City of Ramsey
Agenda
Public Works Committee
Tuesday, March 15, 2022
5:30 pm
Lake Itasca Room, 7550 Sunwood Drive NW

Remote Attendance available at www.cityoframsey.com/meetings. To maximize social distancing due to the COVID-19 Pandemic, those that can join remotely are encouraged to do so. Those joining remotely and requesting to speak are asked to use a webcam when speaking.

1. Call to Order

2. Citizen Input

3. Approve Agenda

4. Approve Minutes

1. Approve the following meeting minutes.
1. Public Works Committee meeting minutes dated February 15, 2022.

5. Committee Business

1. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Sunwood Drive and Waco Street Reconstruction, Improvement Project #22-01

2. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2022 Neighborhood Pavement Overlay Improvements, Improvement Project #22-04

3. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Wood Pond Hills 2nd – 5th Street Reconstructions, Improvement Project #22-06

4. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2022 Crack Seal Improvements, Improvement Project #22-08

5. Consider Recommending City Council Approval to Advance Construction of 2022 - 2031 Capital Improvement Program Projects #19-STR-004 and #21-PARK-002 from 2024 to 2023.

6. Consider Recommendations to City Council for Flashing Yellow Arrow Improvements at Sunwood Drive and Ramsey Boulevard Intersection

6. Committee/Staff Input

1. Updates on Improvement Projects, Studies, and Other Items of Interest

2. Review Future Topics Calendar

7. Adjournment

Public Works Committee **4. 1.**

Meeting Date: 03/15/2022
Submitted For: Grant Riemer, Engineering/Public Works
By: MaryJo Warner, Engineering/Public Works

Title:

Approve the following meeting minutes.
1. Public Works Committee meeting minutes dated February 15, 2022.

Purpose/Background:

Purpose: To review and approve meeting minutes.
Background: Attached are the meeting minutes for review.

Timeframe:

5 minutes.

Observations/Alternatives:

n/a

Funding Source:

n/a

Recommendation:

To review and approve meeting minutes dated February 15, 2022.

Action:

Motion to approve meeting minutes dated February 15, 2022.

Attachments

Minutes

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	03/10/2022 02:24 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 03:34 PM
Form Started By: MaryJo Warner		Started On: 03/10/2022 01:52 PM
Final Approval Date: 03/10/2022		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Tuesday, February 15, 2022, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Chris Riley
Councilmember Debra Musgrove
Councilmember Matt Woestehoff

Also Present: Public Works Superintendent Grant Riemer
City Engineer Bruce Westby
Parks and Assistant Public Works Superintendent Mark Riverblood

1. CALL TO ORDER

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

2. CITIZEN INPUT

There was none.

3. APPROVE AGENDA

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Musgrove and Woestehoff. Voting No: None.

4. APPROVE MINUTES

4.01: Approve Meeting Minutes

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to approve the following minutes:

- Regular Meeting Minutes dated November 16, 2021
- Regular Meeting Minutes dated January 18, 2022

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Musgrove and Woestehoff. Voting No: None.

5. COMMITTEE BUSINESS

5.01: Appoint Chair and Vice-Chair of the Public Works Committee

Public Works Superintendent Riemer noted that this is an annual action of the Committee and opened the floor for nominations.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to appoint Chris Riley as Chairperson and Debra Musgrove as Vice-Chair of the Public Works Committee.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

5.02: Consider Replacement Options for the Rivers' Bend Park Monument

Parks and Assistant Public Works Superintendent Riverblood reviewed the case and recommendation of staff for the Committee to provide input and then solicit additional quotes to be forwarded to the City Council for the replacement of the Rivers' Bend monument.

Chairperson Riley commented that the entrance sign to the park is important as the parks have to be labeled and easy to find. He stated that they have discussed a coordinated effort to ensure the design could be used in other parks as well.

Councilmember Musgrove asked if input is desired on the location of the wording.

Parks and Assistant Public Works Superintendent Riverblood stated that he did not request that as part of the case but agreed that would need to be decided at a later time and would welcome input on that as well.

Chairperson Riley asked if staff has a preference on the aluminum versus concrete.

Parks and Assistant Public Works Superintendent Riverblood replied that his only concern with aluminum would be that it could be dented but noted that has not occurred on a similar sign at The Draw. He noted that the vendor commented that they have also not seen the material dented on a sign. He stated that there could be some decay on the cedar posts near the soil line over time. He commented that concrete is durable but some of the cost is the logistics of getting that material to the site and the appropriate footings.

Councilmember Musgrove commented that she believes the word placement is a consideration as it would have a factor on the size of the sign. She stated that she favors the aluminum sign with the wood as that would fit better into the neighborhood feeling. She stated that she would favor stacking of the words and logo in order to keep the sign size small.

Parks and Assistant Public Works Superintendent Riverblood commented that he agrees with the stacked style.

Chairperson Riley agreed that would be an appropriate size and material for the sign as it is a neighborhood sign and does not need to be large in order to catch someone's eye.

Councilmember Woestehoff agreed with the aluminum and wood sign.

Parks and Assistant Public Works Superintendent Riverblood asked if this item should go forward as a Consent Agenda item for the Council or whether it should be a regular agenda item. He provided a summary of the previous discussion from the Parks and Recreation Commission related to park signage.

Chairperson Riley asked if there was a decision on the monument sign for Bunker Lake Boulevard and 47 sign and whether that is moving forward with the park sign or as a separate project.

Parks and Assistant Public Works Superintendent Riverblood noted that would be a separate project because of the easement and power that would be needed for the Bunker and 47 monument in order to allow the park sign to move forward on its own.

COMMITTEE / STAFF INPUT

6.01: Receive Updates on Sound Wall East of State Highway 47, North of Xkimo Street

City Engineer Westby provided updates on the sound wall since the last discussion including responses received from Riverside Development Company and its legal representation as well as the design engineer, Bogart-Pederson. He also provided cost estimates for the different options.

Councilmember Musgrove appreciated the update. She asked if there has been any discussion on potential funding sources.

City Engineer Westby stated that staff is still gathering data on the options and then developing the associated costs with those options. He did not believe there is any potential funding from MnDOT for the project and commented that the City would have to use internal funds.

Councilmember Musgrove asked if this would be eligible for the County HRA funds.

City Engineer Westby replied that he was unsure but could check on that.

Councilmember Woestehoff asked if there would be any possibility to construct another section of wall upon the existing wall.

City Engineer Westby replied that the wall would not be able to support that additional weight.

Chairperson Riley asked if the City has instituted any new policies or procedures to avoid repeating this mistake in the future.

City Engineer Westby replied that staff always tries to learn from these things and will continue discussions on how this could be avoided in the future. He commented that this was a development that went through quickly when staff was extremely busy.

Councilmember Woestehoff acknowledged that a sound wall does not come up that often. He noted that an issue identified on the preliminary plat is that it was identified as a six-foot fence rather than a sound wall. He noted that if it would have been identified as a sound wall, perhaps engineering would have picked up on the mistake.

Councilmember Musgrove thanked staff for continuing to work on this and improve the process. She asked if part of that area could be filled, then constructed a wall on the fill.

City Engineer Westby replied that they could look at the grades but noted that fill is also expensive. He stated that if there is an opportunity to cost-effectively add fill outside of the MnDOT right-of-way and avoiding utilities, that option could be reviewed.

6.02: Staff Updates on Improvement Projects and Items of Interest

City Engineer Westby provided an update on current and proposed City, County, and MnDOT improvement projects and studies, and on other items of interest to the Committee.

Councilmember Musgrove thanked staff for the great work. She commented that the flashing lights at Sunwood and Bunker are working great.

6.03: Review Future Topics Calendar

Councilmember Musgrove suggested adding an item related to checks and balances, using the sound wall as an example.

Councilmember Woestehoff stated that perhaps a discussion could be added related to the rating of City streets.

City Engineer Westby commented that staff intended to bring that item to a Council work session.

7. ADJOURNMENT

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 6:05 p.m.

Respectfully submitted,

_____
Grant Riemer
Public Works Superintendent

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

Public Works Committee **5. 1.**

Meeting Date: 03/15/2022

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Sunwood Drive and Waco Street Reconstruction, Improvement Project #22-01

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for Sunwood Drive and Waco Street Reconstruction, Improvement Project #22-01.

Background:

City Improvement Project 22-01 proposes to reconstruct Sunwood Drive between Trunk Highway 47 and Waco Street, and Waco Street between Sunwood Drive and 150th Avenue. The streets total approximately 2,500 lineal feet (0.48 miles) in length, and are 44 feet wide as measured to the face of curb.

Project History

- 2022 – 2031 Capital Improvement Program – listed as street reconstruction for 2022
- August 10, 2021 City Council accepted proposals for geotechnical report and topographic survey
- August 24, 2021 City Council accepted proposals for utility testing
- October 26, 2021 City Council ordered plans and specifications
- December 14, 2021 City Council authorized reconstruction of Waco Street to existing pavement widths

Pavement History

Sunwood Drive and Waco Street were constructed in 1985 and 1992 respectively. Pavement maintenance has included crack seal / seal coat improvements in 1992 (Sunwood Drive), 2006, 2013. Maintenance crews have performed patching over the last several years, including extensive spray patching. No pavement overlay improvements have been performed on these street segments. 2021 PASER values were 4 for Sunwood Drive and 3 for Waco Street.

Ground Penetrating Radar (GPR) was performed on the street segments. Bituminous pavement thickness was found to have an average thickness of 4.20 inches on Sunwood Drive and 3.9 inches on Waco Street. GPR was not able to reliably identify the aggregate base thickness, however, the soil borings performed as part of the geotechnical report found an average of 6.4 inches.

Proposed Improvements

Sunwood Drive and Waco Street are Municipal State Aid (MSA) streets, and must comply with State Aid design requirements. MSA design requires these to be a 10-ton design. Based on the traffic counts performed in 2021 (1,800 ADT Sunwood, 580 ADT Waco), the required pavement section is 5” aggregate base and 4” bituminous pavement.

Staff review found the existing pedestrian ramps within the project area did not meet current ADA requirements, therefore all six pedestrian ramps will need to be removed and replaced. The concrete curb and gutter were found to generally be in good condition, and only spot repairs are proposed. Staff is proposing minimal impacts to the existing bituminous trail with the project beyond what is required for matching into the new pedestrian ramps. The south leg of trail at the intersection of Sunwood Drive and Trunk Highway 47 is proposed to be straightened, the

current 90-degree corner is a hazard for plowing.

Review of the sanitary sewer and watermain did not find issues requiring repair. The City will be placing inflow and infiltration (I/I) barriers on the sanitary sewer manholes with this project. The City received an MCES I/I Grant for this work, which will reimburse the City for the costs associated with the I/I barriers.

Televising of the storm sewer system found more issues than anticipated, and will require removal and replacement of six storm sewer structures and their connecting pipes. The majority of this work will be concentrated at the intersection of Sunwood Drive and Zuni Street.

The current pavement marking layout meets State Aid standards, and the road is proposed to be marked back to the existing layout.

Generally, impacts to boulevards will be minor, just as necessary for removal and replacement of concrete curb and gutter, pedestrian ramp improvements, and excavation required for the storm sewer repairs.

Build Process

- Full-depth reclamation of existing bituminous pavement and aggregate base
- Storm sewer repairs
- Project removals (spot curb and gutter, pedestrian ramps, driveways as needed)
- Place new concrete curb and gutter and pedestrian ramps (5 to 7-day cure time)
- Remove excess reclaim material, shape and compact 5 inches of remaining material
    - Excess reclaim is stockpiled and will be used on future City projects
- Place first lift of bituminous pavement
- Finish any trail and driveway repairs
- Restore the boulevard in any impacted areas
    - 4 inches topsoil, seed and hydro-mulch
- Place the final lift of bituminous pavement
- Place all pavement marking, must wait 72 hours of paving

Preliminary Schedule Remaining

- Council Approves Plans and Specifications / Authorizes Ad for Bids
    - March 22, 2022
- Staff Receives Bids
    - April 18, 2022
- Council Awards Contract to the lowest responsible bidder
    - April 26, 2022
- Contractor begins construction
    - June 2022
- Contractor Substantially Completes construction
    - September 2, 2022
- Contractor Final Completion (project clean up, punch list created)
    - September 30, 2022

State Aid Approval

Plans are currently being routed through State Aid for approval, which is required before project bids can be accepted. Staff does not anticipate significant comments from State Aid which would require moving the proposed project bid opening.

Full plans are not attached to this case to prevent potential bidders from downloading plans attached to the case to prepare and submit their bids, rather than purchasing the plans through QuestCDN, the electronic bidding software used by the City of Ramsey. This ensures all bidders are bidding off the same set of plans, and all bidders are notified of any plan revisions (addenda) issued during the bidding process. Attached is the title sheet showing the scope of the improvements, as well as a plan sheet showing the typical sections, which includes information on the

proposed pavement section. Plans are available upon request from the City Engineer.

Timeframe:

Staff estimates up to 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Alternative #1 – Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for Sunwood Drive and Waco Street Reconstruction, Improvement Project #22-01

Alternative #2 – Motion of other.

Funding Source:

Funding for this improvement is proposed to come from MSA Funds, Stormwater Utility Funds, and Sanitary Sewer Utility Funds.

Staff has completed an estimate based on the final plans and anticipated 2022 construction costs, with a total estimated project cost of $572,160.33, which includes 23-percent indirect costs for administrative, engineering, finance, and legal costs.

- Street Construction Costs $391,163.00
- Storm Sewer Costs $66,808.00
- Sanitary Sewer Costs $7,200.00
- Indirect Costs $106,989.33
- Total Estimated Project Costs $572,160.33

Recommendation:

Staff recommends Alternative #1

Action:

Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for Sunwood Drive and Waco Street Reconstruction, Improvement Project #22-01.

Attachments

22-01 Street Summary

22-01 Title Sheet

22-01 Project Scope

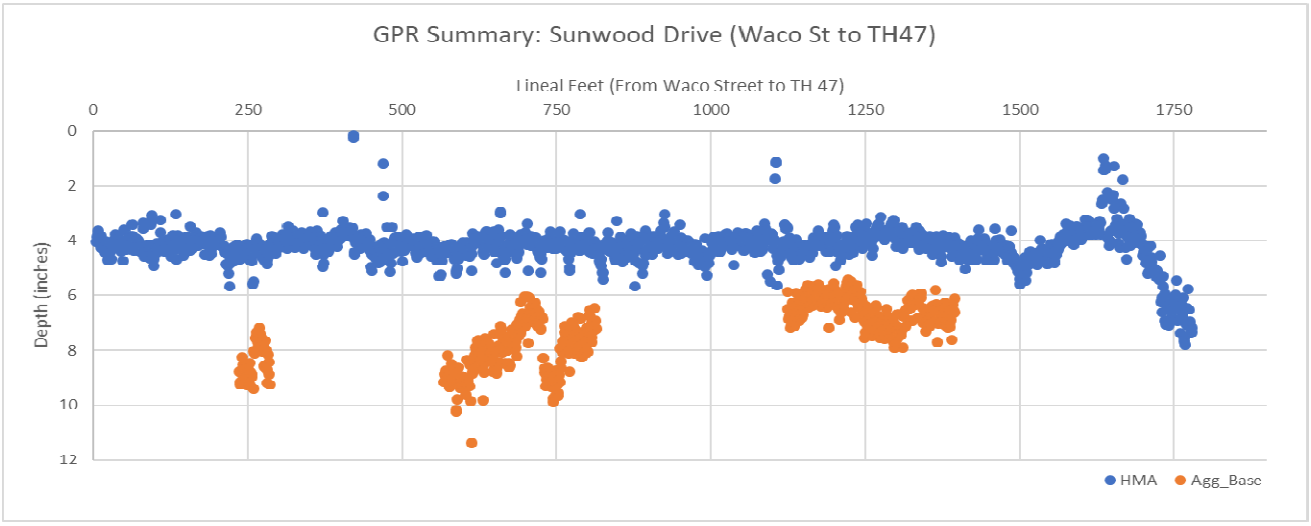
22-01 Typical Sections

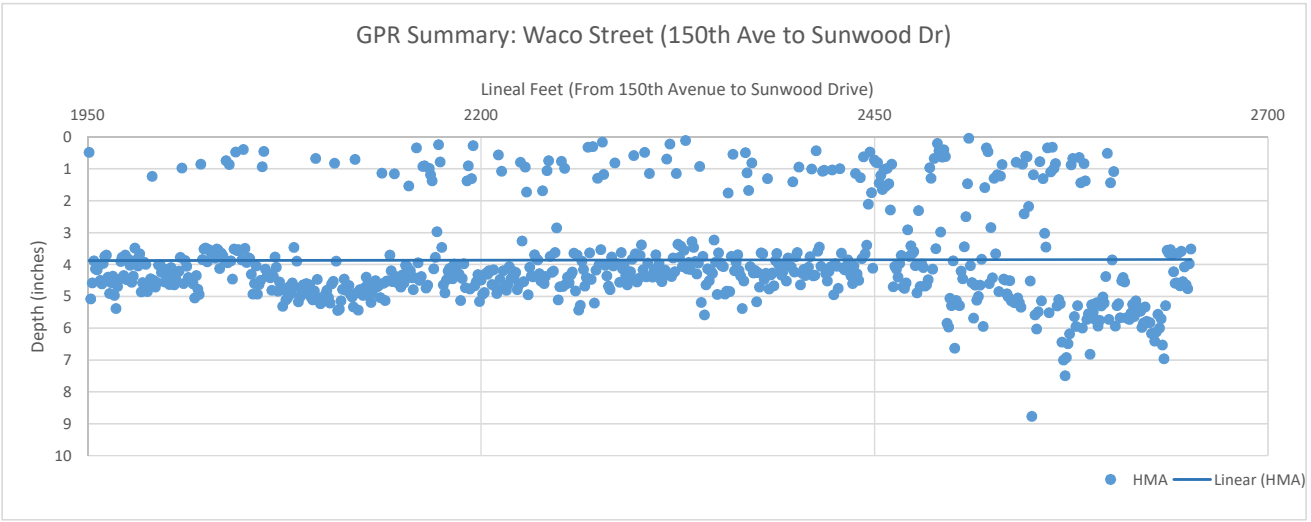
Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	03/10/2022 01:30 PM
Grant Riemer	MaryJo Warner	03/10/2022 02:16 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 03:29 PM
Form Started By: Joe Feriancek		Started On: 03/08/2022 08:07 AM
Final Approval Date: 03/10/2022		

IP 22-01 Sunwood Drive & Waco Street Reconstruction
Street Segment Summary

Street Description				Street History					GPR Summary		
Street	**Segment Description**	**Length (feet)**	**Curb**	**2020 PASER**	**Year Built**	**Maint. 1**	**Maint. 2**	**Maint. 3**	**Avg HMA (inches)**	**Avg Agg. Base (inches)**	**Avg Section (inches)**
Sunwood Drive	TH 47 / Waco Street	1,826	conc.	4	1985	SC 1992	SC 2006	SC 2013	4.20	3.25	7.38
Waco Street	Sunwood Drive / 150th Avenue	705	conc.	3	1992	SC 2006			3.86	n/a*	n/a*
				** GPR not able to detect Agg. Base*							
	Total Length	**2,531**	**0.48 mi.**								

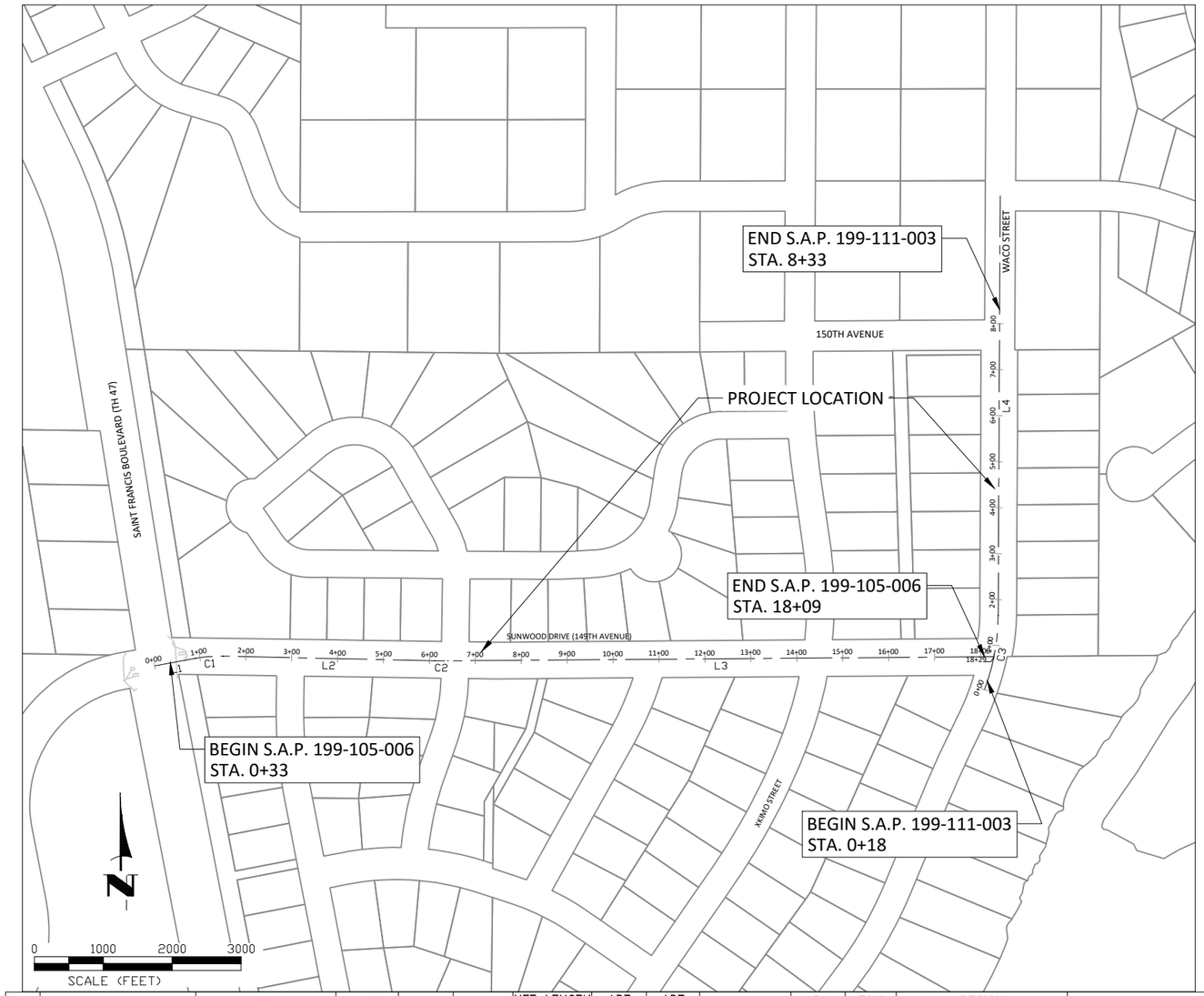


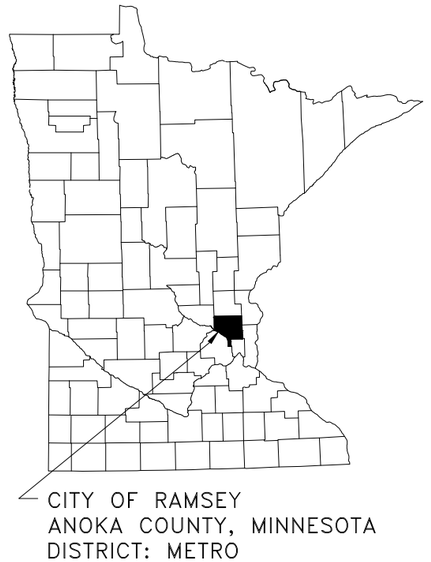


CITY OF RAMSEY

STREET CONSTRUCTION PLANS FOR BITUMINOUS RECLAMATION AND PAVING.
S.A.P. 199-105-006 & S.A.P. 199-111-003

S.A.P. 199-105-006 LOCATED ON SUNWOOD DRIVE BETWEEN TRUNK HIGHWAY 47 AND WACO STREET & S.A.P. 199-111-003 LOCATED ON WACO STREET BETWEEN SUNWOOD DRIVE AND 150TH AVENUE.
FROM NE 1/4 OF THE NW 1/4 OF S25, T32, R25 TO SE 1/4 OF THE SE 1/4 OF S24, T32, R25





CITY OF RAMSEY
ANOKA COUNTY, MINNESOTA
DISTRICT: METRO

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL 1-800-252-1166 OR 651-454-0002

GSOC

Call before you dig
811
651 454-0002 Metro
800 252-1166 Outstate
www.gopherstateonecall.org

NO.	PROJECT	STA. TO STA.	GROSS LENGTH	BRIDGE LENGTH	NET LENGTH	NET LENGTH (MILES)	ADT (2022)	ADT (2042)	DESIGN ESAL	R VALUE	TON DESIGN	DESIGN SPEED	DESIGN SPEED NOT MET	NUMBER OF LANES	WIDTH OF LANES	NUMBER OF SHOULDERS	WIDTH OF LANES	FUNCTIONAL CLASSIFICATION
①	S.A.P. 199-105-006 SUNWOOD DRIVE	0+33 TO 18+09	1776 FT	0 FT	1776 FT	0.34 MI	1750	1925	205,000	50	10	30	N/A	2	12'	2	10'	COLLECTOR
②	S.A.P. 199-111-003 WACO STREET	0+18 TO 8+33	815 FT	0 FT	815 FT	0.15 MI	520	1610	117,000	50	10	30	N/A	2	12'	2	10'	COLLECTOR

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

STOPPING SIGHT DISTANCE BASED ON:
3.5 FT - HEIGHT OF EYE
2.0 FT - HEIGHT OF OBJECT

DATUM:
VERTICAL: NAVD 88
HORIZONTAL: ANOKA COUNTY COORDINATES (1996 ADJUSTMENT)

SAP 199-105-006
SAP 199-111-003

DATE	REVISION

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX

THIS PLAN CONTAINS 26 SHEETS

LEGEND

SANITARY MANHOLE	Easement - Drainage & Utility
STORM SEWER MANHOLE	Easement - Roadway
CATCH BASIN MANHOLE	LOT LINE
CATCH BASIN	ELECTRIC LINE
CATCH BASIN - GROUT	ELECTRIC LINE - BURIED
CATCH BASIN - RESET	ELECTRIC LINE - OVERHEAD
FLARED END SECTION	GAS LINE
CULVERT END SECTION	TELECOMMUNICATION LINE
HYDRANT	TELECOMM - OVERHEAD
VALVE	FIBER OPTIC LINE
TREE - CONIFEROUS	TREE LINE
TREE - DECIDUOUS	LANDSCAPE
SHRUB	RETAINING WALL
LIGHT POLE	FENCE
SIGN	SILT FENCE
MAILBOX	WATERMAIN
PEDESTAL - TELECOM	SANITARY SEWER
PEDESTAL - ELECTRIC	STORM SEWER
HAND HOLE	DRAIN TILE
DRIVE - BITUMINOUS	LANDSCAPE - ROCK
DRIVE - CONCRETE	LANDSCAPE - MULCH
DRIVE - GRAVEL	LANDSCAPE - RIP RAP
CONCRETE WALK	PR. DRIVE - BITUMINOUS
BITUMINOUS TRAIL	PR. DRIVE - CONCRETE
REMOVE BIT PAVE	PR. DRIVE - GRAVEL
REMOVE CONCRETE PAVE	PR. CONCRETE WALK
REMOVE GRAVEL SURFACE	PR. CONCRETE
MILL BIT PAVEMENT	PR. SEEDING AREA
RECLAIM BIT PAVEMENT	PR. SODDING AREA

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

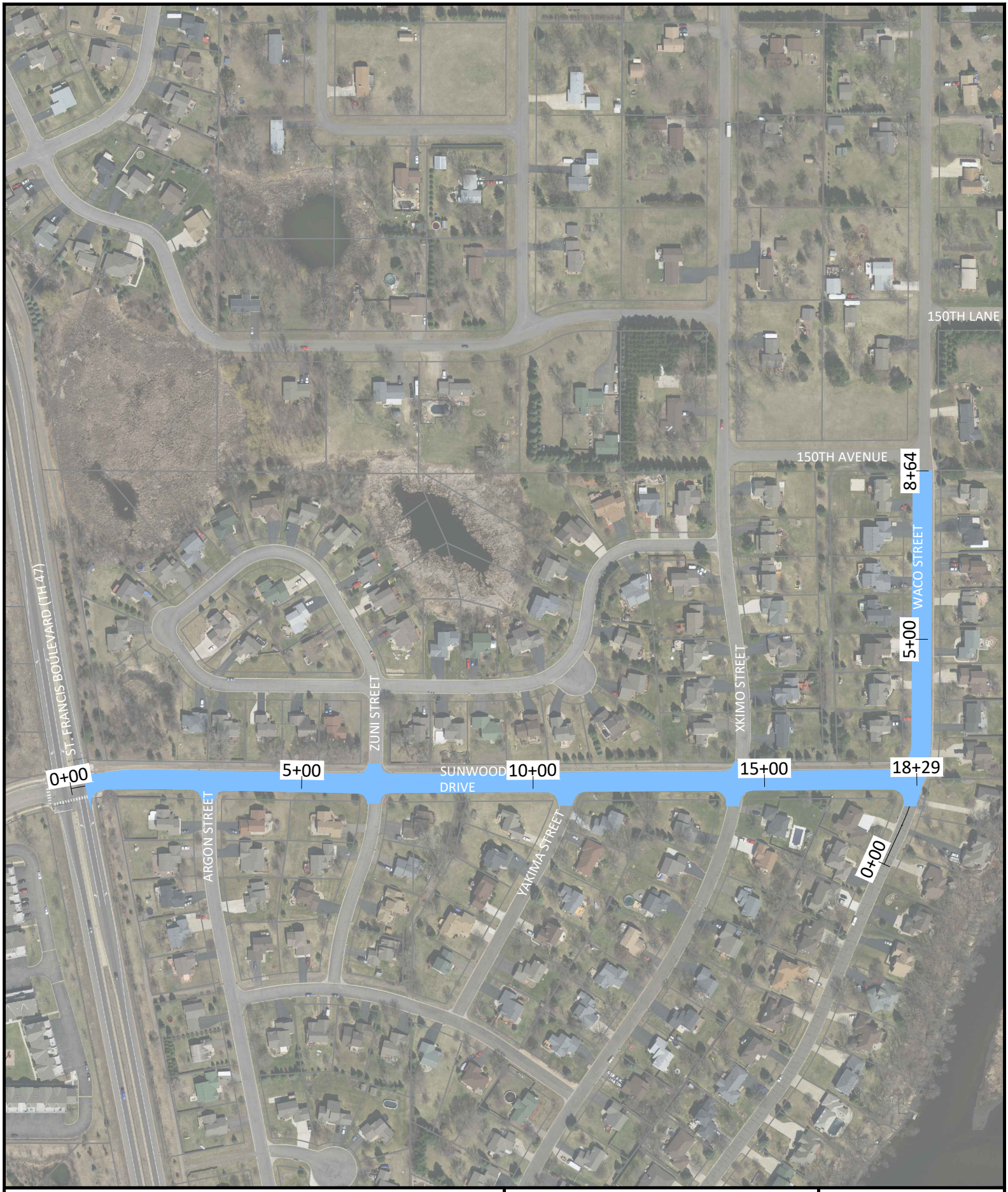
DRAFT — 57095 — DATE --/--/--
JOE FERIANCEK, P.E. — LIC. NO.

APPROVED: _____ DATE _____
CITY ENGINEER, CITY OF RAMSEY

_____ DATE _____
DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

_____ DATE _____
STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

Jan 31, 2022 - 4:14pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive & Waco Street 22-01\Plan Drawings\22-01 Title Sheet.dwg



IMPROVEMENT PROJECT 22-01
SUNWOOD DRIVE & WACO STREET
PROJECT SCOPE

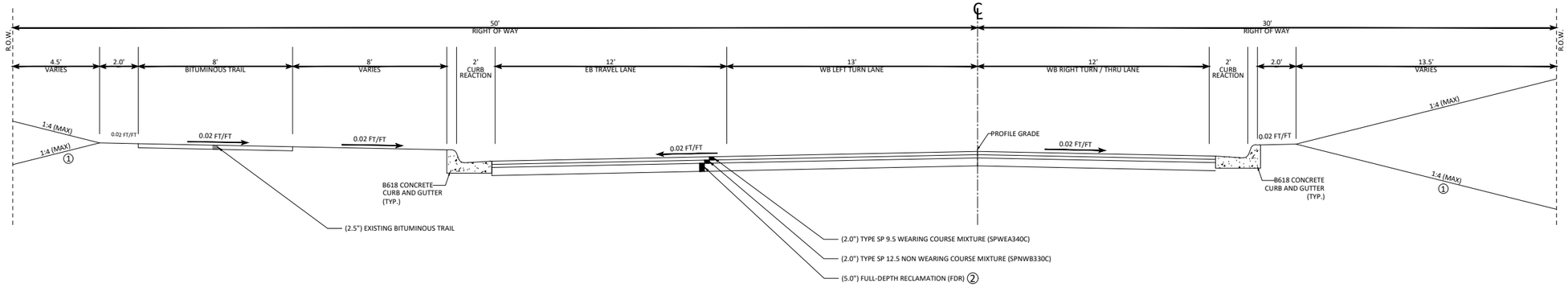
0 1/20 2/20 3/20

SCALE (MILE)

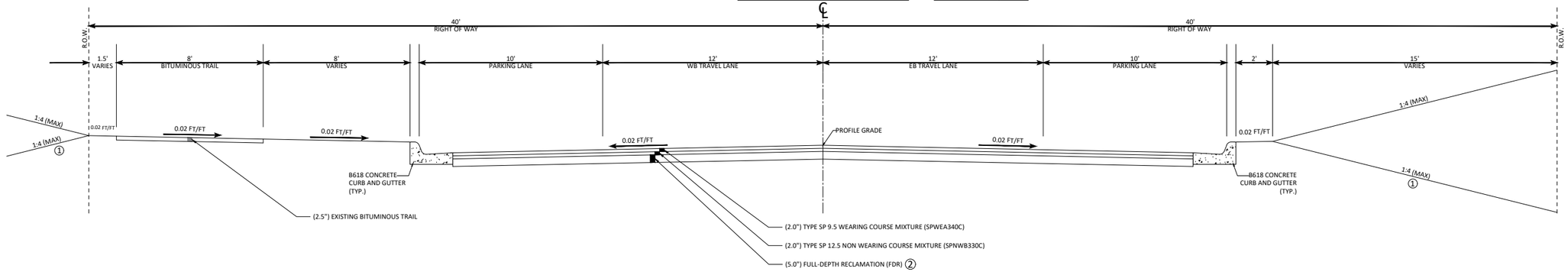
N

City of RAMSEY

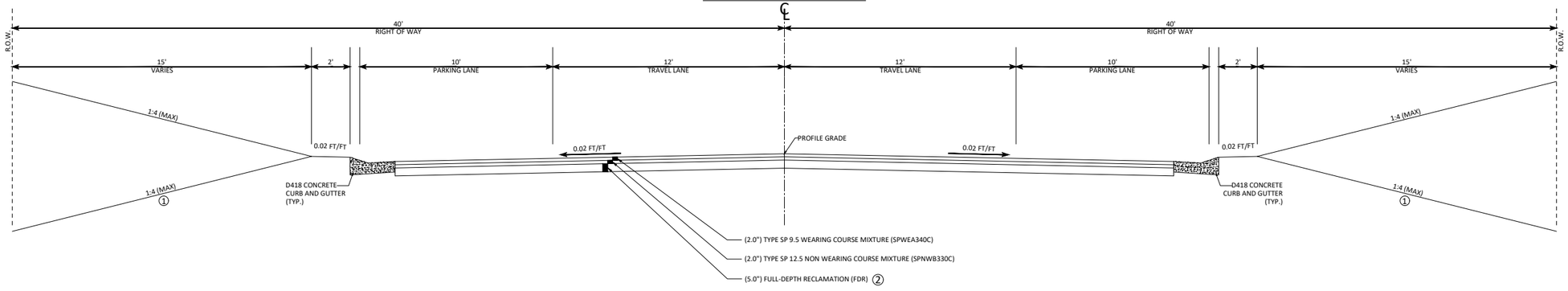
TYPICAL SECTION: SUNWOOD DRIVE TURN LANE STA. 0+33 TO 1+50



TYPICAL SECTION: SUNWOOD DRIVE STA. 1+50 TO 18+09



TYPICAL SECTION: WACO STREET



PAVEMENT DESIGN:
S.A.P. 199-105-006

20 YR DESIGN LANE BESALS:	205,000
DESIGN R-VALUE:	50

MINIMUM REQUIRED

MINIMUM BIT (GE)	7.00
MIN. AGG. BASE (GE)	3.53
TOTAL REQUIRED GE	10.53

PROPOSED DESIGN

WEARING COURSE (2.0")	4.50
NON-WEAR COURSE (2.0")	4.50
FDR UNSTABILIZED (5.0")	5.00
TOTAL DESIGN GE	14.00

PAVEMENT DESIGN:
S.A.P. 199-111-003

20 YR DESIGN LANE BESALS:	117,000
DESIGN R-VALUE:	50

MINIMUM REQUIRED

MINIMUM BIT (GE)	7.00
MIN. AGG. BASE (GE)	3.88
TOTAL REQUIRED GE	10.00

PROPOSED DESIGN

WEARING COURSE (2.0")	4.50
NON-WEAR COURSE (2.0")	4.50
FDR UNSTABILIZED (5.0")	5.00
TOTAL DESIGN GE	14.00

REFERENCE NOTES:

1. GRADE TO MATCH EXISTING GROUND. ESTABLISH TURF USING A MINIMUM OF 4" TOPSOIL AND HYDROSEED WITH MNDOT SEED MIXTURE 25-151. SEE CITY DETAIL ERO-6 FOR TOPSOIL REQUIREMENTS.

2. CONTRACTOR SHALL SCARIFY AND COMPACT, according to the specified density method, the top 12 inches of material prior to placing CLASS 5 AGGREGATE BASE. THIS PROCESS SHALL BE INCIDENTAL TO THE SUBGRADE PREPARATION PAY ITEM.

NOTE: NOT TO SCALE

DATE	REVISION

Mar 09, 2022 - 1:15pm
O:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive & Waco Street 22-01\Plan Drawings\22-01 Details.dwg

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

DRAFT

JOE FERIANCEK

Date --/--/-- Lic. No. 57095

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 1/31/22
CHECKED BY:	---	FILE: 22-01

City of RAMSEY

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

TYPICAL SECTION

S.A.P. 199-105-006 & S.A.P. 199-111-003

SUNWOOD DRIVE & WACO STREET RECONSTRUCTION
CITY PROJECT NO. 22-01
CITY OF RAMSEY, MINNESOTA

SHEET 05 OF 26 SHEETS

Public Works Committee **5. 2.**

Meeting Date: 03/15/2022

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2022 Neighborhood Pavement Overlay Improvements, Improvement Project #22-04

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for 2022 Neighborhood Pavement Overlay Improvements, Improvement Project #22-04.

Background:

City Improvement Project 22-04 proposes to overlay the streets within the Sunfish Lake Business Park 2nd, Sunflower Ridge, Tiger Meadows, and The Ponds of Ramsey subdivisions. The streets total approximately 14,200 linear feet (2.69 miles) in length, vary in width between 32 and 42 feet, and are urban sections. A street segment summary is attached to this case.

Project History

- 2022 – 2031 Capital Improvement Program – listed as street overlay for 2022
- August 10, 2021 City Council accepted proposals for topographic survey
- October 26, 2021 City Council ordered plans and specifications

Pavement History

The streets within the subdivisions were generally built between 2002 and 2003. Pavement maintenance has included 2 crack seal / seal coat improvements. 2021 PASER values were 7 for all street segments. Ground Penetrating Radar (GPR) was performed on some of the street segments within the project area, and are summarized in the street segment summary.

Proposed Improvements

Based on Staff review of the existing pavement sections, and condition of the existing pavements, a mill and overlay of the existing pavement is appropriate. The proposed mill and overlay will vary between 1.5 and 2 inches thick dependent upon the existing pavement thicknesses.

Staff review found the existing pedestrian ramps within the project area did not meet current ADA requirements, therefore all pedestrian ramps within the project area will need to be removed and replaced. The concrete curb and gutter in the project area were found to generally be in good condition, and only spot repairs are proposed.

Minor repairs to the existing storm sewer structures are proposed with this project, the majority of which are grouting the existing adjustment rings and pipe inverts. A few storm sewers catch basins will require resetting due to settling.

The City will be placing inflow and infiltration (I/I) barriers on the sanitary sewer manholes with this project. The City received an MCES I/I Grant for this work, which will reimburse the City for the costs associated with the I/I barriers.

Build Process

- Project removals (spot curb and gutter, pedestrian ramps)
- Place new concrete curb and gutter and pedestrian ramps (5 to 7-day cure time)
- Mill existing pavement
- Finish structure adjustments, storm sewer catch basin repairs
- Restore the boulevard in any impacted areas
    - 4 inches topsoil, turf
- Place bituminous pavement
- Place all pavement marking, must wait 72 hours after paving

Preliminary Schedule Remaining

- Council Approves Plans and Specifications / Authorizes Ad for Bids
    - March 22, 2022
- Staff Receives Bids
    - April 18, 2022
- Council Awards Contract to the lowest responsible bidder
    - April 26, 2022
- Contractor begins construction
    - June 2022
- Contractor Substantially Completes construction
    - September 2, 2022
- Contractor Final Completion (project clean up, punch list created)
    - September 30, 2022

Final plans are not attached to this case to prevent potential bidders from downloading plans attached to the case to prepare and submit their bids, rather than purchasing the plans through QuestCDN, the electronic bidding software used by the City of Ramsey. This ensures all bidders are bidding off the same set of plans, and all bidders are notified of any plan revisions (addenda) issued during the bidding process. Attached is the title sheet showing the scope of the improvements. Plans are available upon request from the City Engineer.

Timeframe:

Staff estimates up to 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Alternative #1 – Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for 2022 Neighborhood Pavement Overlay Improvements, Improvement Project #22-04.

Alternative #2 – Motion of other.

Funding Source:

Funding for this improvement is proposed to come from Pavement Management Funds, Stormwater Utility Funds, MCES I/I Grant Funds, and Sanitary Sewer Utility Funds.

Staff has completed an estimate based on the 95% plans and anticipated 2022 construction costs, with a total estimated project cost of $876,000, which includes 14-percent indirect costs for administrative, engineering, finance, and legal costs.

- Street Construction Costs $708,000
- Storm Sewer Costs $39,000
- Sanitary Sewer Costs $22,000
- Indirect Costs $107,000
- Total Estimated Project Costs $876,000

Recommendation:

Staff recommends Alternative #1

Action:

Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for 2022 Neighborhood Pavement Overlay Improvements, Improvement Project #22-04.

Attachments

22-04 Street Summary

22-04 Title Sheet

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	03/10/2022 01:36 PM
Grant Riemer	MaryJo Warner	03/10/2022 02:17 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 03:30 PM
Form Started By: Joe Feriancek		Started On: 03/08/2022 08:09 AM
Final Approval Date: 03/10/2022		

IP 22-04 2022 Neighborhood Pavement Overlay Improvements
Street Segment Summary

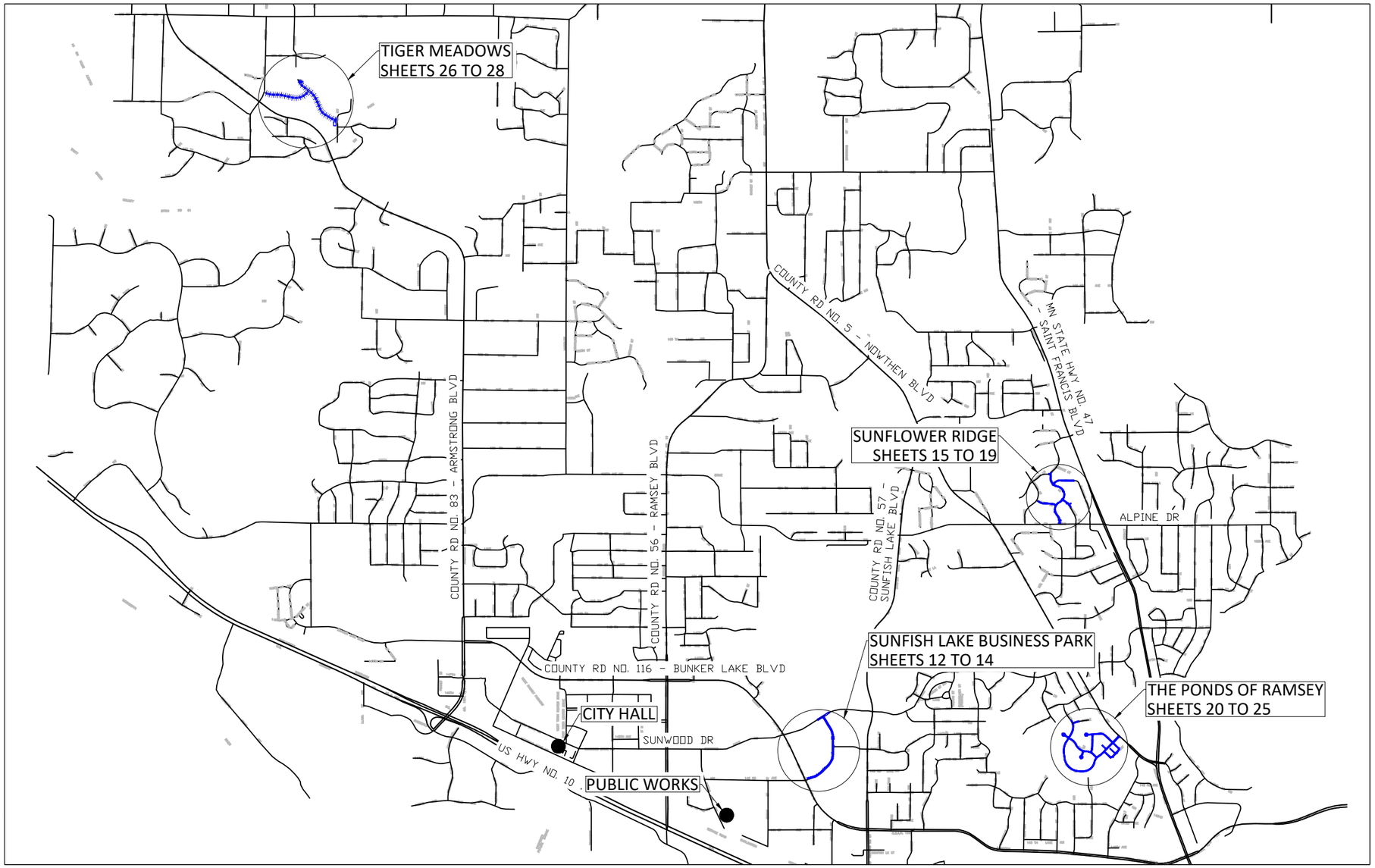
Street Description						Street History							GPR Summary		
Subdivision	**Street**	**Segment Description**	**Length (feet)**	**Section (Urban / Rural)**	**Curb (Bit / Conc.)**	**2021 PASER**	**Year Built**	**Maint. 1**	**Maint. 2**	**Maint. 3**	**Maint. 4**	**Maint. 5**	**Avg HMA (inches)**	**Avg Agg. Base (inches)**	**Avg Section (inches)**
Sunfish Lake Business Park 2nd	Azurite Street	Bunker Lake Boulevard / Sunwood Drive	2123	Urban	Conc.	7	2002	SC 2009	SC 2016				3.5*	6.0*	9.5*
	Sunfish Lake Business Park 2nd Total		*2123*	*0.4 mi.*											
Sunflower Ridge	154th Avenue	Iodine Street / W EOP	305	Urban	Conc.	7	2003	SC 2008	SC 2017				3.9	5.4	9.3
	154th Lane	Iodine Street / E EOP	488	Urban	Conc.	7	2007	SC 2008	SC 2017				3.7	5.3	9.0
	Germanium Street	Iodine Street / E EOP	434	Urban	Conc.	7	2003	SC 2008	SC 2017				3.9	4.5	8.4
	Iodine Street	Alpine Drive / 155th Lane	1613	Urban	Conc.	7	2003	SC 2008	SC 2017				3.8	5.7	9.5
	Sunflower Ridge Total		*2840*	*0.54 mi.*											
Tiger Meadows	Rabbit Street	170th Avenue / Nutria Street	1230	Urban	Conc.	7	2003	SC 2008	SC 2017				4.2	3.6	7.8
	Rabbit Street	170th Avenue / N EOP	409	Urban	Conc.	7	2003	SC 2008	SC 2017				4.2	3.6	7.8
	170th Avenue	Tiger Street / Rabbit Street	1240	Urban	Conc.	7	2003	SC 2008	SC 2017				4.2	4.4	8.6
	Tiger Meadows Total		*2879*	*0.55 mi.*											

**GPR not available, depth based off asbuilts*

IP 22-04 2022 Neighborhood Pavement Overlay Improvements
Street Segment Summary

Street Description						Street History							GPR Summary		
Subdivision	**Street**	**Segment Description**	**Length (feet)**	**Section (Urban / Rural)**	**Curb (Bit / Conc.)**	**2020 PASER**	**Year Built**	**Maint. 1**	**Maint. 2**	**Maint. 3**	**Maint. 4**	**Maint. 5**	**Avg HMA (inches)**	**Avg Agg. Base (inches)**	**Avg Section (inches)**
The Ponds of Ramsey	144th Avenue	Iodine Street / CDS	210	Urban	Conc.	7	2002	SC 2007	SC 2013	SC 2018			2.5*	4.0*	6.5*
	144th Avenue	Iodine Street / Fluorine Street	731	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	144th Avenue	Iodine Street E / Fluorine Street	203	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	144th Court	144th Avenue / CDS	223	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	144th Way	Iodine Street N / Iodine Street S	806	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	145th Avenue	Fluorine Street / CDS	157	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	145th Avenue	Iodine Street / Fluorine Street	615	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	Fluorine Court	145th Avenue / 144th Avenue	486	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	Iodine Street	144th Avenue E / 144th Avenue W	1769	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	Iodine Street	144th Avenue W / W EOP	313	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	Iodine Street	144th Way S / 144th Way E	258	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	Iodine Street	145th Avenue / 144th Way	327	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	Iodine Street	Nowthen Boulevard / 145th Avenue	242	Urban	Conc.	7	2002	SC 2007	SC 2018				2.5*	4.0*	6.5*
	The Ponds of Ramsey Total Length		*6340*	*1.2 mi.*									**GPR not available, depth based off asbuilts*		

CITY OF RAMSEY
NEIGHBORHOOD OVERLAY IMPROVEMENTS
CITY IMPROVEMENT PROJECT NO. 22-04



0 1500 3000 4500
SCALE (FEET)

N

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL 1-800-252-1166 OR 651-454-0002

Call before you dig
811
651 454-0002 Metro
800 252-1166 Outstate
www.gopherstateonecall.org

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX

THIS PLAN CONTAINS XX SHEETS

LEGEND

- SAN — ADJUST SANITARY FRAME AND RING CASTING
- STM — ADJUST STORM FRAME AND RING CASTING
- RESET CATCH BASIN
- GROUT CATCH BASIN
- FLARED END SECTION
- HYDRANT
- ADJUST VALVE BOX
- LIGHT POLE
- EASEMENT
- RIGHT OF WAY
- ELECTRIC LINE
- OVERHEAD ELECTRIC
- GAS LINE
- TELECOMMUNICATIONS LINE
- STORM SEWER
- SANITARY SEWER
- WATERMAIN
- SAWCUT FULL DEPTH

- REMOVE CONCRETE WALK
- REMOVE BITUMINOUS TRAIL
- BITUMINOUS PAVEMENT PATCH
- SODDING TYPE LAWN
- REMOVE & REPLACE CONCRETE CURB & GUTTER
- MILL & OVERLAY BITUMINOUS PAVEMENT

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- PEDESTRIAN RAMP LANDING AREA
- DRAINAGE FLOW ARROW

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

JOE FERIANCEK, P.E.
CIVIL ENGINEER II

XXXXX
LIC. NO.

DATE 03/09/22

DATE	REVISION

Mar 09, 2022 - 2:11pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Overlays\22-04 2022 Neighborhood Overlay Program\Plan Drawings\22-04 Title & SEQ.dwg

Public Works Committee **5. 3.**

Meeting Date: 03/15/2022

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Wood Pond Hills 2nd – 5th Street Reconstructions, Improvement Project #22-06

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for Wood Pond Hills 2nd – 5th Street Reconstructions, Improvement Project #22-06.

Background:

City Improvement Project 22-06 proposes to reconstruct the streets within the Wood Pond Hills 2nd, 3rd, 4th, and 5th subdivisions, generally located southwest of Sunwood Drive and Nowthen Boulevard. The streets total approximately 4,600 linear feet (0.88 miles) in length, and are 31 feet wide urban sections with surmountable concrete curb and gutter. A street segment summary is attached to this case.

Project History

- 2022 – 2031 Capital Improvement Program – listed as street reconstruction for 2022
- August 10, 2021 City Council accepted proposals for geotechnical report and topographic survey
- August 24, 2021 City Council accepted proposals for utility testing
- October 26, 2021 City Council ordered plans and specifications

Pavement History

The streets within the subdivision were built between 1993 and 1996. Pavement maintenance has included crack seal / seal coat improvement in 1998, 2005, and in 2013. Maintenance crews have performed patching over the last several years, including extensive spray patching. 2021 PASER values ranged between 2 and 6, with the bulk of the subdivision being rated at 2. PASER values of 2 are as low as any street segments within the City.

Ground Penetrating Radar (GPR) was performed on the street segments. Bituminous pavement thickness was found to have an average thickness of 2.9 inches. Aggregate base thickness was found to have an average thickness of 4.4 inches. The overall average section thickness was 7.3 inches.

Proposed Improvements

Staff review of the geotechnical report found the sub-base material as poorly graded sand and poorly graded sand with silt, these materials are well suited for pavement support and are considered non-frost susceptible and are also free draining materials. With the sub-base material being sufficient, Staff is proposing to use the current standard City pavement section of 4-inches aggregate base, and 3.5-inches new bituminous pavement. The 4-inches of aggregate base is proposed to be compose of recycled reclamation material.

Staff review found the existing pedestrian ramps within the project area did not meet current ADA requirements, therefore all four pedestrian ramps will need to be removed and replaced. The concrete curb and gutter in the project area were found to generally be in good condition, and only spot repairs are proposed. Staff is proposing minimal impacts to the existing bituminous trail which crosses through the project, beyond what is required for matching into the new pedestrian ramps.

A portion of the cul-de-sac located on the south end of Junkite Street has had some undercutting of the existing concrete curb and gutter. This project proposes to remove and replace a portion of the concrete curb and gutter, perform a full-depth restoration of the compromised road section, and provide a stabilized erosion control mat in the boulevard area to prevent future erosion of the soils.

Review of the storm sewer, sanitary sewer and watermain did not find issues requiring repair. The City will be placing inflow and infiltration (I/I) barriers on the sanitary sewer manholes with this project. The City received an MCES I/I Grant for this work, which will reimburse the City for the costs associated with the I/I barriers.

Build Process

- Full-depth reclamation of existing bituminous pavement and aggregate base
- Project removals (spot curb and gutter, pedestrian ramps, driveways as needed)
- Place new concrete curb and gutter and pedestrian ramps (5 to 7-day cure time)
- Remove excess reclaim material, shape and compact 5 inches of remaining material
    - Subgrade excavation required to remove approximately 0.5 inches below the existing reclamation material to allow 4-inch thickness
    - Excess reclaim is stockpiled and will be used on future City projects
- Place first lift of bituminous pavement
- Finish any trail and driveway repairs
    - No driveway repairs are anticipated
- Restore the boulevard in any impacted areas
    - 4 inches topsoil, seed and hydro-mulch
- Place the final lift of bituminous pavement
- Place all pavement marking, must wait 72 hours after paving

Preliminary Schedule Remaining

- Council Approves Plans and Specifications / Authorizes Ad for Bids
    - March 22, 2022
- Staff Receives Bids
    - April 18, 2022
- Council Awards Contract to the lowest responsible bidder
    - April 26, 2022
- Contractor begins construction
    - June 2022
- Contractor Substantially Completes construction
    - September 2, 2022
- Contractor Final Completion (project clean up, punch list created)
    - September 30, 2022

Final plans are not attached to this case to prevent potential bidders from downloading plans attached to the case to prepare and submit their bids, rather than purchasing the plans through QuestCDN, the electronic bidding software used by the City of Ramsey. This ensures all bidders are bidding off the same set of plans, and all bidders are notified of any plan revisions (addenda) issued during the bidding process. Attached is the title sheet showing the scope of the improvements, as well as a plan sheet showing the typical sections, which includes information on the proposed pavement section. Plans are available upon request from the City Engineer.

Timeframe:

Staff estimates up to 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Alternative #1 – Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for Wood Pond Hills 2nd – 5th Street Reconstructions, Improvement Project #22-06.

Alternative #2 – Motion of other.

Funding Source:

Funding for this improvement is proposed to come from Pavement Management Funds, Stormwater Utility Funds, MCES I/I Grant Funds, Sanitary Sewer Utility Funds, and Watermain Utility Funds.

Staff has completed an estimate based on the final plans and anticipated 2022 construction costs, with a total estimated project cost of $622,832.65, which includes 23-percent indirect costs for administrative, engineering, finance, and legal costs.

- Street Construction Costs $489,068.01
- Storm Sewer Costs $5,700.00
- Sanitary Sewer Costs $9,600.00
- Watermain Costs $2,000.00
- Indirect Costs $116,464.64
- Total Estimated Project Costs $622,832.65

Recommendation:

Staff recommends Alternative #1

Action:

Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for Wood Pond Hills 2nd – 5th Street Reconstructions, Improvement Project #22-06.

Attachments

22-06 Street Summary
22-06 Project Scope
22-06 Title Sheet
22-06 City Details

Form Review

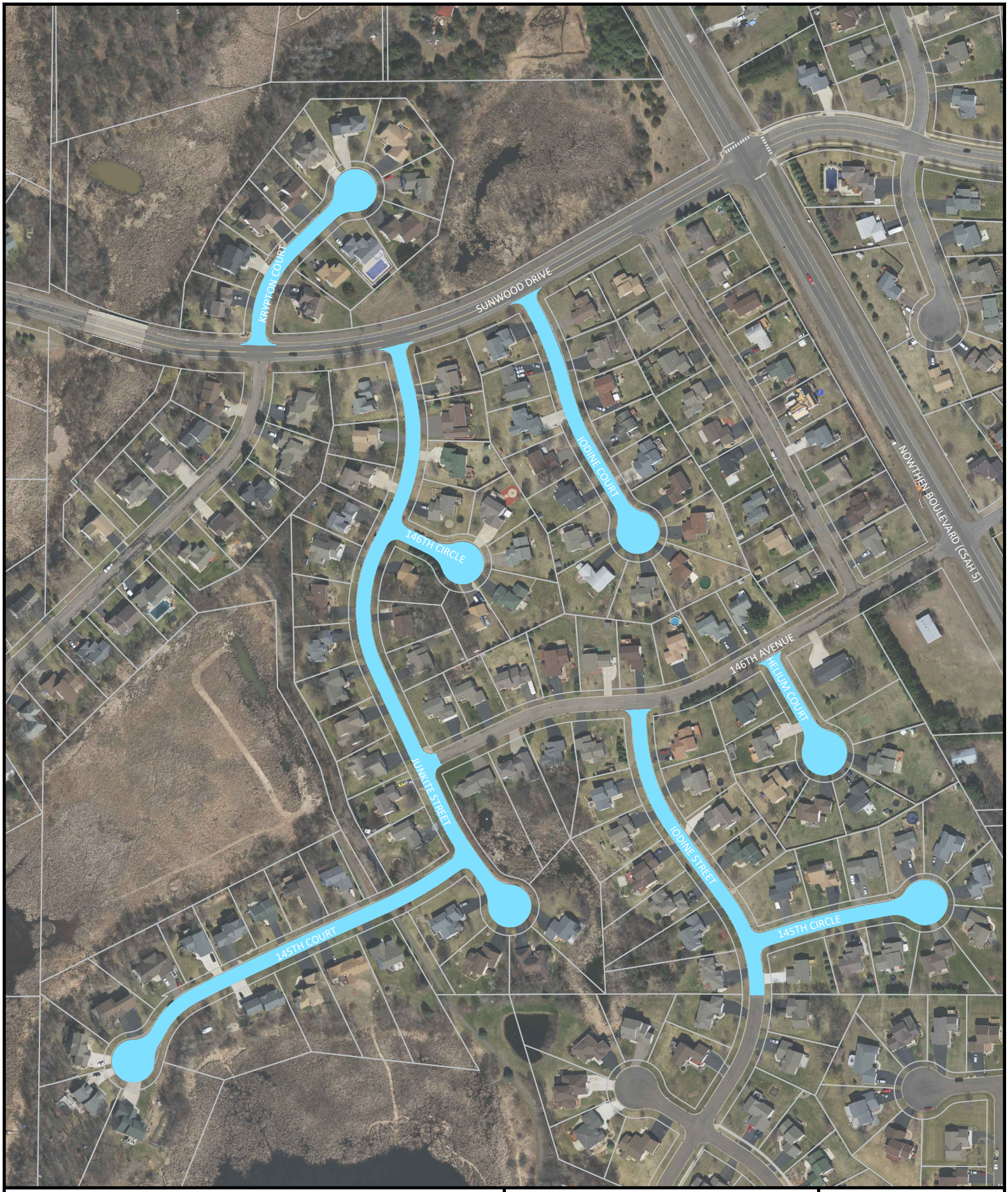
Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	03/10/2022 01:40 PM
Grant Riemer	MaryJo Warner	03/10/2022 02:17 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 03:31 PM
Form Started By: Joe Feriancek		Started On: 03/08/2022 08:13 AM
Final Approval Date: 03/10/2022		

Wood Pond Hills 2nd, 3rd, 4th & 5th Street Reconstructions
Street Segment Summary

Street Description				Street History						GPR Summary		
Street	**Segment Description**	**Length (feet)**	**Section (Urban / Rural)**	**2021 PASER**	**Year Built**	**Maint. 1**	**Maint. 2**	**Maint. 3**	**Maint. 4**	**Avg HMA (inches)**	**Avg Agg. Base (inches)**	**Avg Section (inches)**
145th Circle	Iodine Street / CDS	425	Urban	5	1996	SC 1998	SC 2005		SC 2013	2.4	5.3	7.4
145th Court	Junkite Street / W EOP	625	Urban	4	1994	SC 1998	SC 2005		SC 2013	2.7	3.6	6.3
146th Circle	Junkite Street / CDS	226	Urban	2	1993	SC 1998	SC 2005			4.0	3.0	7.0
Helium Court	146th Avenue / CDS	301	Urban	6	1996	SC 1998	SC 2005		SC 2013	2.0	5.7	7.7
Iodine Street	145th Circle / S EOP	92	Urban	6	1996	SC 1998	SC 2005		SC 2013	2.0	3.6	5.6
Iodine Street	146th Avenue / 145th Circle	569	Urban	6	1996	SC 1998	SC 2005		SC 2013	3.1	3.6	6.7
Iodine Street	Sunwood Drive / CDS	612	Urban	2	1992	SC 1998	SC 2005			3.1	4.4	7.5
Junkite Street	145th Court / 146th Avenue	164	Urban	2	1994	SC 1998	SC 2005			2.8	4.4	7.2
Junkite Street	145th Court / CDS	197	Urban	2	1994	SC 1998	SC 2005		SC 2013	2.8	4.4	7.2
Junkite Street	146th Avenue / S EOP	39	Urban	2	1993	SC 1998	SC 2005	OL 2012		2.8	4.4	7.2
Junkite Street	146th Circle / 146th Avenue	521	Urban	2	1993	SC 1998	SC 2005			2.8	4.4	7.2
Junkite Street	Sunwood Drive / 146th Avenue	406	Urban	2	1993	SC 1998	SC 2005			2.8	4.4	7.2
Krypton Court	Sunwood Drive / CDS	466	Urban	2	1993	SC 1998	SC 2005			3.2	5.9	9.1
	Total Length	**4,643**	**0.88 mi.**									

** GPR not able to detect Agg. Base*

*** Estimated Depths, GPR not available*



WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS PROJECT SCOPE

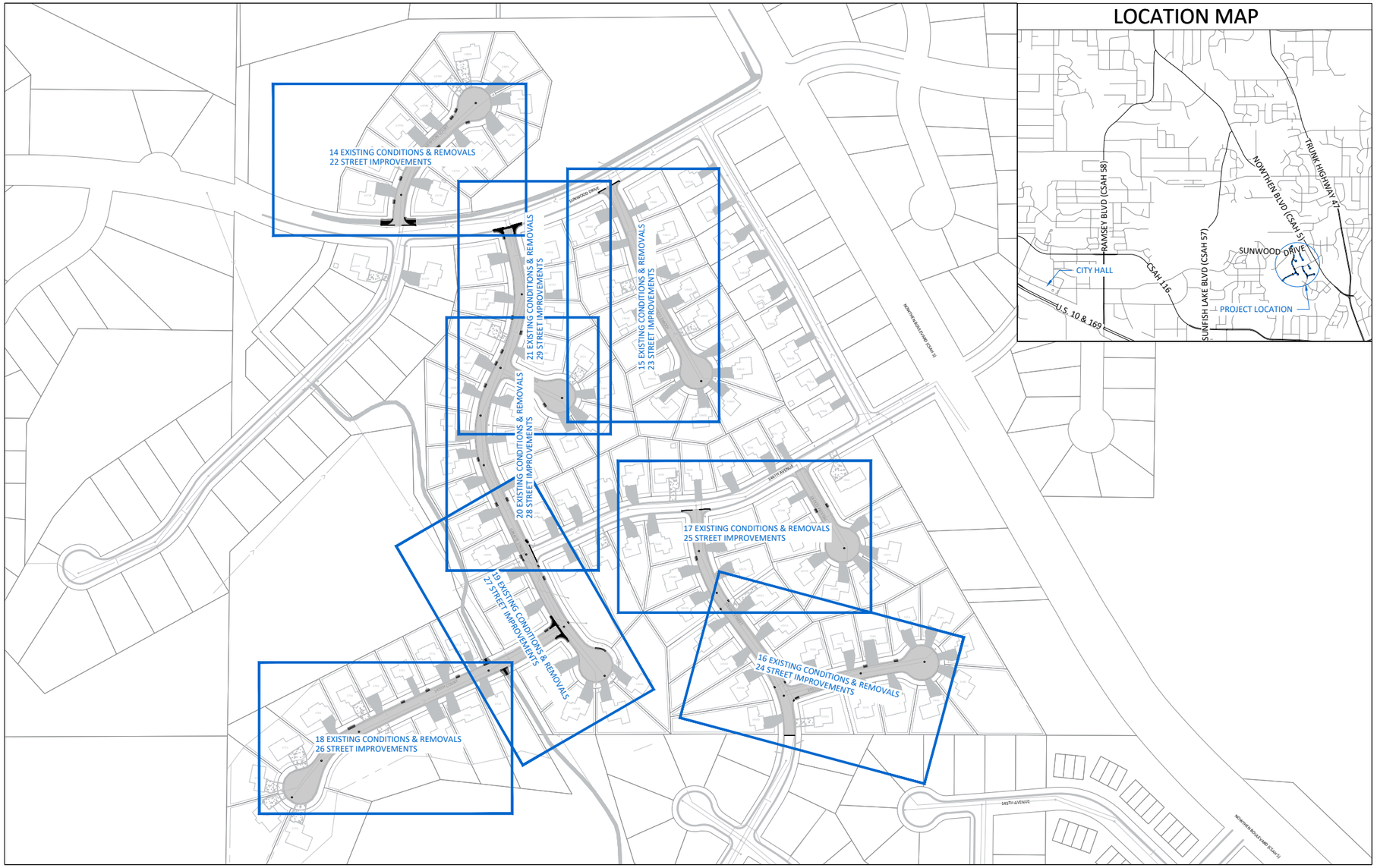
0 250 500 750

SCALE (FEET)

N

City of RAMSEY

CITY OF RAMSEY
WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS
CITY IMPROVEMENT PROJECT NO. 22-06



LOCATION MAP

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

ALL FEDERAL, STATE AND LOCAL LAWS, REGULATIONS AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET INDEX

THIS PLAN CONTAINS 29 SHEETS

LEGEND

SANITARY MANHOLE	Easement - Drainage & Utility
STORM SEWER MANHOLE	Easement - Roadway
CATCH BASIN MANHOLE	LOT LINE
CATCH BASIN	ELECTRIC LINE
CATCH BASIN - GROUT	ELECTRIC LINE - BURIED
CATCH BASIN - RESET	ELECTRIC LINE - OVERHEAD
FLARED END SECTION	GAS LINE
CULVERT END SECTION	TELECOMMUNICATION LINE
HYDRANT	TELECOMM - OVERHEAD
VALVE	FIBER OPTIC LINE
TREE - CONIFEROUS	TREE LINE
TREE - DECIDUOUS	LANDSCAPE
SHRUB	RETAINING WALL
LIGHT POLE	FENCE
SIGN	SILT FENCE
MAILBOX	WATERMAIN
PEDESTAL - TELECOM	SANITARY SEWER
PEDESTAL - ELECTRIC	STORM SEWER
HAND HOLE	DRAIN TILE
DRIVE - BITUMINOUS	LANDSCAPE - ROCK
DRIVE - CONCRETE	LANDSCAPE - MULCH
DRIVE - GRAVEL	LANDSCAPE - RIP RAP
CONCRETE WALK	PR. DRIVE - BITUMINOUS
BITUMINOUS TRAIL	PR. DRIVE - CONCRETE
REMOVE BIT PAVE	PR. DRIVE - GRAVEL
REMOVE CONCRETE PAVE	PR. CONCRETE WALK
REMOVE GRAVEL SURFACE	PR. CONCRETE
MILL BIT PAVEMENT	PR. SEEDING AREA
RECLAIM BIT PAVEMENT	

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

JOE FERIANCEK, P.E.
CIVIL ENGINEER II

57095 LIC. NO.

DATE 2/28/22

DATE	REVISION

SHEET 01 OF 29 SHEETS

0 150 300 450
SCALE (FEET)

N

City of RAMSEY

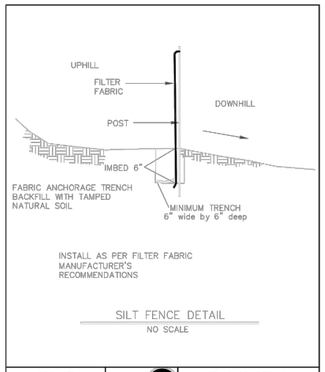
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE CALL 1-800-252-1166 OR 651-454-0002

GSOC
Call before you dig
811
651 454-0002 Metro
800 252-1166 Outstate
www.gopherstateonecall.org

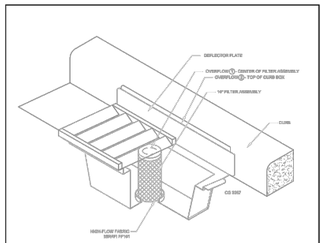
Feb 28, 2022 - 9:25am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Wood Pond Hills 2nd - 5th Recon 22-06\Plan Drawings\22-06 Title Sheet.dwg



SILT FENCE DETAIL

NO SCALE

APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: SILT FENCE
		CITY PLATE No. ERO–1

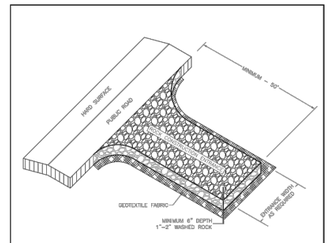


INLET PROTECTION – WIMCO OR EQUAL

N.T.S.

NOTE:
THIS INLET PROTECTION SHALL BE USED IMMEDIATELY FOLLOWING CURB & GUTTER CONSTRUCTION. INLET PROTECTION SHALL REMAIN INSTALLED AND MAINTAINED UNTIL ALL HOME CONSTRUCTION IS COMPLETE.

APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: INLET PROTECTION
		CITY PLATE No. ERO–2



NOTE:
1. MINIMUM CONSTRUCTION ENTRANCE WIDTH EQUAL TO PROPOSED ROADWAY WIDTH.
2. WIDTH OF RADIUS AS REQUIRED TO ENSURE VEHICLES DO NOT TRACK ONTO PUBLIC ROAD.
3. MAINTAINENCE AS REQUIRED TO PREVENT TRACKING ONTO PUBLIC ROADS. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION OF THE ENTRANCE AS NEEDED.

NOT TO SCALE

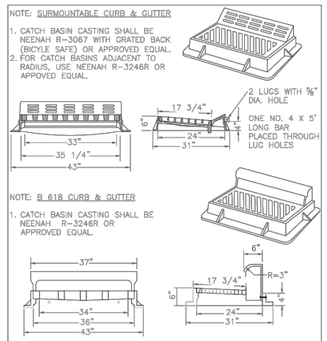
APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: ROCK CONSTRUCTION ENTRANCE
		CITY PLATE No. ERO–5

Notes:
1. INSTALLATION OF 4" OF TOPSOIL REQUIRED ACROSS ALL DISTURBED AREAS.
2. TOPSOIL IS DEFINED AS BLACK DIRT COMPOSED OF UNCONSOLIDATED MATERIAL, LARGELY UNDECOMPOSED ORGANIC MATTER WHICH IS SUITABLE FOUNDATION FOR VEGETATIVE GROWTH.
3. THE COMPOSITION OF TOPSOIL SHOULD CONTAIN NO MORE THAN THIRTY-FIVE PERCENT (35%) SAND CONTENT.

APPROVED: 7 – 2019	City of RAMSEY	STANDARD DETAILS: TOPSOIL REQUIREMENTS
		CITY PLATE No. ERO–6

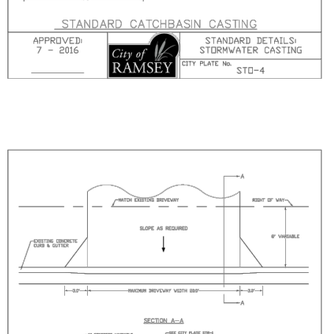
NOTE: SURMOUNTABLE CURB & GUTTER

1. CATCH BASIN CASTING SHALL BE NEENAH R–3067 WITH GRATED BACK (BICYLE SAFE) OR APPROVED EQUAL.
2. FOR CATCH BASINS ADJACENT TO RADIUS, USE NEENAH R–3246R OR APPOVED EQUAL.



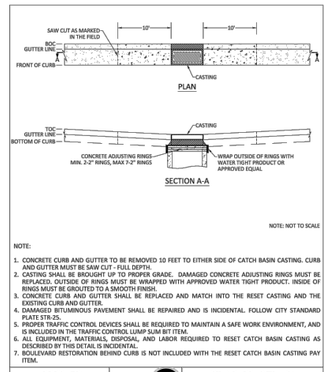
NOTE: B 618 CURB & GUTTER

1. CATCH BASIN CASTING SHALL BE NEENAH R–3246R OR APPROVED EQUAL.



STANDARD CATCHBASIN CASTING

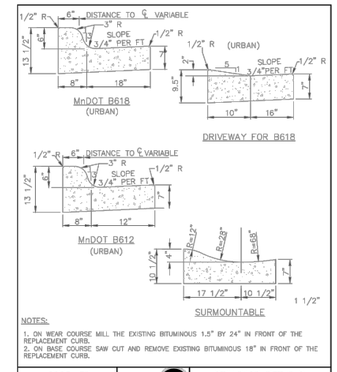
APPROVED: 7 – 2016	City of RAMSEY	STANDARD DETAILS: STORMWATER CASTING
		CITY PLATE No. STO–4



NOTE: NOT TO SCALE

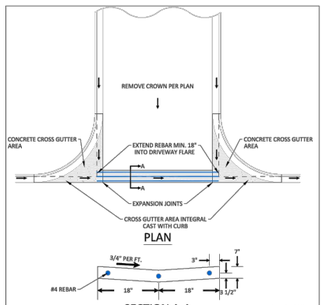
NOTE:
1. CONCRETE CURB AND GUTTER TO BE REMOVED 10 FEET TO EITHER SIDE OF CATCH BASIN CASTING. CURB AND GUTTER MUST BE SAW CUT - FULL DEPTH.
2. CASTING SHALL BE BROUGHT UP TO PROPER GRADE. DAMAGED CONCRETE ADJUSTING RINGS MUST BE REPLACED. OUTSIDE OF RINGS MUST BE WRAPPED WITH APPROVED WATER TIGHT PRODUCT. INSIDE OF RINGS MUST BE GROUTED TO A SMOOTH FINISH.
3. CONCRETE CURB AND GUTTER SHALL BE REPLACED AND MATCH INTO THE RESET CASTING AND THE EXISTING CURB AND GUTTER.
4. DAMAGED BITUMINOUS PAVEMENT SHALL BE REPAIRED AND IS INCIDENTAL. FOLLOW CITY STANDARD PLATE STR-25.
5. PROPER TRAFFIC CONTROL DEVICES SHALL BE REQUIRED TO MAINTAIN A SAFE WORK ENVIRONMENT, AND IS INCLUDED IN THE TRAFFIC CONTROL LUMP SUM BIT ITEM.
6. ALL EQUIPMENT, MATERIALS, DISPOSAL, AND LABOR REQUIRED TO RESET CATCH BASIN CASTING AS DESCRIBED BY THIS DETAIL IS INCIDENTAL.
7. BOULEVARD RESTORATION BEHIND CURB IS NOT INCLUDED WITH THE RESET CATCH BASIN CASTING PAY ITEM.

APPROVED: 3 – 2017	City of RAMSEY	STANDARD DETAILS: RESET CATCH BASIN CASTING
		CITY PLATE No. STO–13



NOTES:
1. ON WEAR COURSE MILL THE EXISTING BITUMINOUS 1.5" BY 24" IN FRONT OF THE REPLACEMENT CURB.
2. ON BASE COURSE SAW CUT AND REMOVE EXISTING BITUMINOUS 18" IN FRONT OF THE REPLACEMENT CURB.

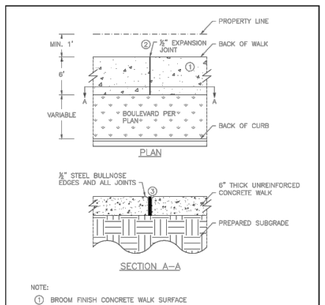
APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: CURB AND GUTTER
		CITY PLATE No. STR–1



NOTE: NOT TO SCALE

NOTES:
1. WITH REMOVAL OF EXISTING CURB AT A STREET, MILL BITUMINOUS TO A DEPTH OF 1.5" AND A WIDTH OF 18" IN EXISTING STREET.
2. TO BE USED WHENEVER CROSS DRAINAGE IS < 25L
3. CONCRETE CURB AND GUTTER SHALL BE CAST INTEGRAL WITH CONCRETE CROSS GUTTER AREA.
4. CONCRETE CURB AND GUTTER SHALL BE PAID SEPARATELY FROM CONCRETE CROSS GUTTER AREA.

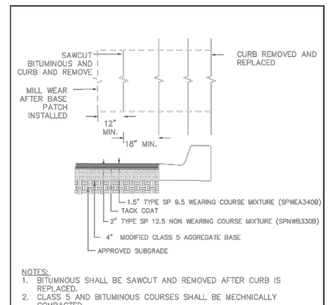
APPROVED: 3 – 2017	City of RAMSEY	STANDARD DETAILS: CROSS GUTTER
		CITY PLATE No. STR–2



NOTE:
① BROOM FINISH CONCRETE WALK SURFACE
② MAXIMUM 100 FOOT SPACING BETWEEN EXPANSION JOINTS
③ 1/2" EXPANION JOINT MEETING MNDOT SPEC 3702. PROVIDE ONE PIECE OF FILLER FOR THE ENTIRE DEPTH AND WIDTH OF THE JOINT

NOT TO SCALE

APPROVED: 10 – 2015	City of RAMSEY	STANDARD DETAILS: CONCRETE SIDEWALK
		CITY PLATE No. STR–3



NOTES:
1. BITUMINOUS SHALL BE SAWCUT AND REMOVED AFTER CURB IS REPLACED.
2. CLASS 5 AND BITUMINOUS COURSES SHALL BE MECHNICALLY COMPACTED.
3. SEE CITY PLATE STR–26 FOR MODIFIED CLASS 5 SPECIFICATIONS.

APPROVED: 6 – 2016	City of RAMSEY	STANDARD DETAILS: STREET PATCHING STANDARDS
		CITY PLATE No. STR–25

TABLE A
MODIFIED CLASS 5 SPECIFICATIONS

% PASSING

1"	100
3/4"	90 – 100
3/8"	50 – 80
No.4	35 – 70
No.10	20 – 60
No.40	10 – 35
No.200	5 – 10

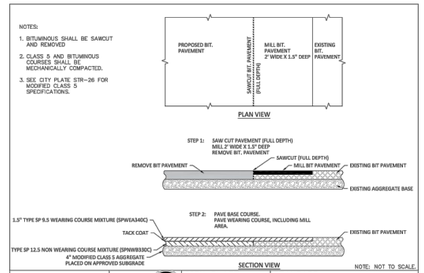
NOTES:
1. THE AGGREGATE BASE CONSTRUCTION WILL BE ACCEPTED FOR PAYMENT IN ACCORDANCE WITH THE PROVISIONS IN TABLE A.
2. IF THE AGGREGATE BASE FAILS TO MEET THE REQUIREMENTS OF TABLE A THE MATERIAL CAN BE CORRECTED IN PLACE OR REMOVED AND REPLACED WITH MATERIAL THAT MEET THE REQUIREMENTS OF TABLE A.
3. IN THE EVENT THAT RECYCLED MATERIAL IS USE IT MUST MEET MNDOT REQUIREMENTS FOR RECYCLED BASE.

APPROVED: 2 – 2003	City of RAMSEY	STANDARD DETAILS: MODIFIED CLASS 5 SPECIFICATIONS
		CITY PLATE No. STR–26

NOTES:
1. PANEL WIDTH SHALL NOT EXCEED 10 FT. WITHOUT A CENTERLINE CONSTRUCTION JOINT.
2. CONCRETE DRIVEWAY TO BE ONE COURSE CONCRETE PAVEMENT. DBE SPECIAL PROVISIONS FOR CLASS OF CONCRETE.)
3. CONCRETE DRIVEWAYS TO BE 6" THICK.
4. ⅜" EXPANSION JOINT, ⅜" PREFORMED JOINT FILLER MATERIAL, AASHTO M 213 (REQUIRED WHEN 2 CONCRETE AREAS ARE POURED SEPERATELY.)
5. BITUMINOUS DRIVEWAYS MINIMUM 2" THICK, MATCH EXISTING BITUMINOUS PAVEMENT THICKNESS.

APPROVED: 1 – 2016	City of RAMSEY	STANDARD DETAILS: RESIDENTIAL DRIVEWAY – NO SIDEWALK
		CITY PLATE No. STR–30

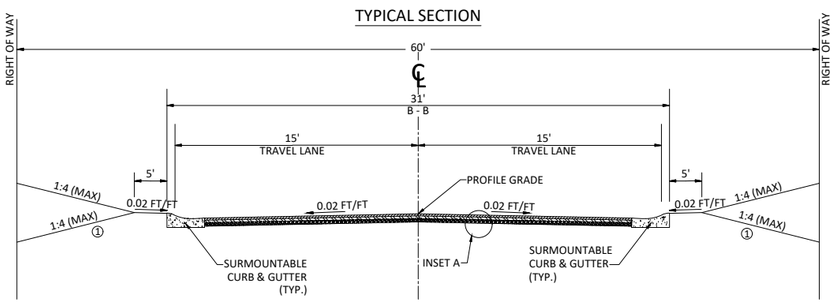
NOTES:
1. BITUMINOUS SHALL BE SAWCUT AND REMOVED
2. CLASS 5 AND BITUMINOUS COURSES SHALL BE MECHANICALLY COMPACTED.
3. SEE CITY PLATE STR–26 FOR MODIFIED CLASS 5 SPECIFICATIONS.



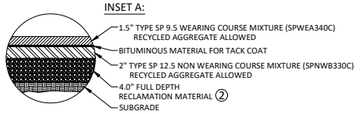
NOTE: NOT TO SCALE

APPROVED: 3 – 2017	City of RAMSEY	CITY PLATE No. STR–31	STANDARD DETAILS: STREET TIE–IN

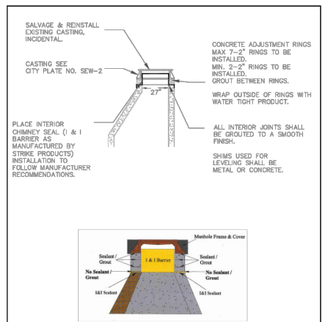
TYPICAL SECTION



INSET A:



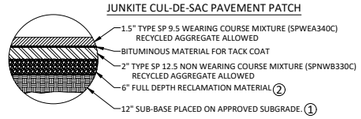
REFERENCE NOTES:
① GRADE TO MATCH EXISTING GROUND. ESTABLISH TURF USING A MINIMUM OF 4" TOPSOIL AND HYDROSEED. SEE CITY PLATE NO. ERO-6 FOR TOPSOIL REQUIREMENTS.
② FULL-DEPTH RECLAMATION MUST PASS CITY OF RAMSEY MODIFIED CLASS 5 AGGREGATE BASE GRADATION. SEE CITY PLATE NO. STR-26.



NOT TO SCALE

APPROVED: 1 – 2022	City of RAMSEY	STANDARD DETAILS: SANITARY MANHOLE ADJUSTING RINGS & CHIMNEY SEAL.
		CITY PLATE No. SEW–7

JUNKITE CUL-DE-SAC PAVEMENT PATCH



REFERENCE NOTES:
① REMOVE & REPLACE 1' SUBBASE MATERIAL IN PATCH AREA, TO 1' BEHIND CURB & GUTTER. RECLAMATION MATERIAL MAY BE USED IN-LIEU OF SELECT GRANULAR MATERIAL.
② FULL-DEPTH RECLAMATION MUST PASS CITY OF RAMSEY MODIFIED CLASS 5 AGGREGATE BASE GRADATION. SEE CITY PLATE NO. STR-26.

DATE	REVISION

Feb 28, 2022 - 9:30am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Wood Pond Hills 2nd - 5th Recon 22-06\Plan Drawings\22-06 Details.dwg

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

JOE FERIANCEK
Date 2/28/22 Lic. No. 57095

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 2/28/22
CHECKED BY:	JJF	FILE: 22-06

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

CITY DETAILS

WOOD POND HILLS 2ND - 5TH STREET RECONSTRUCTIONS
CITY PROJECT NO. 22-06
CITY OF RAMSEY, MINNESOTA

SHEET 03 OF 29 SHEETS

Public Works Committee **5. 4.**

Meeting Date: 03/15/2022

Submitted For: Joe Feriancek, Engineering/Public Works

By: Joe Feriancek, Engineering/Public Works

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2022 Crack Seal Improvements, Improvement Project #22-08

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for 2022 Crack Seal Improvements, Improvement Project #22-08.

Background:

Crack seal improvements are completed annually on between 10 and 23 miles of public street segments to cost-effectively maximize the life of the bituminous pavement.

Crack sealing protects pavement by preventing stormwater runoff from seeping through cracks in the pavement and joints between the pavement and concrete curb and gutter, and utility castings. Reducing future pavement damage due to wet subgrade soils, especially during freeze-thaw cycles.

The City's current pavement maintenance schedule calls for public streets to be crack sealed the third, seventh, and fourteenth year following construction, reconstruction, and overlay improvements. However, while this is the typical maintenance schedule it is important to note that Staff reviews the condition of all streets annually and adjusts the schedule of maintenance operations based on actual pavement conditions.

A total of 10.37 miles of public street segments are proposed to receive crack seal improvements in 2022. These street segments were selected based on age, pavement maintenance history, and Pavement and Surface Evaluation Rating (PASER) values of 7 or higher.

Plans and specifications for the 2022 Crack Sealing Improvements were prepared in-house as part of Staff's normal duties. A copy of the plans is attached to this case.

Preliminary Schedule Remaining

- Council Approves Plans and Specifications / Authorizes Ad for Bids
  - March 22, 2022
- Staff Receives Bids
  - April 18, 2022
- Council Awards Contract to the lowest responsible bidder
  - April 26, 2022
- Contractor begins construction
  - June 2022
- Contractor Completes Improvements
  - July 29, 2022

Timeframe:

Staff estimates up to 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Alternative #1 – Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for 2022 Crack Seal Improvements, Improvement Project #22-08.

Alternative #2 – Motion of other.

Funding Source:

Estimated project costs for the proposed 2022 Crack Seal Improvements total $141,600. This includes 14% indirect costs for administrative, engineering, legal and financing.

Staff anticipates bid prices for the 2022 crack seal improvements to be approximately 5 – 10 percent higher than 2021 bid prices.

The City annually budgets $200,000 for crack seal and pavement rejuvenation improvements. If bids are less than $200,000, Staff will recommend completing a pavement rejuvenation project to spend the remainder of the budgeted funds.

Recommendation:

Staff recommends Alternative #1

Action:

Motion recommending City Council approving plans and specifications and authorizing advertisement for bids for 2022 Crack Seal Improvements, Improvement Project #22-08.

Attachments

22-08 Overall Map

22-08 Area A

22-08 Area B

22-08 Area C

22-08 Area D

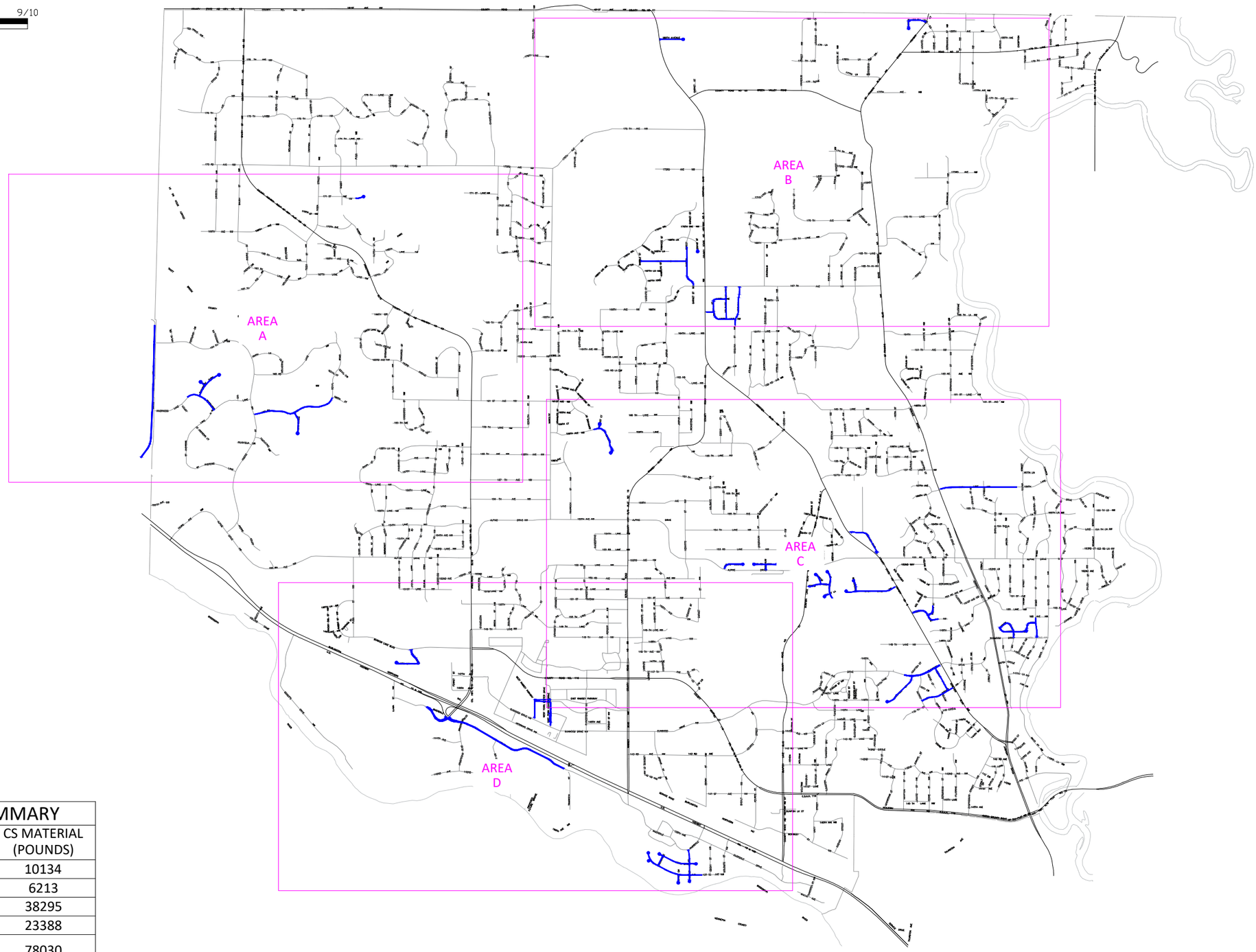
Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	03/10/2022 01:44 PM
Grant Riemer	MaryJo Warner	03/10/2022 02:17 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 03:32 PM
Form Started By: Joe Feriancek		Started On: 03/08/2022 08:13 AM
Final Approval Date: 03/10/2022		

N

0 3/10 6/10 9/10

SCALE (MILE)



2022 CRACK SEAL SUMMARY

PROJECT AREA	LENGTH (MILES)	CS MATERIAL (POUNDS)
A	2.06	10134
B	1.72	6213
C	3.86	38295
D	2.74	23388
PROJECT TOTAL	10.37	78030

DATE	REVISION

Feb 17, 2022 - 2:58pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\SealCoat Areas\2022 Seal Coat Area\22-08 Base Map.dwg

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Joe Feriancek

Date____---____ Lic. No. ____---____

DESIGNED BY:	---	
DRAWN BY:	---	DATE: 2/17/22
CHECKED BY:	---	FILE: 22-08

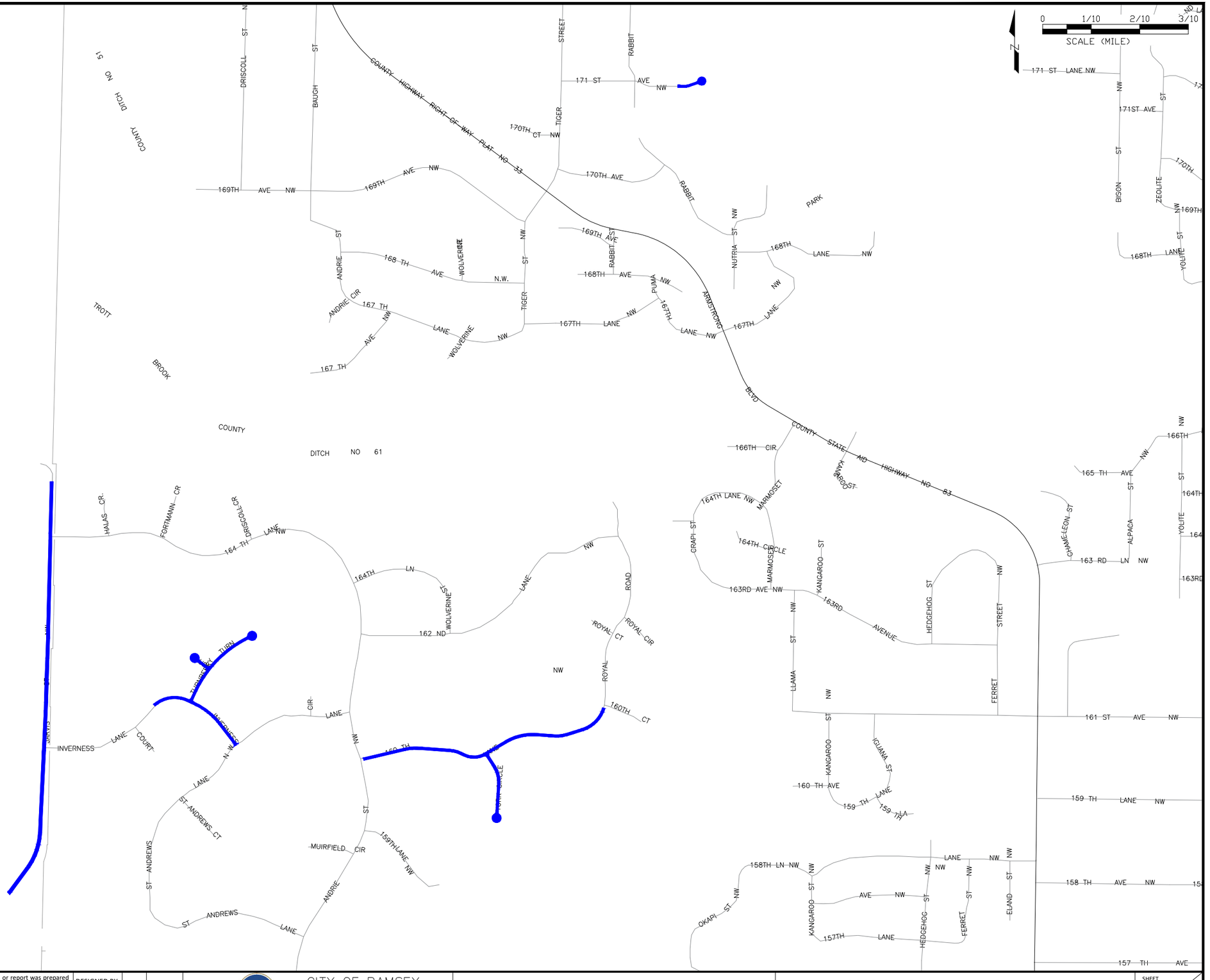
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

OVERALL MAP

2022 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 22-08
CITY OF RAMSEY, MINNESOTA

SHEET 1 OF 5 SHEETS

AREA A		
SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
MSA - JARVIS STREET	0.87	4983
NORTHFORK HIGHLANDS	0.45	2009
NORTHFORK OAKS	0.08	344
NORTHFORK POINT	0.60	2569
RABBIT MEADOW	0.06	229
MAP AREA A TOTAL	2.18	14381



DATE	REVISION

Feb 17, 2022 - 3:16pm
C:\Engineering\AutoCad Dwgs\Projects N-Z\SealCoat Areas\2022 Seal Coat Area\22-08 Base Map.dwg

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Joe Feriancek
Date --- Lic. No. ---

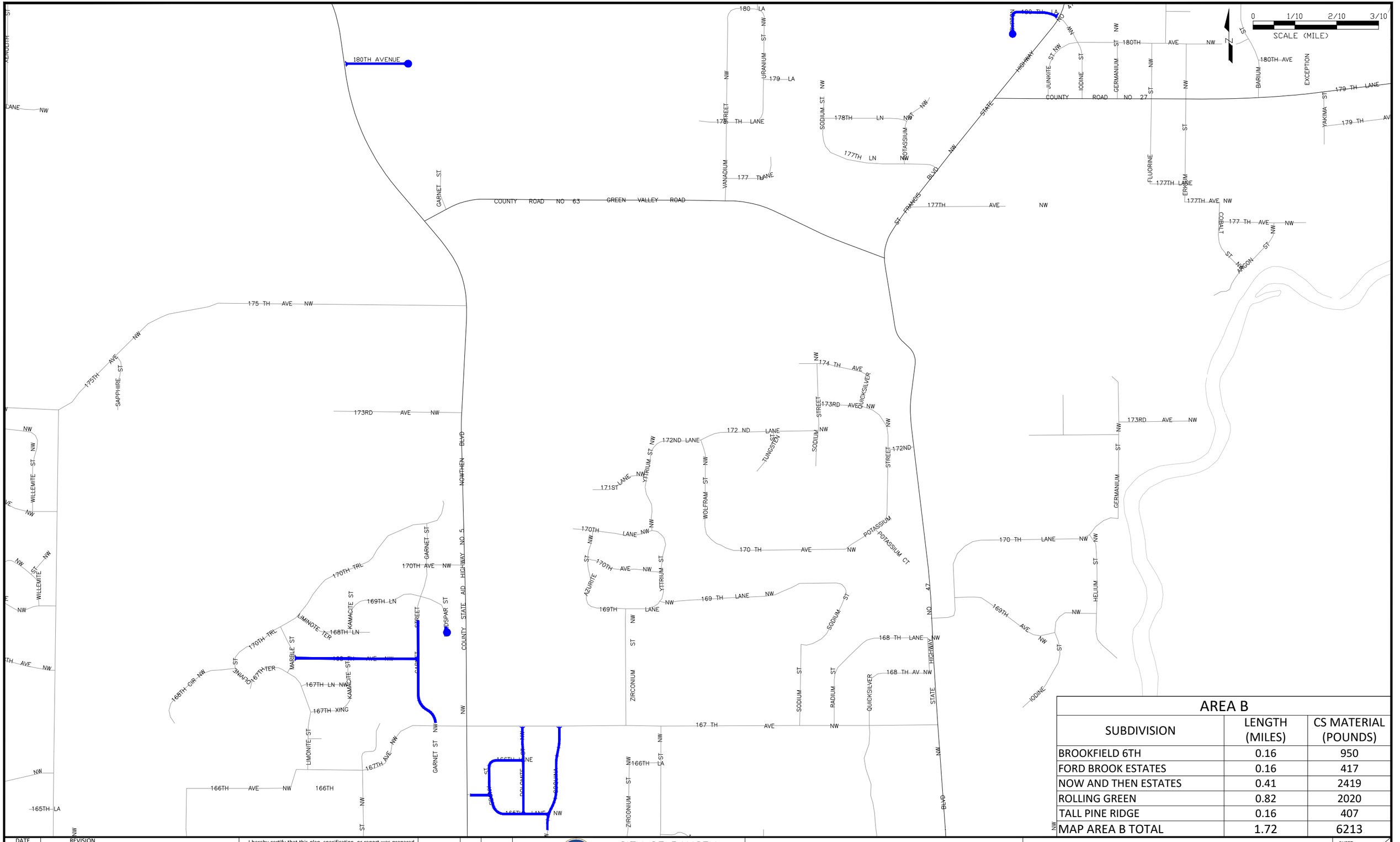
DESIGNED BY:	---		
DRAWN BY:	---	DATE:	2/17/22
CHECKED BY:	---	FILE:	22-08

City of RAMSEY
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

AREA A

2022 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 22-08
CITY OF RAMSEY, MINNESOTA

SHEET 2 OF 5 SHEETS



AREA B

SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
BROOKFIELD 6TH	0.16	950
FORD BROOK ESTATES	0.16	417
NOW AND THEN ESTATES	0.41	2419
ROLLING GREEN	0.82	2020
TALL PINE RIDGE	0.16	407
MAP AREA B TOTAL	1.72	6213

DATE	REVISION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Joe Feriancek
Date --- Lic. No. ---

DESIGNED BY:	---	
DRAWN BY:	---	DATE: 2/17/22
CHECKED BY:	---	FILE: 22-08

Feb 17, 2022 - 3:38pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\SealCoat Areas\2022 Seal Coat Area\22-08 Base Map.dwg

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

AREA B

2022 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 22-08
CITY OF RAMSEY, MINNESOTA

SHEET 3 OF 5 SHEETS

AREA C		
SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
ALPINE ESTATES	0.34	4527
AMBER RIDGE	0.52	6584
FOX KNOLL	0.18	2436
FOX KNOLL 2ND	0.45	5230
HAUBRICH ADDITION	0.23	3927
MSA - 156TH LANE	0.49	5646
MSA - SUNWOOD DRIVE	0.24	3033
PONDVALE ESTATES	0.06	347
PONDVALE ESTATES 2ND	0.21	1236
SECTION 23 UNPLATTED	0.25	603
WOOD POND HILLS	0.47	2420
WOOD POND HILLS 3RD	0.15	757
WOODLANDS 4TH	0.27	1549
MAP AREA C TOTAL	3.86	38295

DATE	REVISION

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Joe Feriancek
Date --- Lic. No. ---

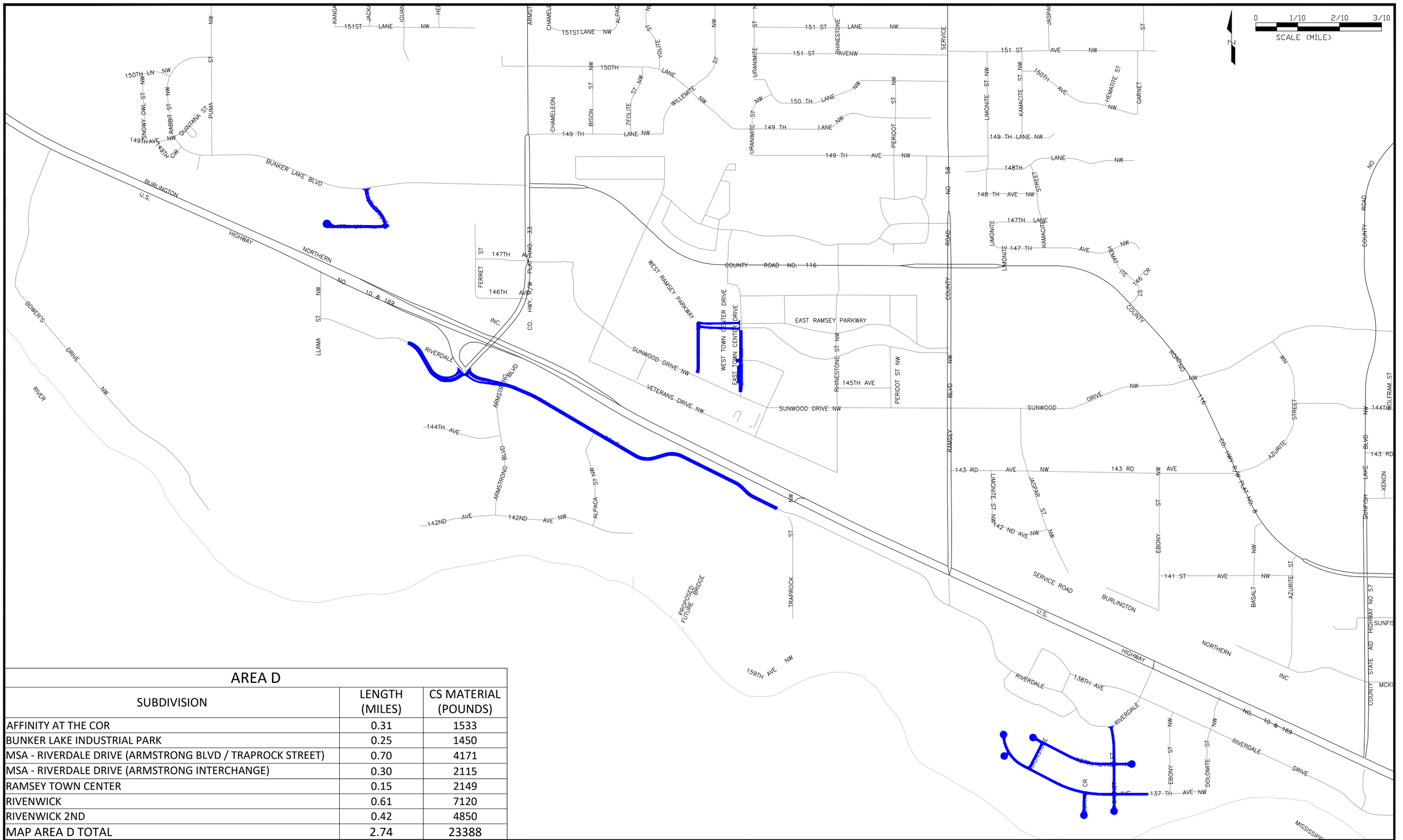
DESIGNED BY:	---	
DRAWN BY:	---	DATE: 2/17/22
CHECKED BY:	---	FILE: 22-08

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

AREA C

2022 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 22-08
CITY OF RAMSEY, MINNESOTA

SHEET 4 OF 5 SHEETS



AREA D

SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
AFFINITY AT THE COR	0.31	1533
BUNKER LAKE INDUSTRIAL PARK	0.25	1450
MSA - RIVERDALE DRIVE (ARMSTRONG BLVD / TRAPROCK STREET)	0.70	4171
MSA - RIVERDALE DRIVE (ARMSTRONG INTERCHANGE)	0.30	2115
RAMSEY TOWN CENTER	0.15	2149
RIVENWICK	0.61	7120
RIVENWICK 2ND	0.42	4850
MAP AREA D TOTAL	2.74	23388

DATE	REVISION

Feb 17, 2022 - 3:29pm
C:\Engineering\AutoCad Dwgs\Projects To Z\SealCoat Areas\2022 Seal Coat Areas\22-08 Base Map.dwg

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota

Joe Feriancek
Date --- Lic. No. ---

DESIGNED BY:	---	
DRAWN BY:	---	DATE: 2/17/22
CHECKED BY:	---	FILE: 22-08

City of RAMSEY

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

AREA D

2022 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 22-08
CITY OF RAMSEY, MINNESOTA

SHEET 5 OF 5 SHEETS

Public Works Committee **5. 5.**

Meeting Date: 03/15/2022

By: Bruce Westby, Engineering/Public Works

Title:

Consider Recommending City Council Approval to Advance Construction of 2022 - 2031 Capital Improvement Program Projects #19-STR-004 and #21-PARK-002 from 2024 to 2023.

Purpose/Background:

Purpose:

To consider recommending City Council approval to advance the reconstruction of 161st Avenue between Armstrong Boulevard and Variolite Street as identified in the 2022 - 2031 Capital Improvement Program from 2024 to 2023.

Background:

As discussed at the March 8th City Council meeting, PACT Charter School is proposing to construct a new school to serve grades 6-12 on roughly 18-acres of the 33-acre site owned by the Church of Saint Katharine Drexel at 7633 161st Ave NW. Per their current project schedule, PACT Charter plans to open the new school in the fall of 2023 meaning the new school will be under construction during the fall of 2022 through the summer of 2023. Attached are copies of PACT Charter school's proposed sketch plan, project narrative, ALTA survey, and preliminary plat for reference.

The 2022 - 2031 Capital Improvement Program includes the following two projects along the segment of 161st Avenue between Armstrong Boulevard and Variolite Street.

- Project #19-STR-004, Reconstruction of 161st Avenue, involves reconstructing 161st Avenue between Armstrong Boulevard and Variolite Street.
- Project #21-PARK-002, Central Park Main Parking Lot Reconstruction, involves reconstructing the 35+ year-old bituminous pavement in the main parking area.

Both were proposed for construction in 2024 due to the need to add drainage improvements with 161st Avenue to address drainage issues originating within Central Park.

Considering PACT Charter schools proposal, Staff recommends advancing construction of both projects from 2024 to 2023 to prevent the need to reconstruct 161st Avenue after PACT Charter school opens its new campus, which will result in increased traffic volumes making it more difficult to reconstruct under traffic and possibly increasing bid prices.

Timeframe:

Staff anticipates 10 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Alternative #1 – Motion to recommend City Council approval to advance construction of 2022 - 2031 Capital Improvement Program projects #19-STR-004 and #21-PARK-002 from 2024 to 2023.

Alternative #2 – Motion of other.

Funding Source:

Funding sources for each project are identified within the respective attached CIP sheets. The required funding for each project will be available in 2023.

Recommendation:

Staff recommends approving alternative #1.

Action:

Motion to recommend City Council approval to advance construction of 2022 - 2031 Capital Improvement Program projects #19-STR-004 and #21-PARK-002 from 2024 to 2023.

Attachments

19-STR-004 CIP Sheet
21-PARK-002 CIP Sheet
PACT Sketch Plan
PACT Project Narrative
PACT ALTA Survey
PACT Prelim Plat

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	03/10/2022 02:17 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 03:33 PM
Form Started By: Bruce Westby		Started On: 03/08/2022 01:06 PM
Final Approval Date: 03/10/2022		

Capital Improvement Program

2022 *thru* 2031

City of Ramsey, Minnesota

Project # 19-STR-004

Project Name Reconstruction Streets: 161st Avenue

Department Street Improvements
Contact
Type Improvement
Useful Life 60 Years
Category Street Improvement
Priority 3-Existing Obligation (Med)
Status Active

Total Cost $548,939

Description

Reconstruction of MSA Street 161st Avenue: CR 83 to Variolite Street

Justification

These streets are in poor condition and require reconstruction. The pavement has deteriorated beyond the point where an overlay could be applied.

Expenditures	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Improvements Other than Building Cost			548,939								548,939
Total			**548,939**								**548,939**

Funding Sources	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
MSA			499,035								499,035
Storm Water Utility Fund			49,904								49,904
Total			**548,939**								**548,939**

Capital Improvement Program

2022 *thru* 2031

City of Ramsey, Minnesota

Project # 21-PARK-002

Project Name Central Park Main Parking Lot Reconstruction

Department Park Improvements
Contact
Type Improvement
Useful Life 20
Category Park Improvement
Priority 3-Existing Obligation (Med)
Status Active

Total Cost $350,000

Description

This reconstruction project would replace the 35+ year-old bituminous main parking area at the same time as the adjoining 161st Avenue reconstruction.

Justification

The bituminous surface is beyond its useful maintenance life and the drainage patterns would be modified to reduce significantly the amount of stormwater that flows across 161st Avenue.

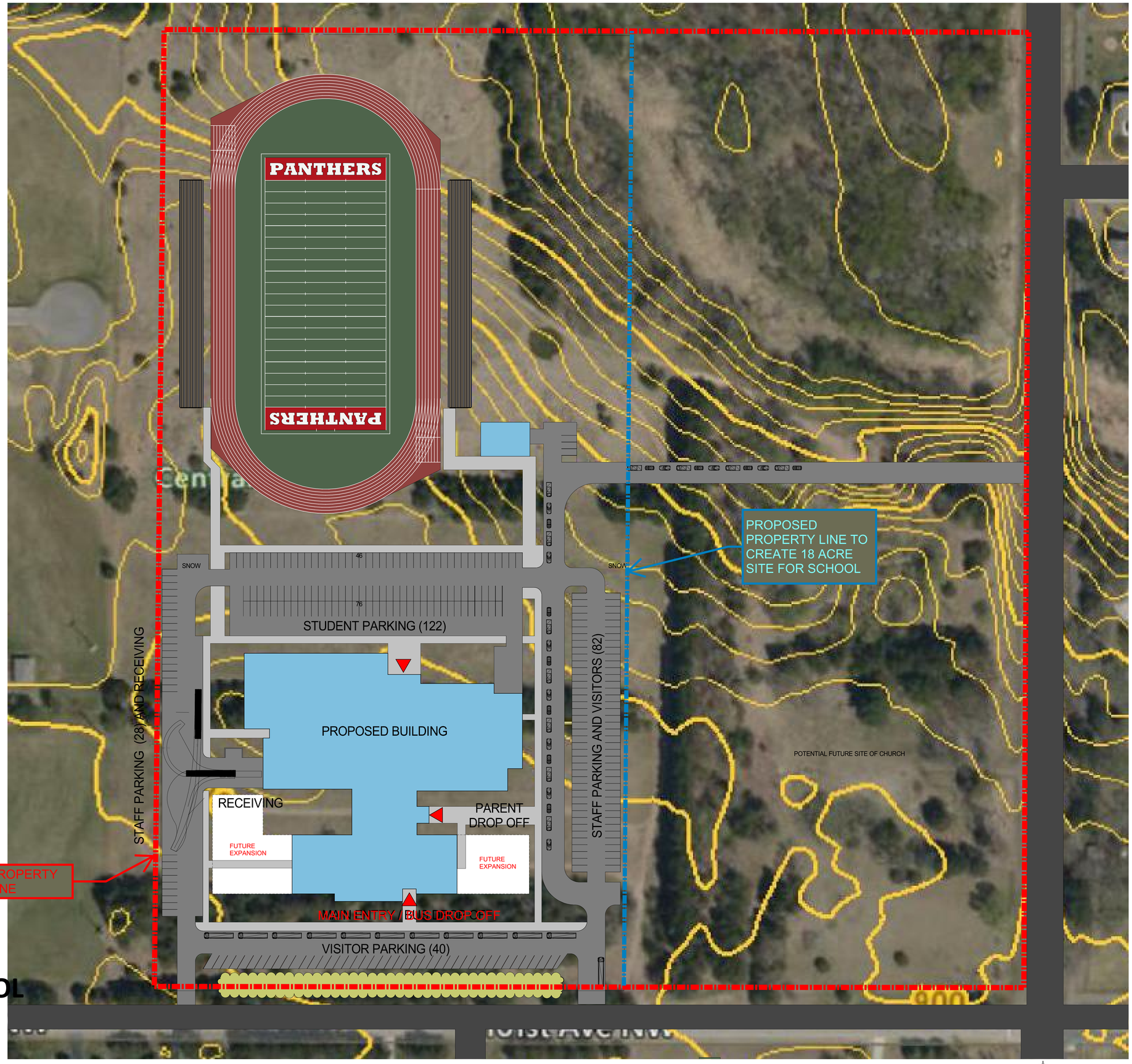
Expenditures	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Improvements Other than Building Cost			350,000								350,000
Total			**350,000**								**350,000**

Funding Sources	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
Park Improvement Trust Fund			150,000								150,000
Storm Water Utility Fund			50,000								50,000
Capital Maintenance Fund			150,000								150,000
Total			**350,000**								**350,000**

DEPARTMENT LEGEND

- CLASSROOMS
- ART / SCIENCE CLASSROOMS
- AUDITORIUM
- PHYSICAL EDUCATION / ATHLETICS
- KITCHEN
- ADMIN
- MEDIA
- CIRCULATION
- BUILDING SUPPORT SERVICES

- NO WORK THIS AREA



PACT CHARTER SCHOOL

POPE ARCHITECTS

RAMSEY, MN

01/31/22 | COMM#41815-22000

1 SD2.5A ARCHITECTURAL SITE PLAN
1" = 50'-0"

NORTH

February 1, 2022

To: Chris Anderson, City Planner at Ramsey

From: PACT Charter School

MEMO: PACT CHARTER SCHOOL – PROJECT NARRATIVE – SKETCH PLAN

PROJECT NARRATIVE

PACT Charter Schools (PACT) is a K-12 public charter school that opened in August 1994 in Anoka, MN. PACT moved it's location to Ramsey in 2004. PACT holds a rich history of being the eighth charter school to be established in the state of Minnesota. It is currently in its twenty-seventh year of operation in the school year of 2020-2021 and serves 670 students in grades K through 12. Enrollment has been unable to expand for the last number of years due to the current facility's building constraints. PACT has an extensive waitlist which is driving the need for a building expansion.

PACT Charter Schools proposes to acquire approximately 18 acres located at 7633 161st Ave NW, Ramsey, MN 55303 to construct a new schoolhouse approximately 115,000 square feet. This new facility will be designed to accommodate grades six through twelve. The schools existing campus will then be home to kindergarten through fifth grades. Minor interior renovations are being planned at their existing building to better accommodate these lower grade levels.

Student enrollment at the new facility is planned to reach 734 students over a 5-year period with approximately 517 students grades sixth through twelfth anticipated in its first year of operation in the Fall of 2023 at the new schoolhouse facility. PACT Charter School anticipates most of its student population will use **Bus** drop-off and pick-up, **Parent** drop-off and pick-up and **Student** drivers. PACT anticipates 65% (478 students) of the students will utilize approximately 12 traditional, yellow, full-size or short-size buses for school transit at this time. PACT anticipates 20% (147 students) will be parent drop off and pick up and the remaining 15% (111 students) will be student drivers. PACT anticipates these estimates to be conservative provided there are extracurricular activities occurring after standard school hours which decrease peak demand periods during standard school hours.

SCHOOL OPERATIONS

PACT operations will include a 9-month academic calendar from August to May with standard school hours of operations between 7:30AM to 4:00PM. Student drop-off & pick-up periods will be between the hours of 7:30AM to 8:00AM and 3:05PM to 3:35PM, respectively. The first 15-minutes of each morning and afternoon period is the peak demand window and it is anticipated to be similar for the new facility.

SITE CIRCULATION

The proposed site plan has been designed to segregate **Bus/Student** and **Parent** "transactions" in through 161st Ave entrance and Variolite Street respectively.

Buses would utilize the southernmost, proposed surface parking lot via east and west curb cuts along 161st Avenue.

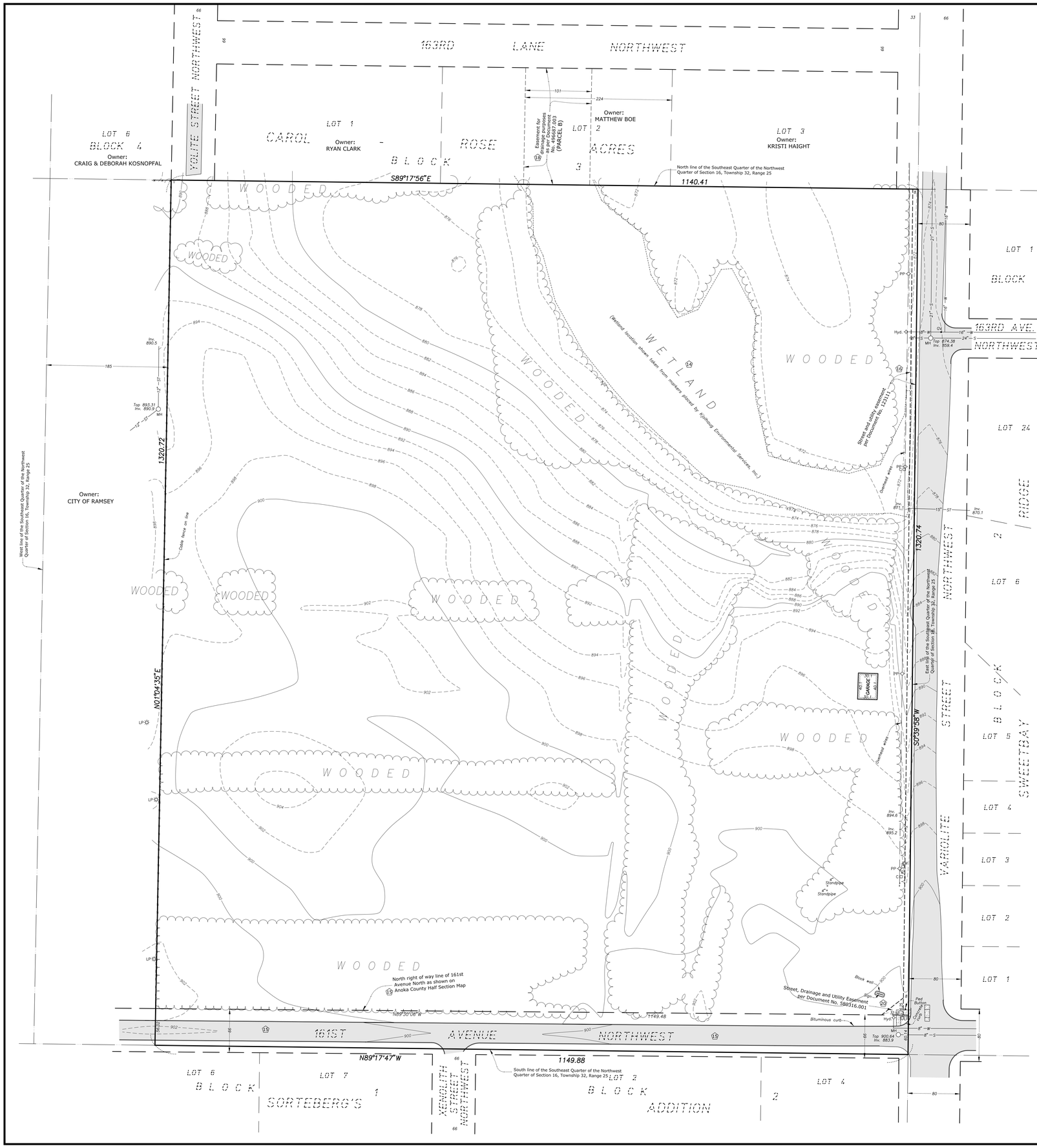
Parent pick-up and drop-off will utilize easternmost, proposed curb cut along Variolite Street. Vehicles would utilize this curb cut for both ingress and egress.

Student drivers will utilize the westernmost, proposed curb cut along 161st Avenue for both ingress and egress.

ALTA/NSPS Land Title Survey for:

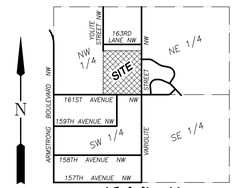
PCS BUILDING COMPANY

at 7633 161st Avenue Northwest
Ramsey, Minnesota



NOTES

* Bearings shown are based on the Anoka County Coordinate System.
* Utilities shown are from information furnished by the City of Ramsey and respective utility companies in response to Gopher State One Call Ticket No. 220030507 and are verified where possible.
* Contact Gopher State One Call for utility locations before any construction shall begin. Phone 651-454-0002.
* Areas: 1,512,412 square feet (34.72 acres) including street right of way.
  1,435,122 square feet (32.95 acres) excluding street right of way.
* Zoning: R-1 MUSA.
* This property is located in Flood Zone X (area determined to be outside the 0.2% annual chance floodplain) per Flood Insurance Rate Map Number 27003C0165E dated December 16, 2015.



Vicinity Map
Section 16, Township 32, Range 25
No Scale

NOTES CORRESPONDING TO SCHEDULE B, PART II, STEWART TITLE GUARANTY COMPANY COMMITMENT NUMBER 654832 DATED JANUARY 20, 2022

Items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17, 19, 21, 22 and 23 are not addressed on this survey.

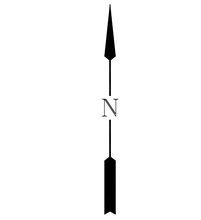
Item 14 - Subject to wetland over a portion of the subject property as shown by available maps. A preliminary wetland delineation has been marked and is shown on the survey.

Item 15 - Subject to roads as shown by available maps. 161st Avenue Northwest is shown as a 66 foot right of way on Anoka County Half Section Maps and is shown on the survey.

Item 16 - Grant of Easement for street and utility purposes in favor of the City of Ramsey, a Minnesota municipal corporation, dated May 7, 1982, filed October 14, 1982 as Document Number 123111 is shown on the survey.

Item 18 - Terms and conditions of Drainage Easement Agreement dated July 17, 2006, filed November 18, 2008 as Document Number 496687.003 is shown on the survey.

Item 20 - Street, Drainage and Utility Easement in favor of the City of Ramsey, a Minnesota municipal corporation, dated November 4, 2020, filed November 9, 2020 as Document Number 580316.001 is shown on the survey.



LEGEND

- S — Sanitary Sewer
- ST — Storm Sewer
- W — Watermain
- Hyd. — Hydrant
- GV — Gate Valve
- MH — Manhole
- Inv. — Invert Elevation
- PP — Power Pole
- LP — Light Pole
- E — Electrical Transformer
- C — Communications Pedestal
- EM — Electric Meter
- Concrete Surface
- Bituminous Surface
- Cable Fence

UTILITY STATEMENT

The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated, although he does certify that they are shown as accurately as possible from information available. The surveyor has not physically located the underground utilities.

PROPERTY DESCRIPTION

Parcel A:

That part of the Southeast Quarter of the Northwest Quarter lying East of the West 185 feet of said Southeast Quarter of the Northwest Quarter, Section 16, Township 32, Range 25, Anoka County, Minnesota.

Parcel B:

Appurtenant easement for drainage purposes as contained in Drainage Easement Agreement dated July 17, 2006, filed November 18, 2008 as Document Number 496687.003.

Torrens Property

CERTIFICATION

To PCS Building Company; The Church of Saint Katharine Drexel, Ramsey, Minnesota; Stewart Title Guaranty Company and Land Title, Inc.

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6(a), 7(a), 7(b)(1), 7(c), 8, 9, 11(a) and 13 of Table A thereof. The fieldwork was completed on January 14, 2022.

Dated this 11th day of February, 2022

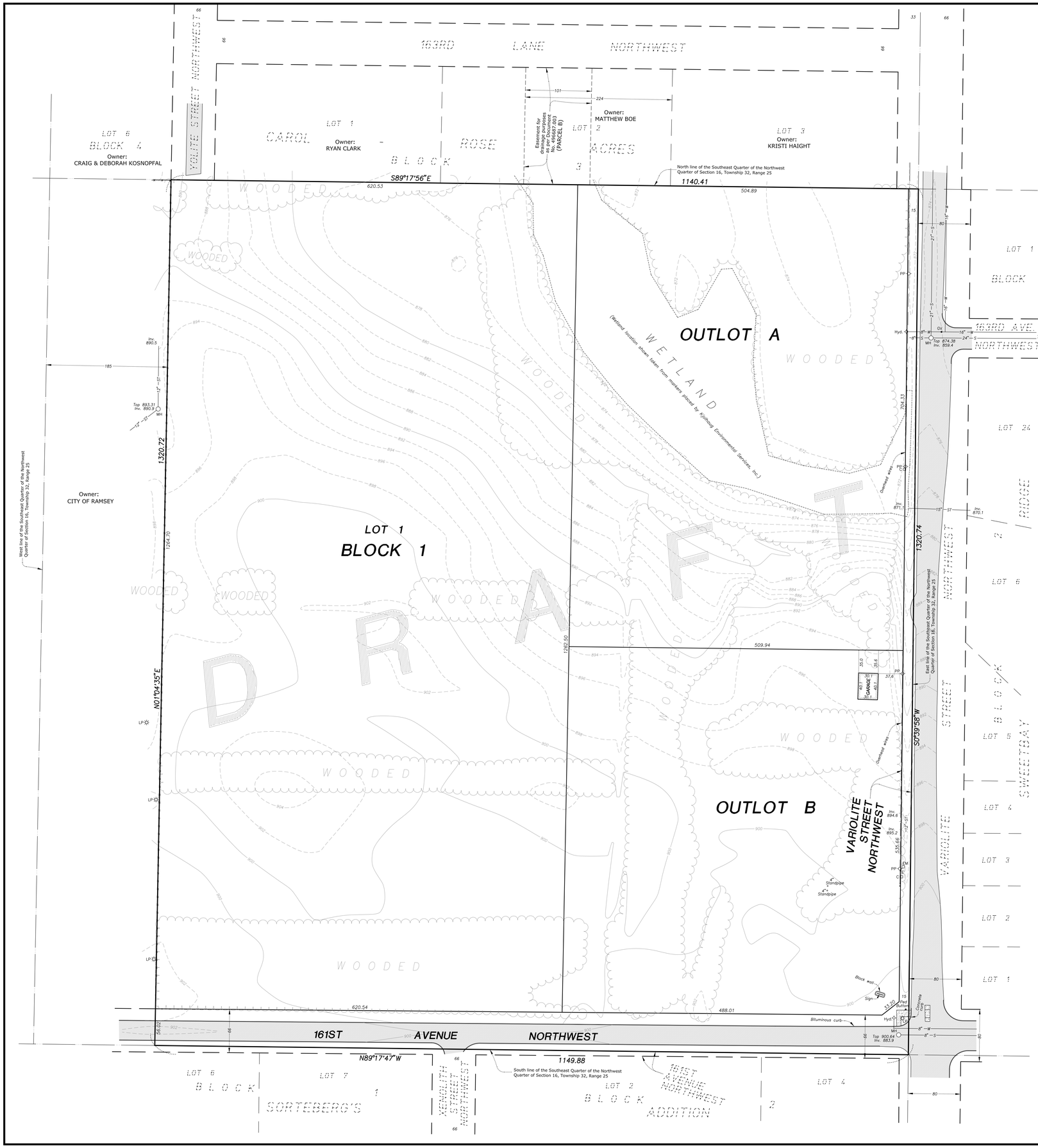
REHDER & ASSOCIATES, INC.

Gary C. Huber, Land Surveyor
Minnesota License No. 22036

Rehder and Associates, Inc.
CIVIL ENGINEERS AND LAND SURVEYORS
3440 Federal Drive • Suite 110 • Eagan, Minnesota • Phone (651) 452-5051

JOB: 224-3291.010

Preliminary Plat of:
PACT ADDITION

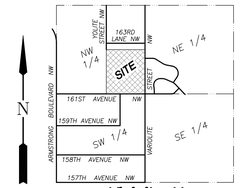


AREAS

Total: 1,512,412 square feet (34.72 acres)
Lot 1, Block 1: 784,080 square feet (18.00 acres)
Outlot A: 357,464 square feet (8.21 acres)
Outlot B: 284,918 square feet (6.54 acres)

NOTES

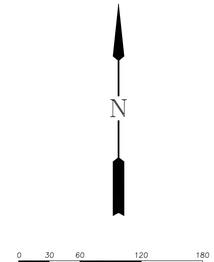
* Bearings shown are based on the Anoka County Coordinate System.
* Utilities shown are from information furnished by the City of Ramsey and respective utility companies in response to Gopher State One Call Ticket No. 220030507 and are verified where possible.
* Contact Gopher State One Call for utility locations before any construction shall begin. Phone 651-454-0002.
* Area = 1,445,639 square feet (33.19 acres).
* Existing Zoning: R-1 MUSA.
* Proposed Zoning for Lot 1, Block 1: Public/Quasi-Public.
* This property is located in Flood Zone X (area determined to be outside the 0.2% annual chance floodplain) per Flood Insurance Rate Map Number 27003C0165E dated December 16, 2015.



Vicinity Map
Section 16, Township 32, Range 25
No Scale

UTILITY STATEMENT

The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantee that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated, although he does certify that they are shown as accurately as possible from information available. The surveyor has not physically located the underground utilities.



LEGEND

- S — Sanitary Sewer
- ST — Storm Sewer
- W — Watermain
- Hyd. — Hydrant
- GV — Gate Valve
- MH — Manhole
- Inv. — Invert Elevation
- PP — Power Pole
- LP — Light Pole
- E — Electrical Transformer
- C — Communications Pedestal
- EM — Electric Meter
- Concrete Surface
- Bituminous Surface
- Cable Fence

OWNER

The Church of Saint Katharine Drexel
7101 143rd Avenue Northwest
Ramsey, Minnesota 55303
Attention: Father Paul Janoszeski
Email: pjaroszeski@stkdoc.org

DEVELOPER

PCS Building Company
7250 East Ramsey Parkway Northwest
Ramsey, Minnesota 55303
Attention: Josh Nyquist
Email: jnyquist@pactcharter.org

ARCHITECT

Pope Architects
1295 Bandana Square
Suite 200
St. Paul, Minnesota 55108
Phone: 651-789-1638
Attention: Raphael Lister
Email: rlister@popearch.com

ENGINEER

Larson Engineering
3524 Labore Road
White Bear Lake, MInnesota 55110
Attention: Eric Meyer
Phone: 651-888-8112
Email: emeyer@larsonengr.com

SURVEYOR

Rehder & Associates, Inc.
3440 Federal Drive
Suite 110
Eagan, Minnesota 55122
Attention: Greg Gentz
Phone: 651-337-6726
Email: ggentz@rehder.com

PROPERTY DESCRIPTION

Parcel A:

That part of the Southeast Quarter of the Northwest Quarter lying East of the West 185 feet of said Southeast Quarter of the Northwest Quarter, Section 16, Township 32, Range 25, Anoka County, Minnesota.

Parcel B:

Appurtenant easement for drainage purposes as contained in Drainage Easement Agreement dated July 17, 2006, filed November 18, 2008 as Document Number 496687.003.

Torrens Property

I hereby certify that this preliminary plat was prepared by me or under my direction and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Dated this 11th day of February, 2022

REHDER & ASSOCIATES, INC.

Gary C. Huber, Land Surveyor
Minnesota License No. 22036

Rehder and Associates, Inc.
CIVIL ENGINEERS AND LAND SURVEYORS
3440 Federal Drive • Suite 110 • Eagan, Minnesota • Phone (651) 452-5051

JOB: 224-3291.010

Public Works Committee **5. 6.**

Meeting Date: 03/15/2022

By: Bruce Westby, Engineering/Public Works

Title:

Consider Recommendations to City Council for Flashing Yellow Arrow Improvements at Sunwood Drive and Ramsey Boulevard Intersection

Purpose/Background:

Purpose:

The purpose of this case is to consider a recommendation to City Council for Flashing Yellow Arrow improvements to the existing signal system at the intersection of Sunwood Drive and Ramsey Boulevard/CSAH 56.

Background:

Flashing Yellow Area Historical Information

In December 2009, after extensive testing, the Federal Highway Administration authorized use of flashing yellow arrows nationwide. A study conducted by the National Cooperative Highway Research Program determined that drivers had fewer crashes with flashing yellow left-turn arrows than with traditional yield-on-green signal configurations.

Flashing yellow arrow traffic signals feature a flashing yellow arrow in addition to the standard red, yellow and green arrows. When illuminated, the flashing yellow arrow allows waiting motorists to make a left-hand turn after yielding to all oncoming traffic and to any pedestrians in the crosswalk. Oncoming traffic has a green light. Drivers must wait for a safe gap in oncoming traffic before turning. When not illuminated, signals with flashing yellow arrows work the same as traditional signals.

Flashing yellow arrows offer more opportunities to make a left turn than with the traditional three-arrow, red, yellow and green indications. They also provide traffic engineers with more options to handle variable traffic volumes. A flashing yellow arrow signal has the same meaning it always has: left turns may proceed with caution after yielding to oncoming traffic. In the past, flashing yellow arrows in Minnesota were only used when the entire traffic signal was in flash-mode. Use of the flashing yellow arrow has been shown to have several benefits including minimizing delays and enhancing safety by reducing driver errors.

The majority of newly installed traffic signals are constructed to allow flashing yellow arrow operations, though sometimes the flashing yellow arrow heads are not immediately installed. The flashing yellow arrow may be used at any intersection at any time but the most typical use will be at intersections and times-of-day that have lower volumes, lower speeds and other favorable conditions. Retrofitting existing signals to include flashing yellow arrows can be costly and are typically only done on a limited basis, when necessary.

Attached is two-page brochure produced by the Minnesota Department of Transportation with additional information on flashing yellow arrows.

2022 Proposed Anoka County Flashing Yellow Arrow (FYA) Upgrades

Anoka County typically budgets up to $200,000 each year to add flashing yellow arrow operations to their 200+ existing signal systems across the County, most of which were not constructed to accommodate FYA operations since they were constructed before FYA operations existed.

In 2022, Anoka County proposes to construct FYA improvements to their signal systems at 14 intersections in the City of Coon Rapids as follows;

- CSAH 52/109th
- CSAH 52/Quail Creek
- CSAH 78/113th
- CSAH 18/131st
- CSAH 18/133rd
- CSAH 116/Rose St.
- CSAH 116/Heather St.
- CSAH 116/CR 18
- CSAH 116/Jay St.
- CSAH 51/91st
- CSAH 51/101st
- CSAH 51/Egret Blvd.
- CSAH 51/105th
- CSAH 51/109th

Anoka County is employing SEH, Inc. to prepare feasibility studies to evaluate the use of FYA operations at each of these intersections, including estimating costs to modify each signal system to include FYA operations, and to prepare plans and specifications for constructing the required FYA improvements. Anoka County expects to receive final studies for each intersection in early 2022 to allow construction to occur in the summer/fall of 2022.

Anoka County is not proposing to complete FYA improvements to any signal systems in the City of Ramsey in 2022. No FYA improvements are proposed at the intersections of Alpine Drive & Sunfish Lake Boulevard/CSAH 57, Alpine Drive & Nowthen Boulevard/CSAH 5, or Sunwood Drive & Ramsey Boulevard/CSAH 56, which have been discussed on several occasions.

FYA Operations at Sunwood Drive & Ramsey Boulevard/CSAH 56

During the regular City Council meeting on September 22, 2020, the City Council received a request from Ramsey resident and Planning Commission Chair Randy Bauer to install FYA's at the intersection of Sunwood Drive & Ramsey Boulevard/CSAH 56. Mr. Bauer stated that he frequently waits at this signal system to turn left when no vehicles are approaching from the other direction.

Pursuant to attached Ramsey City Council Resolution #21-302, adopted October 26, 2021, Staff hired SEH, Inc. to study the feasibility for installing FYA improvements at Sunwood Drive & Ramsey Boulevard/CSAH 56.

Attached is a copy of the final SEH study. In summary, SEH's study notes the following findings;

- The City should be able to consider using Flashing Yellow Arrow operations at this intersection during several hours of a typical day. However, due to higher posted speeds and higher peak hour traffic volumes on CSAH 56, along with higher peak left turning traffic volumes on Sunwood Drive, SEH has concerns about operating with flashing yellow arrow operations on each roadway during these peak traffic periods.
- For the Sunwood Drive approaches, SEH recommends considering protected only left turn phasing be used both weekdays and weekends between the hours of 3:30 - 5:30 pm. For all other hours of the day and all hours on weekends, protected/ permissive flashing yellow arrow operations should be able to be utilized.
- For the CSAH 56 approaches, SEH recommends considering protected only left turn phasing be used on both weekdays and weekends between the hours of 6:30 am - 8:30 am, and also between 3:30 - 5:30 pm. For all other hours of a typical weekday and weekend, flashing yellow arrow operations should be able to be utilized on CSAH 56.
- To allow for flashing yellow arrow operation on each intersection approach, we estimate that these modifications (completed by an electrical signal contractor) will cost approximately $94,000. A detailed preliminary engineer's estimate of costs is attached to the study.

Timeframe:

Staff anticipates 15 minutes will be needed to present this case and respond to questions.

Observations/Alternatives:

Observations:
If Staff is directed by the City Council to pursue FYA improvements at the intersection of Sunwood Drive & Ramsey Boulevard/CSAH 56, Staff will need to work with Anoka County to prepare plans and specifications to allow this work to be added to Anoka County's 2022 FYA improvement projects. The first step in this process would be to request a proposal from SEH, Inc. for preparing plans and specifications.

Staff previously questioned whether traffic volumes and patterns will change significantly enough after grade separation improvements occur on CSAH 56/Ramsey Boulevard at the BNSF Railway and US Highway 10 to cause FYA improvements to no longer be warranted. Staff recently asked the Anoka County Traffic Engineer this question and was informed that she did not think the County would request FYA improvements to be removed, and that at most the hours of operation may need to be adjusted.

Alternatives:
Alternative #1 – Motion recommending City Council approval to request a proposal from SEH, Inc. to prepare plans and specifications for Flashing Yellow Arrow improvements to the signal system at the intersection of Sunwood Drive and Ramsey Boulevard/CSAH 56.

Alternative #2 – Motion recommending City Council denial to request a proposal from SEH, Inc. to prepare plans and specifications for Flashing Yellow Arrow improvements to the signal system at the intersection of Sunwood Drive and Ramsey Boulevard/CSAH 56.

Alternative #3 – Motion of other.

Funding Source:
Dependent on discussions.

Recommendation:
Staff does not have a specific recommendation to offer at this time.

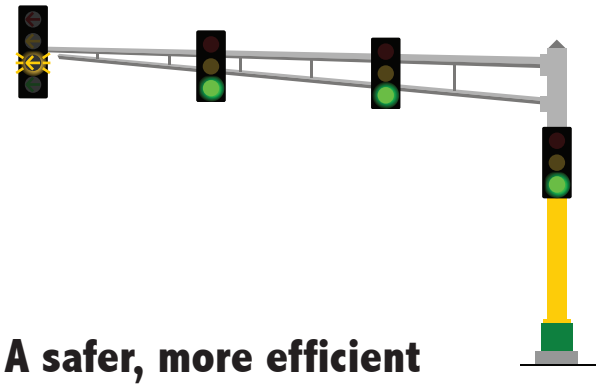
Action:
Dependent on discussions.

Attachments

MnDOT FYA Brochure
Resolution 21-302
SEH Feasibility Study

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	03/10/2022 04:00 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 04:38 PM
Form Started By: Bruce Westby		Started On: 03/08/2022 01:19 PM
Final Approval Date: 03/10/2022		



A safer, more efficient left-turn signal

Safer

A national study demonstrated that drivers found flashing yellow left-turn arrows more understandable than traditional yield-on-green indications (individual traffic signal lights).

Less delay

There are more opportunities to make a left turn with the flashing yellow left-turn arrow than with the traditional three-arrow, red, yellow and green indications.

More flexibility

The new traffic signals provide traffic engineers with more options to handle variable traffic volumes..

Minnesota Department of Transportation
Office of Traffic, Safety and Technology
1500 West County Road B2
Roseville, MN 55113
Jerry Kotzenmacher
Phone: 651-234-7054

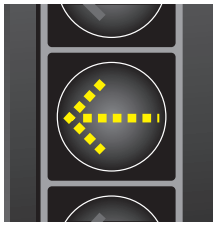
E-mail: jerry.kotzenmacher@state.mn.us

A safer, more efficient left-turn signal

What the arrows mean

Solid red arrow:
Drivers intending to turn left must stop and wait. They should not enter an intersection to turn when a solid red arrow is being displayed.

Solid yellow arrow:
The left-turn signal is about to change to red and drivers should prepare to stop or prepare to complete a left turn if they are legally within the intersection and there is no conflicting traffic present.



Flashing yellow arrow:
Drivers are allowed to turn left after yielding to all oncoming traffic and to any pedestrians in the crosswalk. Oncoming traffic has a green light. Drivers must wait for a safe gap in oncoming traffic before turning.

Solid green arrow:
Left turns have the right of way. Oncoming traffic has a red light.

Flashing yellow arrow benefits

A flashing yellow arrow signal has the same meaning it always has: left turns may proceed with caution after yielding to oncoming traffic.

In the past, flashing yellow arrows in Minnesota were only used when the entire traffic signal was in flash-mode. Use of the flashing yellow arrow has been shown to have several benefits including minimizing delays and enhancing safety by reducing driver errors. Flashing yellow arrow signals have been approved for widespread use by the Federal Highway Administration..

Where will the flashing yellow arrow be used?

The majority of newly installed MnDOT traffic signals will have the flashing yellow arrow option. The flashing yellow arrow may be used at any intersection at any time but the most typical use will be at intersections and times-of-day that have lower volumes, lower speeds and other favorable conditions.

A better left-turn signal

Flashing yellow arrow signals have been shown to help drivers make fewer mistakes. They keep motorists safer during heavy traffic and reduce delays when traffic is light.

Councilmember Musgrove introduced the following resolution and moved for its adoption:

RESOLUTION #21-302

RESOLUTION AUTHORIZING FEASIBILITY STUDY FOR FLASHING YELLOW ARROW IMPROVEMENTS TO SIGNAL SYSTEM AT SUNWOOD DRIVE AND RAMSEY BOULEVARD/CSAH 56

WHEREAS, Anoka County proposes to implement FYA improvements at numerous signal systems within Anoka County in 2022; and

WHEREAS, pursuant to a request from a resident of the City of Ramsey, the City of Ramsey wishes to study the feasibility of improving the signal system at Sunwood Drive and Ramsey Boulevard/CSAH 56 to incorporate FYA operations; and

WHEREAS, Anoka County requires the City of Ramsey to use SEH, Inc. to study the feasibility of improving the signal system at Sunwood Drive and Ramsey Boulevard/CSAH 56 to incorporate FYA operations; and

WHEREAS, SEH, Inc. proposes to complete a feasibility study for the City of Ramsey for the proposed FYA modifications for the signal system at Sunwood Drive and Ramsey Boulevard/CSAH 56 at a not-to-exceed cost of $1,800; and

WHEREAS, on October 19, 2021, the Public Works Committee recommended City Council approval to authorize a feasibility study for flashing yellow arrow improvements at the intersection of Sunwood Drive and Ramsey Boulevard/CSAH 56.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF RAMSEY, ANOKA COUNTY, STATE OF MINNESOTA, as follows:

1) The City Engineer is hereby authorized and directed to enlist SEH, Inc. to preare a feasibility study for flashing yellow arrow improvements at the intersection of Sunwood Drive and Ramsey Boulevard/CSAH 56 for and on behalf of the City of Ramsey at a not too exceed .

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember Heineman, and upon vote being taken thereon, the following voted in favor thereof:

Mayor Kuzma
Councilmember Musgrove
Councilmember Heineman
Councilmember Howell
Councilmember Riley
Councilmember Specht
Councilmember Woestehoff

and the following voted against the same:

None

and the following abstained:

None

and the following were absent:

None

Whereupon said resolution was declared duly passed and adopted by the Ramsey City Council this the 26th day of October, 2021.

Mayor

ATTEST:

City Clerk

Building a Better World for All of Us®

February 28, 2022

RE: Ramsey, Minnesota
CSAH 56 at Sunwood Drive Signal System
Flashing Yellow Arrow Considerations
SEH No. RAMSY 164323

Mr. Bruce Westby, PE
City Engineer
City of Ramsey
7550 Sunwood Drive Northwest
Ramsey, Minnesota 55303

Dear Bruce:

On November 5, 2021, we reviewed the intersection of CSAH 56 (Ramsey Boulevard) and Sunwood Drive in the City of Ramsey with regards to proposed modification of the existing intersection traffic signal left turn operations. Recently, the City has received requests from the public to have flashing yellow arrow operation installed and activated at intersections like this throughout the City. In response to these requests, the City had SEH perform an analysis of the intersection to determine if flashing yellow arrow operation can be utilized there. The analysis includes review of the feasibility, cost, and safety of the intersection for flashing yellow arrow operations. Following are the results of our analysis.

This 4-legged intersection was first signalized in 2004, with protected left turn phasing installed for the CSAH 56 approaches and protected/permissive left turn phasing for the Sunwood Drive approaches. The posted speed limit on CSAH 56 is 55 mph, while Sunwood Drive is posted at 30 mph to the north and 35 mph to the south. All intersection approaches have a single separate dedicated left turn lane.

The City provided SEH with AM and PM peak period turning movement traffic counts for this intersection (taken on January 26-27, 2022, between the hours of 6-9 am and 3-6 pm). SEH also obtained crash data for the intersection for the most recent 5 years of available crash data (January 2017 to December 31, 2021) through the MnCMAT site. SEH then completed a brief field review of the signal system to confirm that the existing traffic signal plans correspond to the current installation of the signal system and take into account the current intersection geometrics. As part of the field review, SEH also reviewed traffic signal cabinet components to determine if additional electrical equipment would be required to be provided in order to allow for flashing yellow arrow operation to be used.

As part of the signal system installation, the CSAH 56 intersection approaches were set up to operate with protected left turn phasing (3-section RLA-YLA-GLA signals). A separate left turn signal is centered on both the northbound and southbound left turn lanes. Far-left pole mounted left turn signals also exist facing each CSAH 56 intersection approach. Through signals (3-section RYG) are centered on each through lane. Both approaches have a single left turn lane, two through lanes, and a separate right turn lane.

The Sunwood Drive approaches currently operate with protected/permissive left turn phasing (5-section R-Y-G-YLA-GLA signals). A single overhead 5-section signal head exists facing the eastbound and westbound approaches, and this head is centered on the lane line between the left turn lane and through lane. No other overhead signal exists on either mast arm facing Sunwood Drive. Far left pole mounted 5-section signal heads also exist facing each approach.

The eastbound approach has a separate left turn lane, a single through lane, and a separate right turn lane. The westbound approach has a separate left turn lane and a shared through/right turn lane.

The intersection has an older controller cabinet WITHOUT sufficient load switch bays open and available to allow for flashing yellow arrow operations to be added for all four intersection approaches. It is recommended that this controller cabinet be replaced with a newer controller cabinet with capacity and capability to accommodate future flashing yellow arrow operations for all four intersection approaches. The controller unit is an older Econolite ASC 2S-2100 unit that is not capable of operating flashing yellow arrows and will be required to be replaced. The conflict monitor is an older EDI-SSM-12LE unit, also incapable of operating flashing yellow arrows. Thus, in order to be able to convert all intersection approaches to operate with a flashing yellow arrow, **we recommend that the controller cabinet, controller unit, and conflict monitor all be replaced**.

As part of our analysis of whether and when to operate the signal system with flashing yellow arrows, SEH utilized two sets of criteria as shown on the Minnesota Department of Transportation's (MnDOT) Office of Traffic Engineering (OTE) web site: flashing yellow arrow installation criteria from their "*Traffic Signal Timing and Coordination Manual*", and the *Flashing Yellow Arrow Tool for Time-of-Day Use* spreadsheet that incorporates various criteria to determine a relative risk factor for enacting flashing yellow arrows based on intersection geometrics and turning movement traffic count volumes.

With regards to utilizing Flashing Yellow Arrow operations for each left turn movement, please note the following:

- According to the current edition of the *AASHTO Geometric Design of Highways and Streets* manual, left-turning drivers "need sufficient sight distance to decide when it is safe to turn left across the lanes used by opposing traffic." This minimum required stopping sight distance along CSAH 56 for the design/posted speed of 55 mph is at least 495 feet of clear sight distance to the north and south. The stopping sight distance along Sunwood Drive for the design speed of 30 mph is at least 200 feet of clear sight distance to the east, and for 35 mph is at least 250 feet of clear sight distance to the west. Based on a field review of intersection geometrics, we estimated stopping sight distance on each CSAH 56 approach to be exceeding 1,000 feet. The stopping sight distances for both eastbound and westbound Sunwood Drive are also exceeding 1,000 feet.

  However, note that in the *Flashing Yellow Arrow Tool for Time-of-Day Use* spreadsheet, sight distance for left turning traffic at the stop bar in each left turn lane is calculated based on the distance between stop bars, left turn lane offsets (measured from the lane line of the near side left turn lane and the edge of median on the far side approaching left turn lane), and other standard lane and vehicular measurements.

  1. Based on plan measured distances and criteria proprietary to the spreadsheet, available sight distance for each CSAH 56 approach was calculated at around 270 feet in each direction (mostly due to potential blocking of approaching sight distance by opposing left turning traffic). If no opposing left turning traffic is present for a left turn movement, sight distance would be estimated to be exceeding 1,000 feet.

  2. For the Sunwood Drive approaches, based on plan measured distances and criteria proprietary to the spreadsheet, available sign distances for both approaches were calculated to be in excess of the 365 feet required for safely accommodating flashing yellow arrow operations (mostly due to potential blocking of approaching sight distance by opposing left turning traffic). If no opposing left turning traffic is present for a left turn movement, sight distance would be estimated to be exceeding 1,000 feet.

  Based on both criteria, there are sight distance concerns on each intersection approach when there is opposing left turning traffic but no concern if the opposing left turn lane is empty.

- Based on the recent crash history at this intersection, a total of 6 crashes were reported between January 2017 and December 31, 2021. 2 crashes were reported in 2018, 1 crash in 2019, 2 crashes in 2020, and 1 crash was reported in 2021.

Two (2) of the crashes were reported as either left turns into oncoming traffic or right angle crashes, with possible injuries noted for 1 of these crashes (listed as non-incapacitating). The right angle crashes were between southbound/eastbound through vehicles and between a southbound through vehicle and a northbound left turning vehicle.

One of the 6 crashes was reported during morning hours (10-11 am), with the other 5 crashes being between 1-8 pm (1 crash during PM peak traffic period of 3-6 pm).

Given the number and type of crashes recorded over the past 5 years of available crash data as well as analysis of the crash details, **there does not appear to be any safety concerns at this intersection with the presence of signalized operation as concerns about right angle crashes are minor.**

- One of the recommendations from the *MnDOT Traffic Signal Timing and Coordination Manual* is to utilize protected left turn phasing only either for situations where the posted speed limit exceeds 45 mph and the peak hour left turning volume is greater than 240 vehicles per hour, or for when the cross product between left turn traffic volumes and the opposing through/right turning traffic volumes exceed 80,000 for one opposing through lane or exceeding 100,000 for two or more opposing lanes. This would translate to a left turn volume of 150 vehicles per hour with opposing traffic volumes between 500-700 vehicles per hour. For this analysis, we used the more conservative cross product of 80,000 in determining our recommendations for time of day flashing yellow arrow operation.

  Turning movement traffic count data (taken at the intersection by the City between January 26-27, 2022) was used in the flashing yellow arrow analysis. With regards to the available information:

  a. For northbound CSAH 56, the cross product between northbound left turns and southbound opposing traffic peaks at around 35,000 in the AM peak period (7-8 am) and around 30,000 in the PM peak period (4-5 pm). The highest hour of northbound left turning traffic is between 4-5 pm (144 left turns) with at least 90 left turns recorded for all hours of the AM and PM peak traffic periods.

  b. For southbound CSAH 56, the cross product between southbound left turns and northbound opposing traffic peaks at around 9,800 in the AM peak period (6-7 am) and around 13,000 in the PM peak period (3-4 pm). The highest hour of southbound left turning traffic is between 7-8 am (64 left turns).

  c. For eastbound Sunwood Drive, the cross product between eastbound left turns and westbound opposing traffic peaks at around 3,500 in the AM peak period (7-8 am) and around 11,500 in the PM peak period (4-5 pm). The highest hour of eastbound left turning traffic is between 5-6 pm (56 left turns).

  d. For westbound Sunwood Drive, the cross product between westbound left turns and eastbound opposing traffic peaks at around 6,000 in the AM peak period (6-7 am) and at around 32,000 in the PM peak period (4-5 pm). The highest hour of westbound left turning traffic is between 4-5 pm (146 left turns).

Following up against the flashing yellow arrow criteria from the *MnDOT Traffic Signal Timing and Coordination Manual:*

1. There is sufficient turning room in the intersection so that left turn paths were not conflicting.

2. Only 1 left turn lane exists for each intersection approach, and there are less than 3 opposing through lanes of traffic facing each left turn lane.

3. The intersection is not anticipated to have an excessively high crash rate with respect to left turning movements.

Based on criteria from the *MnDOT Traffic Signal Timing and Coordination Manual,* as there is no significant anticipated crash history for left turning traffic at the intersection and sight distance is reasonable, the City should be able to consider using Flashing Yellow Arrow operations at this intersection during several hours of a typical day. **However, due to higher posted speeds and higher peak hour traffic volumes on CSAH 56, along with higher peak left turning traffic volumes on Sunwood Drive, we have concerns about operating with flashing yellow arrow operations on each roadway during these peak traffic periods.**

Following up further with the *Flashing Yellow Arrow Tool for Time-of-Day Use* spreadsheet, we inputted left turning traffic volumes and opposing traffic volumes (combined through and right turning traffic) into the spreadsheet for each intersection approach (with an overall cross product at 80,000 using base conditions of 150 left turns per hour and 533 approaching vehicles per hour). Using this information, the spreadsheet calculates a relative risk factor for having flashing yellow arrow operations during each hour of available traffic volumes. A risk factor of greater than 1.0 indicates that there is a higher risk of a left turn crash based on comparison against base conditions, and the signal is recommended to be operated with protected left turn phasing during those periods.

- For northbound CSAH 56, the highest AM peak period risk factor is 0.66, while in the PM peak period the highest risk factor is 0.60. Risk factors exceed 0.6 between 6-8 am and are at 0.6 between 4-5 pm.

- For southbound CSAH 56, the highest AM peak period risk factor is 0.35, while in the PM peak period the highest risk factor is 0.42.

- For eastbound Sunwood Drive, the highest AM peak period risk factor is 0.31, while in the PM peak period the highest risk factor is 0.48.

- For westbound Sunwood Drive, the highest AM peak period risk factor is 0.37, while in the PM peak period the highest risk factor is 0.71. Risk factors exceed 0.6 between 4-5 pm.

Since traffic volumes can fluctuate daily based on several factors, we recommend that the City consider using a risk factor of 0.60 to 0.80 with the currently available traffic counts. This will account for those periods where traffic volumes are fluctuating due to area factors (crashes, bypass traffic, weather, etc.). For our analysis, due to higher posted speeds on CSAH 56, we considered the thresholds for recommending flashing yellow arrow operations as having an approach either exceed/be close to a risk factor of 0.6 or having opposing traffic volumes that exceed 700 vehicles in an hour

Utilizing information from both sets of analysis, **for both approaches of Sunwood Drive**, due to potential concerns about left turning traffic volumes approaching 150 vehicles per hour during the peak PM traffic period, we recommend considering **protected only left turn phasing being used both weekdays and weekends between the hours of 3:30-5:30 pm**. For all other hours of the day and all hours on weekends, protected/permissive flashing yellow arrow operations should be able to be utilized.

For the CSAH 56 approaches, concerns about higher opposing traffic volumes along with higher posted speed limits, we recommend considering **protected only left turn phasing being used on both weekdays and weekends between the hours of 6:30 am-8:30 am and also between 3:30-5:30 pm**. For all other hours of a typical weekday and weekend, flashing yellow arrow operations should be able to be utilized on CSAH 56.

Note that any changes in the operation of this signal system should be monitored by the City and Anoka County, including annual review of crash data to ensure that crash frequency does not increase due to the proposed left turn signal operations.

Upon further observation and review of the operation of this signal system in the future, there may be the opportunity to extend these hours of flashing yellow arrow operation should the intersection operate safely and efficiently with these proposed modifications. For the time being, we recommend that the City and Anoka County operate the signal system in flashing yellow arrow mode only as noted above.

Any changes to the operation of the left turn signal phases are not anticipated to impact overall operations of the intersection in a negative way (and delays for left turning traffic will decrease with flashing yellow arrow operations which will improve the overall operation of the intersection).

The following modifications to the existing signal system installation will be required to revise the operation of this signal system and add flashing yellow arrows for all intersection approaches:

- For northbound and southbound CSAH 56, the overhead end mounted and far left pole mounted left turn signals for these intersection approaches will require having 3-section RLA-YLA-GLA signal heads replaced with 4-section RLA-YLA-FYLA-GLA signal heads. No additional cabling will be required to be installed to operate these signal heads based on a review of the field wiring diagram, as there are sufficient spare conductors available to allow for the new 4-section signal heads to be installed. No additional through traffic signal heads will be required to be installed for these approaches, as each approaching through lane has its own separate signal centered on the lane.

- For eastbound Sunwood Drive, either a 5-foot extension or installation of a 5 foot longer mast arm to replace the existing 35 foot long mast arm will be required to be installed in order to be able to center a new left turn signal head over the approaching left turn lane. **For the purposes of the estimated construction costs included in this analysis, replacement of this mast arm was included in the Engineers estimate of construction costs, as is typical policy for signal systems on Anoka County roadways and operated by the County**. The overhead and far left pole mounted 5-section signal heads would then be replaced with new 4-section RLA-YLA-FYLA-GLA signal heads. A new 3-section RYG signal head with either a strap-on mid mast arm mount (on the existing mast arm) or a new mid-mount (on a new mast arm) will be required to be furnished and installed so that a RYG signal head is able to be centered on the approaching through lane. No additional cabling will be required to be installed to operate these signal heads based on a review of the field wiring diagram, as there are sufficient spare conductors available to allow for the new 3-section and 4-section signal heads to be installed.

- For westbound Sunwood Drive, either a 5-foot extension or installation of a 5 foot longer mast arm to replace the existing 35 foot long mast arm will be required to be installed in order to be able to center a new left turn signal head over the approaching left turn lane. **For the purposes of the estimated construction costs included in this analysis, replacement of this mast arm was included in the Engineers estimate of construction costs, as is typical policy for signal systems on Anoka County roadways and operated by the County**. The overhead and far left pole mounted 5-section signal heads would then be replaced with new 4-section RLA-YLA-FYLA-GLA signal heads. A new 3-section RYG signal head with either a strap-on mid mast arm mount (on the existing mast arm) or a new mid-mount (on a new mast arm) will be required to be furnished and installed so that a RYG signal head is able to be centered on the approaching through lane. No additional cabling will be required to be installed to operate these signal heads based on a review of the field wiring diagram, as there are sufficient spare conductors available to allow for the new 3-section and 4-section signal heads to be installed

- With regards to left turn lane detection, the *MnDOT Traffic Control Signal Design Manual* recommends that either four loop detectors be installed for proper detection (at 5', 20', 35' and 50' from the stop bar or crosswalk) or that two separately wired loop detectors be installed for existing signal system retrofits at 10' and 40' from the stop bar or crosswalk. Recent County practice has been to have the four separate loop detectors installed in each left turn lane in order to be able to operate the left turn lanes on non-lock operation.

  For this signal system, four (4) left turn lane detectors were previously installed at 15 foot spacing and in close proximity to the stop bar on both Sunwood Drive intersection approaches (with separate lead-in cables for 2 of the 4 loop detectors in each left turn lane). Thus, no loop detector work is required to be completed for the Sunwood Drive approaches.

  For the CSAH 56 approaches, left turn lane detection was installed at 10' and 40' from the stop bar for these intersection approaches (each wired separately). To meet current County practice, additional loop detectors will be required to be furnished and installed -5 feet and 25 feet from the stop bar in both left turn lanes.

Thus, a total of 4 new loop detectors are recommended to be installed with any flashing yellow arrow modifications. No additional 2/c#14 cables or controller cabinet loop detector cards will be required to operate these new loop detectors since existing loop detectors are already wired separately in each left turn lane.

- The height of all overhead signals was also checked during the field review of the intersection to confirm that the distance between each overhead signal (from the bottom of the background shield) to the roadway surface was at least 17 feet. Note that all overhead signal heads are installed such that 2 of the signal indications are mounted below the mast arm mount and 1-3 signal indications are mounted above the mount. From this review, all overhead signals are currently at least 17 feet above the ground line.

  What this means is that modifying any of the end mounted signals to have 4-section signal heads will not pose a height issue for any of the 4 approaches.

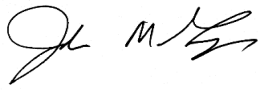
- Other minor modifications to the signal system include relocation of EVP detectors and Type D street name signs on the eastbound and westbound facing mast arms to accommodate signal head placements.

To allow for flashing yellow arrow operation on each intersection approach, we estimate that these modifications (completed by an electrical signal contractor) will cost approximately **$94,000**. A detailed preliminary engineer's estimate of costs is attached to this letter for your information.

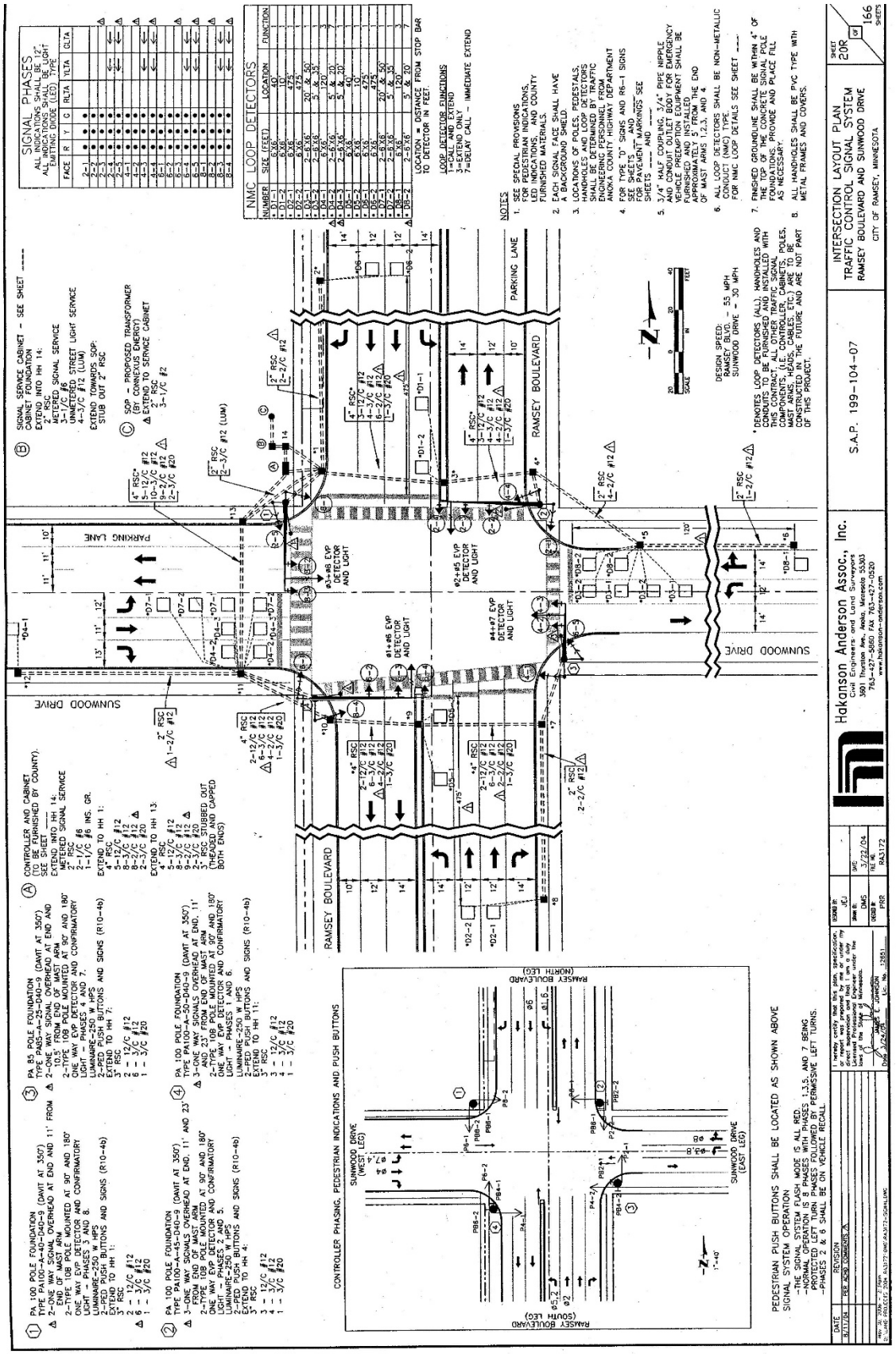
Please review our analysis and feel free to contact me at 651.402.4383 with any questions or concerns that you may have related to our analysis. If you wish to meet to go over these issues, I am available to meet at your convenience.

We hope that this information provides you with insight needed to help evaluate and recommend the appropriate signal phasing for this intersection.

Sincerely,
Short Elliott Hendrickson, Inc.



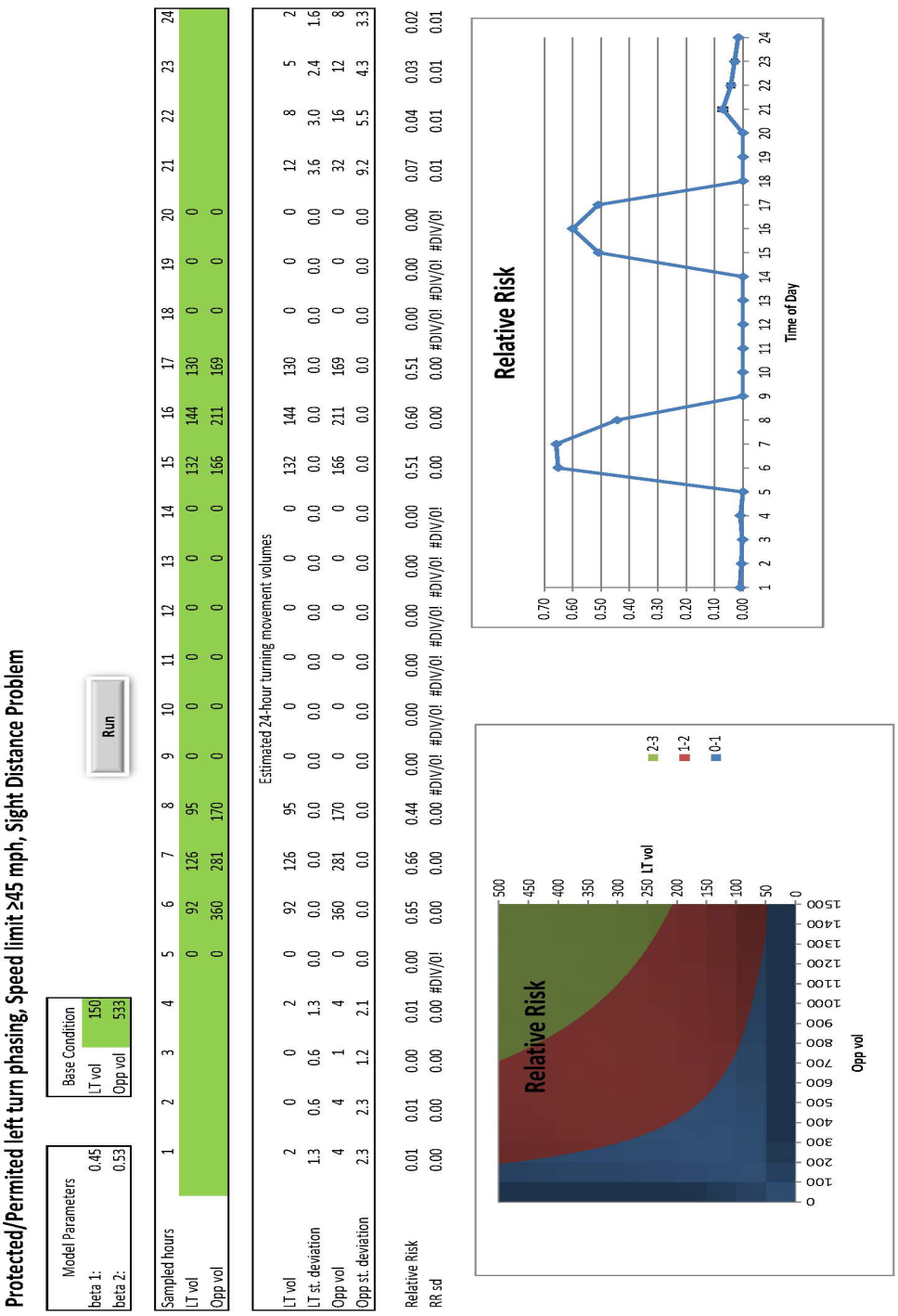
John M. Gray, PE
Senior Professional Traffic Engineer


SIGNAL PHASES
NMC LOOP DETECTORS
NOTES
INTERSECTION LAYOUT PLAN
TRAFFIC CONTROL SIGNAL SYSTEM
RAMSEY BOULEVARD AND SUNWOOD DRIVE
CITY OF RAMSEY, MINNESOTA
S.A.P. 199-104-07
Hakanson Anderson Assoc., Inc.
RAMSEY BOULEVARD
SUNWOOD DRIVE
PARKING LANE
CONTROLLER PHASING, PEDESTRIAN INDICATIONS AND PUSH BUTTONS
PEDESTRIAN PUSH BUTTONS SHALL BE LOCATED AS SHOWN ABOVE
SIGNAL SYSTEM OPERATION

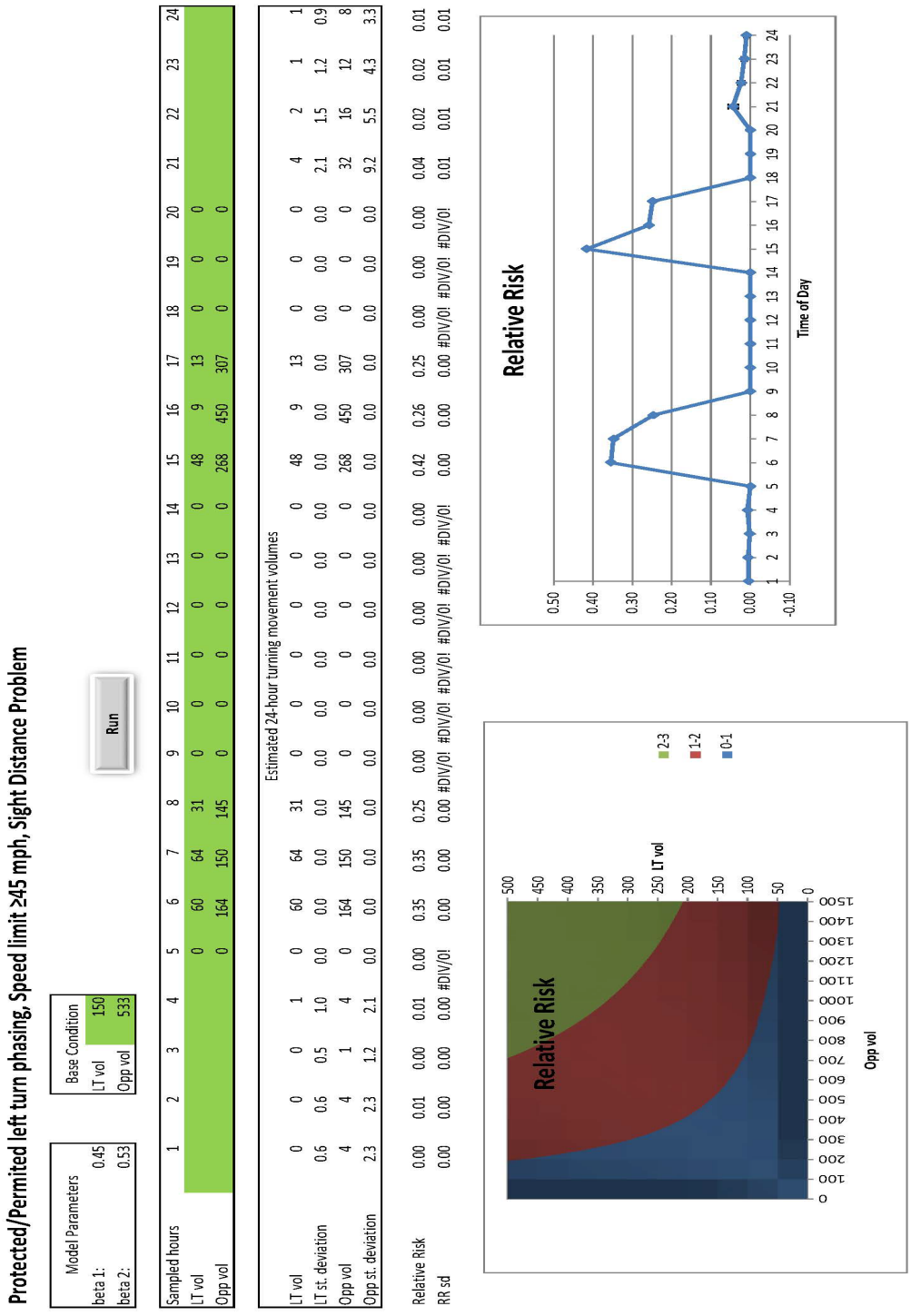
Preliminary Estimated Costs and Quantities
Revise Signal System (Flashing Yellow Arrow Modifications)
CSAH 56 (Ramsey Boulevard) at Sunwood Drive
City of Ramsey, Minnesota (Anoka County)
Prepared by JMG (SEH) on February 22, 2022

Item	Estimated Quantity	Estimated Unit Cost	Estimated Total Cost
Remove 3 and 5 Section Signals	8	$400	$3,200
4-Section Signals (with LED)	8	$1,200	$9,600
Remove Mast Arm	2	$2,500	$5,000
40 Foot Mast Arm	2	$8,500	$17,000
Overhead Mast Arm Mounts	6	$300	$1,800
Salvage and Install Type D Signs	2	$500	$1,000
3-Section Signals (with LED)	2	$1,000	$2,000
6 x 6 NMC Loop Detectors	4	$2,000	$8,000
Remove R10-12 Sign Panels	2	$200	$400
Salvage and Install EVP Detectors	2	$300	$600
R10-X12 Sign Panels	4	$700	$2,800
Replace Controller and Cabinet	1	$28,000	$28,000
Traffic Control	1	$2,500	$2,500
Sub Total			$81,900
Miscellaneous	15%		$12,100
Total Estimated Revise Signal System Contractor Costs			$94,000

NORTHBOUND LEFT TURN FLASHING YELLOW ARROW CRITERIA ANALYSIS



SOUTHBOUND LEFT TURN FLASHING YELLOW ARROW CRITERIA ANALYSIS



EASTBOUND LEFT TURN FLASHING YELLOW ARROW CRITERIA ANALYSIS

Protected/Permited left turn phasing, Speed limit <45 mph, No Sight Distance Problem

Model Parameters	
beta 1:	0.38
beta 2:	0.37

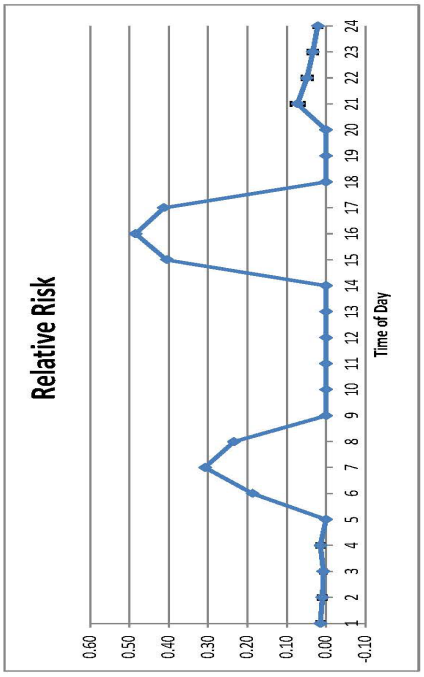
Base Condition	
LT vol	150
Opp vol	533

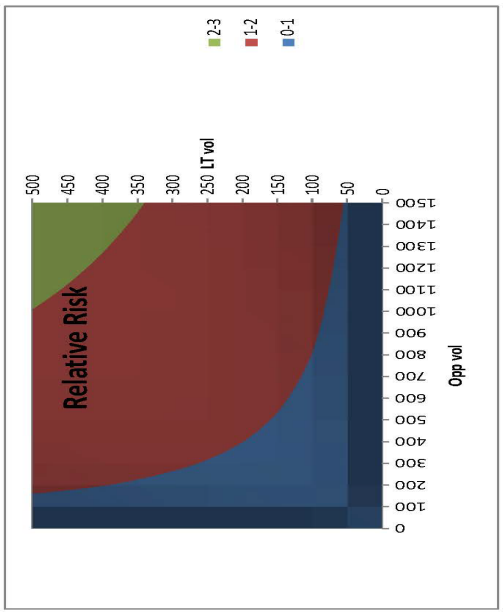
Run

Sampled hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
LT vol					0	16	28	22	0	0	0	0	0	0	56	59	63	0	0	0				
Opp vol					0	57	124	76	0	0	0	0	0	0	128	196	119	0	0	0				

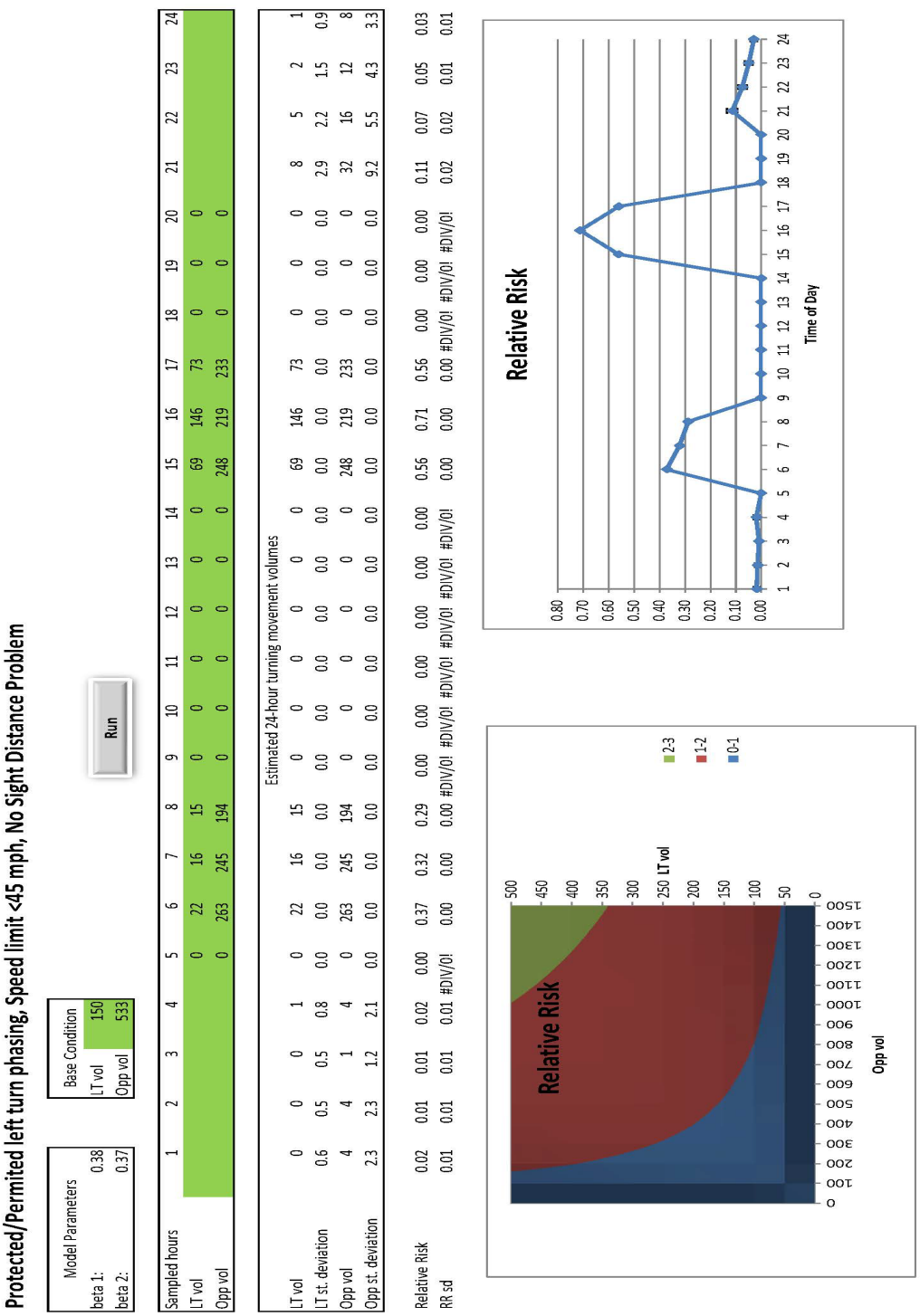
Estimated 24-hour turning movement volumes

LT vol	0	0	0	0	0	16	28	22	0	0	0	0	0	0	56	59	63	0	0	0	5	3	2	1
LT st. deviation	0.7	0.4	0.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.8	1.3	0.9
Opp vol	2	2	1	2	0	57	124	76	0	0	0	0	0	0	128	196	119	0	0	0	15	8	6	4
Opp st. deviation	1.6	1.6	1.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	3.4	2.7	2.1
Relative Risk	0.01	0.01	0.01	0.01	0.00	0.19	0.31	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.48	0.41	0.00	0.00	0.00	0.07	0.05	0.03	0.02
RR sd	0.01	0.01	0.01	0.01	#DIV/0!	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	0.02	0.01	0.01	0.01





WESTBOUND LEFT TURN FLASHING YELLOW ARROW CRITERIA ANALYSIS



Public Works Committee **6. 1.**

Meeting Date: 03/15/2022

By: Bruce Westby, Engineering/Public Works

Title:

Updates on Improvement Projects, Studies, and Other Items of Interest

Purpose/Background:

The purpose of this case is to update the Public Works Committee on current and proposed City, County and MnDOT improvement projects and studies, and on other items of interest to the Committee.

City Improvement Projects

- **Sunwood Drive & Waco Street Reconstructions (IP #22-01)**
  - Plans are being prepared in-house
  - Waco Street remains as is per City Council direction
  - Council to consider approving plans and authorizing bids March 22nd
- **Autumn Heights Street Reconstructions (IP #22-02)**
  - Plans are being prepared in-house
  - Council to consider approving plans and authorizing bids at future meeting
- **2022 MSA Pavement Overlay Improvements (IP #22-03)**
  - Plans are being prepared in-house
  - Council to consider approving plans and authorizing bids at future meeting
- **2022 Neighborhood Street Overlay Improvements (IP #22-04)**
  - Plans are being prepared in-house
  - Council to consider approving plans and authorizing bids March 22nd
- **Riverdale Drive Trunk Utility Improvements (IP #22-05)**
  - Bolton & Menk prepared plans and specs
  - Bids opened March 11th – Staff will provide an update during the meeting
- **Wood Pond Hills 2nd, 3rd, 4th, 5th Addns Street Reconstructions (IP #22-06)**
  - Plans are being prepared in-house
  - Council to consider approving plans and authorizing bids March 22nd
- **2022 Crack Seal Improvements (IP #22-08)**
  - Plans are being prepared in-house
  - Council to consider approving plans and authorizing bids March 22nd
- **WTP Trunk Watermain Improvements (#21-08)**
  - First bids rejected
  - Revising plans to reduce project costs
  - Re-bid revised plans in 2022 or early 2023
  - September 2023 completion deadline
- **Centralized Water Treatment Plant (#21-09)**
  - AE2S is preparing plans and handling construction administration
  - 60-percent plans nearly complete
  - Project completion anticipated October 2023
- **Fire Station No. 1 Parking Lot Improvements (#21-10)**
  - Awarded to North Valley for spring/summer 2022 construction
- **Ramsey Gateway Highway 10 Improvements (IP #20-11)**
  - Preliminary design complete and property acquisitions underway
  - Final design underway

- Construction anticipated late 2023 – early 2026
- **Wetland 114P Outlet Control Improvements (#19-07)**
  - Requested by Minnesota DNR
  - Council will consider approving plans and authorizing bids April 12
  - Construction proposed for 2022

Anoka County Improvement Projects

- **Roundabout at Armstrong Boulevard/CSAH 83 and Alpine Drive**
  - Anoka County received $1.35M in HSIP funds (est. project cost = $1.5M)
  - Anoka County and City of Ramsey share $150,000 each (per $1.5M est.)
  - Anoka County/WSB preparing plans
  - Construction proposed for 2023, pending City & County approvals
  - Council will consider approving JPA in May 2022
- **CSAH 116 Interim Improvements**
  - Construction substantially complete
  - Sunwood Dr. & Bunker Lake Blvd. signal system operational

MnDOT Improvement Projects

- **US 10 / 169 & Ferry Street / TH 47 Interchange**
  - Construction proposed for 2022 – 2023
- **Ferry Street / Trunk Highway 47 Grade Separation @ BNSF Rail Crossing**
  - Preliminary design on hold
  - MnDOT exploring realignment of Highway 47 to remove S-curve
  - $45M in bonds authorized October 2020
  - Construction proposed for 2024 or later
- **Rum River Bridge Replacement**
  - Construction scheduled for 2022 – 2023
  - Proposing three lanes each direction between Highway 47 and 7th Street

Studies & Items of Interest

- **5805 148th Lane NW**
  - Update anticipated March 2022
- **FYA Improvements at Sunwood Drive and Ramsey Boulevard**
  - SEH completing Feasibility Analysis
- **Elk River Highway 10 Study**
  - Update anticipated March 2022
- **Anoka Solution Highway 10 Improvements**
  - Construction scheduled for 2022 – 2023
- **Water Efficiency Grant Update**
  - See attached financials
  - Council will consider approving application for 2022-2024 Grant March 22

Timeframe:

Staff estimates up to 10 minutes will be needed for updates and discussion.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

N/A

Action:

No formal action required. For Committee review and discussion purposes only.

Attachments

2022-2024 WE Grant Program

2020-2022 WE Grant Financials

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	03/10/2022 04:00 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 04:35 PM
Form Started By: Bruce Westby		Started On: 03/07/2022 04:07 PM
Final Approval Date: 03/10/2022		

Metropolitan Council
Water Efficiency Grant Program

Overview

The Metropolitan Council (Council) will implement a water efficiency grant program effective July 1, 2022 to June 30, 2024. Grants will be awarded on a competitive basis to municipalities that are served by a municipal water system.

The Council will provide 80% of the program cost; the municipality must provide the remaining 20%. Municipalities will use the combined Council and municipality funds to run their own grant or rebate programs.

Grants will be made available in amounts with a minimum of $5,000 and a maximum of $50,000. Grantees will be required to provide estimated water savings achieved through this program for Clean Water, Land & Legacy Amendment reporting purposes.

Legislative Directive - Minnesota 2021 Session Law

> $625,000 the first year and $625,000 the second year are for the water demand reduction grant program to encourage municipalities in the metropolitan area to implement measures to reduce water demand to ensure the reliability and protection of drinking water supplies. Fiscal year 2022 appropriations are available until June 30, 2023, and fiscal year 2023 appropriations are available until June 30, 2024.

Grant Program Goal

The goal of the water efficiency grant program is to support technical and behavioral changes that improve municipal water use efficiency in the seven-county metropolitan area.

Critical Points to Remember

- The applying municipality must be served by a municipal public water supply system
- New construction and new developments are not eligible
- A portion of each eligible activity's cost must be paid by the property owner
- Funds are for rebates or grants only; consulting and city staff time are ineligible
- Grant recipients must display the Clean Water, Land and Legacy Amendment logo and the Metropolitan Council logo on program-related web pages and paper communications

Grant Program Structure: Administration and Funding

The Water Efficiency Grant Program will be administered by Metropolitan Council Environmental Services (MCES) and will be funded with $1,000,000 appropriated by the 2021 Minnesota Legislature. Grant applications will be reviewed and ranked by the MCES Water Supply Planning Unit staff. The remaining $250,000 of this funding has been allocated to a different municipal water efficiency grant project.

Grants are only for water efficiency programs offering rebates or grants to property owners who are customers of the municipal water supply system and who replace specified water using devices with approved devices that use substantially less water.

Grants will be awarded to municipalities in amounts ranging from $5,000 to $50,000 for providing rebates or grants to property owners. Municipalities will be responsible for the design and operation of their rebate or grant program and its details. Grant payments to the municipality will be for 80% of approved program amounts. The municipality must provide the remaining 20% of the granted/rebated amount to the property owner. Municipality rebates or grants are eligible for reimbursement on device replacements conducted July 1, 2022 through June 30, 2024.

Here is an example of the grant funding design:

Metropolitan Council Grant Amount	$16,000 (80% of total)
Municipality Match	$4,000 (20% of total)
Municipality Grant/Rebate Program Total	$20,000 (100% of total)

Eligibility

This grant program is limited to municipalities in the seven-county metropolitan area.

Municipalities eligible per above must apply to participate and, if approved, sign a standard Council Grant Agreement, before any eligible rebates or grants can be submitted for reimbursement. Agreements shall require that municipalities:

- Entirely pass through grants received (as is being done by MCES)
- Verify purchase of devices to receive grants
- Retain records and cooperate with any audits
- Conduct all communications with property owners and ensure all written communications to property owners include both the Clean Water, Land and Legacy Amendment and the Metropolitan Council's logo
- Provide quantitative information for state reporting purposes

Eligible water efficiency devices consist of the following:

- Toilet replacement with a US EPA WaterSense labeled toilet
- Irrigation controller replacement with a US EPA WaterSense labeled controller, either weather-based or soil moisture-based
- Clothes washing machine replacement with a US DOE Energy Star labeled clothes washing machine
- Irrigation spray sprinkler body replacement with a US EPA WaterSense labeled spray sprinkler body
- Irrigation system audit by an Irrigation Professional certified by a US EPA WaterSense program
- Residential dishwasher replacement with a US DOE Energy Star labeled residential dishwasher

Expenses eligible for reimbursement are the out-of-pocket cost of the device and its installation only, not to include any owner labor costs. In addition, new construction and new developments are ineligible, as this program is intended as a current infrastructure replacement program.

Application Process

- Applicants must be served by a municipal public water supply system
- Municipalities will submit MCES supplied application form by March 31, 2022. Required information includes:
    - the municipality's rebate or grant program design and work plan
    - proposed examples of communications to property owners
    - requested total grant amount
    - estimated annual amount of water saved by the applying municipality

- Application form is available at: https://metrocouncil.org/Wastewater-Water/Funding-Finance/Available-Funding-Grants.aspx
- Submit competed application to: brian.davis@metc.state.mn.us
- Metropolitan Council will notify municipalities of grant awards and provide grant agreements by April 29, 2022.

Proposal Selection Criteria

In the event that funds requested exceed funds available, the following criteria will be used to determine the amount granted to a given municipality:

- Municipalities with identified water supply issues in Master Water Supply Plan Community Profiles or Local Water Supply Plans
- Municipalities' ratio of peak monthly water use to winter monthly water use
- Municipalities' average residential per capita water use
- The order in which applications are received and until grant funds are completely committed

Funding Process and Reporting Requirements

- Utilizing forms provided by MCES, the following information must be reported on a quarterly basis:
    - Number, type and amount of rebates or grants provided to property owners, along with each property address
    - Estimated annual gallons of water saved per device installation
    - Municipality matching funds disbursed
    - Number of unmet funding requests from property owners, if any
- Upon review and confirmation of the above information, MCES will process a grant payment in the amount of 80% of approved total rebates or grants for the reporting period.
- MCES will provide confirmation of grant balances available upon request and reserves the right to amend grant agreements, in collaboration with grantee municipality, if quarterly reporting indicates rebate or grant programs will not fully utilize grant awards within the grant period.

Qualified Activities

- Residential dishwasher replacement with a US DOE Energy Star labeled residential dishwasher: https://www.energystar.gov/products/dishwashers

- Toilet replacement with a US EPA WaterSense labeled toilet: https://lookforwatersense.epa.gov/products/Product-Search-Results-Toilets.html

- Irrigation controller replacement with a US EPA WaterSense labeled controller, either weather-based or soil moisture-based: https://lookforwatersense.epa.gov/products/Product-Search-Results-IrrigationController.html https://lookforwatersense.epa.gov/products/Product-Search-Results-SoilMoistureBasedIrrigationController.html

- Clothes washing machine replacement with a US DOE Energy Star labeled clothes washing machine: https://www.energystar.gov/productfinder/product/certified-clothes-washers/results

- Irrigation spray sprinkler body replacement with a US EPA WaterSense labeled spray sprinkler body: https://lookforwatersense.epa.gov/products/Product-Search-Results-Sprinkler.html

- Irrigation system audit by an Irrigation Professionals certified by a US EPA WaterSense program: https://lookforwatersense.epa.gov/pros/

Reporting Example

							Calculated Totals:			
Property Street Address and Zip Code	**(Select) Property Type:**	**(Select) Water Device Replaced:**	**Cost per Device ($):**	**# of Devices:**	**Rebate or Grant per Device ($)**	**Est. Annual Water (Gallons) Saved Per Device:**	**Total Rebate or Grant**	**Municipality Contribution:**	**Eligible Grant Amount**	**Estimated Annual Water Saved (Gallons):**
2094 Proviso Avenue	Residential	Clothes Washer	$800.00	1	$200.00	5,000	$200.00	$40.00	$160.00	5,000
3452 Enola Drive	Residential	Irrigation Controller	$250.00	1	$150.00	20,000	$150.00	$30.00	$120.00	20,000
994 Argentine Place	Residential	Irrigation Controller	$200.00	1	$150.00	20,000	$150.00	$30.00	$120.00	20,000
5377 Shoreham Way	Residential	Toilet	$350.00	1	$125.00	7,000	$125.00	$25.00	$100.00	7,000

1st Quarter Totals 2022	4 Residents / 0 HOA		$ 1,530.14	$ 382.54	$ 1,147.61	103,400
4th Quarter Totals 2021	5 Residents / 0 HOA		$ 1,123.20	$ 280.80	$ 842.40	81,600
3rd Quarter Totals 2021	13 Residents / 1 HOA		$ 3,561.84	$ 890.46	$ 2,671.38	1,023,800
2nd Quarter Totals 2021	19 Residents		$ 3,536.46	$ 884.12	$ 2,652.35	286,000
1st Quarter Totals 2021	4 Residents	* means rebate max	$ 1,379.00	$ 344.75	$ 1,034.25	88,200
4th Quarter Totals 2020	10 Residents		$ 2,164.98	$ 541.25	$ 1,623.74	156,600
3rd Quarter Totals 2020	7 Residents		$ 1,987.39	$ 496.85	$ 1,490.54	141,600
2nd Quarter Totals 2020	22 Residents		$ 4,896.48	$ 1,224.12	$ 3,672.36	430,400
1st Quarter Totals 2020	0 Residents		$ -	$ -	$ -	0

		$28,000 Grant Rebate Remaining Avail.	Total Rebate or Grant	Municipality Contribution:	Eligible Grant Amount	Estimated Annual Water Saved (Gallons):
Total to date	84 Individual Households - 1 HOA	**$ 12,865.37**	$ 20,179.49	$ 5,044.88	$ 15,134.62	2,311,600

Public Works Committee **6. 2.**

Meeting Date: 03/15/2022

By: Bruce Westby, Engineering/Public Works

Title:

Review Future Topics Calendar

Purpose/Background:

Attached is a calendar of future topics for review and discussion by the Public Works Committee. The calendar includes topics drawn from Committee requests received during meetings and/or unresolved topics previously discussed by the Committee. Calendar dates are subject to change based on the availability of information and required attendees, staff workload, and competing interests and objectives.

Timeframe:

Staff estimates less than 5 minutes will be necessary to review the future topics calendar and address questions.

Observations/Alternatives:

N/A

Funding Source:

N/A

Recommendation:

Staff recommends reviewing the attached calendar and to either approve the calendar by consensus or to direct Staff to revise the calendar as follows; _____.

Action:

No formal action required. For Committee review and discussion purposes only.

Attachments

PWC Calendar Mar2022

Form Review

Inbox	Reviewed By	Date
Grant Riemer	MaryJo Warner	03/10/2022 04:00 PM
Kurt Ulrich	Kurt Ulrich	03/10/2022 04:36 PM
Form Started By: Bruce Westby		Started On: 03/07/2022 04:23 PM
Final Approval Date: 03/10/2022		

Public Works Committee Future Topics Calendar *

Date	Topics for Discussion – Committee Action
April 2022	Sunfish Lake Sedimentation Basin Improvements *(Westby)*
April 2022	Available Funding Assistance for Wet Basements *(Westby)*
Future/TBD	Sunwood Drive Roundabout Landscaping *(Riemer)*
Date	**Topics for Discussion – Regulatory**
Future/TBD	Sunfish Lake Blvd./CSAH 57 Speed Study Results *(Westby)*
Future/TBD	Bunker Lake Blvd./CSAH 56 Speed Study Results *(Westby)*
Future/TBD	Green Valley Rd./CR 63 Speed Study Results *(Westby)*
Date	**Topics for Discussion – Policy**
Future/TBD	Landscaped Median Maintenance Policy *(Riemer)*
May 2022	Draft Trail Maintenance Policy *(Westby)*
May 2022	Draft Stormwater Pond Maintenance Policy *(Westby)*
Date	**Topics for Discussion – Planning and Budget**
June 2022	Review 1996 and 2007 (unadopted) TH 47 Corridor Studies *(Westby)*
Future/TBD	Asset Management Program *(Westby)*
Future TBD	Replace City monument sign TH 47 & Bunker Lk Blvd. *(Riemer)*
Future/TBD	Targeted Trail Gap Connection Planning *(Riemer)*
Date	**Topics for Discussion – Staff Updates**
Ongoing	Elk River Highway 10 Corridor Study *(Westby)*
Ongoing	Anoka County Nowthen Blvd/CSAH 5 Corridor Study *(Westby)*
Ongoing	Project Review Process Improvements

* Dates subject to change based on availability of information, required attendees, staff workload, and competing interests and objectives.