed to be in alignment with ParkFlag SOPs, demonstrating the following steps to issue a citation:

1. **Vehicle Identification:** Enter the vehicle's license plate number and select the state of registration, ensuring all letters and numbers match exactly.
2. **Prior Record Check:** Use the enforcement software to search the license plate for any prior citations or relevant history.
3. **Vehicle Details:** Record the make, model, color, and style (e.g., sedan, truck) of the vehicle.
4. **Violation Selection:** Select the appropriate violation, taking into account the vehicle's history and the circumstances of the infraction.
5. **Location Documentation:** Record the street name and block number where the violation occurred.
6. **Additional Notes:** Enter any relevant information in the "Private Comment" section of the software for accurate back-office tracking.

7. **Photographic Evidence:** Take a minimum of two photos—one of the license plate (temporary or state-issued) and one or more showing the violation and its surroundings. Whenever possible, include legal signage in the photos to support the citation. Clear photos strengthen the evidence and help ensure the citation is upheld.
8. **Verification and Issuance:** Review all entered information for accuracy, make necessary corrections, and print the citation. Include any helpful notations by hand. The citation is then placed on the vehicle—under the windshield wiper for cars, or appropriately on the seat or straps for motorcycles.

Figure 11. Citation Process



This systematic approach ensures that Parking Aides enforce regulations fairly while maintaining professionalism, accuracy, and transparency in every interaction.

Citation Data Assessment

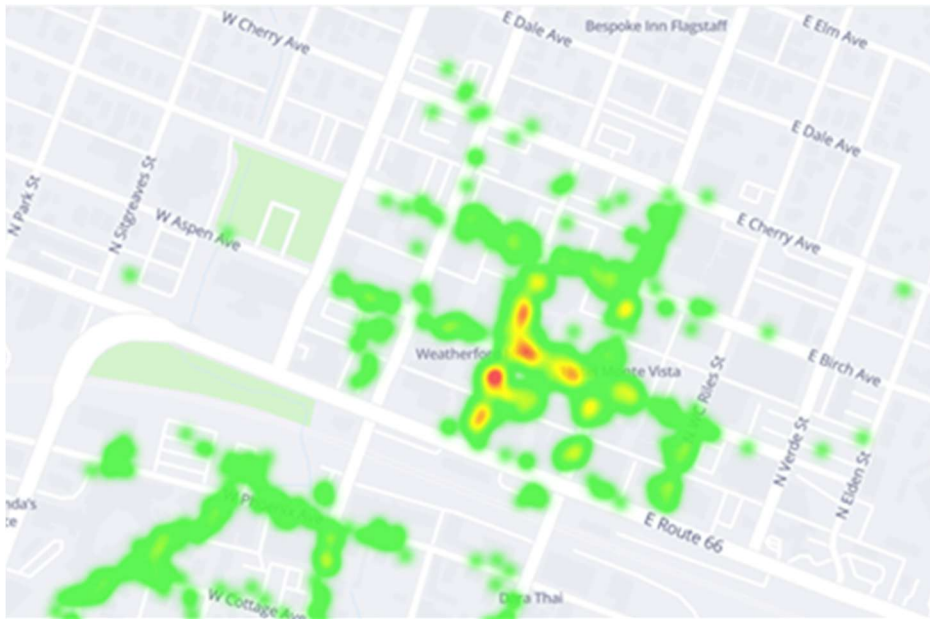
DIXON conducted a high-level assessment of common parking infractions, including a summary breakdown of common infractions to better understand the current enforcement landscape, identify potential gaps in enforcement coverage, and recognize hot spots of enforcement activity. This assessment was conducted using citation reporting provided by the City.

The most frequent citations by violation include:

- Failure to Pay Meter
- Overtime Parking
- Not Parked within Lines/Markings
- Parked Where Signs Prohibit
- Disabled Space Violation

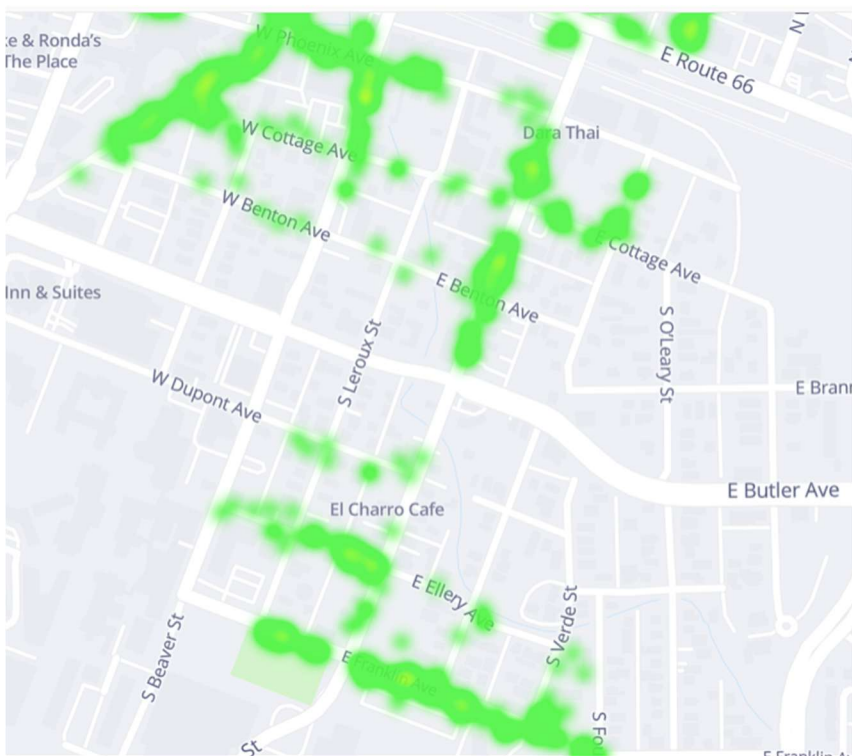
Additionally, the City provided the DIXON team with the following heat maps to analyze citation distribution across the study area.

Figure 12. Northside Citation Density



Based on data provided by the City, most citations are issued along the paid parking streets of E Aspen Avenue and N Leroux Street, in the core of Downtown Flagstaff.

Figure 1513. Southside Citation Density



The Southside portion of the Study Area receives the highest concentration of parking citations along West Phoenix Avenue, particularly near the Phoenix Avenue parking lots. The area also experiences an increase in citations along East Franklin Avenue, which borders the Northern

Arizona University campus. Both streets are subject to paid parking regulations, operating from 9 a.m. to 5 p.m. Sunday through Thursday, and from 9 a.m. to 8 p.m. on Friday and Saturday.

Overall, the citation heat maps show a relatively even distribution of enforcement activity throughout the study area, closely aligned with paid parking zones. There are no evident gaps in parking enforcement coverage and/or areas of excessive coverage.

Adjudication

In May 2024, ParkFlag implemented a new citation resolution process that allows 15 days for motorists to resolve citations directly with ParkFlag before cases are referred to Municipal Court. This process change followed a system overhaul that revealed a surplus of unpaid citations accumulated under the prior system. Once referred to Municipal Court, citations enter a lengthy court process that functions similarly to collections.

However, most appeals are resolved administratively by the Lead Parking Aide or ParkFlag Manager. ParkFlag staff reported a lenient approach to handling appeals, when the appellant is engaged, responsive and not a frequent offender or scofflaw.

ParkFlag Opportunities

The following opportunities for operational, programmatic and policy enhancement have been identified to continue strengthening ParkFlag's guiding principles of **customer service, fairness and transparency, efficiency, sustainability, safety and accessibility, community partnership, and financial responsibility**.

They should be considered a starting point for discussion with ParkFlag and City staff, key partners like the Downtown Business Alliance and the broader community.

During the next phase of the Curbside Management Action Plan, DIXON will work closely with ParkFlag to refine these opportunities into specific, actionable recommendations that include implementation timing, key partners, cost considerations and ongoing operational considerations.

It is important to note that the opportunities included below are just a starting point – grounded in both the written materials provided by City and ParkFlag staff – as well as the December 2025 site visit. Other project tasks still in motion, notably the parking utilization analysis, additional stakeholder outreach (via virtual meetings and an online survey), and technology review, will all highlight additional opportunities that will be included in the draft Curbside Management Action Plan.

Parking Aide Development, Training and Compensation

ParkFlag's commitment to a customer-first approach is apparent at every level of the organization from management to the front line. Continued investment in supporting the Parking Aides – as key downtown ambassadors – will allow ParkFlag to continue its strong commitment to community service.

- Define Parking Aide coverage routes to ensure consistency across the entire service area.
- Increase consistency and regularity of Southside area time limited parking.

- Conduct a Parking Aide wage evaluation.
- Document updated hiring processes (e.g., expanded interview teams).
- Evaluate the opportunity to provide parking citations by mail or invoice.
- Provide and document regular/ongoing annual training opportunities for Parking Aides.

Signage, Wayfinding and Branding

Signage and wayfinding play an important role in the parking and curbside access experience in any community, however they play an even more important role in a tourism-driven economy like Flagstaff. Investments in signage and wayfinding represent an opportunity to improve clarity, reduce confusion, and enhance overall usability of the ParkFlag system. Opportunities include:

- Extend the ParkFlag brand throughout all auto-directional and destination signage.
- Reduce sign stacking wherever possible with consideration for the use of hoods and/or magnetic covers to conceal seasonal signage.
- Refresh the pay station decals.
- Extend the ParkFlag brand onto pay stations in a consistent way, looking for opportunities to decrease the number of decals.

Technology and Equipment

ParkFlag has invested wisely in technology solutions that both complement and extend the reach of staff. Increased use of existing technology investments and addressing identified service issues will pay dividends for continued program efficacy, including:

- **Expand use of existing Mobile License Plate (LPR):**
 - Implement regular, annual parking utilization data collection – in both peak and non-peak seasons.
 - Increase regular utilization for citation and permit management, especially during shifts where only one Parking Aide is present.
 - Consider using a combination of mobile LPR and transaction data to provide customer-facing parking availability information.
 - Address LPR misreads with the service provider
 - Consider installation of safety cameras on the LPR vehicle
- **Pay Stations**
 - Conduct a Flowbird performance review
 - Develop a marketing and/or promotional plan to increase use of Flowbird Mobile app

Accessibility and Infrastructure

Accessibility and curb infrastructure present opportunities to better support alternative modes of transportation while reducing demand on parking resources and promoting a more equitable Flagstaff. Opportunities to promote accessibility and improve infrastructure include:

- Perform an ADA compliance audit for off-street and on-street public parking assets to ensure compliance with recent Public Right-of-Way Accessibility Guidelines (PROWAG) guidelines.
- Update/refresh ADA stall striping in off-street parking areas.
- Identify opportunities for additional bike racks in underutilized and/or difficult to program areas, including continued consideration of artistic/design elements.
- Position ParkFlag as an active participant and Subject Matter Expert (SME) in conversations about impactful curbside programming, e.g., Parklets. ParkFlag is well-positioned to help ground truth programming assumptions and bring operational lessons learned from other communities to the planning table.

Customer Engagement and Education

To build upon ParkFlag's demonstrable customer service orientation, additional investment in education, including establishment of regular, annual customer touchpoints are recommended:

- Expand ParkFlag's colorful and clever brand work - into signage, special event parking materials, staff apparel and infrastructure decals. This will continue strengthening the differentiation between ParkFlag's service offerings and privately managed, but publicly available, parking.
- Increase public education about the benefits and convenience of using the Flowbird app.
- Implement an annual customer experience survey and include year-over-year ratings in ParkFlag's Annual Report.
- Partner with other City departments to produce a public information campaign detailing the planned Community Enhancements.
- Continue building on ParkFlag's relationship (and proximity!) to the Downtown Business Alliance (DBA), including opportunities for regular written and/or presentation updates to the DBA board and membership.

Policy and Program Development

Thoughtful and continuous evaluation of policies and procedures that reflect industry best practice and align with ParkFlag's mission can continue positioning the organization as a trusted community partner. Opportunities to enhance program development include:

- Conduct a review of the municipal code to ensure alignment with existing parking and curbside management practices, and to prepare for future programming.
- Implement a regular cadence and documented process for parking rate increases, including consideration of more market-based permit pricing, with the flexibility to adjust rates by facility type and geographic area as conditions and demand evolve.
- Actively explore additional opportunities for Shared Parking Agreements that could increase publicly available parking supply without major capital investment.
- Partner with the DBA to promote a fun and positive promotional campaign - with a special focus on seasonal visitors - to help encourage awareness of ParkFlag's free and paid parking options. (e.g., "We Have a Space for You" or "We've Got a Space for That").

- Explore the potential to expand residential parking permits.
- Consider a fee-in-lieu program.
- Explore park-and-ride/roll/scoot options in connection with local partners like Mountain Line, NAU, and the City's sustainability department (especially considering the ongoing work to bring bike/scooter share back to Flagstaff).

Curb Management

Effective curb management can help ParkFlag balance community needs while ensuring that commercial activities have access to the designated curb space required for daily operations.

Recommendations include:

- Partner with the DBA to create a limited term, ad-hoc Curbside User working group – made up of TNC service providers, delivery drivers and commercial delivery drivers – to provide feedback on the efficacy of current curbside regulations and to vet new policy/program decisions.
- Re-establish strategically located 15-minute zones to provide rideshare, food delivery and other non-commercial delivery vehicles with well-defined and consistent curbside access locations.
- Establish a regular cadence for collecting utilization data for special curbside uses, including 15-minute zones and flex commercial loading zones. Utilize this information to implement and/or adjust curbside policy and programs in a data-driven and transparent manner.
- Increase monitoring and enforcement of loading zones, ADA space and drive aisle infractions by TNCs and food delivery services. Consider limiting and/or bypassing warnings for repeat and/or more serious offenders (e.g., those that use ADA spaces).

Appendix B: Downtown Flagstaff Parking Questionnaire Results

As part of stakeholder engagement efforts, the City conducted an online questionnaire from February 10, 2026 to March 13, 2026, to solicit feedback from the public regarding their experience with parking and curb use in Downtown Flagstaff.

The online questionnaire was open for 32 days starting on February 10, 2026, and closing on March 13, 2026. A total of **451 responses** were received from Flagstaff's residents and visitors regarding their parking experience.

Each graph provides the question asked, the answer choices, and the number of responses per answer choice. The graphs are accompanied by relevant insights from the response data.¹

Summary of Key Takeaways

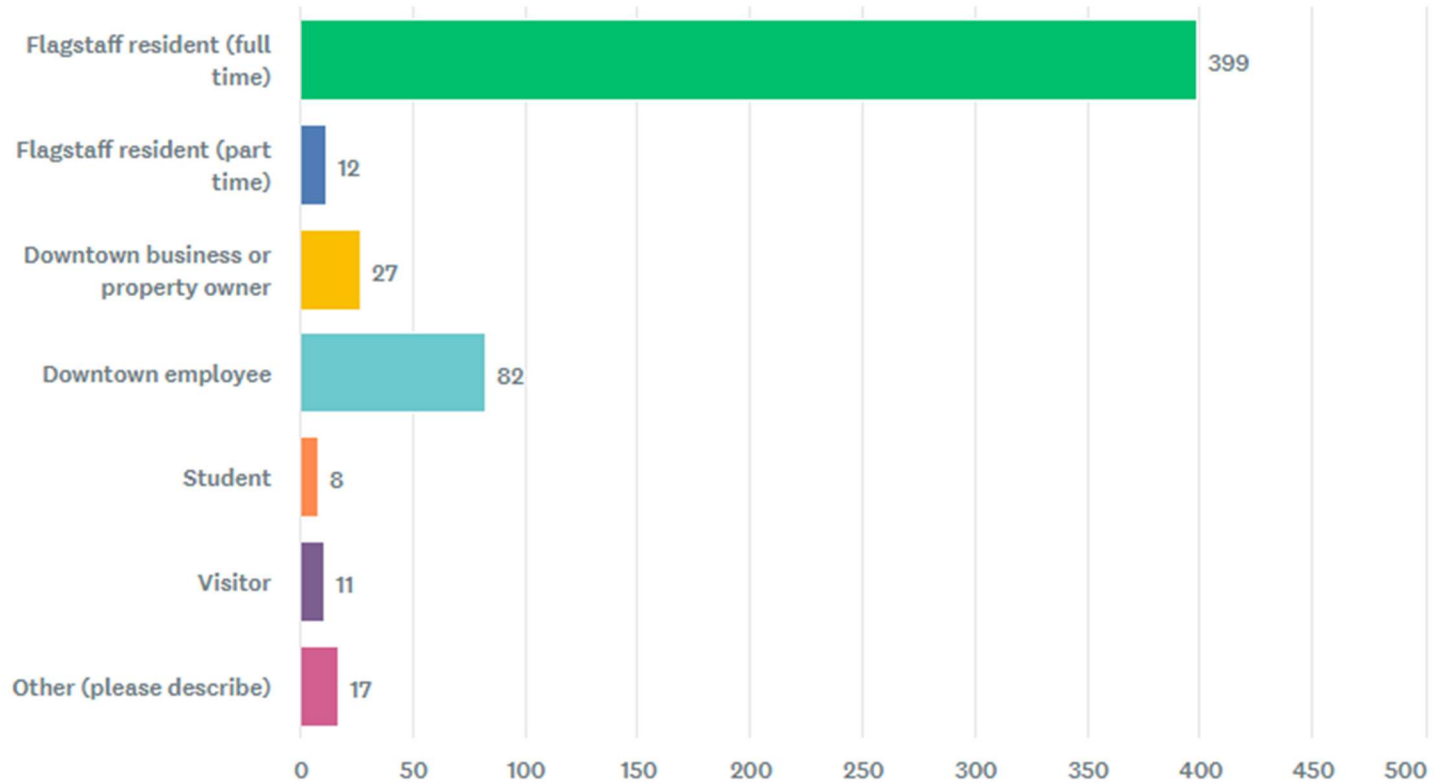
Below is a summary of key takeaways and findings from the online Questionnaire.

- Most respondents are full-time Flagstaff residents.
- Most respondents visit Downtown Flagstaff weekly.
- The majority of respondents spent over an hour Downtown during their most recent visit.
- Delivery drivers report a lack of available loading zones.
- Over 80% of respondents do not purchase parking permits.
- Over 60% of respondents note that finding available parking is an issue in Downtown Flagstaff.
- Over 40% of respondents note that deliveries blocking roads and a lack of short-term parking are issues in Downtown Flagstaff.
- Over 60% of respondents typically use the pay station or kiosk to pay for parking.
- Over 40% of respondents have never used the pay-to-park mobile app.
- Respondents typically prioritize convenience over cost when looking for a parking space.
- The majority of respondents feel neutral to very satisfied with the current parking experience in Downtown Flagstaff.
- The majority of respondents would like to see additional or modified short-term parking spaces.

¹ Please note that data labels reflect total responses; questions limited to specific user groups (e.g., permit holders, commercial delivery drivers) received fewer responses.

About You & Your Most Recent Trip Downtown

Question 1. Which of the following best describes you? Select all that apply.



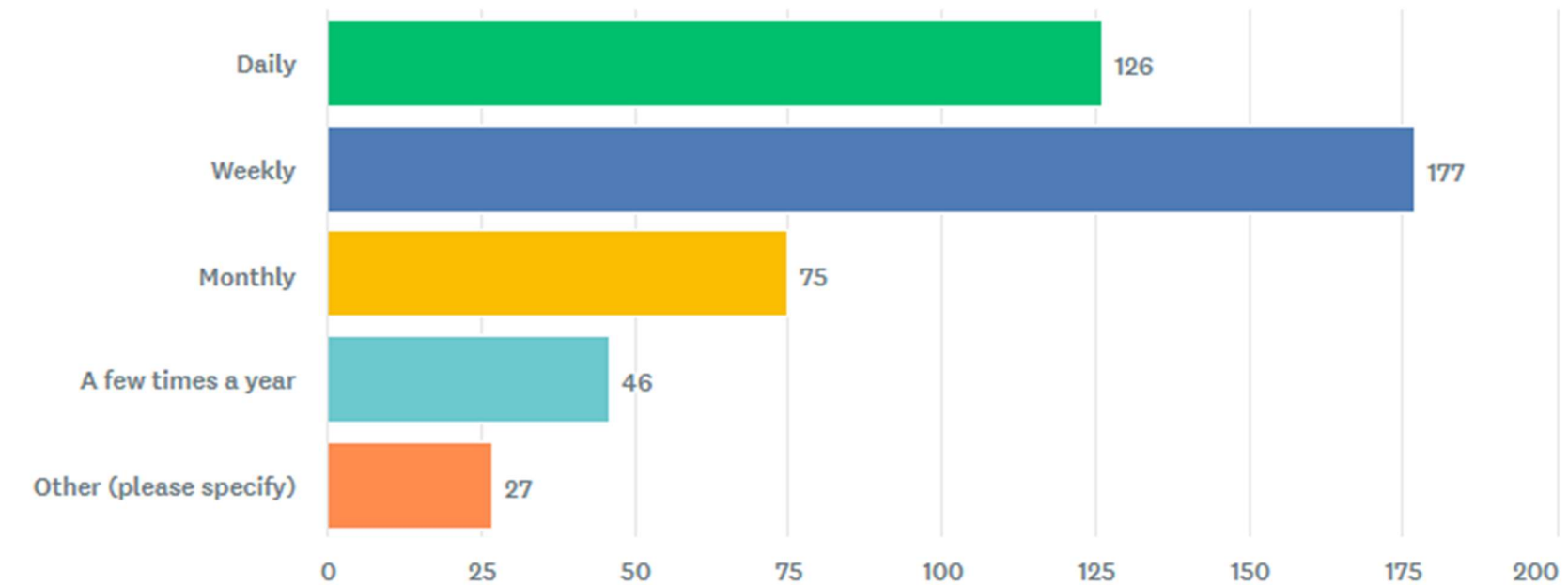
Of respondents who listed "other," key themes are as follows:

- Former residents, local to the area
- City employees
- Delivery drivers

Question 2. What is your zip code?

- 41% of respondents listed 86001.
- 34% of respondents listed 86004 as their zip code.
- 17% of respondents listed 86005 as their zip code.
- 25 unique zip codes were listed by respondents.

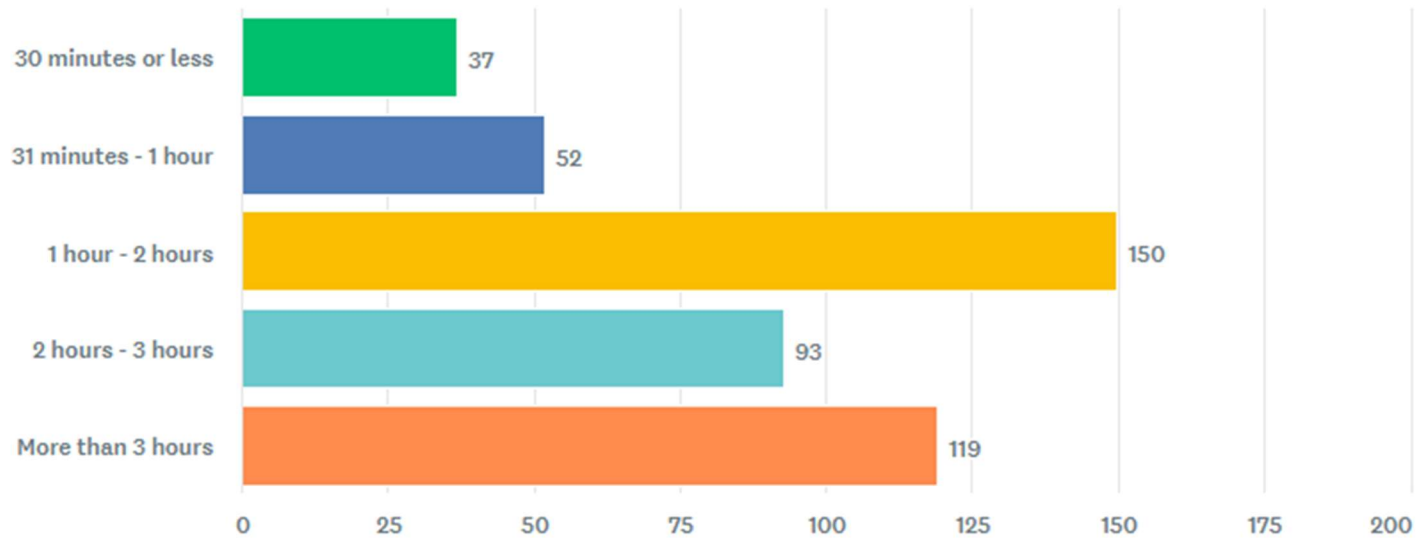
Question 3. How often do you visit Downtown Flagstaff?



Of respondents who listed "other," key themes are as follows:

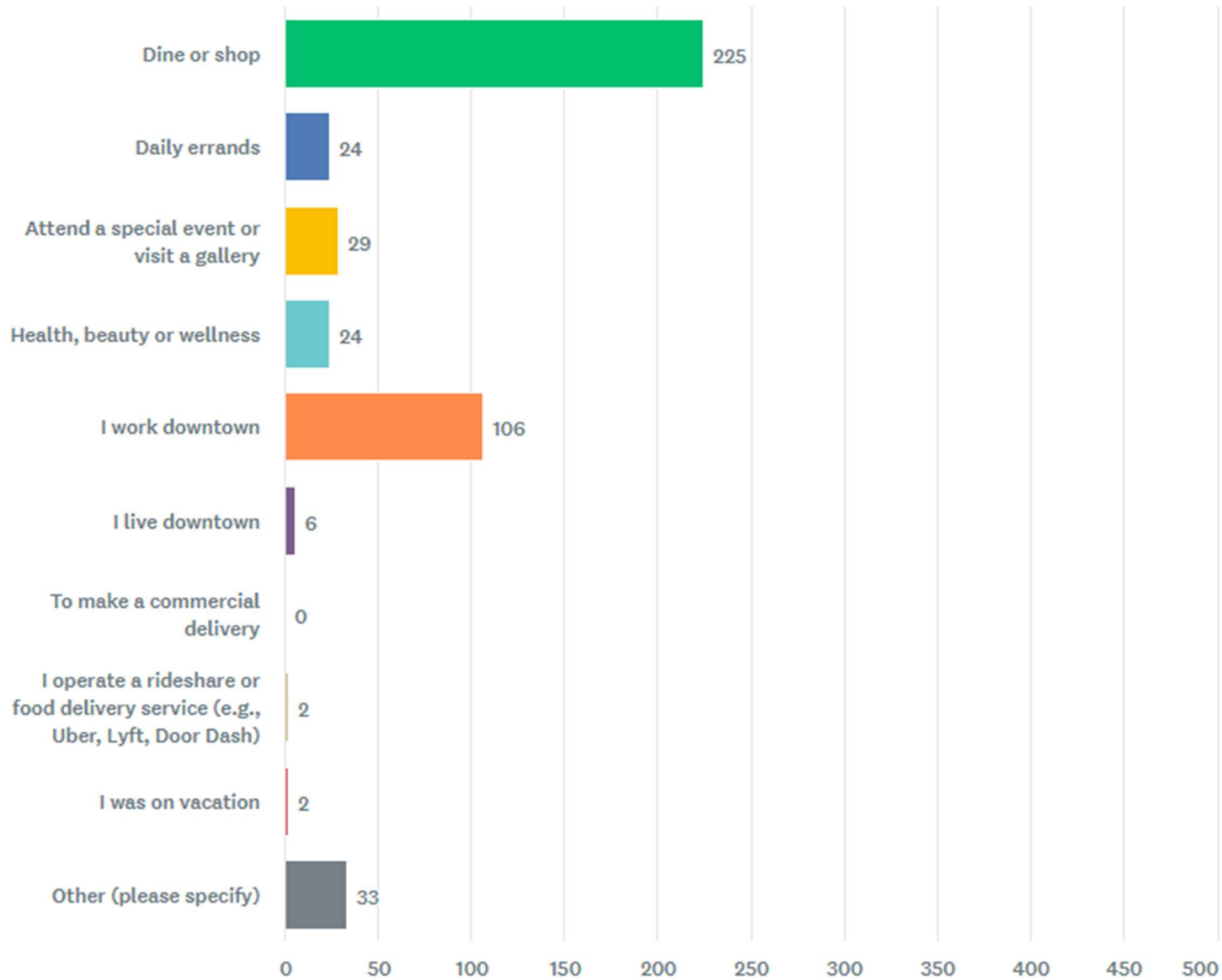
- Multiple times a week
- Rarely due to paid parking

Question 4. How long was your most recent trip to Downtown Flagstaff?



The majority of respondents spent over an hour in Downtown Flagstaff. Less than 10% of respondents spent 30 minutes or less in Downtown Flagstaff.

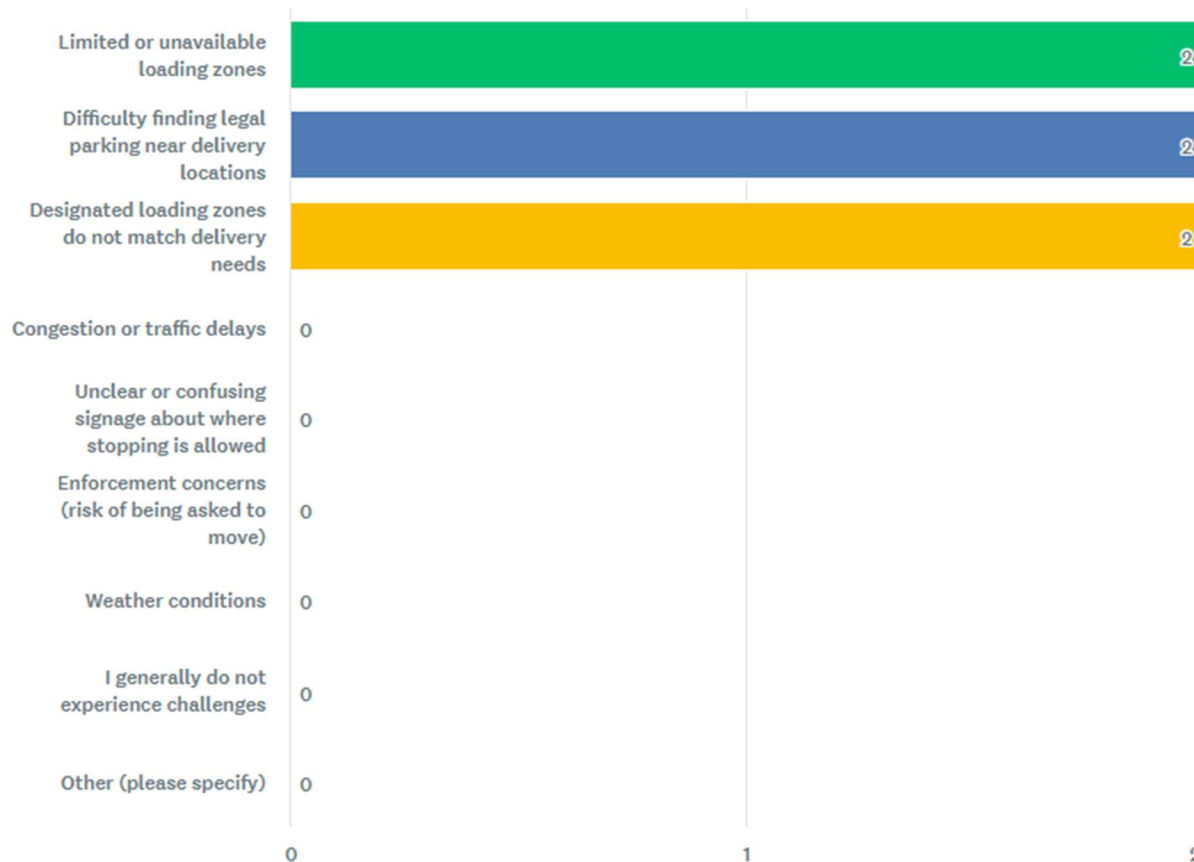
Question 5. What is the primary purpose of your most recent trip to Downtown Flagstaff?



Delivery Experience

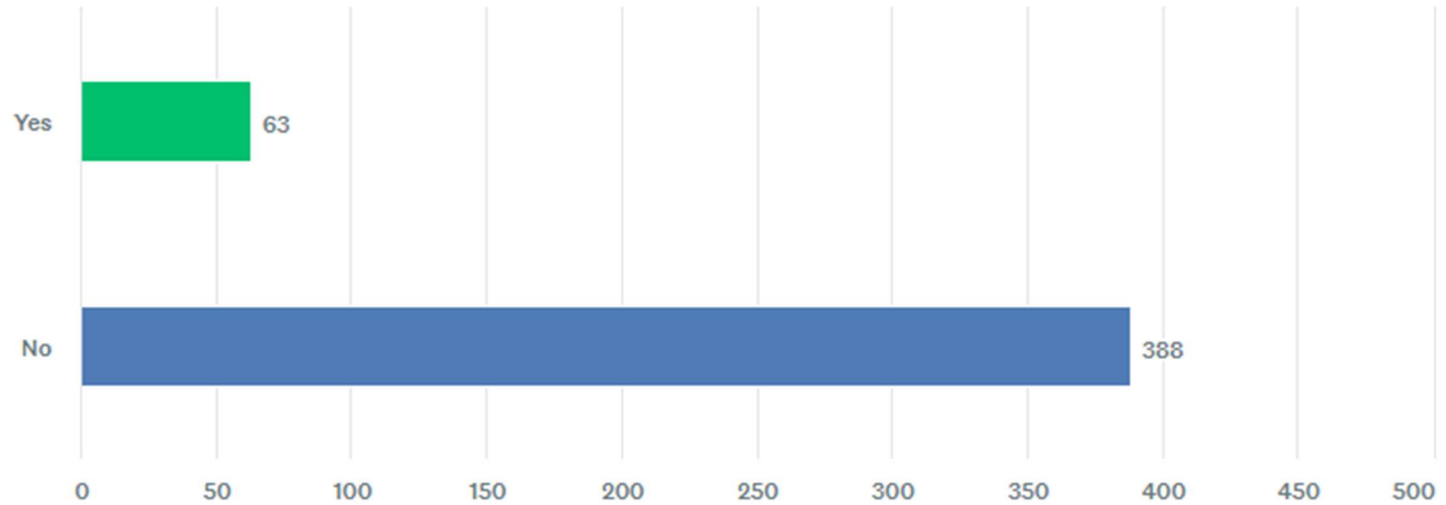
The following question was available to respondents who make commercial deliveries or operate a rideshare or food delivery service.

Question 6. When making deliveries of people or goods in Downtown Flagstaff, which of the following challenges do you most often experience? Select up to three.



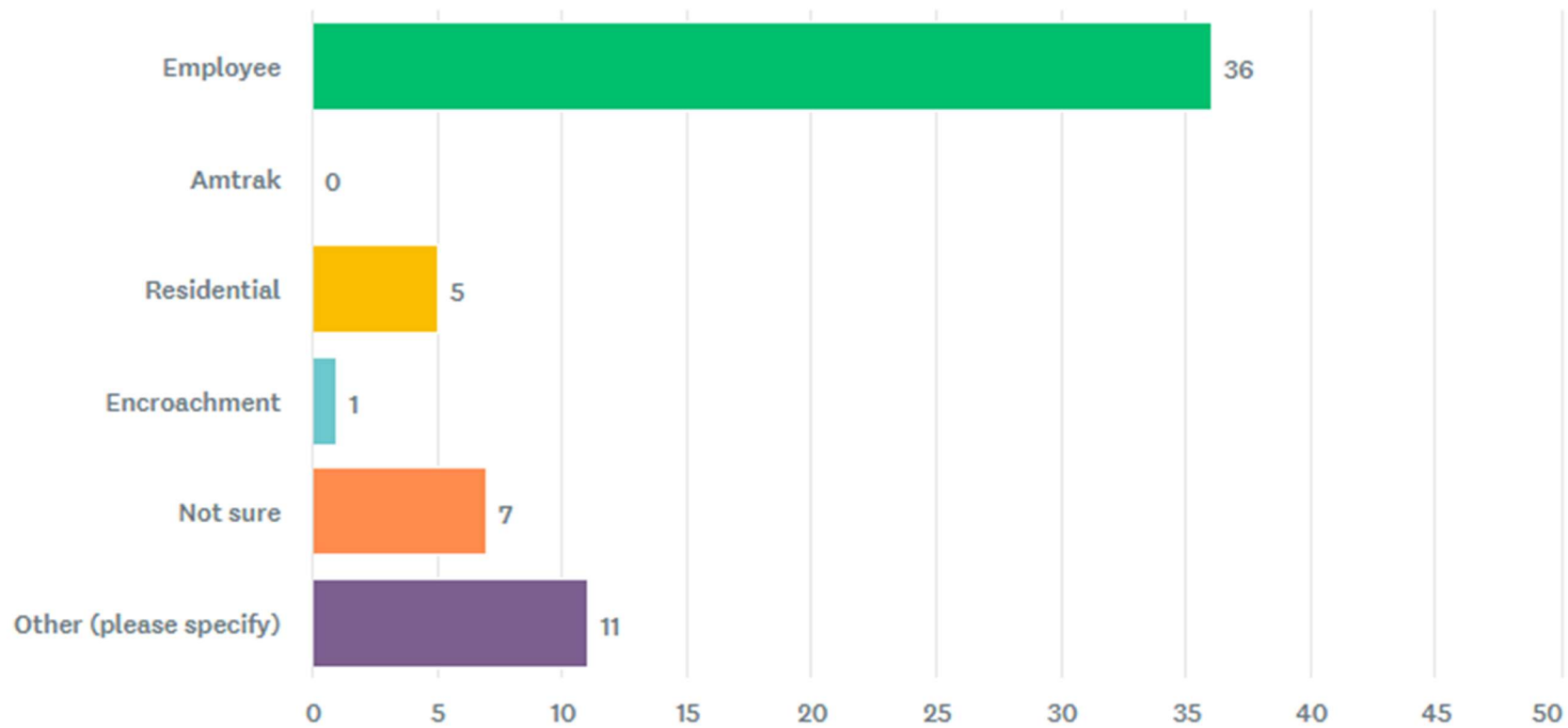
Permit Parking

Question 7. Do you currently buy any type of parking permit from ParkFlag?



Over 80% of respondents do not purchase permits from ParkFlag.

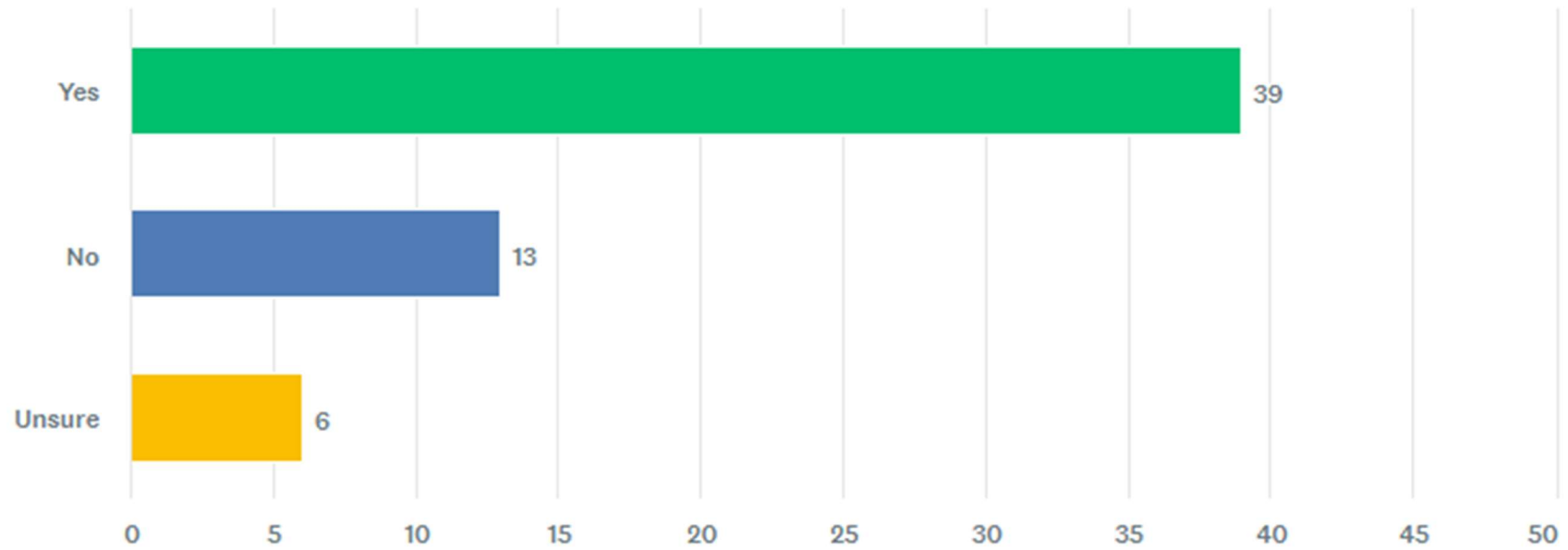
Question 8. Which of the following permits do you buy? Select all that apply.



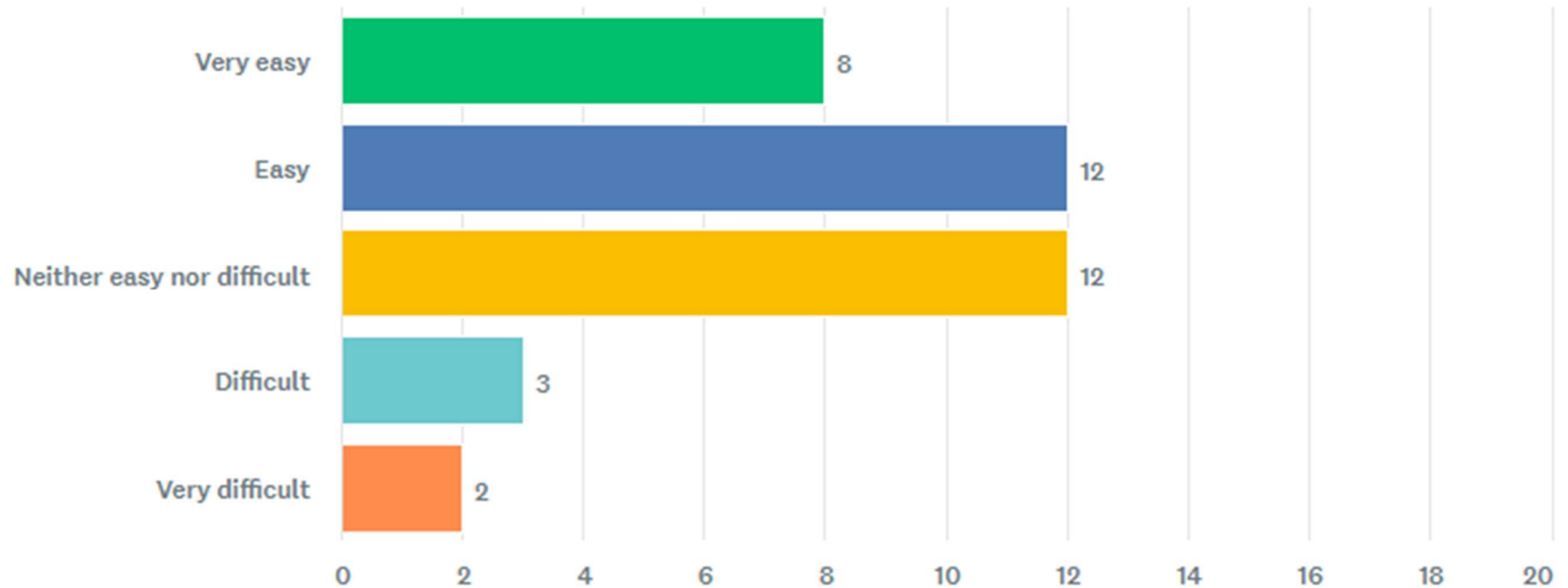
Of respondents who indicated that they do purchase a parking permit, over 60% of the respondents purchase employee parking permits. Of respondents who listed "other," key themes are as follows:

- Hourly parking
- City employee permit

Question 9. Do you use the customer permit portal to manage or buy permits?



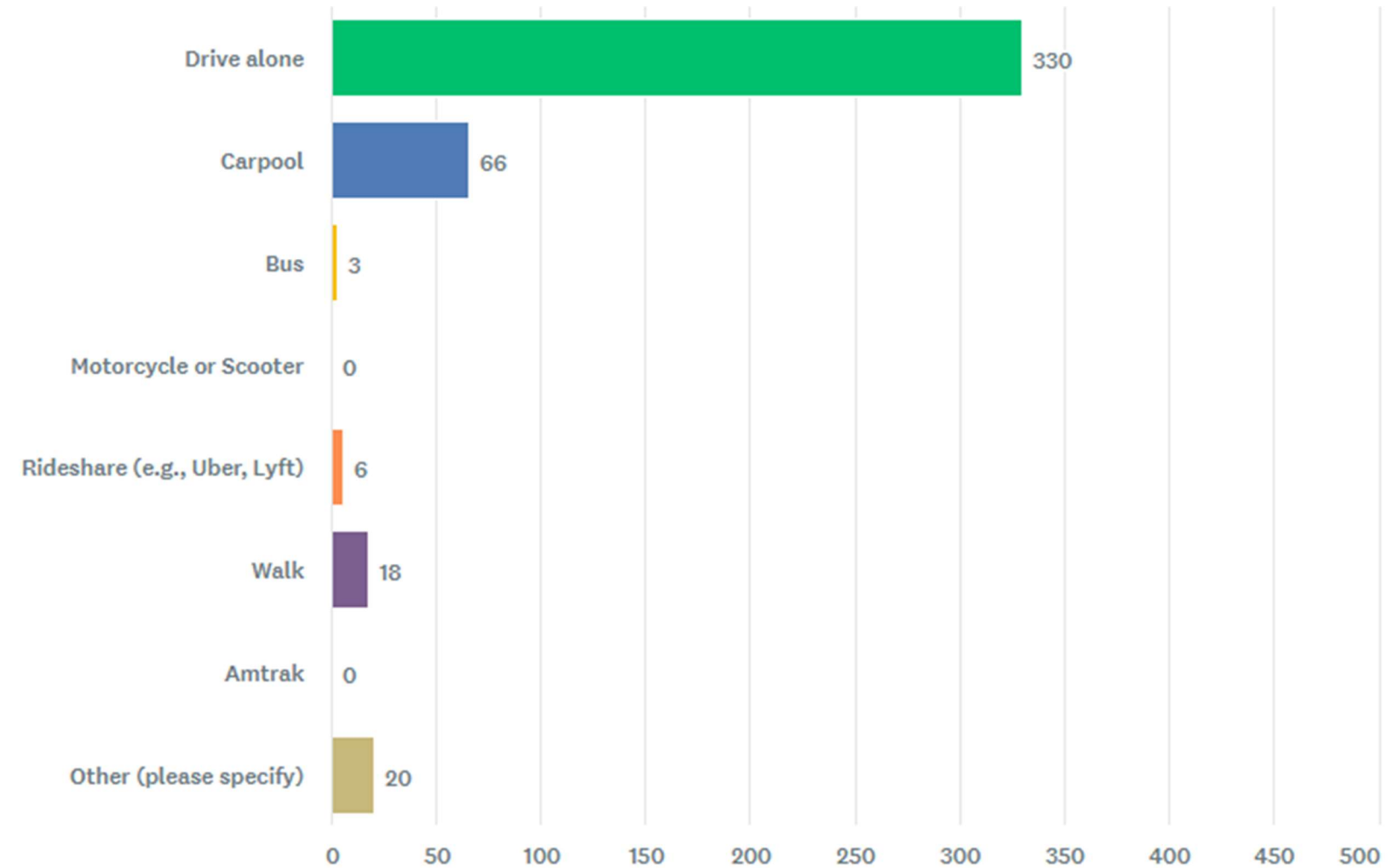
Question 10. My experience using the permit portal is:



Results show that the permit portal experience is neutral to positive for most respondents.

Downtown Access

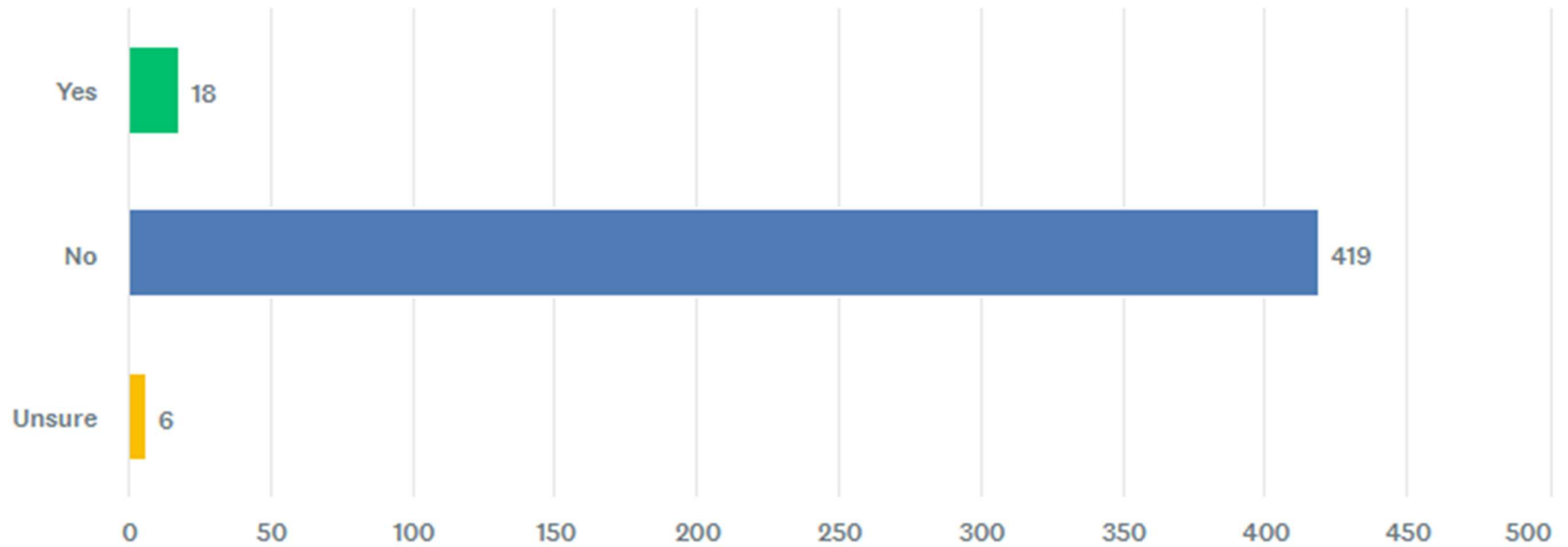
Question 11. When you travel to Downtown Flagstaff, what mode of transportation do you use most often?



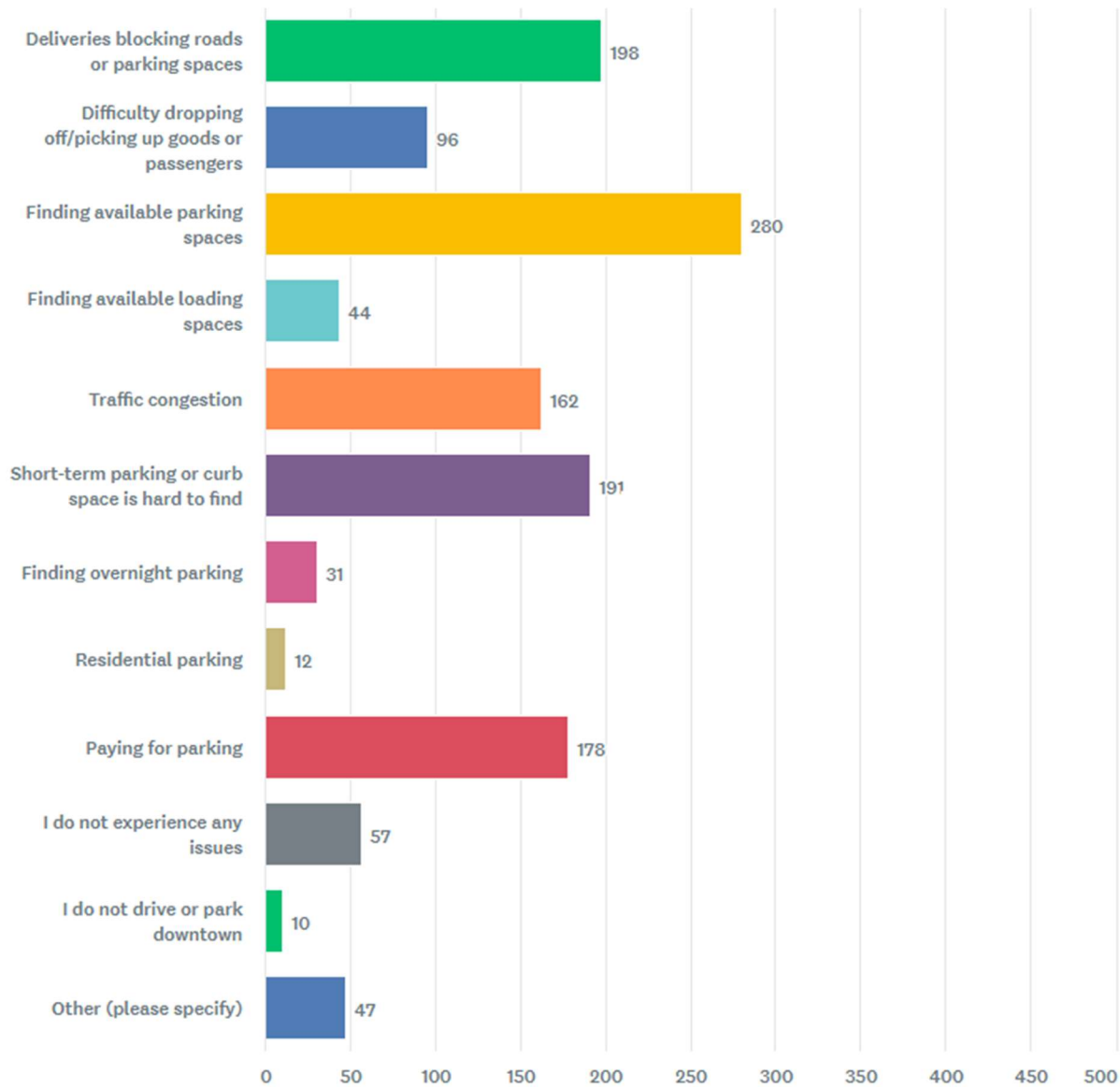
Of respondents who listed "other," key themes are as follows:

- Bike
- Drive with family/others

Question 12. Do you use the ParkFlag VIP commuter program to receive a free bus pass?



Question 13. When driving and/or parking downtown, do you experience issues with any of the following? Select all that apply.

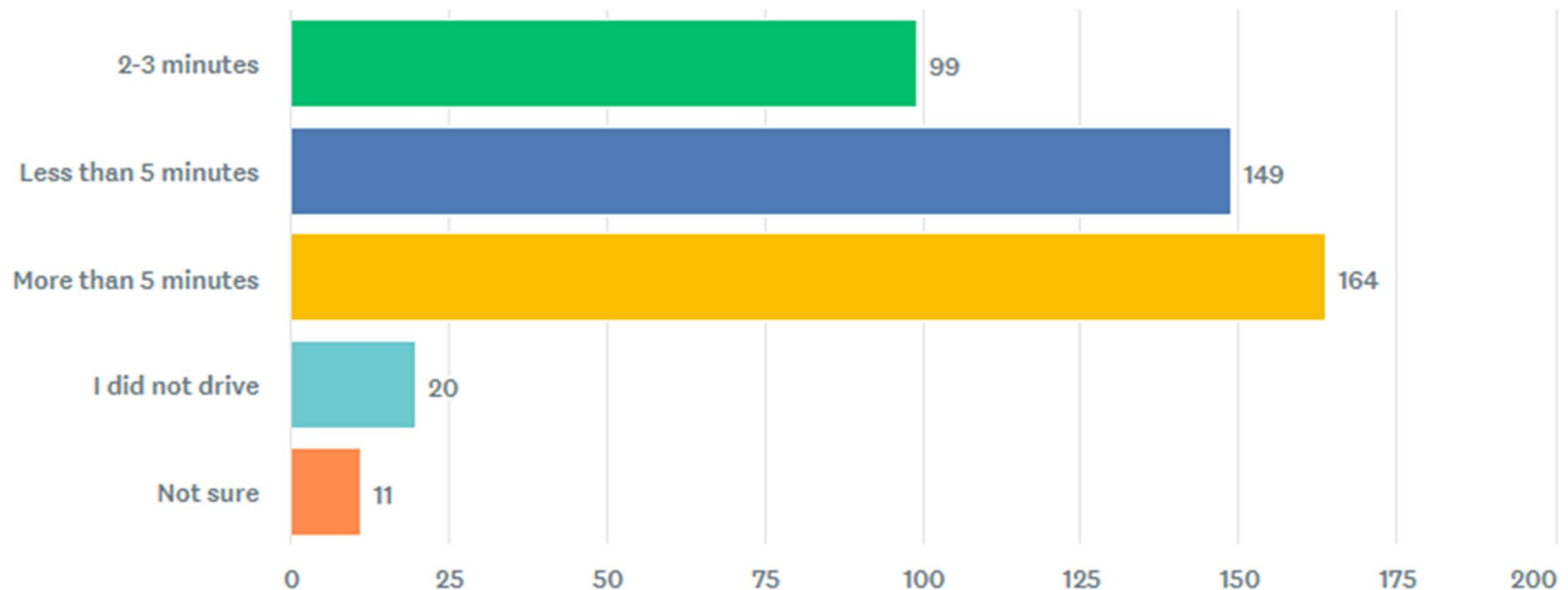


The majority of respondents listed the lack of available parking spaces as an issue when parking downtown. Other concerns to note are deliveries blocking roads, lack of short-term parking, and paying for parking. For respondents who listed items under "other", key items are as follows:

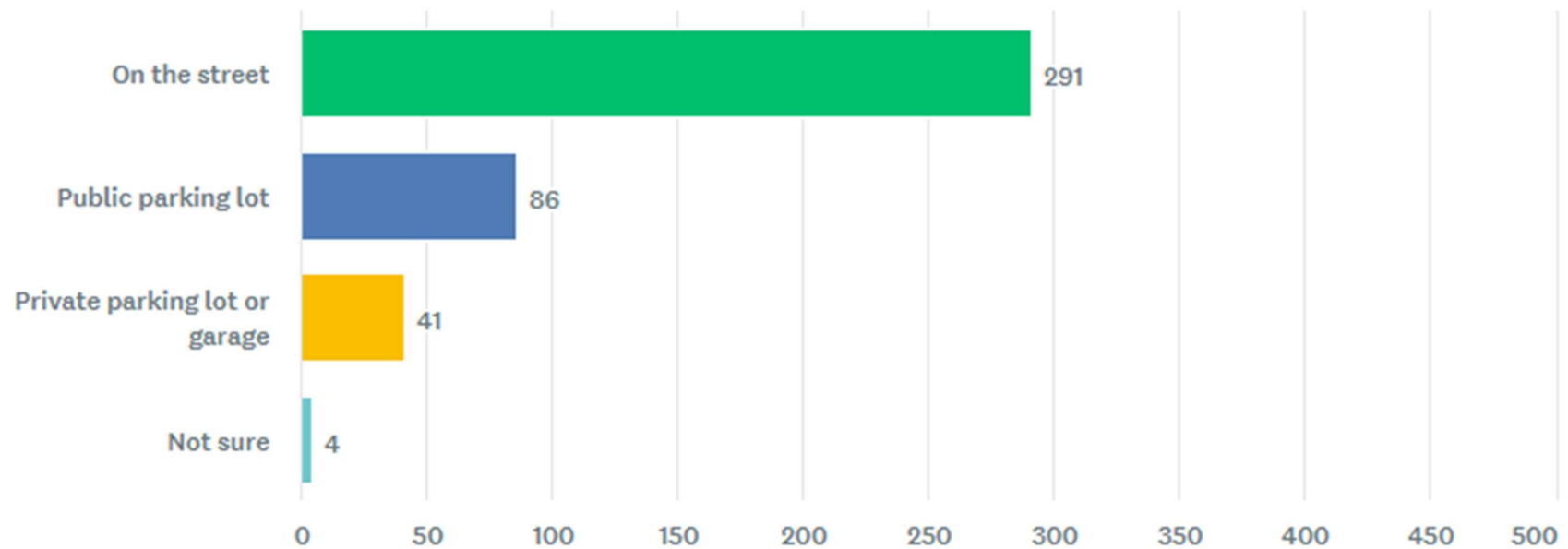
- Issues with mobile payment app
- Issues with kiosks
- Lack of employee parking spaces
- Lack of parking space markings

Your Parking & Curbside Access

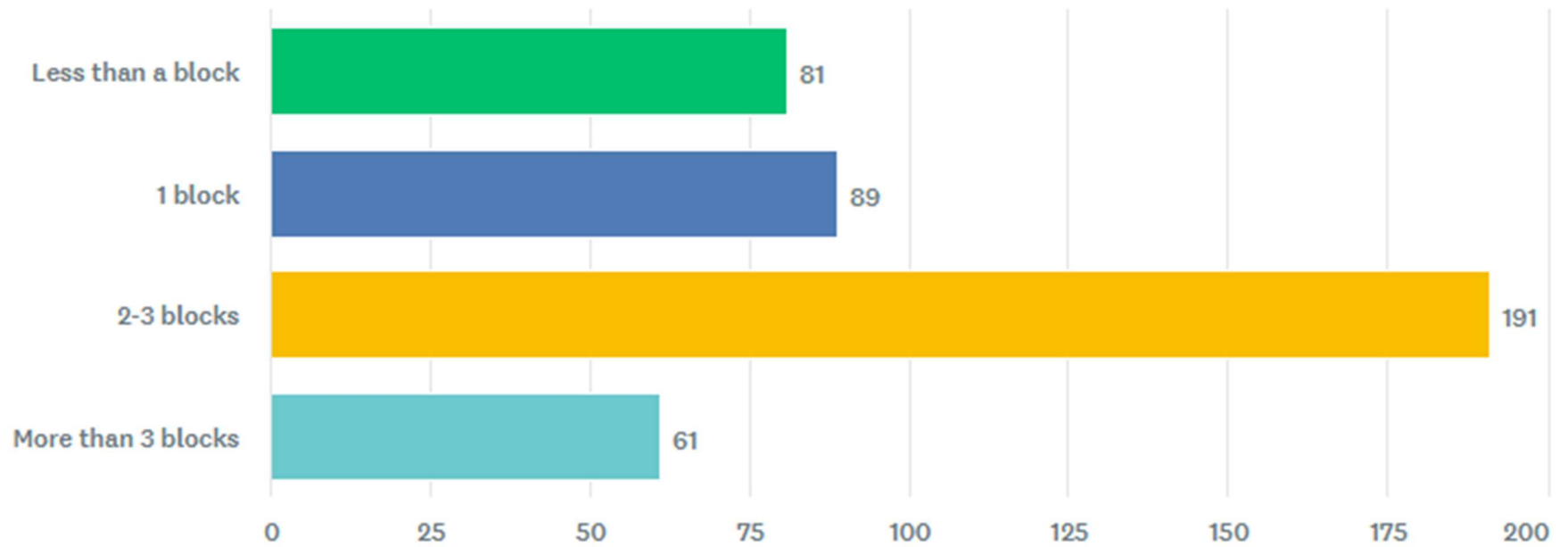
Question 14. Think about your most recent visit to Downtown Flagstaff. How long did it take you to find a parking space?



Question 15. Think about your most recent visit to Downtown Flagstaff. Where did you park?

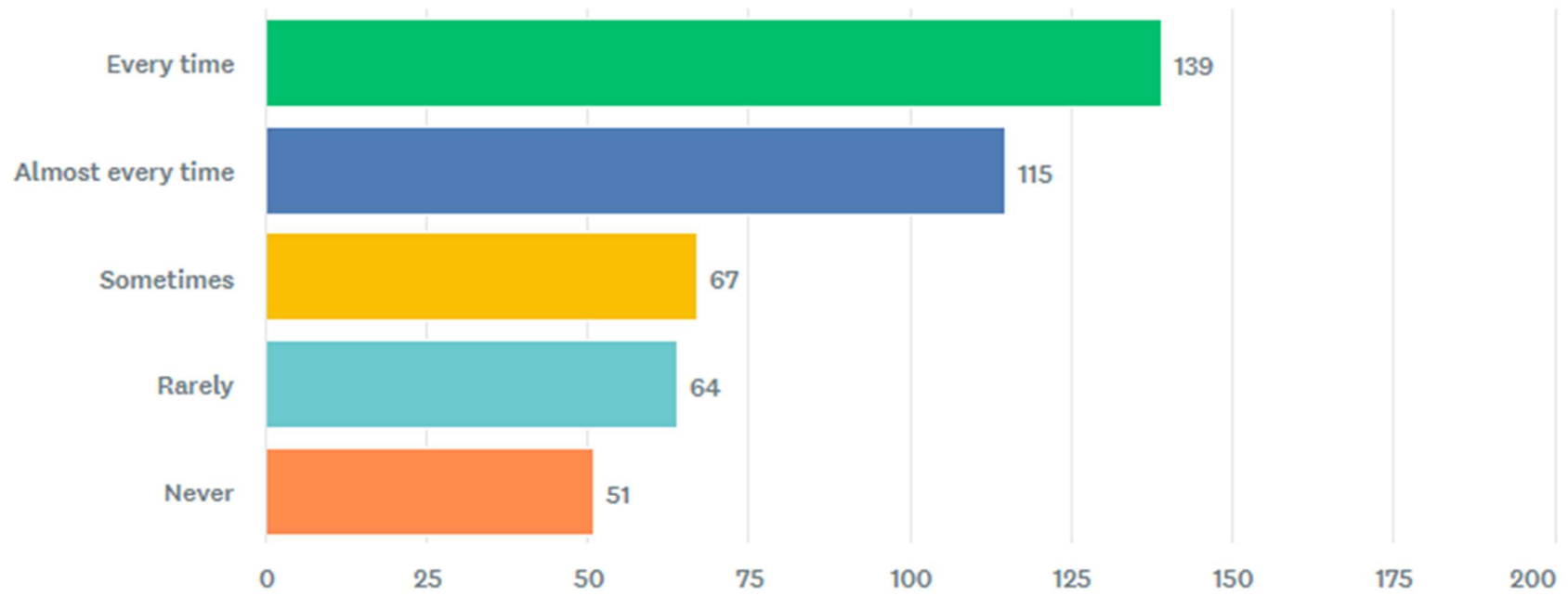


Question 16. Think about your most recent visit to Downtown Flagstaff. How far from your destination did you park?

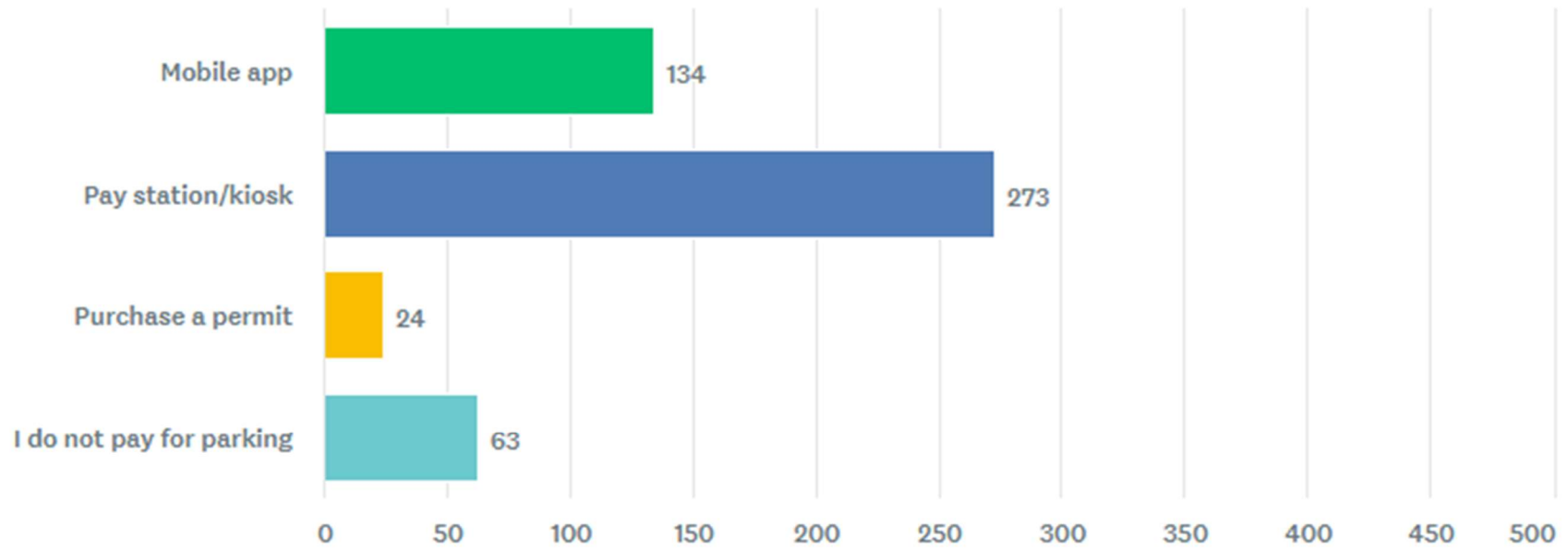


Downtown Flagstaff Parking

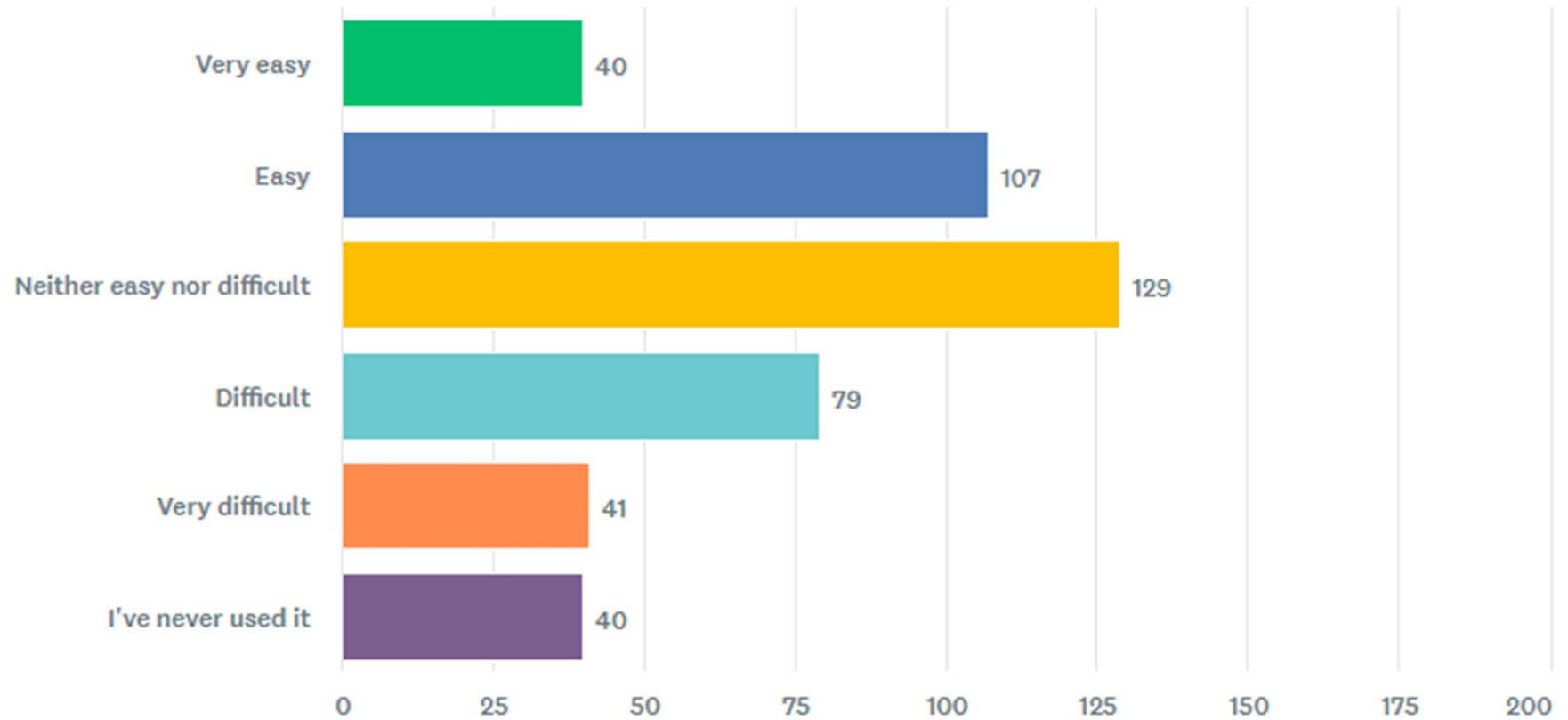
Question 17. When parking in Downtown Flagstaff, how often do you pay for public parking - either through a permit or via the pay to park system (e.g., kiosk, app)?



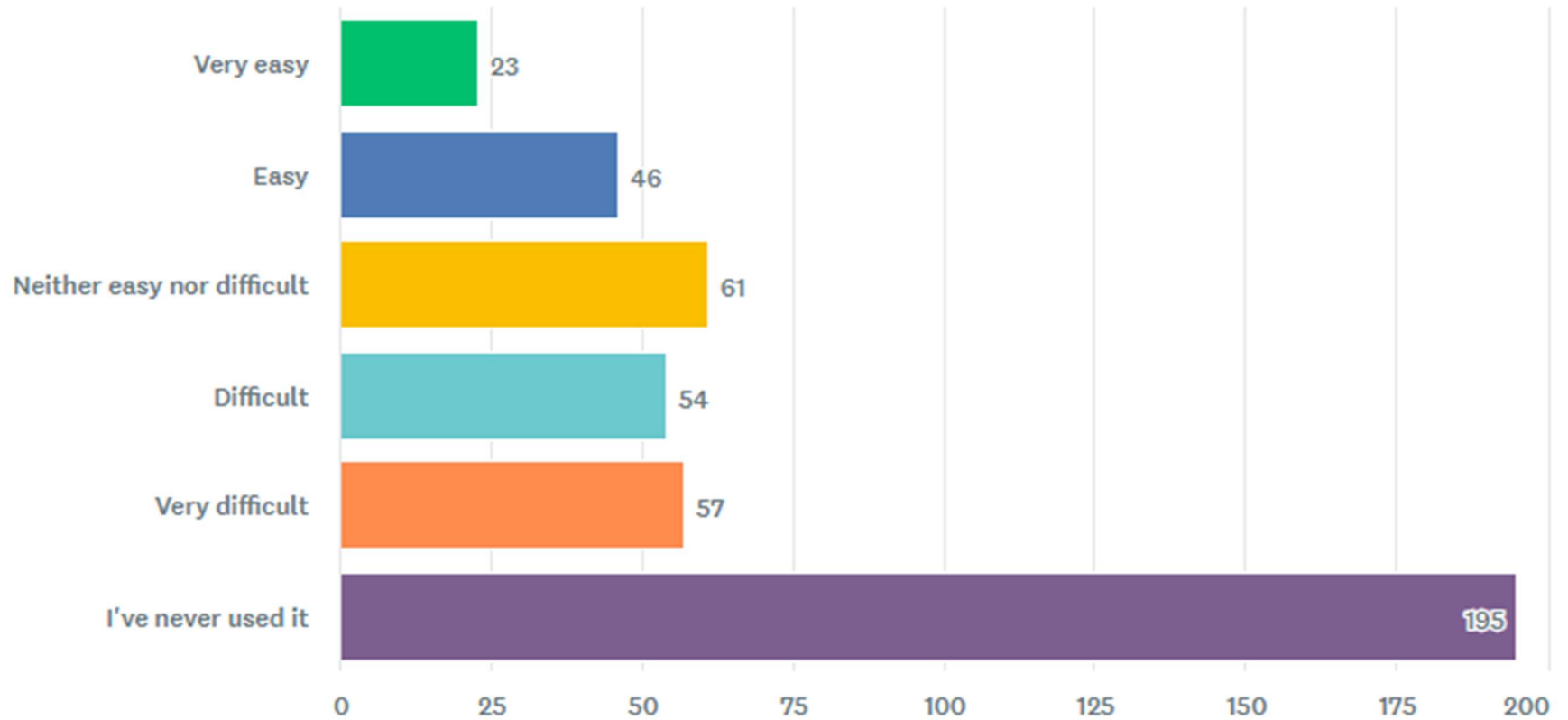
Question 18. How do you typically pay for parking? Please select all that apply.



Question 19. How would you rate the ease of use of the pay stations/kiosks?

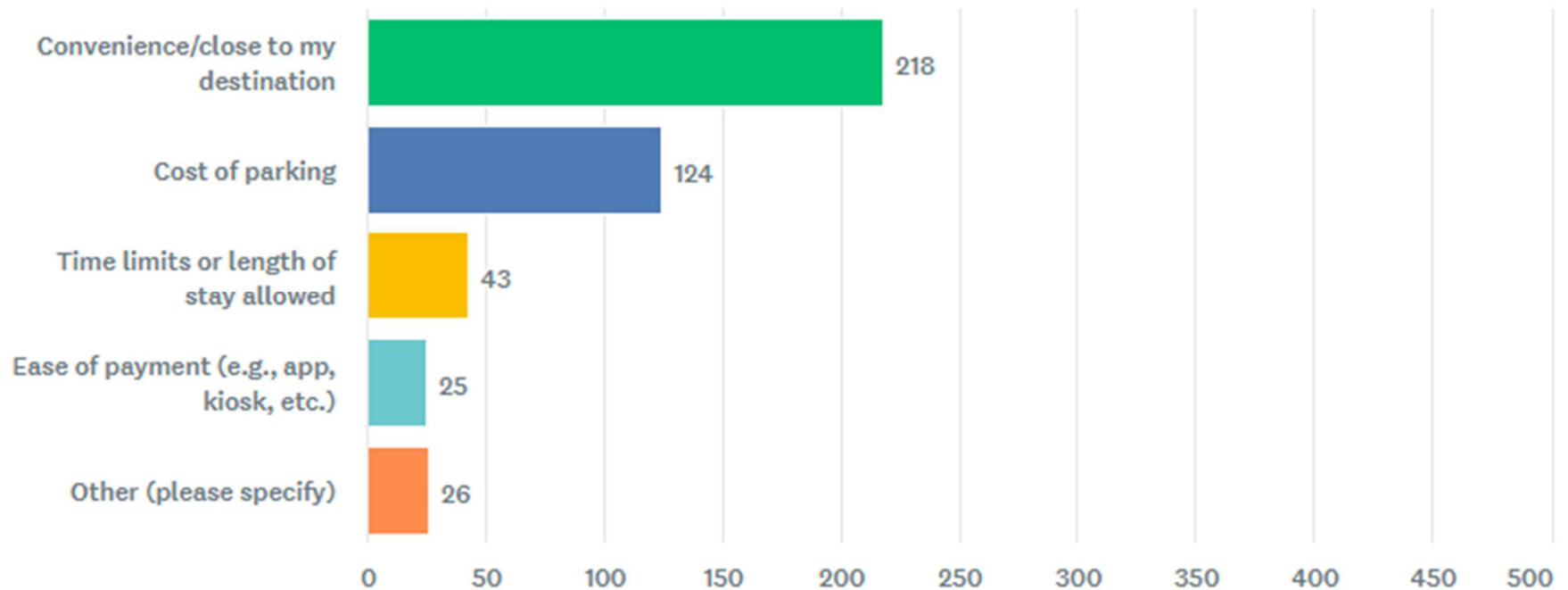


Question 20. How would you rate the ease of use of the pay to park mobile app?



Over 40% of respondents have never used the pay to park mobile application.

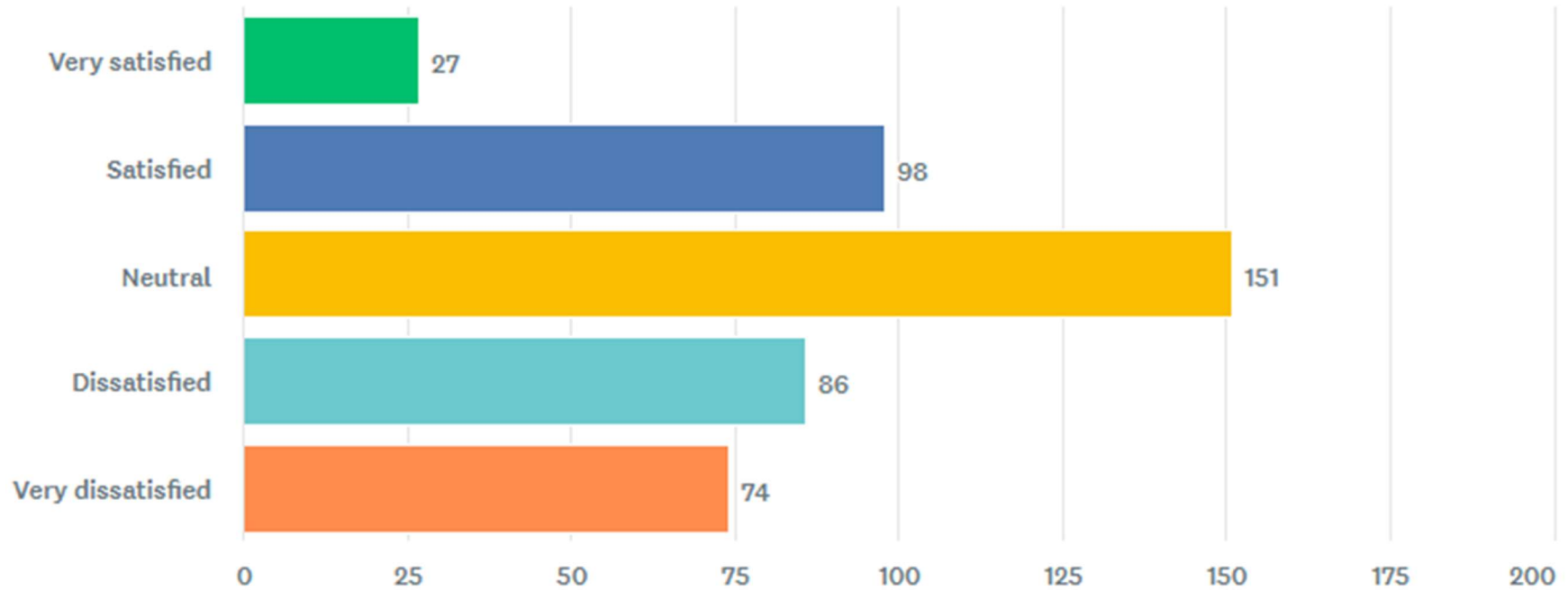
Question 21. What is most important to you when looking for a parking space?



Respondents prioritize convenience over parking cost. Of respondents who listed "other," key themes are as follows:

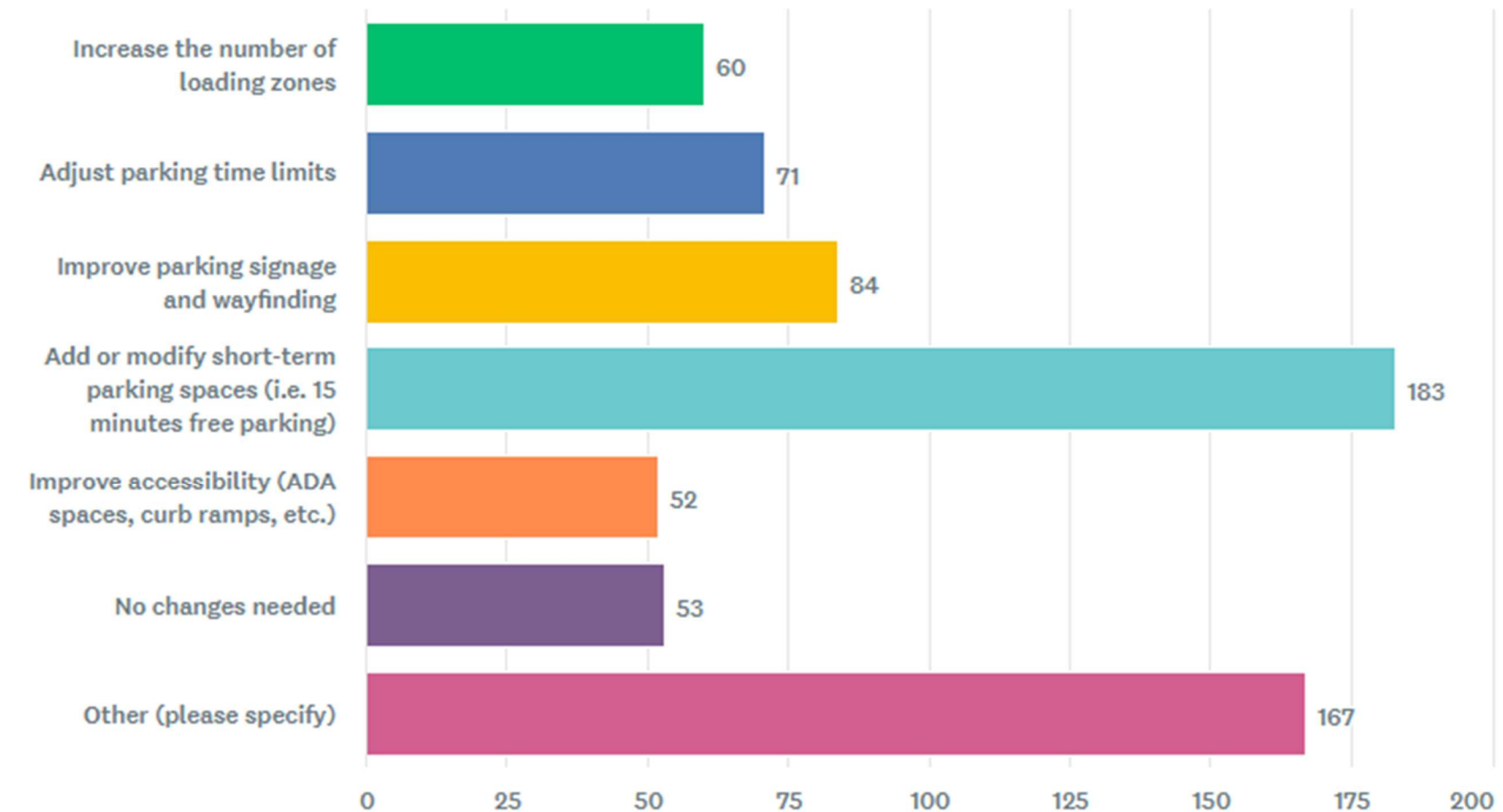
- Available space, regardless of distance or cost
- ADA accessibility
- Safety
- Cost

Question 22. How satisfied are you with your current experience parking in Downtown Flagstaff?



ParkFlag Goals

Question 23. If you could change anything about parking or curb use, what would you change? Select all that apply.



Of respondents who listed "other," key themes are as follows:

- Free parking

- Free parking during certain days
- Free parking for residents
- Improve mobile app ease of use
- Improve kiosk ease of use
- Eliminate residential permits north of downtown
- Build a parking garage
- More signage for visitors on how to pay
- Eliminate parklets
- Close core streets to car traffic
- Remove delivery trucks out of traffic lanes
- Improve clarity of signage
- Free parking for locals
- Wider sidewalks
- Parking space markings
- Advertise permits

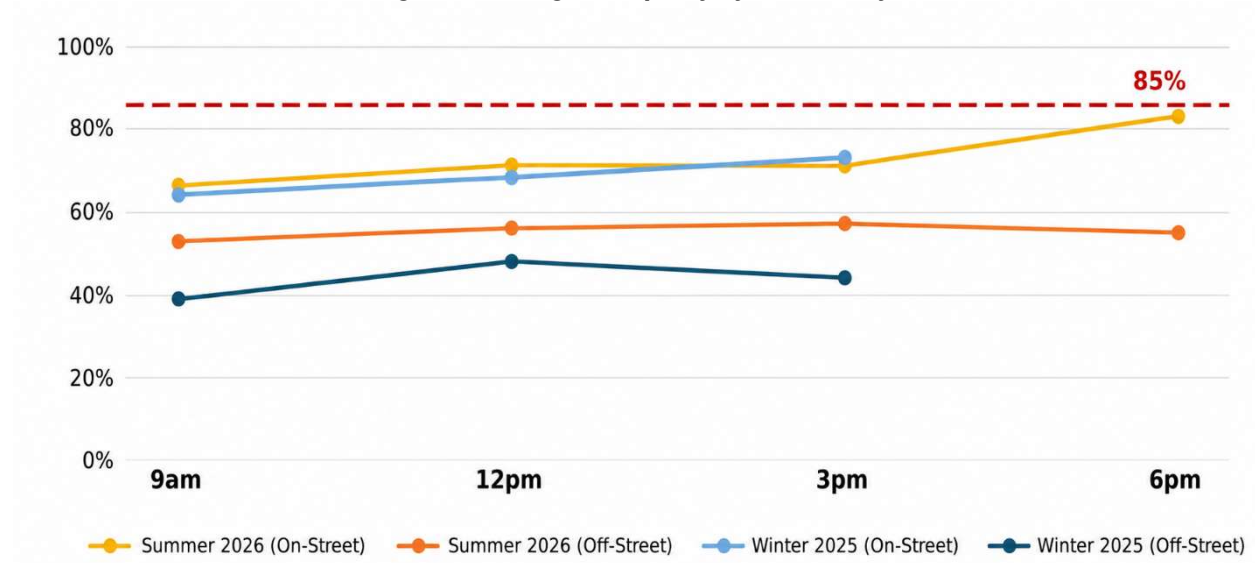
Appendix C: Parking Utilization Study

Executive Summary

Dixon Resources Unlimited (DIXON) conducted a parking utilization study to inform the City of Flagstaff's 2026 Curbside Management Action Plan. The study evaluated on- and off-street parking occupancy and length of stay throughout Downtown Flagstaff and the Southside Neighborhood using vehicle-mounted license plate recognition (LPR) data collected during both winter (non-peak) and summer (peak) conditions. Collection coverage and schedules were similar across the two seasons, however due to high demand observed during DIXON's June 2026 site visit, summer collection was expanded to include early evening.

As anticipated in a seasonal community like Flagstaff, parking demand increased from winter to summer (Figure 1). Although most of the Study Area remained below the industry-recognized 85% utilization threshold, summer conditions showed heavier demand across both on- and off-street parking areas with on-street locations regularly experiencing constrained parking availability, most notably during the 6 p.m. (evening) collection period. Additionally, parking utilization was also generally higher in areas closer to the downtown core, tapering off in locations farther from downtown.

Figure 1. Average Occupancy by Time of Day



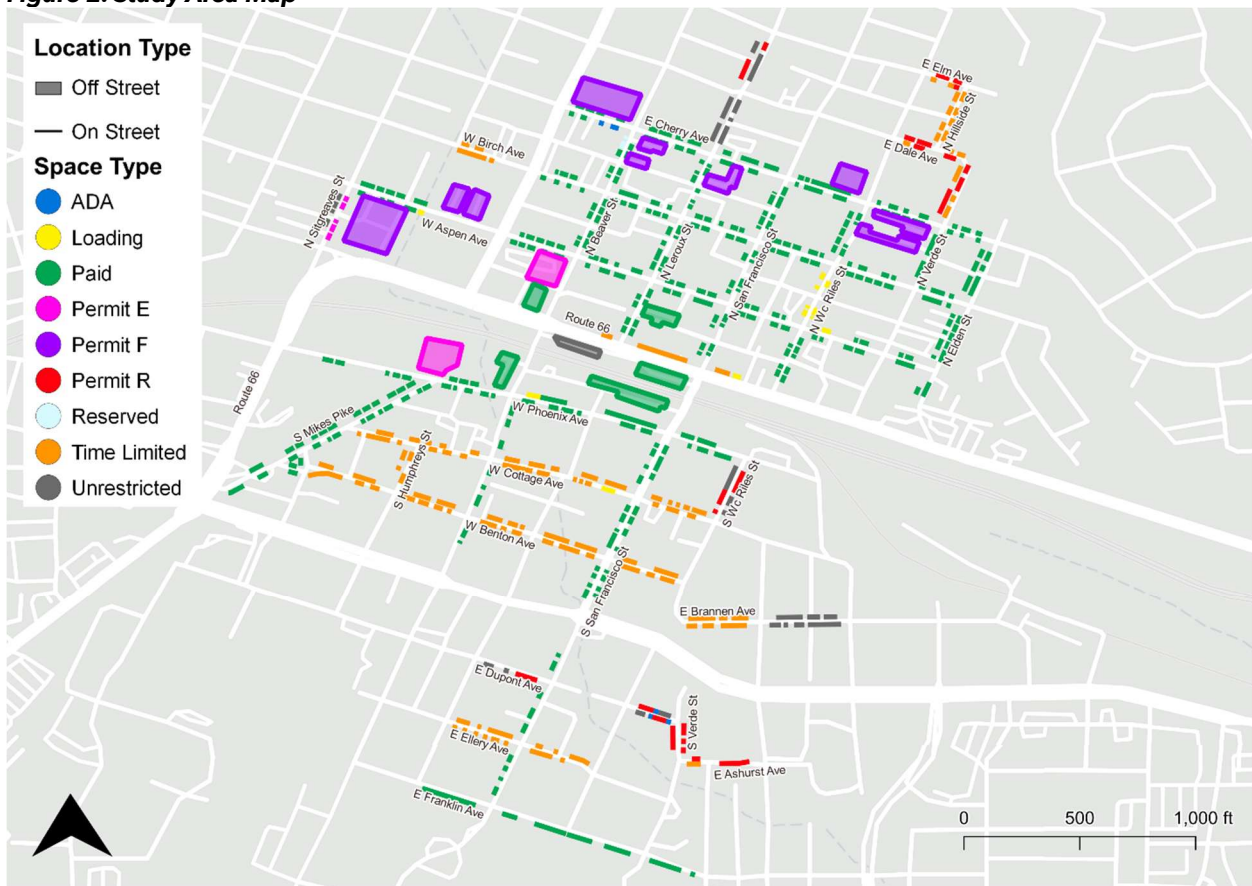
Parking demand was consistently strongest north of Route 66, where several Downtown Flagstaff streets experienced high utilization. The Southside Neighborhood was generally underutilized during winter, although E Ellery Avenue remained a consistent hotspot in part due to its free time-limited parking. By summer evenings, overutilization had expanded along portions of the W Phoenix Avenue/W Cottage Avenue/W Benton Avenue corridor, indicating that peak-period parking pressure extended beyond the downtown core.

Study Area

The Study Area (Figure 2) encompasses Downtown Flagstaff and the Southside Neighborhood, totaling 166 on-street block faces, 18 off-street lots, and 1,898 parking spaces.

Route 66 is used throughout this report as the dividing line between Downtown Flagstaff to the north and the Southside Neighborhood to the south. Downtown includes N Beaver Street, N San Francisco Street, and N Leroux Street. The Southside Neighborhood includes S Mikes Pike, S San Francisco Street, and the W Phoenix Avenue/W Cottage Avenue/W Benton Avenue corridor.

Figure 2. Study Area Map



The pay-to-park area encompasses 102 on-street block faces and seven off-street lots, totaling 948 parking spaces. Permit parking applies to 12 off-street lots and 19 on-street block faces, representing 672 spaces assigned to Permit E, F, or R categories. The inventory also includes 88 unrestricted spaces in Lot 17 and on various on-street blocks. A detailed breakdown of parking spaces by type and location is provided in Exhibit A.

Methodology

Data Collection

The City collected parking data during two periods intended to represent non-peak and peak-season conditions. The Winter 2025 dataset includes 16 collection days between December 2, 2025, and January 3, 2026. The Summer 2026 dataset includes 23 collection days between May 22 and July 11, 2026.

City staff used vehicle-mounted LPR cameras to document parked vehicles. Winter observations were collected during morning, midday, and afternoon rounds; Summer observations included the same daytime periods plus an evening round. Collection schedules and route coverage varied by day due to staff availability, and not every location or time period was observed on every collection day. Accordingly, averages in this report reflect the available observations, and seasonal comparisons should be interpreted as broad patterns rather than identical samples.

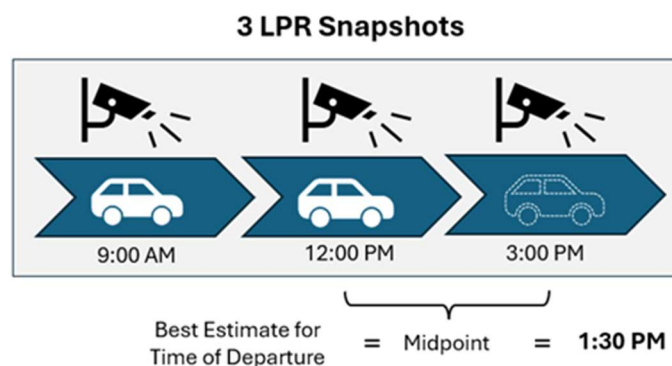
Inventory Collection

On-street parking inventory was developed using Geographic Information Systems (GIS), Google Street View, and aerial imagery. Each curb segment was mapped as parking allowed or parking prohibited. Marked spaces were counted directly. Unmarked curb was converted to estimated spaces using 20 feet per space, or 18 feet per space adjacent to driveways and other non-parking areas where additional maneuvering space is available.

Length of Stay Calculations

Length of stay for on- and off-street parking was estimated from sequential LPR observations. Length of stay was calculated only for collection days with multiple passes. Arrival was assigned to the first round in which a vehicle was observed. When the vehicle was present in one round and absent in the next, departure was estimated at the midpoint between those rounds (Figure 3). Because the estimate depends on the interval between collection rounds, results should be interpreted as approximate durations rather than exact arrival and departure times.

Figure 3. Method for Calculating Estimated Time of Departure



Figures 21 and 22 in Exhibit B show average length of stay by location for Winter 2025 and Summer 2026, respectively.

Key Considerations

An 85% occupancy level is a commonly used and industry-recognized parking management benchmark. At this level, a typical block face may have only one or two spaces available, depending on its size. Locations that repeatedly exceed 85% can feel effectively full and may generate circulation as motorists search for parking. Locations well below the benchmark generally retain available capacity.

Length of stay provides an indication of turnover: longer stays reduce the number of vehicles served by each space, while shorter stays increase turnover. In commercial areas, higher turnover can improve access for customers and visitors.

The 85% benchmark should be treated as a guide rather than a rigid threshold. Management decisions should focus on locations and time periods that repeatedly exceed the benchmark, since study-wide averages can mask localized peaks.

Definition of Terms

- Inventory: The number of spaces per on-street block face or off-street locations.
- Occupancy: The percentage of parking supply that is occupied.
- Length of Stay: The amount of time a car remains in a given parking space. Also referred to as the duration.

Parking Utilization Summary

Winter 2025 Collection

Data collected from December 2, 2025, through January 3, 2026, indicate the following on- and off-street occupancy patterns:

- **Average occupancy:** On-street spaces averaged 67% occupancy across the day, compared with 42% for off-street spaces.
- **Time of day:** On-street occupancy increased from 64% at 9 a.m. to 73% at 3 p.m.; the Winter 2025 collection did not include an evening period.
- **Day of week:** On-street occupancy ranged from 63% to 70% with no consistent weekday-to-weekend pattern. Off-street occupancy was highest on Tuesday (48%) and lowest on Saturday (29%).
- **Length of stay:** On-street vehicles averaged 2.93 hours and off-street vehicles averaged 3.10 hours. Most vehicles were parked for three hours or less (59% on-street and 57% off-street).

- **Location trends:** Downtown Flagstaff - particularly N Beaver Street, N Leroux Street, and N San Francisco Street - consistently recorded the highest occupancy, with pressure increasing from the 9 a.m. to 3 p.m. The Southside Neighborhood was generally underutilized, except E Ellery Avenue, which exceeded 85% at each observed time period.

Summer 2026 Collection

Data collected from May 22 through July 11, 2026, which expanded the study to include evening hours, indicate an increase in parking demand:

- **Average occupancy:** On-street spaces averaged 74% occupancy and off-street spaces averaged 56%. Compared with Winter 2025, off-street occupancy increased by 14 percentage points, while on-street occupancy increased by 7 percentage points.
- **Time of day:** On-street occupancy peaked at 83% at 6 p.m. Off-street occupancy was 55% at 6 p.m., slightly below its 3 p.m. peak of 57%. At 6 p.m., on-street Loading and Unrestricted spaces exceeded 85%, while on-street Reserved and off-street Permit E spaces reached 85%.
- **Day of week:** Demand generally increased toward the weekend. On-street occupancy rose from 64% on Monday to 82% on Friday and 88% on Saturday; off-street occupancy reached 63% on Friday and 64% on Saturday.
- **Length of stay:** On-street vehicles averaged 2.28 hours and off-street vehicles averaged 2.17 hours. Most vehicles were parked for three hours or less (72% on-street and 74% off-street), indicating greater turnover across both parking types despite higher occupancy.
- **Location trends:** High occupancy extended beyond Downtown Flagstaff during the summer evening period. At 6 p.m., much of the W Phoenix Avenue/W Cottage Avenue/W Benton Avenue corridor exceeded 85%, a level of saturation not observed in the Southside Neighborhood during Winter 2025.

Conclusion

Across the available observations, parking demand was higher in Summer 2026 than in Winter 2025, with the strongest pressure occurring on Friday and Saturday and during the summer evening period. Average occupancy remained below 85% at the study-wide level, but multiple downtown block faces and selected Southside corridors exceeded the benchmark, indicating localized and time-specific constraints rather than a uniform shortage. At the same time, shorter summer lengths of stay for both on- and off-street parking indicate that higher demand was accompanied by greater turnover. These findings support targeted curb-management strategies focused on recurring hotspots and peak periods, while lower-demand in off-street facilities and some Southside locations may provide opportunities to redistribute parking activity.

Exhibit A: Tables

Figure 4. Parking Inventory by Space Type and Location

Space Category	On-Street	Off-Street	Total
ADA	3	0	3
ADA, Employee N, Paid	3	0	3
Employee N, Paid	90	0	90
Employee N, Reserved	3	0	3
Loading	29	0	29
Paid	604	144	748
Paid, Permit E	95	99	194
Permit F	10	393	403
Permit R	42	0	42
Permit R, Time Limited	33	0	33
Time Limited	262	0	262
Unrestricted	76	12	88
Total	1,250	648	1,898

Note: Space categories listing multiple restrictions represent overlapping regulations applied to the same spaces, not additional inventory. For example, Paid, Permit E spaces require payment or a valid Permit E.

Figure 5. Occupancy by Space Type - On-Street

Season	Space Type	9 a.m.	12 p.m.	3 p.m.	6 p.m.	Average
Winter 2025	ADA	53%	89%	84%		70%
	Employee N	68%	77%	77%		73%
	Loading	72%	77%	77%		74%
	Paid	67%	73%	78%		71%
	Permit E	28%		47%		34%
	Permit R	50%	49%	58%		52%
	Reserved	55%	56%	76%		59%
	Time Limited	57%	56%	61%		58%
	Unrestricted	66%	73%	71%		69%
	Average	64%	68%	73%		67%
Summer 2026	ADA	76%	42%	59%	76%	67%
	Employee N	74%	76%	77%	80%	77%
	Loading	68%	64%	82%	95%	79%
	Paid	67%	73%	73%	83%	75%
	Permit E	22%	34%	34%	40%	34%
	Permit R	27%	36%	29%	42%	37%
	Reserved	42%	76%	76%	85%	78%
	Time Limited	63%	62%	63%	81%	69%
	Unrestricted	62%	88%	83%	86%	82%
	Average	66%	71%	71%	83%	74%

Figure 6. Occupancy by Space Type - Off-Street

Season	Space Type	9 a.m.	12 p.m.	3 p.m.	6 p.m.	Average
Winter 2025	Paid	39%	45%	43%		41%
	Permit E	39%	46%	41%		41%
	Permit F	39%	51%	45%		43%
	Average	39%	48%	44%		42%
Summer 2026	Paid	70%	75%	75%	84%	77%
	Permit E	73%	79%	78%	85%	79%
	Permit F	30%	31%	34%	32%	32%
	Average	53%	56%	57%	55%	56%

Figure 7. Occupancy by Day of Week - On-Street (Winter 2025)

Day of the Week	9 a.m.	12 p.m.	3 p.m.	Average
Monday	68%	69%	72%	69%
Tuesday	69%	69%	70%	69%
Wednesday	60%	67%	56%	63%
Thursday	64%	74%	73%	70%
Friday	64%		77%	69%
Saturday	62%	67%		63%
Average	64%	68%	73%	67%

Figure 8. Occupancy by Day of Week - Off-Street (Winter 2025)

Day of the Week	9 a.m.	12 p.m.	3 p.m.	Average
Monday	40%	46%	42%	42%
Tuesday	46%	53%	48%	48%
Wednesday	39%	45%	19%	42%
Thursday	32%	63%	46%	42%
Friday	37%		43%	40%
Saturday	28%	38%		29%
Average	39%	48%	44%	42%

Figure 9. Occupancy by Day of Week - On-Street (Summer 2026)

Day of the Week	9 a.m.	12 p.m.	3 p.m.	6 p.m.	Average
Monday	69%	67%	58%		64%
Tuesday	67%	66%	62%	71%	67%
Wednesday	71%	71%	67%	82%	73%
Thursday	63%	73%	71%	81%	72%
Friday	56%	76%	85%	87%	82%
Saturday				88%	88%
Average	66%	71%	71%	83%	74%

Figure 10. Occupancy by Day of Week - Off-Street (Summer 2026)

Day of the Week	9 a.m.	12 p.m.	3 p.m.	6 p.m.	Average
Monday	48%	58%	42%		51%
Tuesday	51%	58%	53%	42%	50%
Wednesday	56%	56%	57%	54%	55%
Thursday	53%	53%	53%	52%	53%
Friday	54%	56%	69%	64%	63%
Saturday				64%	64%
Average	53%	56%	57%	55%	56%

Figure 11. Average Length of Stay by Street Type

Season	Street Type	0-3 hrs	3-6 hrs	6-9 hrs	Average Length of Stay
Winter 2025	On-Street	59%	35%	6%	2.93 hrs
	Off-Street	57%	32%	11%	3.10 hrs
Summer 2026	On-Street	72%	25%	2%	2.28 hrs
	Off-Street	74%	23%	3%	2.17 hrs

Exhibit B: Occupancy Maps

Figure 12. Winter 2025 Average Occupancy - All Times

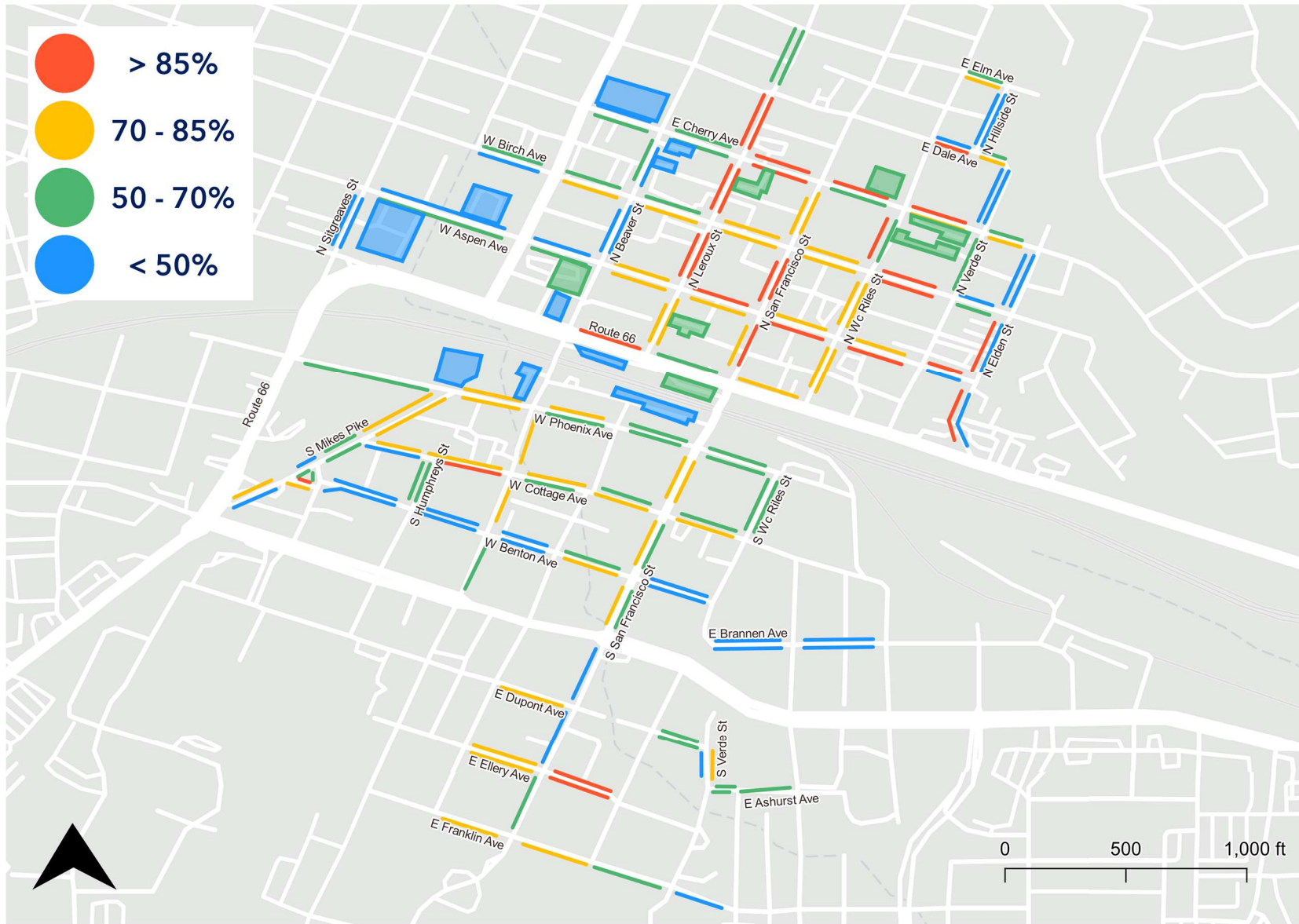


Figure 13. Winter 2025 Average Occupancy - 9 a.m.

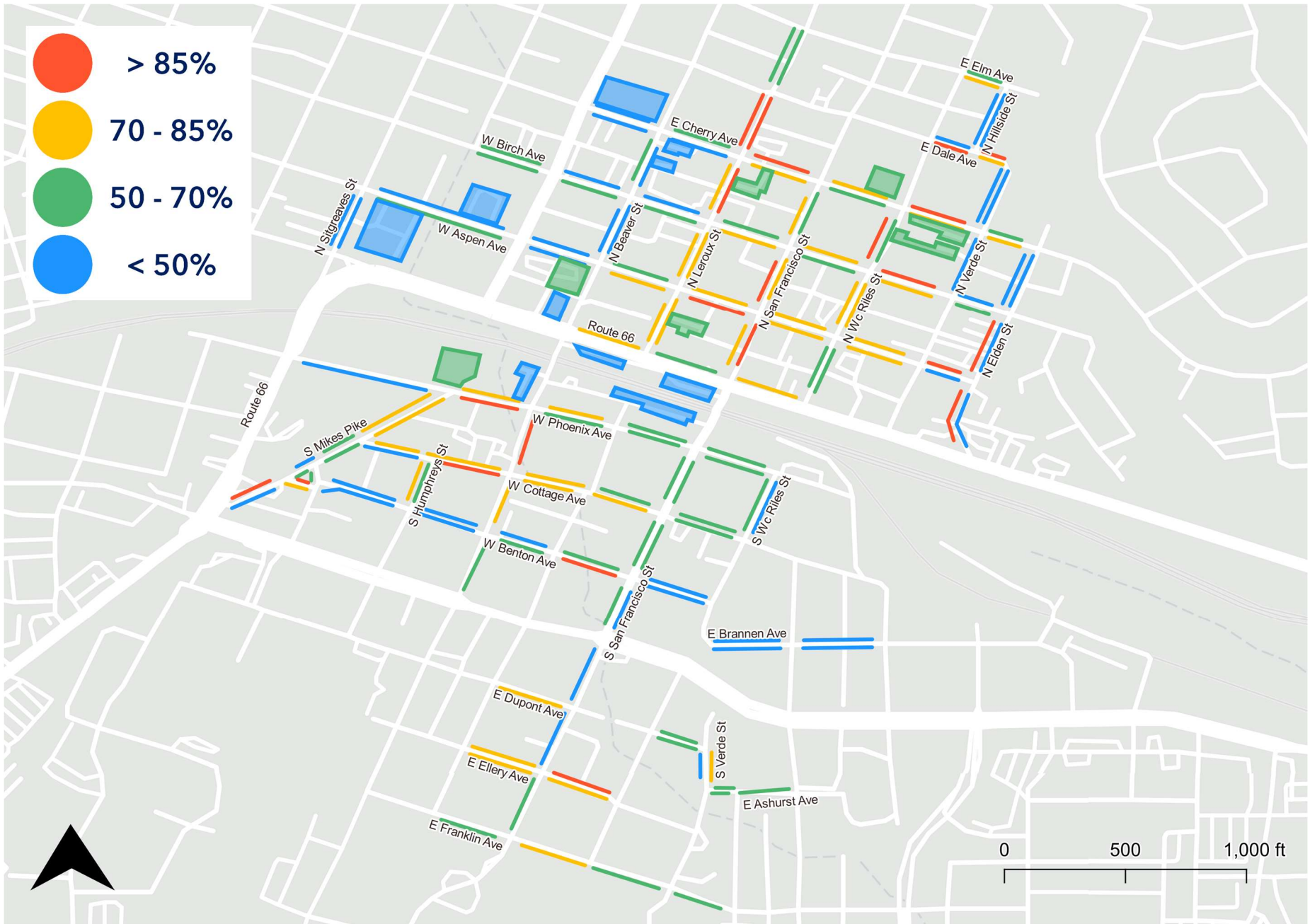


Figure 14. Winter 2025 Average Occupancy - 12 p.m.

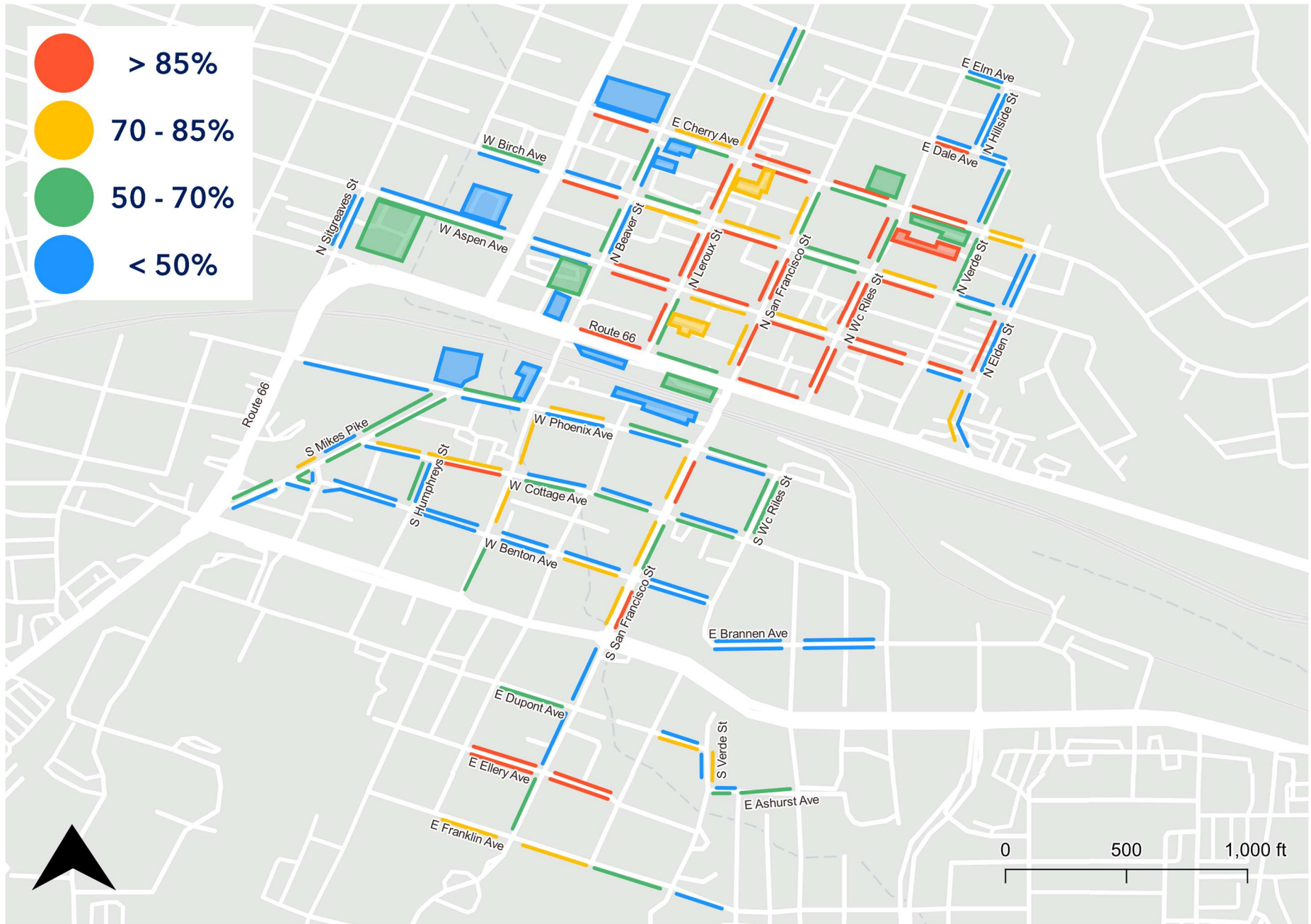


Figure 15. Winter 2025 Average Occupancy - 3 p.m.

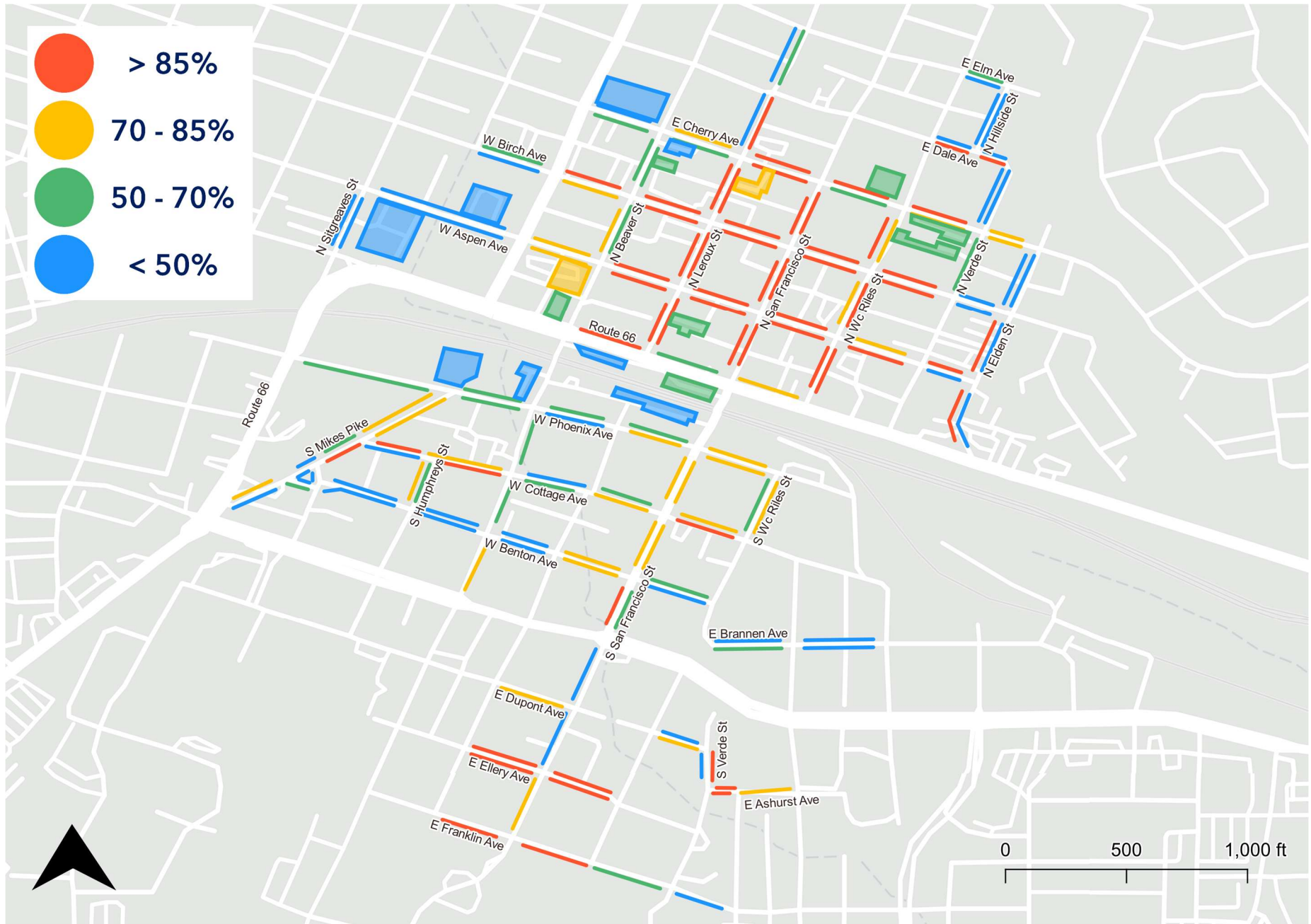


Figure 16. Summer 2026 Average Occupancy - All Times

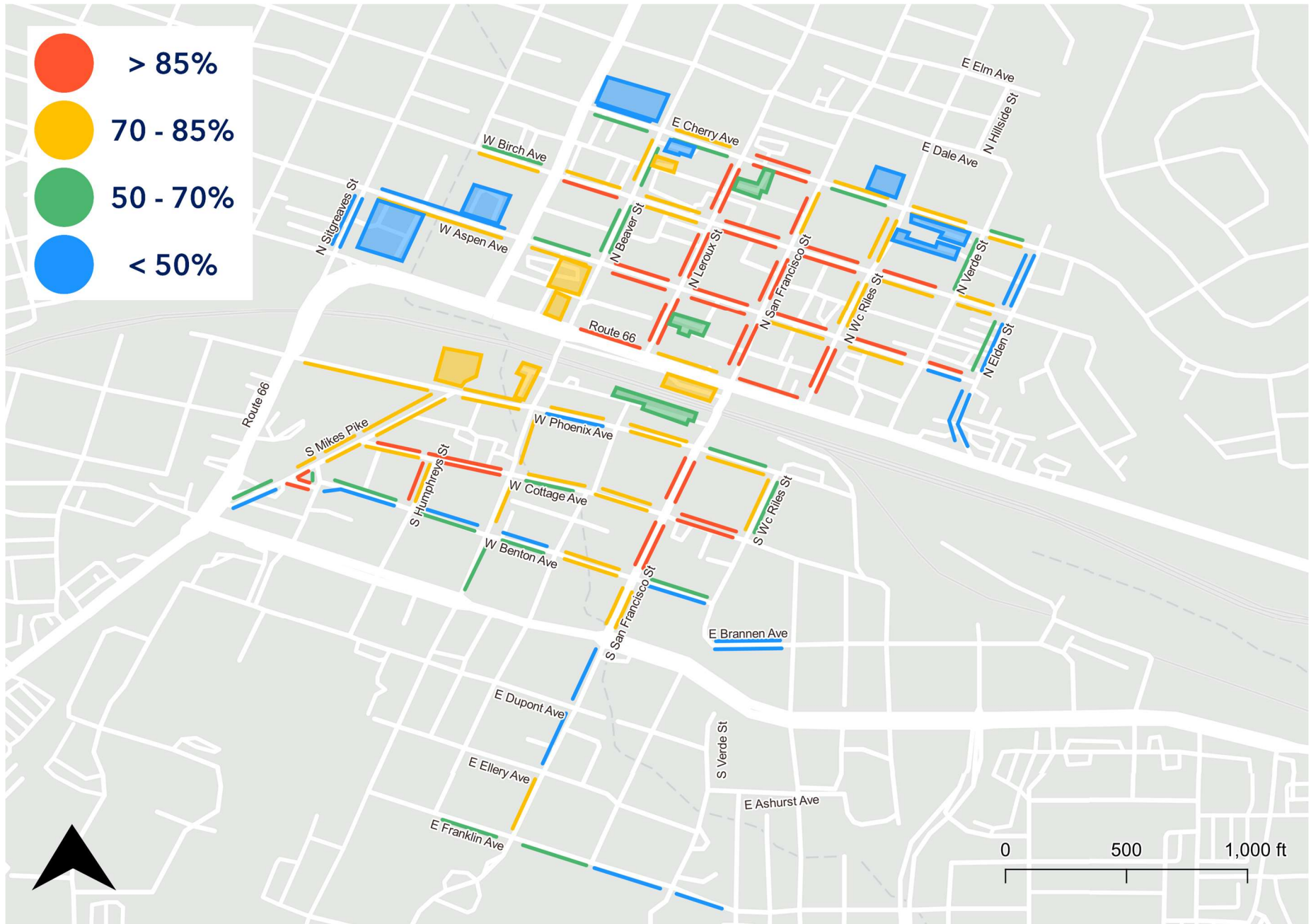


Figure 17. Summer 2026 Average Occupancy - 9 a.m.

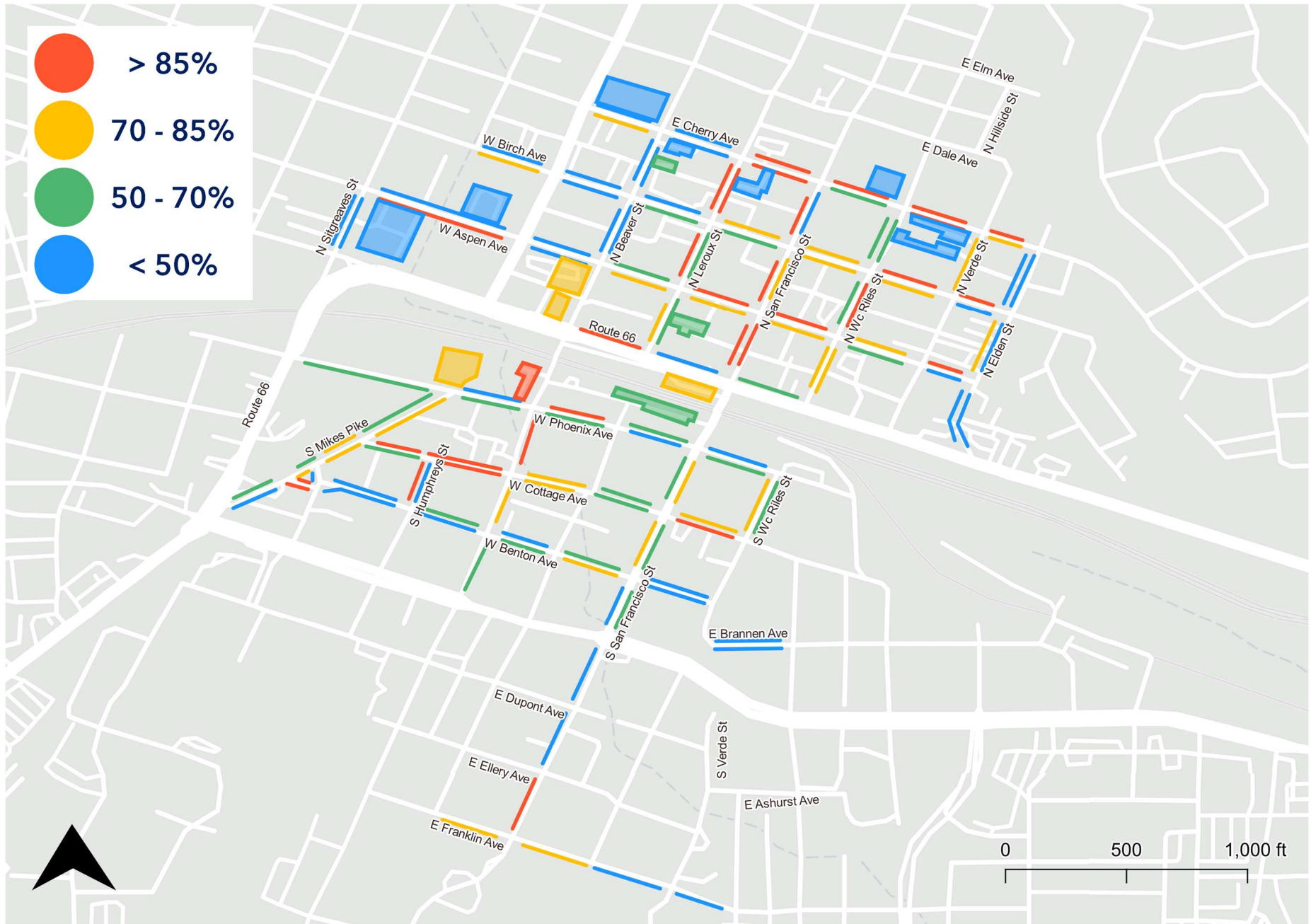


Figure 18. Summer 2026 Average Occupancy - 12 p.m.

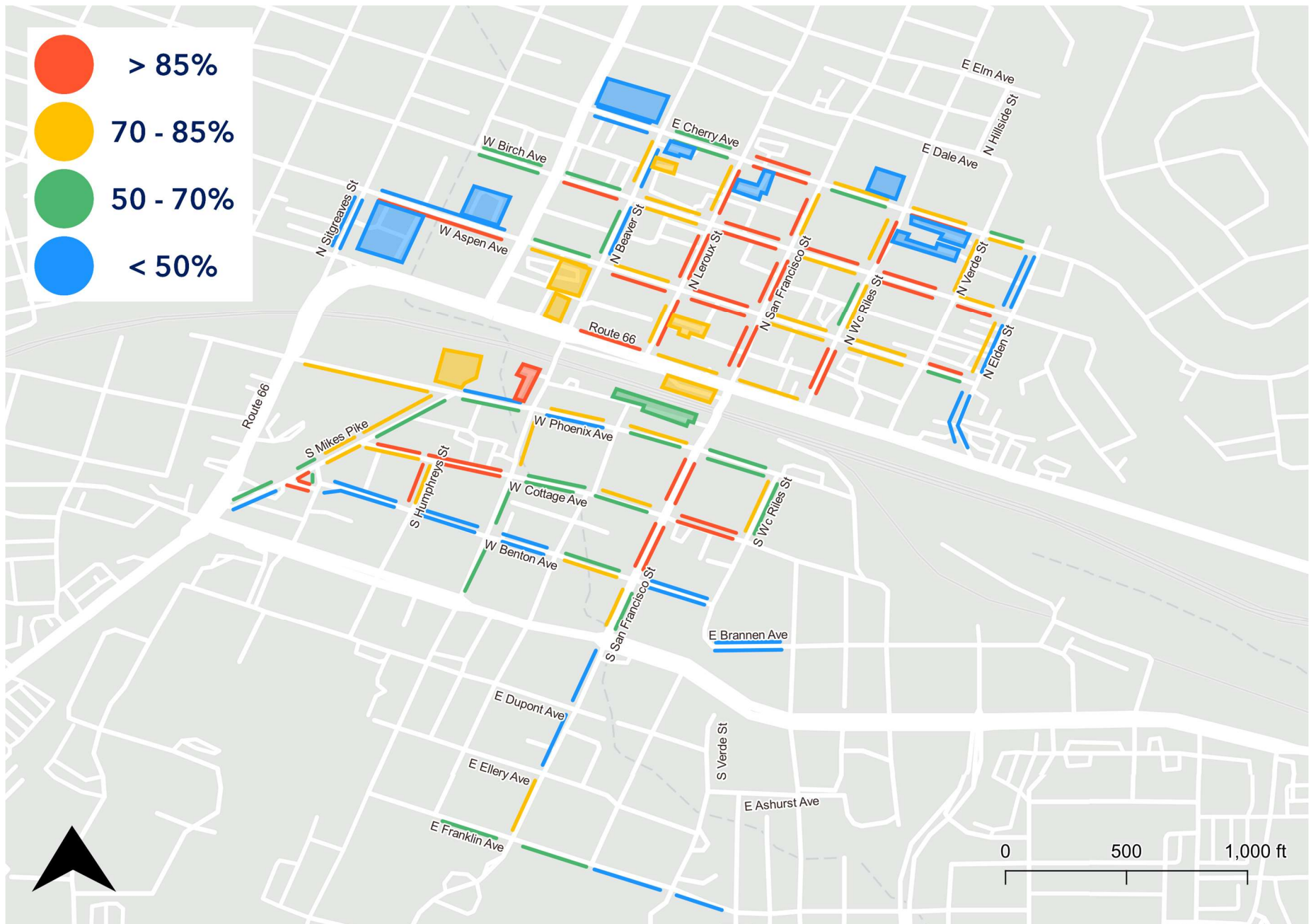


Figure 19. Summer 2026 Average Occupancy - 3 p.m.

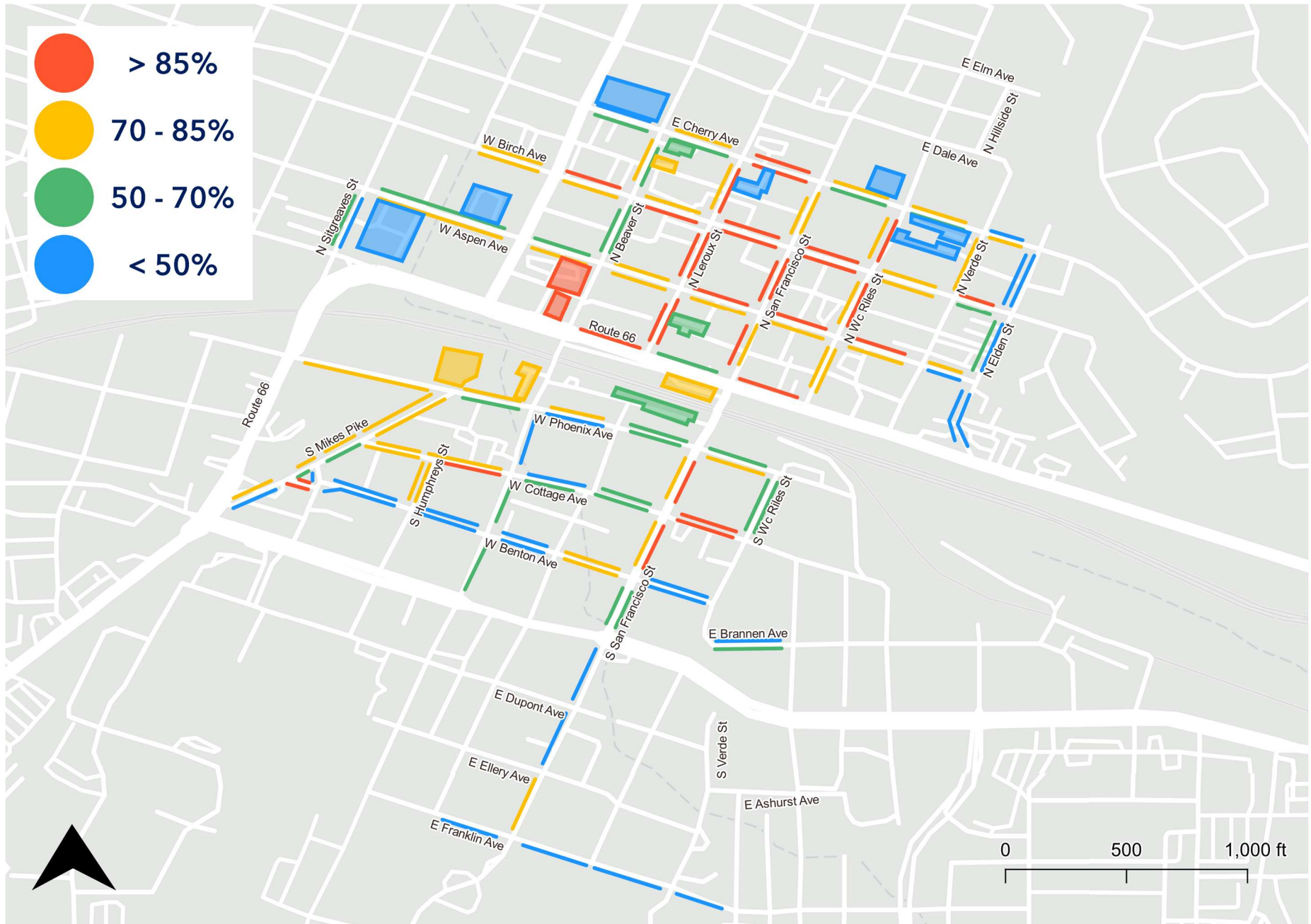


Figure 20. Summer 2026 Average Occupancy - 6 p.m.

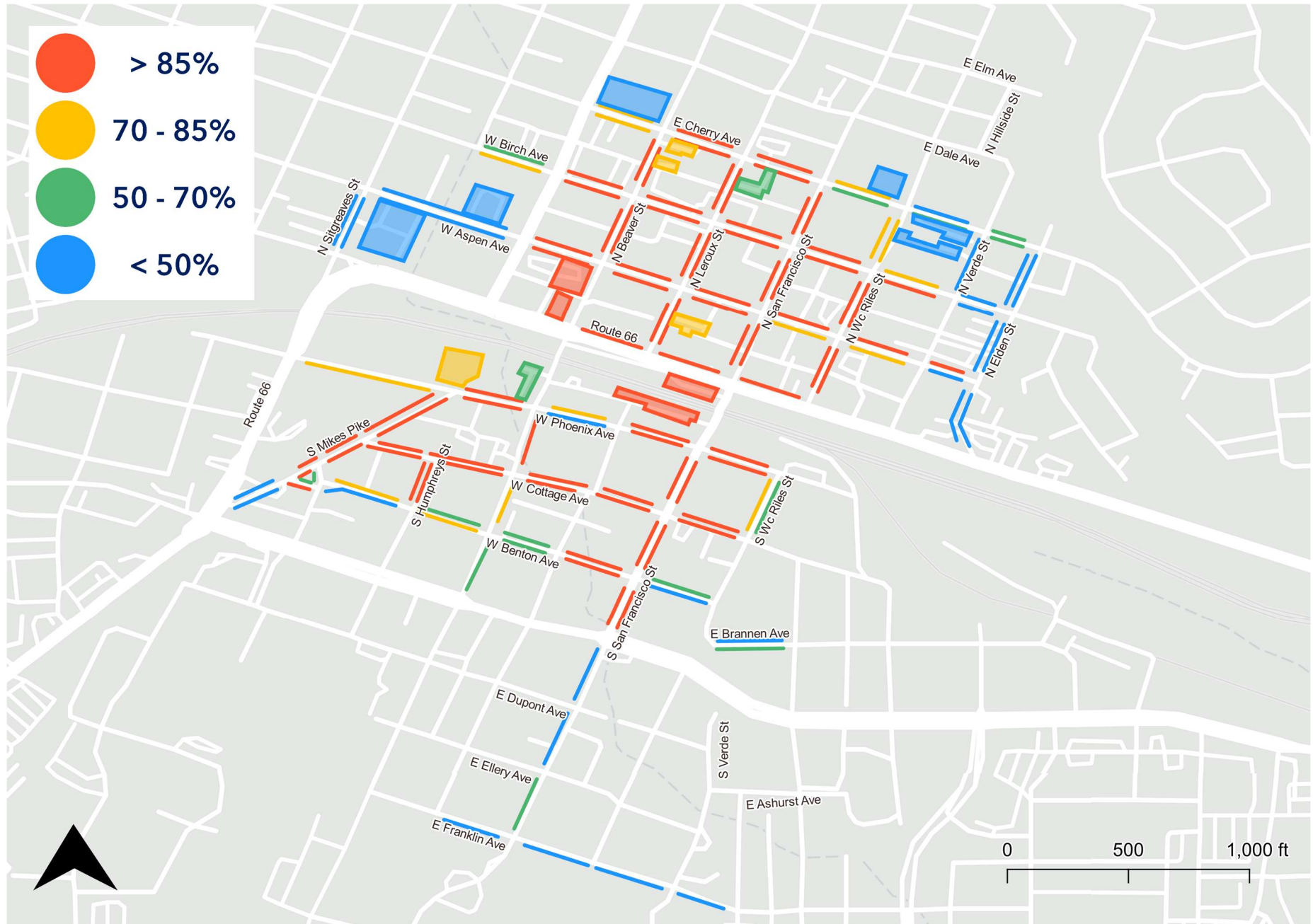


Figure 21. Winter 2025 Average Length of Stay

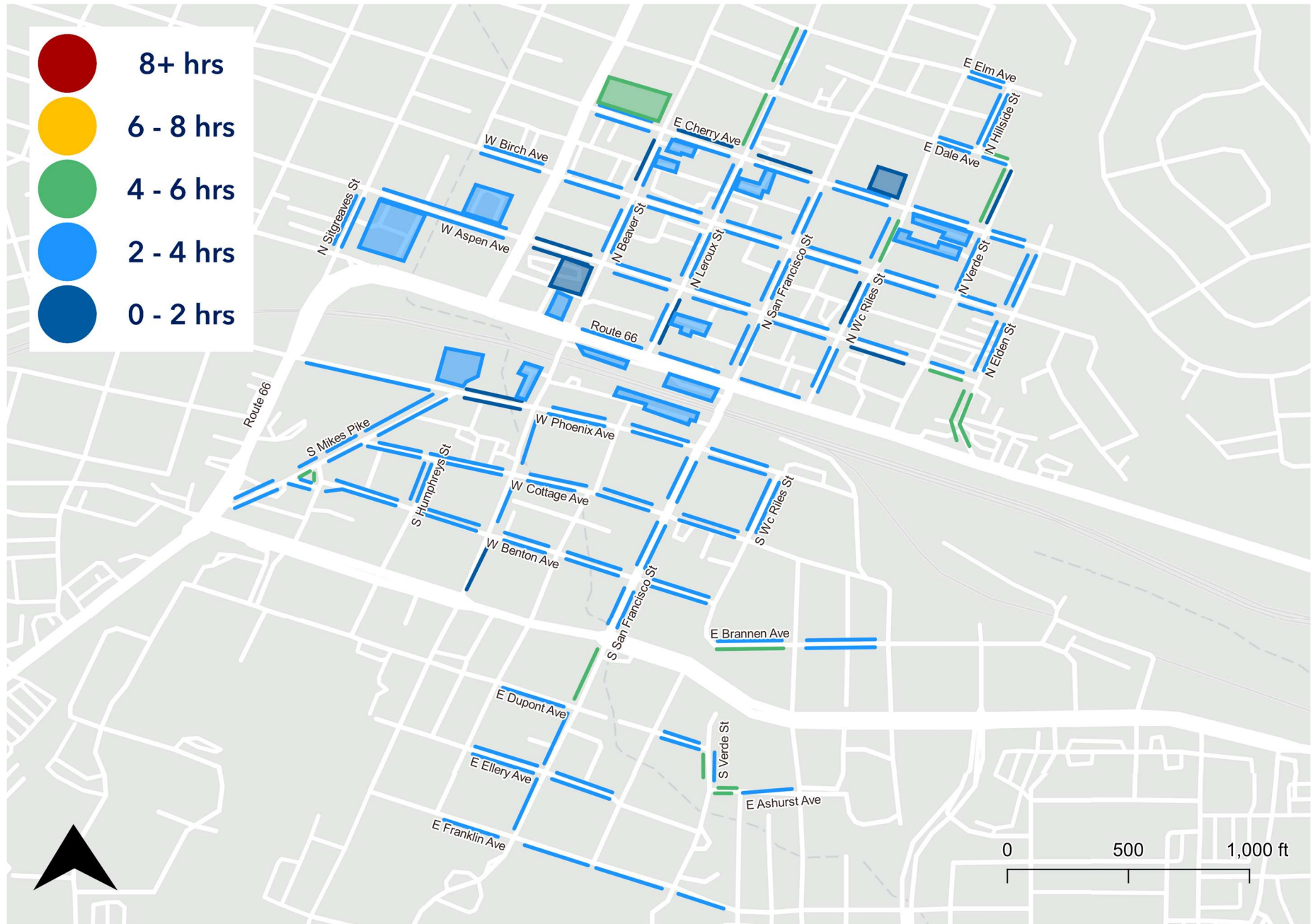
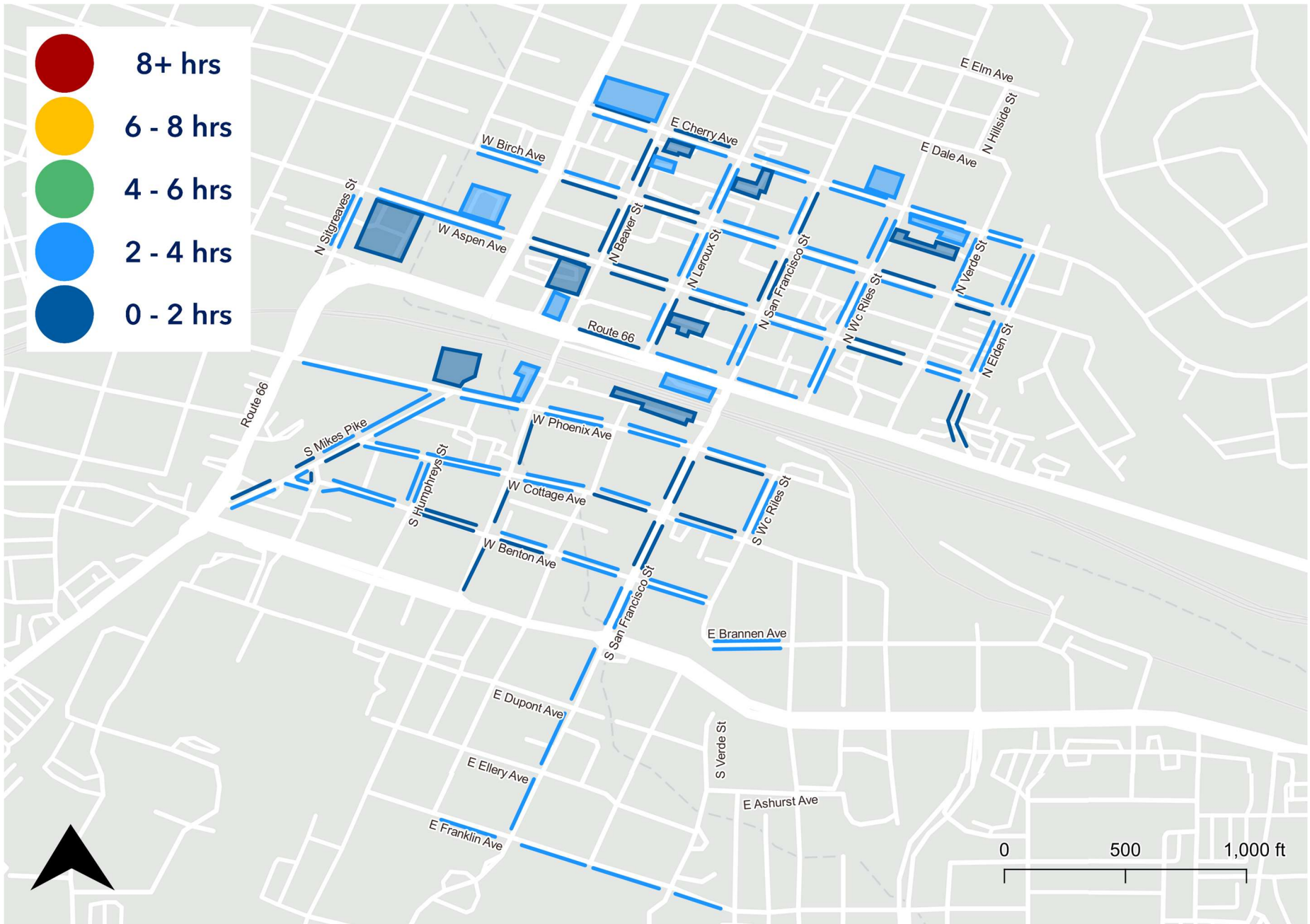


Figure 22. Summer 2026 Average Length of Stay



Appendix D. Near-Term Strategies (Immediate through 24 months)

Near-Term Strategies - Quick Reference Guide

Strategy	Champions (Partners)	Cost	Urgency	Implementation Steps
A. Operational Enhancement and Personnel Development				
A-1. Budget for and begin annual data collection - during peak and off-peak seasons.	Parking Program Manager (Lead Parking Aide)	\$\$	High	☐ Determine if annual data collection will be done in-house, outsourced or hybrid. ☐ If hybrid/outsourced, develop a budget for annual data collection. ☐ If in-house/hybrid: ○ Develop weekday and weekend collection dates, collection hours, and preferred routes. ○ Identify collection periods to accommodate seasonality (e.g., summer, spring/fall, and winter). ○ Collect parking data across all off- and on-street parking locations, paid and free. ○ Identify a process (or partner) for data processing and presentation. ☐ Publish data reports quarterly or bi-annually to facilitate data-driven policy decisions and ensure transparency with the community. ☐ Actively monitor occupancy trends over time.
A-2. Refresh and optimize Parking Aide coverage.	Parking Program Manager (Lead Parking Aide)	N/A	High	☐ Evaluate current coverage routes to assess their effectiveness and identify any gaps in enforcement coverage. ☐ Increase LPR use to address gaps in current routes.

				☐ Define routes based on collected data, Parking Aide availability/shifts and enforcement needs.
A-3. Increase consistency and regularity of Southside area time limited parking.	Parking Program Manager (Lead Parking Aide)	N/A	High	☐ Refresh the enforcement coverage plan for Southside time-limited parking. ☐ Utilize LPR to track turnover and noncompliance. ☐ Proactively communicate with Southside Neighborhood Association and Northern Arizona University (NAU) about increased monitoring, including areas of concern and/or ideas for increasing compliance.
A-4. Conduct a Parking Aide wage evaluation and explore options for increasing the applicant pool.	Parking Program Manager (Community Investment Director, Finance, Human Resources, HR)	\$-\$\$	High	☐ Engage HR to conduct a wage evaluation and to define options for increasing applicant eligibility and/or expansion of the applicant pool. ☐ Continue to develop compensation adjustment budget proposals in partnership with Finance. ☐ Discuss with City Council and seek approval for inclusion in the upcoming Fiscal Year budget (or as a budget amendment if timing for budget inclusion is not achievable).
A-5. Continue documenting current business practices in the ParkFlag Standard Operating Procedures, adding new content/organizational artifacts as appropriate.	Parking Program Manager (Lead Parking Aide, Human Resources)	\$	High	☐ Identify and document investment in annual staff development. ☐ Add a new Onboarding & Training section to the Parking Enforcement Standard Operating Procedures.

B. Technology and Equipment				
B-1. Combine required bank card payment acceptance updates to the pay stations with investment in upgraded pay station technology.	Parking Program Manager, Community Investment Director (Finance, Flowbird)	\$\$\$\$	High	☐ Conduct vendor demonstrations. ☐ Discuss upgrade "needs, wants and nice to haves." ☐ Explore the feasibility of a full replacement/upgrade or a phased approach that prioritizes upgrades to pay stations in key (high traffic) locations. ☐ Budget for planned pay station technology updates. ☐ Develop an implementation plan for upgrades that includes lead time (ordering), installation, staff training, and customer communication.
B-2. Continue to address License Plate Recognition system gaps.	Parking Program Manager (Parking Aides, Passport, MinuteMan)	N/A	High	☐ Set up regular meetings to discuss system gaps with Passport, MinuteMan, and Genetec.
C. Accessibility and Infrastructure				
C-1. Complete an American with Disabilities Act (ADA) Transition Plan	Community Investment Director (Parking Program Manager, Code Enforcement, City Attorney, ADA Coordinator, City Accessibility Office, Commission on Inclusion and Adaptive Living)	\$\$	High	☐ Conduct a comprehensive ADA transition plan, including all on- and off-street parking assets, technology, programming, and communication channels. ☐ Create an annual budget for implementation of plan results.
D. Customer Experience				
D-1. Develop a marketing and/or promotional plan to increase mobile app adoption.	ParkFlag (ParkMobile, Communications, local marketing partners)	\$\$	Medium	☐ Identify current mobile app adoption percentage as the baseline for the campaign.

				❑ Create digital graphics and/or flyers that provide step by step instructions on how to use the mobile app and the benefits of paying by mobile app. ❑ Create a video tutorial for the ParkFlag website on how to navigate the mobile app and pay successfully. ❑ Partner with local marketing partners to promote app use as the fastest, and most convenient, way to pay. ❑ Review the adoption percentage at least annually to gauge the efficacy of promotional strategies.
D-2. Implement an annual customer experience survey.	Community Investment Director (Parking Program Manager)	N/A - \$	Medium	❑ Conduct an online survey each year to solicit feedback from the public and confirm program and budget priorities. ❑ Analyze results and share feedback on the ParkFlag website, with the DBA and in ParkFlag's Annual Report. ❑ Use community input to identify and/or adjust annual ParkFlag workplan priorities.
D-3. Promote ParkFlag's contribution to planned parking and traffic-related Community Enhancements.	Community Investment Director (Parking Program Manager)	\$	Medium	❑ Encourage the City and/or Contractor to provide details on where parking revenues will be reinvested into the downtown parking and traffic-related community enhancements, including specific projects and timing. ❑ Utilize approved City press and social media channels to promote the investments and include them in ParkFlag's Annual Report.
D-4. Partner with local marketing resources to create a public awareness campaign about	ParkFlag, local marketing partner (Communications, DBA)	\$	Medium	❑ Building off ParkFlag's investment in brand awareness, utilize marketing resources to identify key messaging for visitor engagement.

downtown parking options - with a special focus on seasonal visitors. Leverage the DBA to amplify messaging through its membership				☐ Create digital promotional materials. ☐ Distribute materials via social media, partner communication channels, and DBA membership
E. Signage, Wayfinding, and Branding				
E-1. Reduce regulatory and informational sign stacking	ParkFlag (Public Works)	\$	High	☐ Document all existing physical ParkFlag regulatory and informational signage. ☐ Assess which signage needs to be retained, which signage is seasonal and should be covered for part of the year, and which signage can be consolidated. ☐ Create and order magnetic covers or vinyl decals for seasonal signage. ☐ Consolidate signage where possible across the ParkFlag service area.
F. Policy and Program Development				
F-1. Pursue additional opportunities for Shared Parking.	Community Investment Director (City Attorney, Risk Manager, ParkFlag)	\$\$	Low	☐ Identify a list/map of desired shared parking locations based on parking utilization data and known supply needs. ☐ Develop a Shared Parking Agreement policy and template that identifies responsibilities for each party (private lot owner and City), including maintenance, enforcement, liability, and insurance requirements. ☐ Seek City Attorney and Risk Manager approval of Shared Parking Agreement policy and template.

				☐ Reach out to property owners and garner interest in a potential shared parking agreement.
F-2. Explore a Parking Fee-in-Lieu Program (Fee in lieu of onsite parking).	Planning and Development Services, Community Investment Director (ParkFlag)	N/A	Low	☐ Assess the City's policy and regulatory foundation (Zoning code). ☐ Leverage annual data collection efforts to confirm program viability. ☐ Outline a potential fee structure. ☐ Gather input from the development community.
G. Curb Management				
G-1. Increase 15-minute "flex zones" in high-demand locations.	Parking Program Manager, Lead Parking Aide (Public Works/Streets, DBA, commercial delivery vendors)	\$\$	High	☐ Use parking utilization data and DBA/vendor input to identify locations. ☐ Work with the DBA to communicate preferred locations with business and property owners to gather feedback and/or concerns. ☐ Identify impacts on enforcement and/or monitoring feasibility. ☐ Identify signage and/or curb painting needs. ☐ Actively communicate the coming change to downtown stakeholders and the public. ☐ Include new spaces in annual data collection and user survey to gauge efficacy and impact.
G-2. Increase monitoring and enforcement of loading zones, ADA spaces, and drive aisle infractions.	Parking Program Manager, Lead Parking Aide (commercial delivery drivers, Transportation Network Companies)	\$	High	☐ Map hot spots and incorporate active monitoring into daily enforcement rounds. ☐ Refresh ADA training and documentation. ☐ Use LPR and business outreach to enhance coverage.

G-3. Continue positioning ParkFlag as an active participant and Subject Matter Expert (SME) in City planning discussions about curbside programming.	ParkFlag (Community Investment, Planning, Traffic, Engineering, Sustainability, Downtown Business Alliance)	N/A	Medium	☐ Continue participation in the Community Enhancements Committee ☐ Work with the Community Investment Director to identify opportunities to partner with/support City departments on current and upcoming projects that pertain to curb use or parking. ☐ Implement a regular meeting cadence with the DBA Executive Director (and Board, if appropriate) to ensure open and active dialogue about parking projects, needs and/or concerns.
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A. Operational Enhancements and Personnel Development

A-1. Budget for and begin annual data collection - during peak and off-peak seasons.

Data-driven decision making is the foundation for effective parking management, enabling the City to understand utilization patterns by time of day, day of week, and season – and to adjust policy and pricing in response.

The industry-standard target occupancy rate of 85 percent serves as the primary benchmark for these decisions: at this threshold, enough spaces remain available to minimize circling while avoiding costly oversupply. Areas consistently at or above 85 percent signal that rate or policy adjustments (including hours/days of operation) may be warranted; peak periods driven by special events or holidays are typically managed as exceptions.

As the City begins collecting regular occupancy and turnover data, seasonal and annual trends will be identified. In addition to understanding which locations are consistently full or nearly full, the City should also carefully monitor when throughout each day parking facilities (on- and off-street) are busiest. Monitoring these trends will help identify recurring peaks by time of day, day of week, and season.

Having consistent year over year (YOY) parking data will define when and where occupancy approaches or exceeds the 85 percent threshold, guiding the City to determine whether hours of operation should be adjusted and setting the stage for future pricing strategy adjustments in high demand areas.

To further support ongoing monitoring and informed decision-making, ADA space occupancy data should be incorporated into ParkFlag's annual data collection efforts, allowing the City to track utilization patterns, identify potential gaps in accessible supply, and measure progress on accessibility goals over time.

To establish a reliable baseline and track change over time, the City should prioritize annual data collection as a core budget item. Initially, two efforts per year – one in peak season and one in off-peak season – will capture seasonal variation and provide the consistent, comparable data needed to support sound parking management decisions as downtown Flagstaff continues to evolve. Beyond these two annual snapshots, the City should also evaluate the feasibility of transitioning toward continuous, ongoing data collection and aggregation – similar to programs in cities like Estes Park, CO and Monterey, CA – so that utilization trends can be tracked in near real-time rather than reconstructed twice a year.

Looking ahead, YOY utilization data will lay the groundwork for evaluating additional management and/or pricing tools (e.g., dynamic pricing as discussed in Mid-Term Strategy F-3).

Champions (Partner): Parking Program Manager (Lead Parking Aide)

Cost: N/A (in-house) - \$\$ (outsourced)

Urgency: High

Implementation guidance:

- ❑ **Determine if annual data collection will be done in-house, outsourced, or hybrid.** Consider staff capacity, available equipment, and the level of analytical support needed when making this determination. For ParkFlag, a hybrid approach would

be most practical and cost-efficient – with Parking Aides conducting field counts in-house using existing LPR assets while outsourcing data processing and reporting.

- ❑ **If hybrid or outsourced, develop a budget for annual data collection.** Costs will vary based on scope, methodology, and vendor selection. Solicit at least two to three proposals from qualified parking data firms to establish a realistic cost baseline and ensure competitive pricing.
- ❑ **If in-house or hybrid:**
 - Develop weekday and weekend collection dates, collection hours, and preferred routing. Counts should capture both peak and off-peak periods – midday and evening on both weekdays and weekends – and routing should be standardized year over year to ensure data comparability.
 - Identify collection periods to accommodate seasonality. For Flagstaff, summer and winter collection windows should be selected to reflect true peak and non-peak demand, avoiding anomalies such as major special events or holidays that could skew results.
 - Collect parking data across all off- and on-street parking locations, both paid and free.
 - Identify a process or partner for data processing and presentation. Raw count data requires cleaning, aggregation, and visualization to be actionable; determine early whether this will be handled internally using spreadsheet tools or GIS, or through a vendor. The City has the opportunity to extend Dixon Data Suite services to include annual data processing.
- ❑ **Publish data reports quarterly or bi-annually to facilitate data-driven policy decisions and ensure transparency with the community.** Reports should include occupancy rates by block face or facility, YOY comparisons, and a plain-language summary accessible to non-technical audiences. Consistent public reporting builds credibility and supports community confidence in parking management decisions.
- ❑ **Monitor occupancy trends over time.** Use collected data to track when and where occupancy consistently approaches or exceeds 85 percent by parking facility/location, time of day, day of week, and season. Flag these areas and time periods for consideration in future adjustments to hours/days of operation and pricing strategies, ensuring that management responses are grounded in current and transparent utilization data.

A-2. Refresh and optimize Parking Aide coverage.

It is important to highlight that the recommended strategies in this Plan directly affect ParkFlag enforcement operations. Currently, full-time enforcement staffing is determined using a guideline of one enforcement position per 300 parking spaces. Successful implementation of this Plan will require a fully-staffed ParkFlag team.

Full-time enforcement staffing is currently determined using a guideline of one enforcement position per 300 parking spaces. This practice may need to be adapted to meet the needs of the ParkFlag service area as the program evolves.

To complement the Parking Program Manager’s work to recruit and retain a full team of Parking Aides, ParkFlag should refresh its Parking Aide coverage routes. While routes are currently defined by ParkFlag management, Aides indicated flexibility in choosing routing based on coverage and/or known hot spots. Ensuring coverage consistency across all defined routes can improve accountability, and support equitable enforcement district wide. ParkFlag should also

expand its use of LPR for citation and permit management, especially during single-Aide shifts. LPR automates plate identification, reduces manual checking time, and allows one Parking Aide to monitor significantly more spaces per shift.

Together, clearly defined routes and broader LPR utilization make it easier to track coverage, identify gaps, and adjust deployment based on demand or staffing. These improvements will strengthen the effectiveness and equity of parking enforcement across the ParkFlag service area.

Champions (Partners): Parking Program Manager (Lead Parking Aide)

Cost: N/A

Urgency: High

Implementation guidance:

- ❑ **Evaluate current coverage routes to assess their effectiveness and identify any gaps in enforcement coverage.** Begin by thoroughly reviewing current Parking Aide coverage routes to assess their overall effectiveness. This evaluation should identify any gaps in enforcement coverage and determine whether existing routes are adequately addressing parking compliance across the ParkFlag service area. The City's existing citation heat maps can be used to complement Parking Aide insight and field experience.
- ❑ **Increase LPR use to address gaps in current routes.** Increasing the use of LPR will allow ParkFlag to efficiently enforce routes when staffing resources are limited. Additionally, increased use of LPR can ensure more consistent coverage of the entire service area, and when multiple Parking Aides are on-shift, it can allow for a balance of on-foot/in-person support and in-vehicle efficiency.
- ❑ **Define routes based on collected data, Parking Aide availability/shifts and enforcement needs.** Once updated routes are established, continuously monitor effectiveness and adjust as needed based on ongoing data collection and feedback from enforcement staff. Regular route reviews will ensure that coverage remains responsive to changing parking patterns and community needs.

A-3. Increase consistency and regularity of Southside area time limited parking.

ParkFlag should prioritize consistent time limit enforcement throughout the Southside, with special attention on S. Leroux Street. As referenced in A-4 (Parking Aide wage evaluation), the ParkFlag team is working to increase staffing levels, which will make this level of monitoring feasible. A predictable and visible enforcement presence in this corridor will help address existing issues and set the tone for compliance across the broader area. Consistent enforcement increases turnover and improves space availability by making parking more accessible for a greater number of users throughout the day. Using existing City LPR resources, Parking Aides can efficiently track turnover and mark when vehicles remain in one space beyond the designated time limit.

In addition, visible and reliable enforcement reinforces the overall credibility of the parking program. When users see that rules are applied consistently, compliance becomes more normalized, reducing the need for excessive enforcement over time and creating a more balanced and effective parking environment.

Champion (Partners): Parking Program Manager (Lead Parking Aide)

Cost: N/A

Urgency: High

Implementation guidance:

- ❑ **Refresh the enforcement coverage plan for Southside time-limited parking.** Develop a structured and consistent enforcement schedule specifically for Southside area time-limited parking zones. The schedule should be based on observed parking patterns and peak demand times to ensure that enforcement is predictable, fair, and effective in promoting turnover and compliance.
- ❑ **Utilize LPR to track turnover and noncompliance.** Increase use of the City's existing LPR unit to consistently monitor time-limited areas within the Southside service area. The data collected through LPR will provide valuable insights into utilization trends, compliance, and help refine enforcement routing.
- ❑ **Proactively communicate with the Southside Neighborhood Association and Northern Arizona University (NAU) about increased monitoring, including areas of concern and/or ideas for increasing compliance.** Engage the Southside Neighborhood Association and NAU as key partners to help keep residents, visitors and students informed about ParkFlag's work to increase consistent monitoring of time-limited parking areas. This outreach should include an opportunity for neighbors and students to share areas of concern, discuss ideas for improving compliance, and can help ensure that southside stakeholders are well-informed about parking regulations.

A-4. Conduct a Parking Aide wage evaluation and explore options for increasing the applicant pool.

Like many municipalities across the country, ParkFlag faces challenges with frontline retention. While not every factor contributing to staff attrition is within ParkFlag's control, compensation is a meaningful one and something the City can adjust. The current midpoint wage for a Parking Aide is \$23.13 per hour, with a starting wage of \$18.50 per hour. Flagstaff should partner with the City's Human Resources Department to review Parking Aide wages with other similar City roles. If indicated by an internal wage review, increasing the starting wage may help address recruitment challenges and encourage longer employee tenure. Offering competitive wages will support program stability and contribute to a more effective parking program.

Figure 1. Parking Aides



Additionally, a noted barrier to entry into the Parking Aide position is the extensive background check required for certain duties, which can limit the pool of eligible candidates. The City should explore the feasibility of broadening the eligible applicant pool by establishing different classifications of Parking Aide positions (e.g., regulatory and non-regulatory) and/or

by allowing candidates who have not completed the full background check process to still be considered for roles that do not require sensitive records access.

Champions (Partners): Parking Program Manager (Community Investment Director, Finance, Human Resources)

Cost: \$-\$\$

Urgency: High

Implementation guidance:

- ❑ **Engage Human Resources (HR) to conduct a wage evaluation and define options for increasing applicant eligibility and/or expansion of the applicant pool.** Conduct an internal review of Parking Aide compensation to determine if it is in line with similar city or county positions. This research will provide the data needed to make an informed case for any potential wage adjustments and help ensure the City can attract and retain qualified staff.
- ❑ **Continue to develop compensation adjustment budget proposals in partnership with Finance.** If recommended by the internal compensation review, discuss the feasibility and timing of an increase with the Finance Department. Any proposed increase should consider the City's current budget constraints, projected costs of the proposed adjustment, and any potential funding sources. Prepare a budget proposal that clearly outlines the desired wage increase, supported by data gathered from the HR review. The proposal should present a compelling rationale for the adjustment and demonstrate how a more competitive wage structure will benefit parking operations, staff retention and ultimately the user experience.
- ❑ **Discuss with City Council and seek approval for inclusion in the upcoming Fiscal Year budget (or as a budget amendment, if timing for budget inclusion is not achievable).** Present the staff report to City Council for review and approval, requesting that the wage increase be included in the upcoming Fiscal Year budget. If the timing does not align with the regular budget cycle, explore the option of submitting a budget amendment to ensure the wage adjustment can be implemented in a timely manner.

A-5. Continue documenting current business practices in the ParkFlag Standard Operating Procedures (2020), adding new content/organizational artifacts as appropriate.

Building on ParkFlag Enforcement Standard Operating Procedures (SOP) dated 2019-2020, ensure continued documentation and alignment with current business practices. New (evolving) items identified through the Curbside Needs Assessment are included in the implementation guidance below.

Champions (Partners): Parking Program Manager (Lead Parking Aide, Human Resources)

Cost: \$

Urgency: High

Implementation guidance:

- ❑ **Identify and document investment in annual staff development.** ParkFlag actively participates in professional organizations such as the International Parking & Mobility Institute and the Southwest Parking & Transportation Association, and staff engage in both in-person conferences and ongoing virtual training modules.

Establish a system for documenting all annual trainings attended by both the team as a whole and individual Parking Aides. Maintaining accurate training records will help supervisors track staff development, identify gaps in knowledge or skills, and demonstrate the department's commitment to ongoing professional growth.

- ❑ **Add a new Onboarding & Training section to the Parking Enforcement Standard Operating Procedures.** Develop and incorporate a dedicated Onboarding and Training section into the Parking Enforcement SOP. This section should outline the onboarding process for new hires as well as expectations for ongoing training, ensuring that all staff have a clear understanding of professional development requirements from the outset of their employment.

B. Technology and Equipment

B-1. Combine required bank card payment acceptance updates to the payment pay stations with investment in upgraded pay station technology.

During both DIXON's technology assessment and project stakeholder engagement, existing issues with uptime and overall ease of customer use were noted. While the pay-by-plate pay stations are generally operational and in good repair given their age, key components, such as screens, keyboards, and printers, require ongoing maintenance. The pay stations are not equipped with Europay, Mastercard, Visa (EMV)-compliant or tap-to-pay card readers, which limits available payment options. Additionally, some stakeholders noted challenges with pay station operability/access for users in wheelchairs and/or similar mobility-assisting devices.

Since industry-wide credit card payment compliance updates are anticipated in 2027, DIXON recommends that the City should begin exploring both required and desirable pay station technology updates now rather than wait until the deadline approaches. Evaluating options (partial or full replacement), budgeting, and phasing the pay station updates in advance will allow the City to meet future requirements proactively and avoid a rushed implementation.

The City should prioritize replacing or retrofitting pay stations in high-density and high-demand areas. New/updated pay stations can be configured to offer improved receipt options and branded to align with the ParkFlag program. Updated signage and decals should also be installed to promote mobile payment convenience, as stakeholder engagement indicated low utilization of mobile payment platforms, as shown in Appendix B. Modernized pay stations would feature a more intuitive user interface, making them easier to use and improving overall customer satisfaction.

Figure 2. Flowbird (Arrive) Kiosks



Champions (Partners): Parking Program Manager, Community Investment Director, (Finance, Flowbird)

Cost: \$\$\$\$

Urgency: High

Implementation guidance:

- ❑ **Conduct vendor demonstrations.** Schedule demonstrations with multiple qualified pay station/payment technology vendors to gain a comprehensive understanding of the range of available upgrades, including required card reader updates and touchscreen options. Demonstrations provide an opportunity to see the technology in action, ask questions, and compare how different solutions could improve the overall customer experience at City pay stations.
- ❑ **Discuss upgrade “needs, wants and nice to haves.”** Engage in a detailed discussion with prospective vendors to clearly outline the City's priorities for the upgrades, including identification of potential cost-savings by bundling multiple pay station updates. Categorizing requirements into needs, wants, and nice-to-haves will help the City make informed decisions about which features are essential, which are desirable, and which may be considered if budget allows, ensuring that the final solution aligns with both operational goals and customer experience objectives.
- ❑ **Explore the feasibility of a full replacement/upgrade or a phased approach that prioritizes upgrades to pay stations in key (high traffic) locations.** Evaluate the financial feasibility of a full replacement or upgrade compared to a phased approach that prioritizes upgrades to pay stations in key high-traffic locations. A phased approach may allow the City to manage costs more effectively while still delivering improved customer experience in the areas where it will have the greatest impact.
- ❑ **Budget for planned pay station technology updates.** Once a preferred upgrade approach has been identified, work with the Finance Department to develop a budget that accounts for all associated costs, including equipment, installation, and any ongoing maintenance or service fees. Ensuring that adequate funding is planned and allocated will be critical to the successful execution of the upgrade program.
- ❑ **Develop an implementation plan for upgrades that include lead time (procurement), installation, staff training, and customer communication.** Create a detailed implementation plan that outlines all phases of the upgrade process, including equipment lead times for selection, procurement, installation scheduling, staff training, and customer communication. A well-structured implementation plan will help minimize disruption to parking operations and ensure that both staff and the public are well informed and prepared for the transition to the new technology.

B-2. Continue to address License Plate Recognition (LPR) system gaps.

Currently, LPR is being used to supplement Parking Aide field monitoring of paid and time-limited regulations in the ParkFlag service area. However, staff reported ongoing and frequent issues related to LPR read accuracy that are impacting tool efficacy and deterring regular use. To address this, the City should proactively engage Passport and Genetec to diagnose issues, ensure accurate system configuration, and provide updated staff training. Any existing system gaps should be documented by ParkFlag and resolved promptly in coordination with customer support teams from Passport, Minuteman (integrator), and Genetec.

Champions (Partners): Parking Program Manager (Parking Aides, Passport, Minuteman)
Cost: N/A
Urgency: High

Implementation guidance:

- ❑ **Set up regular meetings to discuss system gaps with Passport, Minuteman, and Genetec.** During vendor meetings, identify and prioritize next steps for addressing the most critical system gaps. This may include follow-up meetings, product demonstrations, contract negotiations, or the development of a broader technology improvement plan to support effective use of this valuable tool.

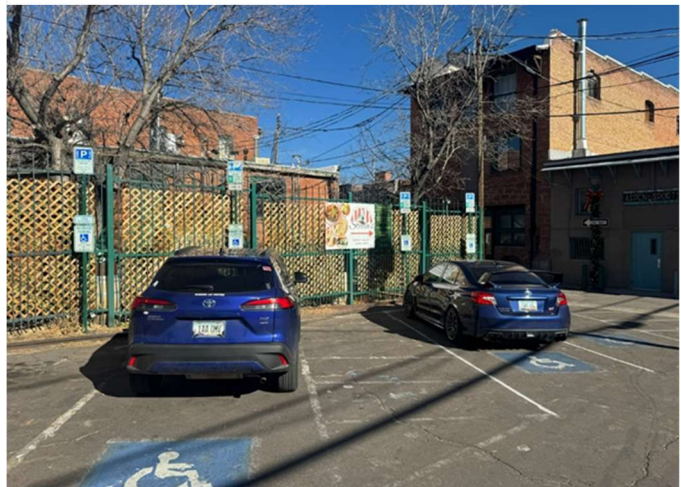
C. Accessibility and Infrastructure

C-1. Complete an American with Disabilities Act (ADA) Transition Plan

ParkFlag should commission a comprehensive ADA Transition Plan for all City-managed (public) parking assets, including both off-street facilities and on-street parking areas – in partnership with the appropriate City partners. This recommendation stems from recent Public Rights-of-Way Accessibility Guidelines (PROWAG) guidance and evolving federal accessibility standards that now include on-street parking and transit stop access.

An ADA Transition Plan would allow the City to systematically identify existing barriers and establish a clear, defensible roadmap for achieving compliance with all applicable State and Federal regulations. Proactively addressing accessibility will help reduce legal risk, improve equitable access, and demonstrate the City's commitment to inclusive mobility. Development of the ADA Transition Plan should be prioritized among ParkFlag's near-term initiatives, with a dedicated budget allocated to fund the assessment, design, and implementation of necessary improvements.

Figure 3. ADA Lot



Champions (Partners): Community Investment Director (Parking Program Manager, Code Enforcement, City Attorney, ADA Coordinator, City Accessibility Office, ADA Coordinator, Commission on Inclusion and Adaptive Living)

Cost: \$\$

Urgency: High

Implementation guidance:

- ❑ **Conduct a comprehensive ADA transition plan, including all on- and off-street parking assets, technology, programming, and communication channels.** Seek proposals from qualified consultants with specific experience in municipal ADA transition plan development. The transition plan should begin with a detailed audit of

all existing parking assets to identify any current gaps in compliance with both ADA and the Public Right-of-Way Accessibility Guidelines (PROWAG). Consideration should be given to including local accessibility resources (e.g., Commission on Inclusion and Adaptive Living and Barrier Free Flagstaff) in this audit.

- ❑ **Create an annual budget for implementation of plan results.** Once the ADA transition plan has been completed and compliance gaps have been identified and prioritized, work with Finance to establish a dedicated annual budget for the implementation of the plan recommendations. The budget should account for the full scope of required improvements, including physical infrastructure modifications, technology upgrades, and updates to communication channels and programming.

D. Customer Experience

D-1. Develop a marketing and/or promotional plan to increase mobile app adoption.

ParkFlag should partner with Discover Flagstaff to create a strategic marketing campaign to increase mobile app adoption. The online questionnaire conducted as part of the Curbside Management Plan indicated low mobile adoption rates, and write-in comments indicated confusion and frustration with app performance. The City's upcoming transition to a multi-app environment is the optimal time to "reintroduce" mobile payment options as a public convenience. An effective campaign should clearly describe mobile app benefits and provide step-by-step instruction on app functionality. Updated field signage and pay station decals should be explored as part of the plan. Additionally, video tutorials can help the public navigate the application and lead to higher adoption rates than with static written content alone.

After creation of the plan, work with key community partners to help spread the word about the improved customer experience and new multi-app payment options.

Champions (Partners): ParkFlag (ParkMobile, Communications, local marketing partners)

Cost: \$\$

Urgency: Medium

Implementation guidance:

- ❑ **Identify current mobile app adoption percentage as the baseline for the campaign.** Begin by identifying and documenting the current mobile app adoption percentage across all parking payment platforms. This baseline data will serve as the foundation for measuring the success of the promotional campaign over time and will help set realistic and meaningful targets for increasing app adoption among customers.
- ❑ **Create digital graphics and/or flyers that provide step by step instructions on how to use mobile app and the benefits of paying by mobile app.** Design engaging digital graphics and/or printed flyers that provide customers with clear, step-by-step instructions on how to download and use the mobile app to pay for parking. ParkMobile should be able to provide graphic support for this recommendation.
- ❑ **Create a video tutorial for the ParkFlag website on how to navigate the mobile app and pay successfully.** A short, easy-to-follow video could serve as a valuable self-service resource for customers at all levels of technology comfort, helping to reduce

barriers to adoption and improve the overall customer experience. ParkMobile should have video samples and/or content suggestions from other client communities.

- ❑ **Partner with local marketing partners, NAU and the Southside Neighborhood Association to promote app use as the fastest, and most convenient, way to pay.** Leveraging the reach and networks of these community partners will help amplify the campaign's message and ensure that it reaches a broad and diverse audience, including residents, visitors, and students.
- ❑ **Review the adoption percentage at least annually to gauge the efficacy of promotional strategies.** Annual reviews will provide valuable insights into what is working, where there are opportunities for improvement, and whether campaign goals and targets are being met. Findings from each review should be used to inform and refine future marketing and promotional efforts to ensure continued growth in mobile app adoption over time.

D-2. Implement an annual customer experience survey.

Building on the City's first online customer experience questionnaire developed as part of the Curbside Management Plan, the City should implement an online questionnaire annually to track the impact of operational and programmatic improvements. Questionnaire results should be shared publicly – as part of the ParkFlag Annual Report – and questionnaire participants should be able to see how their feedback is influencing updates to ParkFlag service delivery approach. Ongoing and intentional customer engagement will reinforce ParkFlag's existing – and notable – customer service orientation in a meaningful way. The City can also encourage participation by offering incentives like gift cards to local businesses and/or tickets to popular local events.

Champions (Partners): Community Investment Director (Parking Program Manager)

Cost: N/A - \$

Urgency: Medium

Implementation guidance:

- ❑ **Conduct an online questionnaire annually to solicit feedback from the public and confirm program and budget priorities.** The questionnaire should be designed to capture meaningful and actionable data, and should be distributed through a variety of channels to maximize participation and ensure that feedback is representative of the broader community. Conducting the questionnaire on an annual basis will allow ParkFlag to track trends in customer satisfaction over time and build a valuable year-over-year dataset. Leverage the City's existing questionnaire tool for distribution.
- ❑ **Analyze results and share feedback on the ParkFlag website, with the DBA and in ParkFlag's Annual Report.** Once questionnaire responses have been collected, conduct a thorough analysis of the results to identify key themes, areas of strength, and opportunities for improvement. Findings should be shared transparently with the public through the ParkFlag website and communicated directly to the Downtown Business Alliance (DBA) to ensure that key stakeholders are informed and engaged. Include a dedicated section in ParkFlag's Annual Report that presents the results of the customer experience survey, including year-over-year comparisons to highlight trends in customer satisfaction and program performance. Publishing survey findings in the Annual Report will reinforce ParkFlag's commitment to transparency, provide a consistent record of community feedback over time, and demonstrate the organization's ongoing efforts to continuously improve the customer experience.

- ❑ **Use community input to identify and/or adjust annual ParkFlag workplan priorities.** Apply the insights gathered from the survey to identify, adjust, and prioritize items in ParkFlag's annual workplan. Community feedback should be treated as a meaningful and valued input in the planning process, helping to ensure that ParkFlag's programs, initiatives, and budget priorities are aligned with the needs and expectations of the customers and communities it serves.

D-3. Promote ParkFlag's contribution to planned parking and traffic-related Community Enhancements.

The City should actively celebrate and communicate how future parking fees (e.g., the rate increase approved in 2025) will be reinvested in the district in which they were collected. The City should share that parking revenue will support expanded municipal services in the downtown area. Showing key stakeholders how parking revenue – which is being collected from residents and visitors alike – benefits the areas of downtown Flagstaff from which they are collected can help build support for the parking program. This type of clear communication can help ease frustration over time as community members see “their dollars in action” near their favorite business or destination.

Champions (Partners): Community Investment Director, (Parking Program Manager)

Cost: \$

Urgency: Medium

Implementation guidance:

- ❑ **Encourage the City and/or Contractor to provide details on where parking revenues will be reinvested into the downtown parking and traffic-related community enhancements,** including specific projects and timing.
- ❑ **Utilize approved City press and social media channels to promote the investments and include them in ParkFlag's Annual Report.** Content should be engaging, visually compelling, and easy to understand for a general audience, highlighting the direct connection between parking programs and the improvements being made in the downtown area. Regular updates should be shared throughout the life of each project to keep the community informed of progress and maintain momentum around the campaign. Including this information in the Annual Report will provide a consistent and publicly accessible record of how parking revenues are being reinvested into the community, further demonstrating ParkFlag's commitment to transparency and its role as a meaningful contributor to the vitality of downtown Flagstaff.

D-4. Partner with marketing resources to create a public awareness campaign about downtown parking options - with a special focus on seasonal visitors. Leverage the DBA to amplify messaging through its membership.

To further promote community and visitor awareness of parking and curbside offerings, the City should leverage local communication expertise to create a positive informational campaign. The campaign should promote both free and paid parking options and provide clear, easy to understand guidance on how and where public parking is available. To support these efforts, the City can partner with the Downtown Business Alliance to distribute promotional materials.

A “quick win” identified during the Plan's stakeholder outreach was to include ADA parking options on the ParkFlag map and website. This would improve wayfinding and transparency,

making it easier for individuals with disabilities to plan trips and locate accessible parking before arrival.

Champions (Partners): ParkFlag, local marketing partner (Communications, DBA)

Cost: \$

Urgency: Medium

Implementation guidance:

- ❑ **Leveraging ParkFlag's investment in brand awareness, partner with marketing resources to identify key messaging for visitor engagement.** Leverage knowledge of the community and visitor landscape to ensure that messaging is relevant, welcoming, and effective in helping visitors quickly understand and navigate ParkFlag's free and paid parking options. Utilize existing Placer.ai data to further tailor messaging, timing, and distribution strategies.
- ❑ **Create digital promotional materials.** Materials may include social media graphics, digital flyers, interactive maps, and other visual assets that are easy to understand and share. All materials should reflect ParkFlag's colorful and distinctive brand identity and be optimized for use across a variety of digital platforms and screen formats to maximize reach and impact.
- ❑ **Distribute materials via social media, partner communication channels, and DBA membership.** Execute a coordinated distribution strategy that leverages social media platforms, partner communication channels, and the DBA's membership network to ensure that promotional materials reach the widest possible audience.

E. Signage, Wayfinding, and Branding

E-1. Reduce regulatory and informational sign stacking.

Outdated, redundant, and/or conflicting signs throughout the ParkFlag service area should be systematically removed or consolidated to improve clarity and readability. Excessive signage can overwhelm drivers, making it difficult to quickly understand parking regulations and increasing the likelihood of unintentional violations. Streamlining signage will improve compliance and create a more intuitive parking experience.

As part of this effort, ParkFlag should conduct an internal, district-wide signage audit to identify opportunities for consolidation and standardization. For seasonal or temporary restrictions, magnetic covers or sign hoods can be used to conceal inactive signage rather than leaving multiple messages visible year-round. Incorporating ParkFlag-branded covers can reinforce program identity.

Figure 4. Stacked Signage



Champions (Partners): ParkFlag (Public Works)
Cost: \$
Urgency: High

Implementation guidance:

- ❑ **Document all existing physical ParkFlag regulatory and informational signage.** Begin by conducting a comprehensive, internal signage audit that includes all existing ParkFlag regulatory and informational signage throughout the service area. Each sign should be photographed and, where possible, logged with its corresponding Geographical Information System (GIS) location to create a complete and spatially accurate inventory of all signage assets. This inventory will serve as the foundational reference document for all subsequent signage audit and improvement efforts and will provide a valuable baseline for tracking changes and updates to the signage network over time.
- ❑ **Assess which signage needs to be retained, which signage is seasonal and should be covered for part of the year, and which signage can be consolidated.** Using the completed signage inventory as a guide, assess all existing signage to evaluate its current condition, accuracy, and continued relevance. The assessment should categorize each sign into one of three groups: signage that should be retained as is, signage that is seasonal in nature and should be covered or deactivated for part of the year, and signage that is redundant or unnecessary and can be consolidated or removed. The findings of the audit should be clearly documented and used to develop a prioritized action plan for signage improvements across the ParkFlag service area.
- ❑ **Create and order magnetic covers or vinyl decals for seasonal signage.** For signage identified as seasonal, design and procure custom magnetic covers or vinyl decals that can be easily applied and removed as needed throughout the year. Magnetic covers provide a cost-effective and practical solution for temporarily deactivating seasonal signage without the need for permanent removal or replacement. Covers should be designed to be weather-resistant, visually clean, and consistent with ParkFlag's brand standards to ensure a professional appearance when in use.
- ❑ **Consolidate signage where possible across the ParkFlag service area.** Where the assessment has identified opportunities to reduce signage clutter or eliminate redundancy, consolidate signs across the ParkFlag service area wherever feasible. Consolidation efforts should prioritize locations where multiple signs can be combined into a single, clearer, and more informative display without compromising the communication of important regulatory or directional information. Reducing unnecessary signage will improve the overall visual environment, make it easier for customers to find and understand relevant parking information, and contribute to a more streamlined and professional appearance throughout the service area.

Figure 5. Consolidated signage



F. Policy and Program Development

F-1. Pursue additional opportunities for Shared Parking.

The City should continue leveraging shared parking opportunities to increase publicly-available parking in areas of high demand. These agreements allow underutilized private parking spaces, such as private business lots outside of their operating hours, to be used for public or employee parking. This strategy provides benefits such as reducing the costs of building new parking, improving convenience, optimizing use of existing spaces, and avoiding excessive land use for parking. Private property owners benefit from added revenue, municipal support for insurance and enforcement, and improved signage. Terms and conditions should be clearly defined in a shared parking agreement, including key terms such as usage, maintenance, operations, finance, and enforcement responsibilities.

Champions (Partners): Community Investment Director (City Attorney, Risk Manager, ParkFlag)

Cost: \$\$

Urgency: Low

Implementation guidance:

- ❑ **Identify a list/map of desired shared parking locations based on parking utilization data and known supply needs.** This data-driven approach will help ensure that outreach efforts are strategically focused on the areas where additional parking supply is most needed and will provide a clear and compelling basis for conversations with prospective private lot owners.
- ❑ **Develop a Shared Parking Agreement policy and template that identifies responsibilities for each party (private lot owner and City), including maintenance, enforcement, liability, and insurance requirements.** The policy and template should comprehensively address key considerations such as maintenance responsibilities, enforcement protocols, liability provisions, and insurance requirements to ensure that all parties are adequately protected and that the terms of each agreement are consistent, transparent, and enforceable.
- ❑ **Seek City Attorney and Risk Manager approval of Shared Parking Agreement policy and template.** Prior to initiating any outreach to property owners, submit the draft shared parking agreement policy and template to the City Attorney and Risk Manager for thorough review and approval. This step will ensure that the agreement framework is legally sound, appropriately manages the City's risk exposure, and complies with all applicable laws and regulations before it is presented to prospective partners.
- ❑ **Reach out to property owners and garner interest in a potential shared parking agreement.** Outreach efforts should clearly communicate the mutual benefits of a shared parking arrangement, including increased utilization of underused private lots, potential revenue opportunities for property owners, and the broader community benefit of expanding publicly available parking supply without the need for significant capital investment.

F-2. Explore a Parking Fee-in-Lieu Program (Fee in lieu of onsite parking).

Parking fee-in-lieu programs allow developers to pay into a dedicated public fund instead of constructing the full number of parking spaces required by code. Rather than scattering privately-owned, underutilized surface lots across a district, the city aggregates those contributions to build or improve shared public facilities – reducing land consumption, supporting walkable development patterns, and giving the city greater control over how parking supply is managed. For Flagstaff, a well-structured program could strengthen

downtown vitality, support university-adjacent development, and generate a sustainable funding stream for future parking and multimodal infrastructure investments.

Champions (Partners): Planning and Development Services, Community Investment Director (ParkFlag)

Cost: N/A

Urgency: Low

Implementation guidance:

- ❑ **Assess the City's policy and regulatory foundation (Zoning code).** Review current (and proposed changes) to City parking requirements, identify any existing in-lieu provisions, and benchmark peer communities (particularly comparable mountain and university-adjacent cities) to inform program design and defensible fee methodology.
- ❑ **Leverage annual data collection efforts to confirm program viability.** Evaluate existing public parking utilization, shared parking potential, and system capacity to absorb demand from fee-paying developments – establishing a factual basis for program boundaries and eligibility criteria.
- ❑ **Outline a potential fee structure.** Identify a potential per-space fee reflective of Flagstaff's development and construction cost realities.
- ❑ **Gather input from the development community.** Engage property owners and developers about their interest in and/or concerns with a parking fee-in-lieu offering.

G. Curb Management

G-1. Increase 15-minute "flex zones" in high-demand locations.

A consistent theme across online and in-person engagement was a request to add (more) 15-minute loading zones. Defining a process for identifying, adding, and monitoring strategically located 15-minute zones can improve curbside access for quick trips downtown, improve traffic flow, and increase safety. Additionally, the City should consider labeling these areas as "flex zones," and consider adding a flex zone designation to City code. Flex zones define the space between the pedestrian realm (sidewalk) and the travel way as a flexible, multi-use asset rather than dedicated to a single fixed purpose like parking. Its function can shift based on the needs of the adjacent corridor, land use, time of day, or day of week. Designated, well-enforced flex zones can serve as loading zones – reducing double parking, minimizing traffic conflicts, and better supporting local businesses and deliveries.

To determine where new flex zones would be most beneficial, the City should coordinate with the Downtown Business Alliance and engage with customers, business owners, and Transportation Network Companies (TNCs) about their need for more short-term curb space. Additionally, the City should establish a regular cadence for collecting utilization data for special curbside uses, including 15-minute zones and designated commercial loading zones. Using this information, the City will be able to implement and adjust curbside policies and programs in a data-driven and transparent manner.

Champions (Partners): Parking Program Manager, Lead Parking Aide (Public Works/Streets, DBA, commercial delivery vendors)

Cost: \$\$

Urgency: High

Implementation guidance:

- ❑ **Use parking utilization data and DBA/vendor input to identify locations.** Location decisions should be guided by actual curbside demand patterns (via annual parking data collection), proximity to high-activity businesses, and the frequency of rideshare and delivery activity in specific areas to ensure that new zones are placed where they will have the greatest positive impact on curbside access and traffic flow. Additionally, early engagement with downtown business owners and the DBA will help identify any potential conflicts or unintended consequences, build community support for the initiative, and ensure that the placement of new zones is responsive to the needs of the businesses and customers they are intended to serve.
- ❑ **Identify impacts on enforcement and/or monitoring feasibility.** This assessment should consider staffing levels, patrol routes, and the availability of LPR technology to support efficient monitoring of high-turnover zones and should identify any adjustments to enforcement protocols that may be needed to ensure consistent and effective compliance management.
- ❑ **Identify signage and/or curb painting needs.** This should include an assessment of whether new signage installations or updates to existing signs are needed, as well as any curb painting requirements to visually delineate zone boundaries. All signage and curb markings should comply with applicable regulatory standards and be consistent with ParkFlag's established brand and visual identity.
- ❑ **Actively communicate the coming change to downtown stakeholders and the public.** Communication efforts should clearly explain the purpose and benefits of the new zones, identify the specific locations being affected, and provide an anticipated timeline for implementation. Outreach should be distributed through multiple channels, including social media, the ParkFlag website, DBA member communications, and direct outreach to affected businesses and property owners.
- ❑ **Include new spaces in annual data collection and user survey to gauge efficacy and impact.** Data and feedback gathered through these ongoing monitoring efforts will provide valuable insights into whether the zones are achieving their intended purpose and will inform any future adjustments needed to optimize their performance and utility.

G-2. Increase monitoring and enforcement of loading zones, ADA spaces, and drive aisle infractions

Improper or illegal loading can impact accessibility and compromise pedestrian and vehicular safety. Additionally, maintaining clearly designated and well-marked loading zones will help commercial delivery drivers' complete deliveries more efficiently and support smoother traffic flow throughout the downtown area. To promote compliance, ParkFlag should consistently enforce loading zone violations, including citations for repeat offenders. While verbal and written warnings for loading zone violations can be appropriate – and can maintain positive relationships between ParkFlag and the delivery vendor community, warnings should not be given for ADA violations as those spaces are federally-mandated and required for equitable access.

Champions (Partners): Parking Program Manager, Lead Parking Aide (Commercial delivery drivers, Transportation Network Companies)

Cost: \$

Urgency: High

Implementation guidance:

- ❑ **Map hot spots and incorporate active monitoring into daily enforcement rounds.** Use citation data and Parking Aide field knowledge to identify chronic violation locations. Use the findings from this exercise to update Parking Aide enforcement routes, directing Parking Aide time to high-priority areas during peak violation windows – particularly loading zones during delivery hours and ADA spaces during high-activity periods.
- ❑ **Refresh ADA training and documentation.** Ensure all Parking Aides are trained on the legal standards for each violation type – including ADA access aisle requirements, loading zone restrictions, and drive aisle clearance rules – and standardize photo documentation protocols to support citation defensibility and reduce successful appeals.
- ❑ **Use LPR and business outreach to enhance coverage.** Regularly use LPR to ensure consistent coverage of hot spots, especially when field staffing is limited. Pair this with proactive outreach to businesses and delivery operators so that voluntary compliance improves alongside enforcement presence.

G-3. Continue positioning ParkFlag as an active participant and Subject Matter Expert (SME) in City planning discussions about curbside programming.

ParkFlag should have an ongoing role in planning discussions related to scooter and bicycle share programs, parklet applications, and management of the downtown right-of-way. Early coordination ensures that parking and curb impacts are addressed proactively. The City should regularly include ParkFlag in downtown project planning and/or programming discussions that impact public parking demand, supply, and curb use regulations before any final decisions are made.

Champions (Partners): Parking Program Manager, Community Investment Director (Planning, Traffic, Engineering, Sustainability, Downtown Business Alliance)

Cost: N/A

Urgency: Medium

Implementation guidance:

- ❑ **Continue participation on the Community Enhancements Committee.** Regular participation will help establish ParkFlag as a reliable and knowledgeable resource on curbside programming matters, while also providing valuable opportunities to stay informed about upcoming City projects and initiatives that may impact parking operations and curb use.
- ❑ **Work with the Community Investment Director to identify opportunities to proactively partner with/support City departments on current and upcoming projects that pertain to curb use or parking.** By positioning ParkFlag as a collaborative and engaged partner across departments, the organization can ensure that parking considerations are integrated early in the planning process and that its subject matter expertise is leveraged to inform better outcomes for curbside programming citywide.
- ❑ **Implement a regular meeting cadence with the DBA Executive Director to ensure open and active dialogue about parking projects, needs, and/or concerns.** Regular communication with the DBA will help ensure that the downtown business community's perspective is considered in parking planning and programming decisions, while also strengthening the working relationship between ParkFlag and one of its most important

community stakeholders. These meetings will also provide a valuable forum for sharing updates on current projects, gathering feedback, and collaboratively addressing any emerging parking-related challenges in the downtown area. Identify a regular annual cadence for ParkFlag presentations to the full DBA Board, ideally to share how community feedback has been incorporated into ParkFlag annual work planning.

Appendix E. Mid-Term Strategies (Years 3 through 5)

Mid-Term Strategies - Implementation Quick Guide

Strategy	Champions (Partners)	Cost	Urgency	Implementation Steps
B. Technology and Equipment				
B-3. Strategically expand ParkFlag's use of LPR.	Parking Program Manager, Lead Parking Aide (Community Investment Director, Finance)	\$\$\$\$	High	- Identify priority deployment location(s) and unit type. - Identify available budget and preferred implementation timing. - Develop an RFP and select a vendor. - Install, test and accept new system(s).
B-4. Implement gateless Parking Access and Revenue Control (PARCS) in future structured parking assets.	Community Investment Director (Parking Program Manager, City Information Technology, mobile payment vendor(s), Flowbird)	\$\$	Low	- Adopt gateless access as the preferred management approach for off-street facilities. - Establish new mobile payment zone(s). - Configure LPR for off-street enforcement. - Install Flowbird kiosks and signage. - Install mobile app signage.
B-5. Explore customer-facing parking availability information.	Parking Program Manager, Community Investment Director (Information Technology, Procurement, Selected Vendor)	\$\$\$\$	Low	- Conduct vendor demonstrations. - If demonstrated systems align with ParkFlag's goals, develop RFP requirements for a parking availability system. - Evaluate and select one or more vendors. - Implement the parking availability system.
C. Accessibility and Infrastructure				

C-2. Identify opportunities for additional bike racks in underutilized and/or difficult to program areas.	Community Investment Director, ParkFlag (Sustainability, Downtown Business Alliance)	\$\$\$	Low	❑ Identify high-demand locations in partnership with Sustainability, DBA, and/or the appropriate bicycle advocacy group. ❑ Identify implementation steps, required permitting, and project budget. ❑ Install bike racks, prioritizing high-demand locations. ❑ Promote availability and community benefit as part of ParkFlag's commitment to demand management alternatives.
E. Signage, Wayfinding, and Branding				
E-2. Expand ParkFlag's colorful and clever brand work,	ParkFlag (Discover Flagstaff)	\$\$	Medium	❑ Create a ParkFlag brand guide/book. ❑ Develop an annual budget for brand implementation and expansion. ❑ Prioritize creation of branded decals for parking equipment (e.g., pay stations, informational signage, vehicles). ❑ Include ParkFlag branding whenever possible online, including special event parking materials and social media posts. ❑ Carry the ParkFlag brand through apparel worn by front line staff, including shirts, hats and outerwear. ❑ Place ParkFlag branding and mobile payment stickers on the pay stations where deemed appropriate.
E-3. Expand auto-directional and destination parking signage.	Parking Program Manager (Community Investment Director, City Public Works)	\$\$\$	Medium	❑ Confirm current signage inventory. ❑ Assess MUTCD compliance and ParkFlag brand alignment. ❑ Develop a prioritized replacement and gap-fill plan.

F. Policy and Program Development				
F-3. Identify a predictable, documented process and cadence for parking fee adjustments.	Community Investment Director, Parking Program Manager (City Council, Finance)	N/A	Medium/Low	☐ Establish a preferred cadence for parking fee review and adjustment. ☐ Define occupancy-based adjustment thresholds and strategies. ☐ Explore a more diverse Pay-to-Park rate structure. ☐ Commit to a transparent process.
F-4. Complete a municipal code review to ensure alignment with existing parking and curbside management practices.	ParkFlag, Community Investment Director (City Attorney)	N/A - \$	Medium	☐ Review municipal code to ensure all parking and curbside policies and regulations are up to date and appropriately documented. This work can be done in-house or outsourced. ☐ Where appropriate, future-proof the municipal code to allow for changes to parking rates, regulations and technology. ☐ Review code with City Attorney. ☐ Bring code updates to City Council for review and approval.
F-5. Conduct a comprehensive review of ParkFlag's parking permit offerings, to ensure program regulations are meeting customer needs.	Parking Program Manager, Community Investment Director, Parking Aides (DBA, Southside Neighborhood Association, NAU)	\$	Medium	☐ Convene an ad-hoc stakeholder committee to evaluate current offerings. ☐ Seek City Council approval. ☐ Review and update permit policies. ☐ Utilize the annual survey to track results over time, and adjust as needed.
G. Curb Management				
G-4. Conduct a new Curbside Management Study.	Parking Program Manager, Community Investment Director	\$\$	Low	☐ Plan and budget for a future Curbside Management Study.

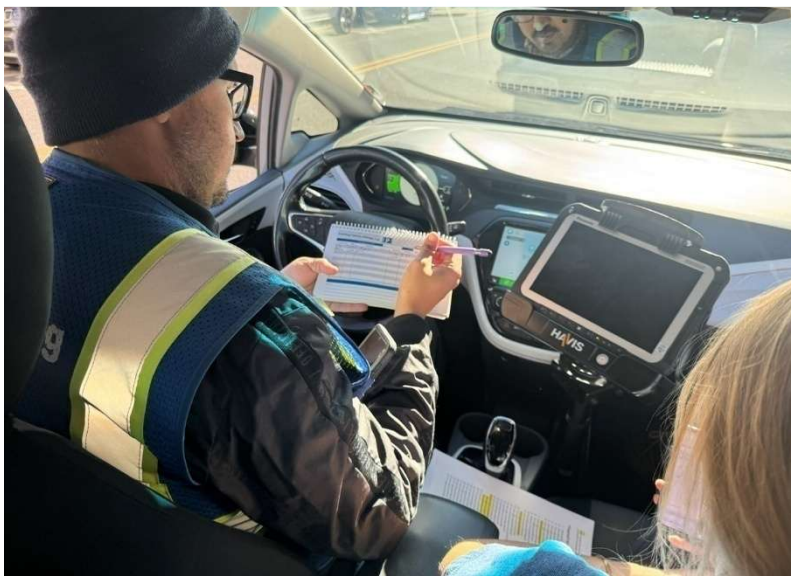
B. Technology and Equipment

B-3. Strategically expand ParkFlag's use of LPR.

As ParkFlag matures, strategic expansion of license plate recognition (LPR) technology offers one of the highest-value opportunities to improve enforcement efficiency, data quality, and customer experience

simultaneously. LPR extends the effective reach of Parking Aides without proportional staffing increases, strengthens citation defensibility, and generates the occupancy data needed to power real-time availability information for users. Deploying fixed units in new structured facilities and high-utilization surface lots creates a more comprehensive, consistent picture of system performance – and positions ParkFlag to make smarter, data-driven decisions as the program grows.

Figure 1. LPR Vehicle



Champions (Partners): Parking Program Manager, Lead Parking Aide (Community Investment Director, Finance)

Cost: \$\$\$\$

Urgency: High

Implementation guidance:

- ❑ **Identify priority deployment location(s) and unit type.** Start by identifying where LPR will have the greatest impact – facilities with high monitoring needs, known utilization gaps, and/or limited data visibility. Structured parking locations and heavily used surface lots are the ideal starting point, with mobile LPR continuing to cover lower-volume or variable-demand areas. Consideration should be given to the most effective LPR unit type given enforcement needs, fixed, mobile or both.
- ❑ **Identify available budget and preferred implementation timing.** Before moving to procurement, strategize with the Finance Department to work through budgeting options for additional units. The conversation should cover the full cost picture – acquisition, installation, and ongoing maintenance – and identify the most viable funding sources, whether that's parking revenues, available grants, or a budget amendment.
- ❑ **Develop an RFP and select a vendor.** Work with relevant stakeholders to build out Request for Proposal (RFP) specifications that clearly define hardware and software requirements, integration expectations with existing enforcement software, and data storage needs. Direct system integration should be a priority – third-party

intermediaries add cost and complexity that are worth avoiding. Before launching a standalone RFP, check whether a cooperative purchasing agreement (e.g., Sourcewell, or OMNIA Partners) offers a qualifying vehicle that could simplify and accelerate the process. Evaluate proposals against established criteria with input from key stakeholders and select the vendor that best fits the City's operational and technical needs.

- ❑ **Install, test and accept new system(s).** Work closely with the selected vendor to plan an installation that keeps disruption to enforcement operations to a minimum. Establish clear acceptance criteria upfront, and make sure all units are fully tested and verified before initiating active service.

B-4. Implement gateless Parking Access and Revenue Control (PARCS) in future structured parking assets

As Flagstaff brings structured parking assets into its portfolio, adopting gateless technology could offer a cost-effective and customer friendly path that builds on existing infrastructure. Gateless Parking Access and Revenue Control (PARCS) systems eliminate the capital and maintenance costs associated with traditional gate equipment while enabling seamless integration with the tools ParkFlag users already know – the ParkMobile app and Flowbird kiosks. This consistency across on- and off-street locations strengthens the ParkFlag brand, helps users quickly identify public parking options, and supports broader mobile payment adoption across the district.

Special consideration should also be given to the impact of new structured parking assets on ParkFlag's Pay-to-Park fee structure, which is currently managed as one large zone. As such, this recommendation will be closely aligned with and should be considered during implementation of Strategy F-3 (Parking Fee Adjustments).

Champions (Partners): Community Investment Director (Parking Program Manager, City Information Technology, mobile payment vendors, and Flowbird)

Cost: \$\$

Urgency: Low

Implementation guidance:

- ❑ **Adopt gateless access as the preferred management approach for off-street facilities.** Document the policy and/or operational preference for gateless technology in any new or acquired off-street parking facility, including structure parking. This standardizes the customer experience across the ParkFlag system, reduces infrastructure costs, and avoids the operational complexity of gate equipment maintenance and staffing.
- ❑ **Establish new mobile payment zone(s).** Work with all active mobile payment vendors to establish a process for implementing new zones. Ensure that the new zones are properly configured with accurate rate information, time restrictions, and any other relevant parameters prior to launch.
- ❑ **Configure LPR for off-street enforcement.** Deploy and configure License Plate Recognition technology to support enforcement at off-street facilities, enabling

verification of payment status without gate equipment and reinforcing the gateless access model.

- ❑ **Install Flowbird kiosks and signage.** Procure and install Flowbird pay kiosks at strategic locations throughout the off-street facility to provide continuity for a physical payment option for customers who prefer not to use a mobile app. Alongside the kiosks, install clear and visible signage that directs customers to all available payment options, displays parking rates and time restrictions, and ensures that the facility is easy to navigate and understand for all users.
- ❑ **Install mobile app signage.** Install dedicated signage throughout the facility that clearly communicates the availability of mobile app payment options. Signage should include instructions on how to download and use the app(s), the zone number for the facility, and any other relevant information needed to complete a transaction.

B-5. Explore customer-facing parking availability information.

The City should explore technology solutions that provide customers with real-time or near-real time (predictive) parking availability information. Mobile LPR systems collect data on parked vehicles, allowing the City to estimate occupancy across on-street and off-street parking locations. Transaction data from pay stations and mobile payment applications indicates when and where parking sessions are active. When combined, these data sources provide a more accurate and comprehensive view of both current occupancy and expected demand throughout the day. A parking availability system can utilize this data to provide public-facing information for Flagstaff visitors and residents, guiding drivers to available parking throughout the ParkFlag service area.

The City should consider procuring a parking availability system capable of integrating LPR and transaction data to estimate parking availability in real time and/or generate predictive insights based on historical trends. This information can then be delivered to customers through user-friendly platforms such as mobile applications, web-based maps, and digital signage.

A parking availability system can also support a public-facing, shareable parking inventory that displays real-time occupancy across the system. This inventory would help the City determine whether additional parking spaces are needed or whether existing supply is sufficient to meet demand, while also providing clarity to the public on which parking spaces are operated by ParkFlag.

Champions (Partners): Parking Program Manager, Community Investment Director (Information Technology, Procurement, Selected Vendor)

Cost: \$\$\$\$

Urgency: Low

Implementation Guidance:

- ❑ **Conduct vendor demonstrations.** Begin by identifying and reaching out to vendors that offer Parking Guidance System solutions, including those that utilize a combination of LPR and transaction data to provide real-time parking availability information. Conducting vendor demonstrations will allow the City to evaluate available

technologies, ask questions, and gain a clearer understanding of what solutions best align with the City's operational needs and goals.

- ❑ **If demonstrated systems align with ParkFlag's goals, develop Request for Proposal (RFP) requirements for a parking availability system.** Using insights gathered from the vendor demonstrations, develop a comprehensive Request for Proposals (RFP) that clearly outlines the City's requirements and expectations for a parking availability system. The RFP should define technical specifications, integration requirements with existing and future systems, customer-facing functionality, and any other criteria that will be used to evaluate prospective vendors.
- ❑ **Evaluate and select one or more vendors.** Once proposals are received, conduct a thorough evaluation of each submission against the established RFP criteria.
- ❑ **Implement the parking availability system.** Work collaboratively with the selected vendor to develop and execute an implementation plan that minimizes disruption to existing parking operations. The implementation phase should include system installation, staff training, and a public outreach effort to inform the community about the new parking availability tool and how to use it effectively.

C. Accessibility and Infrastructure

C-2. Identify opportunities for additional bike racks in underutilized and/or difficult to program areas.

As observed during the Curbside Needs Assessment, the City has already taken meaningful steps toward expanding bicycle parking downtown. The City should continue identifying areas of downtown that are underutilized or difficult to program as locations for new – and preferably artistic – secure bicycle racks. This continued investment can support active transportation options and strengthen first- and last-mile connections across the district.

As this effort continues, strategically targeting remaining gaps – particularly near NAU, transit stops, and high-activity commercial areas – will help extend campus cycling behaviors into the broader downtown area and advance the City's sustainability goals. This work should be done in conjunction with the City team who is responsible for managing the City's scooter/bike share program to ensure effective coverage across the ParkFlag service area. In the future, the City may want to explore e-bicycles and e-bicycle chargers at secure bike rack locations.

Champions (Partners): Community Investment Director (ParkFlag, Sustainability, Downtown Business Alliance)

Cost: \$\$\$

Urgency: Low

Implementation guidance:

- ❑ **Identify high-demand locations in partnership with Sustainability, DBA, and/or the appropriate advocacy group(s).** Collaborate with the City's Sustainability department, DBA, and local advocacy groups such as Biking Flagstaff or Strong Towns to identify high-demand locations where additional bike racks would be most beneficial. Engaging these partners early in the process will ensure that placement decisions are informed by community needs, cycling patterns, and broader sustainability goals. This collaborative approach will also provide an opportunity to explore the incorporation of

artistic and design elements that reflect the character of the surrounding area and enhance the overall aesthetic of the streetscape.

- ❑ **Identify implementation steps, required permitting, and project budget.** Once high-demand locations have been identified, develop a clear implementation plan that outlines all necessary steps for installation, including any required permitting, right-of-way approvals, or coordination with other City departments. A detailed project budget should be developed to account for the cost of bike rack procurement, any custom design or artistic elements, installation, and ongoing maintenance to ensure that the project is budgeted, sustainable, and executable.
- ❑ **Install bike racks, prioritizing high-demand locations.** Begin installation of bike racks in the identified high-demand locations, ensuring that placement is safe, accessible, and convenient for cyclists. Where feasible, incorporate artistic or design elements into the bike rack installations to enhance their visual appeal and contribute positively to the surrounding environment. Installations should be completed in a phased manner, prioritizing the locations with the greatest need first while continuing to plan for additional installations over time.
- ❑ **Promote availability and community benefit as part of ParkFlag's commitment to demand management alternatives.** Once bike racks have been installed, actively promote their availability to the public as part of ParkFlag's broader commitment to demand management alternatives and sustainable transportation. Outreach efforts should highlight the community benefits of increased bike parking, including reduced vehicle congestion, improved accessibility, and support for a more environmentally friendly transportation network. Promotion channels may include social media, the City's website, community newsletters, and partnerships with local cycling advocacy groups.

E. Signage, Wayfinding and Branding

E-2. Expand ParkFlag's colorful and clever brand work.

ParkFlag should expand its branding across signage, special event parking materials, and staff apparel to increase recognition of ParkFlag parking assets and improve community relations. Additionally, the City should explore the possibility of extending the ParkFlag brand across all auto-directional and destination signage, wherever feasible. As previously discussed, there is also an opportunity to strengthen the ParkFlag brand by incorporating branded decals on pay stations. These decals can reinforce system identity and help users easily recognize official City-managed parking assets. In addition, targeted stickers can be used to promote the mobile payment app(s) as a convenient alternative.

Figure 2. Vandalized Pay Station



The City can promote the ParkFlag brand by adding decals to existing signage or creating apparel for Parking Aides. Establishing a clearly identifiable brand will help reduce confusion between ParkFlag parking assets and privately

owned parking in the downtown area. Consistent branding across signage and public-facing materials will improve public relations, minimize accidental violations, and further ParkFlag's customer-focused management of the City's public parking system versus some of the more predatory towing practices that take place in private lots.

Additionally, ParkFlag should regularly check all signage and payment kiosks for unauthorized stickers and/or graffiti on payment kiosks. Seasonal equipment cleaning is also recommended, especially due to Flagstaff's varied climate.

Champions (Partners): ParkFlag (Discover Flagstaff)

Cost: \$\$

Urgency: Medium

Implementation guidance:

- ❑ **Create a ParkFlag brand guide/book.** Develop a comprehensive brand guide that establishes clear and consistent standards for the use of ParkFlag's visual identity, including logos, color palettes, typography, imagery, and tone of voice. The brand guide will serve as the foundational reference document for all future branding efforts, ensuring that ParkFlag's identity is applied consistently and cohesively across all touchpoints, materials, and platforms.
- ❑ **Develop an annual budget for brand implementation and expansion.** Work with the Finance Department to establish a dedicated annual budget that supports the ongoing implementation and expansion of the ParkFlag brand. The budget should account for all anticipated branding needs, including design work, printed materials, apparel, decals, and digital assets, and should be reviewed and updated each fiscal year to reflect evolving priorities and new branding opportunities.
- ❑ **Prioritize creation of branded decals for parking equipment (e.g., pay stations, informational signage, vehicles).** As an early and high-visibility branding priority, design and produce branded decals for key parking infrastructure, including pay stations, informational signage, and ParkFlag vehicles. Applying consistent ParkFlag branding to parking equipment will reinforce brand recognition throughout the community and contribute to a more polished and professional appearance across all parking facilities.
- ❑ **Include ParkFlag branding whenever possible online, including special event parking materials and social media posts.** Ensure that ParkFlag branding is prominently and consistently featured across all online platforms, including the City's website, social media accounts, and digital communications. Special event parking materials, such as maps, directional guides, and promotional content, should also reflect the ParkFlag brand to create a unified and recognizable experience for the public during high-visibility events.
- ❑ **Expand the ParkFlag brand through apparel worn by front line staff, including shirts, hats and outerwear.** Branded staff uniforms will enhance the professional appearance of the team, increase visibility in the field, and reinforce ParkFlag's identity as a community-facing organization. Apparel selections should be practical, durable, and appropriate for a variety of weather conditions given Flagstaff's climate.
- ❑ **Place ParkFlag branding and mobile payment stickers on the pay stations where deemed appropriate.** Establish a routine schedule for inspecting payment kiosks to identify and remove any non-ParkFlag stickers, decals, or

unauthorized materials that may detract from the brand's appearance or cause confusion for customers. Staff should also assess opportunities to apply or refresh ParkFlag branding and mobile payment stickers on pay stations where appropriate, ensuring that all equipment consistently reflects the ParkFlag brand and provides clear, up-to-date payment guidance to users.

E-3. Expand auto-directional and destination parking signage

Signage and wayfinding are crucial elements of downtown navigation, especially given the high volume of vehicles and pedestrians moving in and around the ParkFlag service area daily. Enhancing awareness of parking options can alleviate congestion from drivers searching for parking and optimize the use of parking assets.

Best practice is for auto-directional signs to be strategically placed—like visual breadcrumbs for the driving public—easily visible (both during the day and at night), and in compliance with the [Manual on Uniform Traffic Control Devices \(MUTCD\)](#) in terms of character size and sign reflectivity. On the other hand, parking destination signage located at a facility serves as a visual cue that a motorist has reached their destination. This sign typically includes the facility name and any associated regulations.

Building on the City's existing investment in the ParkFlag brand, and the signage refinement work recommended in Strategy E-1 (Expand the ParkFlag brand), there is additional opportunity to enhance the ease of downtown parking wayfinding by adding new, strategically located auto-directional signage and destination signage that help the driving/parking public quickly understand which facilities are part of the ParkFlag public offering.

Champions (Partners): Parking Program Manager (Community Investment Director, Public Works)

Cost: \$\$\$

Urgency: Medium

Implementation guidance:

- ❑ **Confirm current signage inventory.** Leveraging the work done as part of Strategy E-1 (Expand the ParkFlag brand), field-verify that the signage inventory is accurate and up to date.
- ❑ **Assess MUTCD compliance and ParkFlag brand alignment.** Assess each sign against MUTCD compliance requirements (character size, reflectivity, placement) and established ParkFlag brand standards. ParkFlag signs that are faded, damaged, non-compliant, missing, or inconsistent with current regulations or wayfinding logic. Use citation data and Parking Aide field knowledge to identify areas with frequent violations that are appealed due to unclear or missing signage.
- ❑ **Develop a prioritized replacement and gap-fill plan.** Using assessment findings, build a prioritized action list that addresses the most critical compliance and wayfinding deficiencies first – distinguishing between immediate replacements, near-term additions, and longer-term system enhancements – with estimated costs to support budget planning.

F. Policy and Program Development

F-3. Identify a predictable, documented process and cadence for parking fee adjustments.

A predictable, documented process for reviewing and adjusting parking fees (e.g., Pay-to-Park, permits and citations) is essential to maintaining a sustainable parking program. Ad hoc, inconsistent and/or infrequent rate assessments can create public resistance, devalue an important public resource, and contribute to an inequitable financial burden for customers. By contrast, a consistent review cadence – tied to clear occupancy thresholds and market conditions – can depoliticize rate adjustments, signal fiscal responsibility, and reinforce parking fees as the most effective demand management tool over time. Looking ahead, consideration should be given to a parking fee review structure that is designed to best serve evolving conditions across downtown, including thriving commercial districts, neighborhoods, and NAU-adjacent corridors.

Looking ahead, year-over-year (YOY) occupancy data should identify the groundwork for evaluating additional management and/or pricing strategies like demand-based pricing. Demand-based pricing – where rates are set higher in high-demand areas and lower in less utilized areas – allows the parking system to use pricing to distribute demand more evenly and can lead to reduced congestion and improve overall system efficiency. While implementation of a more progressive pricing strategy like demand pricing may be a longer-term objective, building a consistent, multi-year occupancy dataset now is necessary to establish performance-based triggers and can demonstrate the need for and fairness of variable pricing to the public and elected officials. Looking forward, a pricing strategy that could be viable for Flagstaff is zone-based pricing, in which the most desirable, highest utilization parking (often in the core or heart of a city's main business district) is priced higher than less utilized parking on the periphery.

While setting parking fees is ultimately the Flagstaff City Council's decision, ParkFlag program staff play an essential role in identifying a data-supported process, engaging with key stakeholders, defining reasonable fee recommendations and leading implementation.

Champions (Partners): Community Investment Director, ParkFlag (City Council, Finance)
Cost: N/A
Urgency: Medium/Low

Implementation Guidance:

- ❑ **Establish a preferred cadence for parking fee review and adjustment.** Define a consistent cadence and annual timing – ideally aligned with the budget cycle – to evaluate parking rates and permit fees against occupancy data, operating costs, peer benchmarks, industry best practice and inflation. While some communities perform this review annually, a biennial review might be more appropriate for Flagstaff.
- ❑ **Define occupancy-based adjustment thresholds.** Document specific, data-driven triggers for when rate increases are warranted. The industry standard targets 85% occupancy as the threshold above which rates should increase to maintain availability. Similar thresholds should be established for permit programs, factoring in waitlist length and asset use. Once adopted, these benchmarks should anchor every rate conversation.

- ❑ **Explore a more diverse Pay-to-Park rate structure.** As staff have already identified, the introduction of structured parking into the ParkFlag service area will require additional analysis prior to eliminating a system-wide Pay-to-Park rate. At this stage in ParkFlag's organizational evolution, it is appropriate to explore a Pay-to-Park fee structure that differentiates rates by facility type, location, and utilization – rather than applying one flat rate across the entire system. Based on future demand patterns, the City could also consider demand-based pricing, using a tiered structure by zone: areas with the highest occupancy (likely the core of downtown's commercial district) would be priced higher than lower-occupancy areas near downtown's perimeter.
- ❑ **Commit to a transparent process.** Publish the parking fee review methodology, thresholds, and adjustment history in a format that is easy for the public and decision-makers to access – whether through ParkFlag's annual report or webpage. Incremental, well-communicated increases are much easier to absorb than infrequent large jumps made without clear rationale.

F-4. Conduct a municipal code review to ensure alignment with existing parking and curbside management practices.

Flagstaff's municipal code provides the foundation for how the City builds, operates, and manages its parking program – and keeping that foundation current is essential to implementing this Plan's recommendations effectively. While program changes should be introduced incrementally, proactive code updates will remove barriers to action and give staff the flexibility to respond to real conditions as the program evolves.

A comprehensive review of the Flagstaff municipal code should include updating language to ensure that it is as future-proof as possible, for example removing specific references to technology and/or payment methods.

Champions (Partners): ParkFlag, Community Investment Director (City Attorney)

Cost: N/A - \$

Urgency: Medium

Implementation guidance:

- ❑ **Review municipal code to ensure all parking and curbside policies and regulations are up to date and appropriately documented.** This work can be done in-house or outsourced. Conduct a comprehensive review of the municipal code to ensure that all existing parking and curbside management policies, regulations, and practices are accurately reflected and up to date. This review can be completed in-house by City staff or outsourced to a qualified parking consultant, depending on available resources and staff capacity.
- ❑ **Where appropriate, future-proof the municipal code to allow for changes to parking rates, regulations and technology.** Where appropriate, update the municipal code in a manner that anticipates and accommodates future changes to parking rates, regulations, and technology. Building flexibility into the code will help reduce the need for frequent amendments and ensure that the City is well-positioned to adapt to

evolving parking management practices and emerging technologies without being constrained by outdated regulatory language.

- ❑ **Review code with City Attorney.** Once proposed code updates have been drafted, schedule a thorough review with the City Attorney to ensure that all changes are legally sound, clearly written, and consistent with applicable state and local laws. Incorporating legal review early in the process will help identify and address any potential issues before the updated code is brought forward for formal approval.
- ❑ **Bring code updates to City Council for review and approval.** Following the City Attorney's review and any necessary revisions, bring the proposed municipal code updates to City Council for formal review and approval. Staff should be prepared to present a clear summary of the proposed changes, the rationale behind each update, and how the revisions will better align the municipal code with current and future parking and curbside management practices.

F-5. Conduct a comprehensive review of ParkFlag's parking permit offerings, to ensure program regulations are meeting customer needs

The City should evaluate whether the existing menu of parking permit offerings is effectively meeting the needs of ParkFlag's diverse customer types, including employees, residents, commuters and service providers. As part of this evaluation, the City can leverage collected occupancy data to assess employee permit utilization and determine whether current permit allocations align with actual demand and usage patterns.

Champions (Partners): Parking Program Manager, Community Investment Director, Parking Aides (DBA, Southside Neighborhood Association, NAU)

Cost: \$

Urgency: Medium

Implementation guidance:

- ❑ **Convene an ad-hoc stakeholder committee to evaluate current offerings.** Form a limited-term, ad-hoc committee representative of key parking permit program users (e.g., DBA members, NAU, Southside residents), ParkFlag and City staff. Lead the committee through a structured review of existing permit types, application requirements, business rules, and overall ease of use. The committee's output should be a clear set of findings and recommendations for program improvement.
- ❑ **Seek City Council approval.** Present committee recommendations to the City Council for review and approval. Highlight the collaborative process and plan to pair implementation with proactive communication to permit program users.
- ❑ **Review and update permit policies.** Identify specific policy and/or code changes that program updates will require. Work with key organizational partners to communicate program changes in a timely manner.
- ❑ **Utilize an annual survey to track results over time and adjust as needed.**

G. Curb Management

G-4. Conduct a new Curbside Management Study

City staff should be commended for their collaborative efforts to take a data-driven and community informed approach to the 2026 Curbside Management Plan. Historically, when a city or town invested in a Downtown Parking or Curbside Management planning process, recommendations would attempt to forecast work 5-10+ years into the future. However, with the speed at which technology is moving - from advancements in license plate recognition, mobile-only payment environment, connected vehicles, and camera-based enforcement integrations - we are recommending a shorter planning horizon of three to five years.

Beginning in 2030, the City should budget for another comprehensive downtown parking and overall curbside access that is initiated in 2031. This future investment will keep up the City's established cadence of making measured and context-sensitive investments in infrastructure, technology, programs and policies that support Flagstaff's residents and visitors alike.

Champion (Partners): Parking Program Manager, Community Investment Director

Cost: \$\$

Urgency: Low

Implementation guidance:

- ❑ **Plan and budget for a future Curbside Management Study.** Beginning in 2030, initiate the budgeting process to fund a new comprehensive curbside management study to be completed around 2031. This next study will ensure the City maintains its established cadence of context-sensitive, forward-looking investments that continue to serve both residents and visitor.

**CITY OF FLAGSTAFF
STAFF SUMMARY REPORT**

To: The Honorable Mayor and Council
From: Carmen Pryer, Real Estate Specialist
Co-Submitter: Bryce Doty
Date: 09/09/2026
Meeting Date: 09/15/2026

**TITLE:**

Consideration and Adoption of Ordinance No. 2026-21: An ordinance of the City Council of the City of Flagstaff, ratifying the grant and reservation of easements; and formally accepting dedications and right-of-way and real property interests; providing for severability, authority for clerical corrections, and establishing an effective date.

STAFF RECOMMENDED ACTION:

At the September 15, 2026, Council Meeting:

- 1) Read Ordinance No. 2026-21 by title only for the first time
- 2) City Clerk reads Ordinance No. 2026-21 by title only (if approved above)

At the October 6, 2026 Council Meeting:

- 3) Read Ordinance No. 2026-21 by title only for the final time
- 4) City Clerk reads Ordinance No. 2026-21 by title only (if approved above)
- 5) Adopt Ordinance No. 2026-21

Executive Summary:

The City regularly receives real property interests from private property owners during the development review process. These real property interests are typically acquired by dedication or donation. These acquisitions may be for drainage, utilities, the urban trails system, slopes, rights-of-way or other public purposes.

The proposed ordinance also approves some acquisitions or dispositions of real property that have been previously authorized by Council for capital projects, property exchanges, development agreements, or other purposes. These transactions are included in the ordinance as some of the legal descriptions have changed slightly between original authorization and final design for capital projects, and because having a comprehensive list of transactions is useful for City audit purposes.

City staff periodically brings an ordinance of this nature for council approval in order to ensure that all property acquisitions comply with City Charter, Article VII, section 5, which requires an authorizing ordinance for acquisitions of real property.

Financial Impact:

Real property is considered a fixed asset in the City. Until City Council approves an ordinance accepting the acquisitions, the real property value is not recognized in an audit so while there is not an actual financial expenditure associated with these acquisitions, there is a fixed asset value the City receives through this action.

Policy Impact:

None

Connection to PBB, Carbon Neutrality Plan, 10-Year Housing Plan & Regional 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:

Council has ratified other real property transactions and easements approved through the development review process. This ratification usually occurs on an annual basis. The Council adopted a similar Ordinance 2025-14, on August 26, 2025.

Background and History:

The City Charter requires the acquisition and disposition of real property by ordinance. The City generally applies this principle to lesser interests as well.

Key Considerations:

The real property interests received or transferred are necessary for the provision of services as the community grows and the liability assumed is consistent with these same real property rights throughout the community.

Attachments: Ord. 2026-21
 Exhibit

ORDINANCE NO. 2026-21

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF FLAGSTAFF RATIFYING THE GRANT OF EASEMENTS AND RIGHTS-OF-WAYS; FORMALLY ACCEPTING DEDICATIONS OF EASEMENTS AND REAL PROPERTY INTERESTS; PROVIDING SEVERABILITY, AUTHORITY FOR CLERICAL CORRECTIONS, AND ESTABLISHING AN EFFECTIVE DATE

RECITALS:

WHEREAS, the City of Flagstaff ("City") has received dedications of easements and real property interests across private property which have not yet been formally accepted by City Council; and

WHEREAS, the City has granted easements across City property for City projects, which have not yet been ratified by City Council.

ENACTMENTS:

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FLAGSTAFF AS FOLLOWS:

SECTION 1: In General.

That the City formally accepts the dedications and donations of easements and real property as listed in Exhibit A, attached to this ordinance.

That the City ratifies the grants and reservations of easements across City property as listed in Exhibit A, attached to this ordinance.

SECTION 2: Delegation of Authority.

That the City Manager, the City Attorney, the City Clerk, the Finance Director, the City Real Estate Manager, or other employees or agents as deemed necessary, are hereby authorized and directed to take all steps and execute all documents necessary to carry out the purpose and intent of this ordinance.

SECTION 3. 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 6th day of October, 2026.

MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM:

CITY ATTORNEY

Exhibits:

A – 2023-2026 Easements, Donations, Right-of-Way

<u>Easement Type</u>	<u>Parcel Number</u>	<u>Project Name</u>	<u>Location</u>	<u>Grantor</u>	<u>Grantee</u>	<u>Easement size in square</u>	<u>Easement size in Acres</u>	<u>Document Number</u>	<u>Date Recorded</u>
Amendment to Right of Way	N/A	Red Gap Ranch Amendment to Right of Way	Section 36, TS 21N, R 10 E	State of Arizona	City of Flagstaff	80,000	1.83	4045174	8/14/2026
Quit Claim Deed	109-06-001E		E. Appalachian Rd.	El Paso Natural Gas Company LLC	City of Flagstaff	183,387	4.21	4045069	8/13/2026
Urban Trails Easement	109-02-001F	APS Elden Substation		Arizona Public Service Company	City of Flagstaff	1,000	0.02	4043629	7/21/2026
Special Warranty Deed	101-13-008A	Municipal Court/Public Parking	320 N. Humphreys St.	FSL Holding Properties, LLC	City of Flagstaff	89,733	2.06	4042296	6/30/2026
Utility Easement	109-11-151D	Housing	2240 N. Izabel St.	City of Flagstaff	Arizona Public Service Company	64	0.001	4041337	6/15/2026
Public Water and Sewer Easement	100-23-001B	Downtown flood Lateral Tunnel Project	512 W. Santa Fe Ave.	Bonito Park Apartments LLC	City of Flagstaff	66	0.001	4041196	6/12/2026

Chart

Easements, Donations, Right-of-Way

Special Warranty Deed	103-13-010	Sale of City Property	116 E. Butler Ave.	City of Flagstaff	112 E Butler LLC	7,100	0.16	4041179	6/12/2026
Special Warranty Deed	N/A	Beulah University Project	W. University and S. Yale St.	City of Flagstaff	VP Cinema LLC	16,341	0.38	4041141	6/11/2026
Utility Easement	109-02-001P		3050 N. West St.	City of Flagstaff	Arizona Public Service Company	64	0.001	4040710	6/4/2026
Utility Easement	109-02-001S		2100 N. Gemini Dr.	City of Flagstaff	Arizona Public Service Company	64	0.001	4040709	6/4/2026
Drainage Easement	109-08-155	Spruce Wash Watershed Improvement Project	2920 N. Main St.	Richard Serrano	City of Flagstaff	1,064	0.02	4039970	5/22/2026
Urban Trails Easement	101-23-001C	FUTS	4 E. Terrace Ave.	Albert J. and Sylvia L. Bojorquez	City of Flagstaff	1,109	0.03	4039956	5/22/2026
Trail Easement	113-10-003	FUTS	5600 E. Commerce Ave.	Coconino County	City of Flagstaff	27,829	0.57	4039889	5/21/2026
Public Water and Sewer Easement	113-10-003		5600 E. Commerce Ave.	Coconino County	City of Flagstaff	27,829	0.57	4039888	6/21/2026

Chart

Easements, Donations, Right-of-Way

Special Warranty Deed	106-08-005J	Elkwood Apartments	N. Fourth St. / E. Butler Ave.	Elkwood Partners LP, Flagstaff at 4th LLC	City of Flagstaff	85,957	1.97	4039873	5/21/2026
Special Warranty Deed	109-14-010B	Spruce Wash Linda Vista	1325 E. Linda Vista	Donaldson Joseph C,	City of Flagstaff	39,204	0.9	4039398	5/14/2026
Public Water and Sewer Easement	113-37-010	Wildcat Sewer Interceptor	Railhead Ave.	El Paso Rd Land LLC	City of Flagstaff	31,382	0.72	4039026	5/8/2026
Special Warranty Deed	106-04-004	FUTS	South of I-40/ East of J.W. Powell Blvd	STL405 LLC, Symmetry Management	City of Flagstaff	5,573	0.12	4038250	4/28/2026
Slope Easement	106-04-004	FUTS	South of I-40/ East of J.W. Powell Blvd	STL405 LLC, Symmetry Management	City of Flagstaff	1,368	0.03	4038249	4/28/2026
Public Utility Easement	106-04-004	FUTS	South of I-40/ East of J.W. Powell Blvd	STL405 LLC, Symmetry Management	City of Flagstaff	4,278	0.10	4038248	4/28/2026

Chart

Easements, Donations, Right-of-Way

Drainage Easement	106-04-004	FUTS	South of I-40/ East of J.W. Powell Blvd	STL405 LLC, Symmetry Management	City of Flagstaff	4,278	0.10	4038247	4/28/2026
Road and Utility Easement	106-10-003	FUTS	Hoffman Tank Area	Elk Ridge Group LLC	City of Flagstaff	145,926	3.35	4037974	4/24/2026
Public Utility Easement	106-10-003	FUTS	Hoffman Tank Area	Elk Ridge Group LLC	City of Flagstaff	2,853	0.07	4037973	4/24/2026
Drainage Easement	106-10-003	FUTS	Hoffman Tank Area	Elk Ridge Group LLC	City of Flagstaff	2,853	0.07	4037972	4/24/2026
Slope Easement	106-10-003	FUTS	Hoffman Tank Area	Elk Ridge Group LLC	City of Flagstaff	2,853	0.07	4037971	4/24/2026
Special Warranty Deed	106-10-003	FUTA	Hoffman Tank Area	Elk Ridge Group LLC	City of Flagstaff	8,205	0.19	4037970	4/24/2026
Road and Utility Easement	106-10-001C, 106-10-001B, 106-09-002, 106-10-002	FUTS		Little America Hotels & Resorts LLC	City of Flagstaff	327,571	7.52	4037969	4/24/2026
Drainage Easement	109-08-156	Spruce Wash Drainage Easement	2912 N. Main St.	Lundlord Holdings LLC	City of Flagstaff	801	0.02	3993046	4/16/2024

Chart

Easements, Donations, Right-of-Way

Public Water Easement	110-02-001W	Switzer Canyon Water Transmission Line	2316 N. San Francisco St.	Simmer David R, Simmer Isabel H, Simmer Family Trust	City of Flagstaff	23,985	0.55	4037397	4/15/2026
Special Warranty Deed	112-01-712	Habitat for Humanity Housing	2445 S. Woody Mountain Rd.	Timber Sky LLC	City of Flagstaff	311	0.01	4036595	4/2/2026
Special Warranty Deed	301-68-019A	Shooting Range	11972 N. Highway 89	Shoot West Properties LLC	City of Flagstaff	77,101	1.77	4034320	2/26/2026
Special Warranty Deed	301-08-003F	Sale of City Property	8964 Saddle View	City of Flagstaff / Coconino Community College District	Silver Saddle Development LLC	545,371	12.52	4036486	4/1/2026

Chart

Easements, Donations, Right-of-Way

Special Warranty Deed	Timber Sky Condos	Habitat for Humanity Condominium	Legal Description: Units 1 through 40, inclusive, and Tract A. HABITAT FOR HUMANITY CONDOMINI UMS, Lot 1 of the Final Plat for Timber Sky Block 2, as shown on the plat thereof, recorded May 14, 2025 in instrument No. 4017089, records of Coconino County, Arizona, as amended by that certain	Habitat for Humanity of Northern Arizona, Inc. - Timber Sky	City of Flagstaff			4033127	2/6/2026
Easement for Public Utilities	106-08- 005J	Elkwood Apartments	1002 N. Fourth St.	Flagstaff Elkwood Partners LP	City of Flagstaff	53,893	1.24	4031931	1/15/2026

Abandonment of Easement for Sewer Purposes		As a result of easements dedicated on the Map of Dedication for Westglen Mobile Home Pard recorded at Case 5, Map 36 of the Coconino County Recorder, and as referenced in that certain Agreement recorded at Instrument No. 91-14463, Docket 1410, Pages 187- 190, of the Coconino County Recorder, and as further shown and dedicated on the Final Plat of Westglen Land Condominiums	Westglen Mobile Home Park	City of Flagstaff					4030493	12/18/2025
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Special Warranty Deed	107-44- 060, 107- 44-061	Forest Springs Townhomes	Legal Description: Tracts H and I. Forest Springs Townhomes, Unit I, as shown on the plat thereof recorded in Case 9, Maps 92-92B, inclusive, records of Coconino	Miramonte At Forest Springs LLC	City of Flagstaff	100,623	2.31	4030083	12/11/2025
Public Access Easement	112-01- 842	Sirus Timber Sky	3245 W. Virgo Dr.	Abbott- Rhoton Investments LLC	City of Flagstaff	5,509	0.12	4029371	12/1/2025
Public Access Easement	112-01- 775	Adora Timber Sky	Tract D	Abbott- Rhoton Investments LLC	City of Flagstaff	1,363	0.03	4027980	11/6/2025

Warranty Deed	111-01-009M	Hwy 180 Culvert Project	2555 N. Fort Valley Rd.	Sandra Clair Roy-Mailoux, Sandra Clair Roy, as Personal Representative of the Estate of James Scott Roy, Deceased	City of Flagstaff	45,302	1.04	4027501	10/29/2025
General Warranty Deed Right of Way Dedication	103-27-003K	TRU by Hilton Flagstaff	3451 S. Lake Mary Rd.	Flagstaff Lodging Investors LLC	City of Flagstaff	3,568	0.08	4025511	9/26/2025
Drainage Easement	103-27-003K	TRU by Hilton Flagstaff	3451 S. Lake Mary Rd.	Flagstaff Lodging Investors LLC	City of Flagstaff	6,976	0.16	4025510	9/26/2025
Urban Trail Easement	103-27-003K	TRU by Hilton Flagstaff	3451 S. Lake Mary Rd.	Flagstaff Lodging Investors LLC	City of Flagstaff	64	0.001	4025509	9/26/2025
Waterline Easement	103-27-003K	TRU by Hilton Flagstaff	3451 S. Lake Mary Rd.	Flagstaff Lodging Investors LLC	City of Flagstaff	3,981	0.09	4025508	9/26/2025

Chart

Easements, Donations, Right-of-Way

Public Utility Easement	301-08-003F	Sale of City Property	8964 Saddle View	City of Flagstaff	Doney Park Water	17,075	0.39	4025507	9/26/2025
Public Sidewalk Easement	103-06-001	Rio de Flag Flood Control and Recreation	203 S. Milton Rd.	Lok Bruce, Lok Uyen, Shelzie Sonia	City of Flagstaff	61	0.001	4023875	9/2/2025
Network Service Easement	103-02-030A	Rio de Flag Flood Control and Recreation	397 S. Malpais Ln	Krista R Corp, Alerus Bank	City of Flagstaff	13,503	0.31	4023300	8/22/2025
Public Utility Easement	103-02-030A	Rio de Flag Flood Control and Recreation	397 S. Malpais Ln	Krista R Corp, Alerus Bank	City of Flagstaff	10,454	0.24	4023299	8/22/2025
Channel Improvement Easement	103-02-030A	Rio de Flag Flood Control and Recreation	397 S. Malpais Ln	Krista R Corp, Alerus Bank	City of Flagstaff	13,503	0.31	4023297	8/22/2025
General Warranty Deed Right-of Way	106-08-033A	Canyon Del Rio Phase I	Off E. Whetstone Dr.	Harvest Cove LLC and Flagstaff apartments 2, LLC	City of Flagstaff	5,347	0.12	4023202	8/21/2025

Chart

Easements, Donations, Right-of-Way

General Warranty Deed Right-of Way	106-08- 033A	Canyon Del Rio Phase I	Off E. Whetstone Dr.	Harvest Cove LLC, Ben Fatto LLC, Viel Gluck, Far Marel LLC as to an undivided 1.382% interest	City of Flagstaff	5,347	0.12	4021686	7/29/2025
Drainage Easement	109-08- 013	Spruce Wash Watershed Improvement Project	2820 N. First St.	Garcia Ramon, Garcia Veronica, Garcia Carlos A	City of Flagstaff	416	0.01	4020299	7/3/2025
Drainage Easement	109-08- 027	Spruce Wash Watershed Improvement	2723 N. Rose St.	Dixon Bradley	City of Flagstaff	120	0.003	4019801	6/27/2025
Drainage Easement	109-08- 029	Spruce Wash Watershed Improvement Project	2807 N. Rose St.	Galaviz Gabriel, Galaviz Jayna	City of Flagstaff	163	0.004	4019796	6/27/2025
Drainage Easement	109-08- 032	Spruce Wash Watershed Improvement	2821 N. Rose St.	David Jeffrey Cretti	City of Flagstaff	111	0.003	4019788	6/27/2025

Public Utility Easement	112-01-156	Sierra on 66	Timber Sky Final Block	Roers Flagstaff Apartment Owner LLC	City of Flagstaff	50,754	1.17	4019568- Beneficiary Consent signed electronically 4018429 - 6/5/2026	6/25/2025
Special Warranty Deed	301-08-056B	Sale of City Property	7428 Open Sky	Open Sky Development	City of Flagstaff	403,366	9.26	4018593	6/6/2025
Access Easement	109-04-053B	Spruce Wash Linda Vista	Lot 118 of Grandview Homes Unit 2, 1131 E. Linda Vista	City of Flagstaff	Sandra J. Turner	768	0.02	4018427, 4020769 Affidavit of Scrivener's Error	6/5/2025
Drainage Easement	109-08-033A	Spruce Wash - Dortha	2113 E. Dortha Ave.	Reilly Garrett B	City of Flagstaff	158	0.004	4018166	5/30/2025
Warranty Deed	104-01-024	Lone Tree Overpass Project	422 E. Butler Ave.	Hundelt Gary G, Hundelt Mary Eileen	City of Flagstaff	282	0.006	4017953	5/28/2025
Special Warranty Deed	104-01-023	Lone Tree Overpass Project	E. Butler Ave.	City of Flagstaff	Hundelt Gary G, Hundelt Mary Eileen	1,183	0.03	4017952	5/28/2025

Chart

Easements, Donations, Right-of-Way

Release of Easement	100-22-001A, 100-22-004	Release of easement, recorded on April 28, 2020, Instrument Number 3871562	100-22-001A-W. Aspen Ave. 100-22-004 - 323 W. Aspen Ave.	Arizona Public Service Company	City of Flagstaff			4017161	5/15/2025
Urban Trail Easement	103-01-006B	FUTS	Lower Coconino Estates	Fimbrez Est LLC	City of Flagstaff	102,057	2.34	4016449	5/5/2025
Public Sidewalk Easement	100-39-004C, 100-39-001D, 100-39-007B	Rio de Flag Flood Control and Recreation	218 S. Milton Rd. 35 S. Mikes Pike	Arizona Board Of Regents	City of Flagstaff	531	0.01	4015868	4/25/2025
Abandonment of Easement	107-06-002J	Abandon easement recorded Dec. 2, 2016 Instrument Number 3770976	1965 E. Mountain View Ave.	City of Flagstaff	FLG Den Partners LLC			4013592	3/19/2025
General Warranty Deed	109-09-051A	Spruce Wash Flood Control	2602 N. First St.	Martinez Robert Ray, Martinez Gertrude	City of Flagstaff	12,500	0.28	4013532	3/18/2025

Chart

Easements, Donations, Right-of-Way

Channel Improvement Easement	103-02-033	Rio de Flag Flood Control and Recreation Project	700 S. Blackbird Roost	Pine View Apartment Partners LLC	City of Flagstaff	5,663	0.13	4013445	3/17/2025
Channel Improvement Easement	103-02-031	Rio de Flag Flood Control and Recreation Project	700 S. Blackbird Roost	Pine View Apartment Partners LLC	City of Flagstaff	436	0.01	4013444	3/17/2025
Network Services Easement	103-02-033	Rio de Flag Flood Control and Recreation Project	700 S. Blackbird Roost	Pine View Apartment Partners LLC	City of Flagstaff	5,663	0.13	4013441	3/17/2025
Network Services Easement	103-02-031	Rio de Flag Flood Control and Recreation Project	700 S. Blackbird Roost	Pine View Apartment Partners LLC	City of Flagstaff	436	0.01	4013440	3/17/2025
Public Utility Easement	103-02-033	Rio de Flag Flood Control and Recreation Project	700 S. Blackbird Roost	Pine View Apartment Partners LLC	City of Flagstaff	9,147	0.21	4013437	3/17/2025
Public Utility Easement	103-02-031	Rio de Flag Flood Control and Recreation Project	700 S. Blackbird Roost	Pine View Apartment Partners LLC	City of Flagstaff	2,326	0.06	4013436	3/17/2025
Public Water and Sewer Easement	101-46-006		1800 N. Gemini Dr.	CSDCPC Flagstaff Junior Academy LLC	City of Flagstaff	4,355	0.1	4012346	2/26/2025

Special Warranty Deed	Lot 106-Crestview	Capstone Homes	Subdivision Crestview Lot 106	Abbott-Rhoton Investments LLC, DBA Capstone Homes	City of Flagstaff			4012052	2/21/2025
Special Warranty Deed	Lot 96-Crestview	Capstone Homes	Subdivision Crestview Lot 96, Crestview	Abbott-Rhoton Investments LLC, DBA Capstone Homes	City of Flagstaff			4011957	2/20/2025
Special Warranty Deed	Lot 83-Crestview	Capstone Homes	Subdivision Crestview Lot 83	Abbott-Rhoton Investments LLC, DBA Capstone Homes	City of Flagstaff	1,248	0.03	4011452	2/11/2025
Warranty Deed	104-01-024	Lone Tree Overpass Project	422 E. Butler Ave.	Hundelt Gary G, Hundelt Mary Eileen	City of Flagstaff	5,119	0.12	4011221	2/6/2025
Special Warranty Deed	104-01-023	Lone Tree Overpass Project	424 E. Butler Ave.	City of Flagstaff	Hundelt Gary G, Hundelt Mary Eileen	1,177	0.03	4011218	2/6/2025
Utility Easement	100-43-003B		216 W. Phoenix Ave.	City of Flagstaff	Arizona Public Service	64	0.01	4006008	11/6/2024

Exhibit "A"

2023- 2026

Chart

Easements, Donations, Right-of-Way

Special Warranty Deed	Tract G- Crestview	Capstone Homes	Subdivision Crestview Tract G	Crestview Flagstaff Homeowners Association	City of Flagstaff			4000406	8/13/2024
Special Warranty Deed	Lot 81- Crestview	Capstone Homes	Subdivision Crestview Lot 81	Abbott- Rhoton Investments LLC, DBA Capstone Homes	City of Flagstaff	6,727	0.15	3997585	6/28/2024
Easement for City Water and Sewer Utilities	106-08- 003F		Fourth St. south of Whetstone Dr.	Burch 6 LLC	City of	1,611	0.37	3984057	10/25/2023
Drainage Easement	112-27- 033		Fourth St. and E. Forestdale Rd.	1683 West Route 66 LLC	City of Flagstaff	8,545	0.19	3981306	9/8/2023
Public Waterline Easement	109-02- 002A	Coconino High School	2801 N. Izabel St.	Flagstaff Unified School 1	City of Flagstaff			3981156	9/7/2023

CITY OF FLAGSTAFF STAFF SUMMARY REPORT

To: The Honorable Mayor and Council
From: Tamara Lawless, Water Conservation Manager
Co-Submitter: Lee Williams
Date: 09/09/2026
Meeting Date: 09/15/2026



TITLE Water Conservation Ordinance Revision Discussion

STAFF RECOMMENDED ACTION:

Council to provide feedback on several proposed changes to the Water Conservation Ordinance (7-03-001-0014)

Executive Summary:

This discussion will include the opportunity for Council to provide feedback on several proposed changes to the Water Conservation Ordinance. The proposed changes were developed in partnership with the Water Commission and stakeholders from major reclaimed water users. A short summary of the proposed changes is as follows:

- Time of use restrictions for reclaimed water
 - No irrigating during the hottest parts of the day (9 am - 5pm) during warm months (May - September)
- Other restrictions for future uses of water (both potable and reclaimed)
 - Minimizing the size of amenity lakes
 - Flexibility for low water landscape choices for residents within HOAs
 - Restrictions on nonfunctional turf
 - Restrictions on decorative fountains
- Administrative changes to allow more flexibility for athletic and recreational fields
 - Allow for alternate watering schedules for turf that is used for recreation and athletics

Information:

During the 2024 water rate study process, City Council directed staff to work through the Water Commission to discuss and recommend rate-setting policy for reclaimed water and to pursue additional measures to conserve reclaimed water. At the February 18, 2025 City Council meeting, staff presented recommendations from the Guidance Document drafted by the "Reclaimed Water Rates Workgroup," through the recommendation of the Water Commission. The Workgroup was comprised of several members of the Water Commission, City staff, and reclaimed water users representing city parks, golf courses, schools, NAU, and Snowbowl. The Guidance Document made two recommendations: conduct a cost-of-service study for the reclaimed water fund as a policy and to work with the Water Conservation Program to explore and develop additional water conservation measures for reclaimed water.

Over the past year and a half, Water Conservation Program staff have worked through the Water Commission and with reclaimed water customers on how the water conservation ordinance might be altered to conserve reclaimed water. The changes recommended in this ordinance include restricting the use of reclaimed water for irrigation between the hours of 9 am and 5 pm in the warmest months (May - September) and allowing the City of Flagstaff to enforce the wasting water clause of the ordinance for reclaimed water. An exemption is allowed for irrigation of active/programmed recreational or athletic field

turf. An example of this would be the need to water heavily on Monday due to not watering all weekend to accommodate for an athletic event or festival. The proposed recommendations also include restrictions on amenity lakes, nonfunctional (decorative) turf, and decorative fountains, and prohibiting homeowner's associations from requiring turf.

Attachments: Water Conservation Ordinance PPT 2026

Proposed changes to the Water Conservation Ordinance

September 15, 2026
Tamara Lawless, Phd,
Water Conservation Manager
City of Flagstaff Water Services





Water Conservation Ordinance History

- Originally passed in 1988, provided options for lowering water use during times of water scarcity
- After drought in 2002/2003, every other day watering based on address became baseline practice
- Water conservation staff enforce the ordinance including ensuring water is not wasted



Reclaimed Water Efficiency

- Request for increased reclaimed efficiency emerged from 2024 rate study process
- Reclaimed water is currently exempt from the water conservation ordinance
- Stakeholder group with participants from NAU, Aspen Valley Golf Course, COF Parks and Recreation, AZ Snowbowl, FUSD, Continental Country Club, Pine Canyon, Flagstaff Golf Course Maintenance Company



Reclaimed Efficiency Meetings and Discussions

- April 17, 2025 – Water Commission
- May 15, 2025 – Water Commission
- August 21, 2025 – Water Commission (ADWR & Turf efficiency)
- October 6, 2025 – Stakeholder meeting & Pine Canyon Tour
- March 19, 2026 – Water Commission



Reclaimed Water Workgroup October 6, 2026



Code changes for reclaimed irrigation

- Change to prohibit irrigating with reclaimed water between the hours of 9am to 5pm during the warmest months (May – September)
 - Recreational / golf turf may need occasional watering in the winter if conditions are very dry, must occur mid-day
- Reclaimed water uses cannot waste water
 - Definition: use or expend water thoughtlessly or carelessly, ex: allowing water to run into the street/gutter, allowing water to pool, irrigating during precipitation events, and failing to repair water leaks



Other restrictions

- HOAs cannot require residents to grow lawn – 36 months to comply
 - Staff research on CC&Rs
- Nonfunctional turf cannot be irrigated – 36 months to comply
 - Definition: turf located between a sidewalk and a street outside of a residential neighborhood, street-adjacent turf located in business frontage areas, turf between a parking lot and a roadway, turf in roadway medians, and turf in roundabouts.





Other restrictions

- Potable and reclaimed water cannot be used to fill artificial lakes larger than 1,000 square feet – existing maintained bodies of water grandfathered in
 - Functional bodies of water such as irrigation storage, wildlife tanks, pools / spas exempt
- Potable or reclaimed water cannot be sprayed into the air for decorative purposes – splash pads exempt





Administrative changes

- Community Development renamed to Planning & Development Services
- Exemption process for active / programmed athletic field turf
- 18 months violation free for resetting fines / surcharges

Thank you!

- Your feedback is welcome

