City of Ramsey
Agenda
Public Works Committee
Tuesday, January 21, 2025
5:30 pm
Lake Itasca Room, 7550 Sunwood Drive NW

Remote Attendance available at www.cityoframsey.com/meetings.
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 dated November 19, 2024.

5. Committee Business

1. Appoint Chair and Vice-Chair of the Public Works Committee

2. Consider Recommendation for City Council to Accept Bids and Award Contract for MSA Sunwood Drive Reconstruction, Improvement Project #25-02

3. Consider Recommendation for City Council to Accept Bids and Award Contract for Fox Ridge Estates 1st & 2nd Street Reconstructions, Improvement Project #24-13

4. Consider Recommendation for Design Alternative for High Point Street Reconstruction, Improvement Project #25-05

5. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2025 Crack Seal Improvements, Improvement Project #25-09

6. Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2025 Pavement Rejuvenation Improvements, Improvement Project #25-10

7. Review Updated Project Costs for Gravel Road Elimination Program and Consider Policy Development

6. Committee/Staff Input

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

2. Review Future Topics Calendar

7. Adjournment

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Not Applicable

Title:

Approve the following meeting minutes.
1. Public Works Committee meeting dated November 19, 2024.

Purpose/Background:

To review and approve meeting minutes.

Notification:

N/A

Time Frame/Observations/Alternatives:

Staff anticipates this case will take less than 5 minutes.

Funding Source:

N/A

Recommendation:

To review and approve meeting minutes dated November 19, 2024.

Outcome/Action:

Motion to approve meeting minutes dated November 19, 2024.

Attachments

PWC November Minutes

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/16/2025 09:04 AM
Brian Hagen	Brian Hagen	01/16/2025 04:05 PM
Form Started By: Marsha Weidner		Started On: 01/15/2025 08:25 AM
Final Approval Date: 01/16/2025		

PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA

The Public Works Committee conducted a regular meeting on Tuesday, November 19, 2024, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Debra Musgrove
Councilmember Chelsee Howell
Councilmember Michael Olson

Also Present: City Engineer/Public Works Director Bruce Westby
Assistant City Engineer Joe Feriancek
Parks and Assistant Public Works Director Mark Riverblood

1. CALL TO ORDER

Chairperson Musgrove 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 Olson, seconded by Councilmember Howell, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Musgrove, Councilmembers Olson and Howell. Voting No: None.

4. APPROVE MINUTES

4.01: Approve October 15, 2024, Meeting Minutes

Motion by Councilmember Olson, seconded by Councilmember Howell, to approve the following minutes:

Regular Meeting Minutes dated October 15, 2024

Motion carried. Voting Yes: Chairperson Musgrove, Councilmembers Olson and Howell. Voting No: None.

5. COMMITTEE BUSINESS

5.01: Consider Recommendation to City Council to Adopt Stormwater Management Facilities Maintenance Policy

City Engineer/Public Works Director Westby reviewed the staff report and the recommendation to provide a recommendation to the City Council to adopt the Stormwater Management Facilities Maintenance Policy. He stated that the Committee could also discuss the Trail Maintenance Policy under this item in regard to format since they would be similar and would become templates for future policies, noting that action should still remain separate.

Chairperson Musgrove referenced inspections and maintenance, and received confirmation that the information would be incorporated into section five.

Chairperson Musgrove noted that many sections include a maintenance recommendation of ten years. She asked if there should be language to preface such as starting four years after the adoption, or six years after the adoption of the policy in order to stagger those timeframes.

City Engineer/Public Works Director Westby reviewed the language related to the inspection of drainage pipes, which explains when the inspection typically occurs. He acknowledged that staff ultimately intends to do more frequent inspections, other than when streets are flooded or in preparation for proposed pavement management program projects. He stated that most inspections would be more staggered, and he could update the policy language to reflect that.

Councilmember Olson referenced the ten-year inspection cycle and asked if there are records that would reflect when those inspections would be due. He stated that perhaps the policy would refer to where the information would be kept.

City Engineer/Public Works Director Westby replied that information would be kept in the maintenance records. He stated that City staff has not been proactively inspecting most stormwater facilities and keeping inspection records, but staff would begin to do this if the policy is adopted.

Chairperson Musgrove commented that this looks good and provides direction. She suggested that, because safety and training are addressed in other policies, perhaps they should be referenced.

City Engineer/Public Works Director Westby replied that he does not believe that is necessary as this policy directs specific work and staff is adequately trained in the use of required equipment and safety prior to completing this work.

Councilmember Howell agreed that it would make sense not to include that information in order to keep this policy more straightforward and concise.

Chairperson Musgrove confirmed the consensus of the Committee to also exclude those sections in the Trail Maintenance Policy. She referenced an instance where perhaps a resident is upset with tree trimming and asked if there should be information in the Trail Maintenance Policy that would address the proper process.

Parks and Assistant Public Works Director Riverblood commented that would also be addressed under the training and personnel policies.

Chairperson Musgrove referenced language found within the Trail Maintenance Policy introduction that could be considered redundant and could perhaps be found under the funding section instead.

Councilmember Olson commented that because there is a funding section it would make sense to place the information in that section rather than the introduction.

Chairperson Musgrove referenced the sidewalk and trail inspection section and two-inch trip hazard threshold, asking for more information.

Parks and Assistant Public Works Director Riverblood commented that the City threshold is actually lower than that, but he would want to verify with the League of Minnesota Cities on the correct trip hazard threshold before placing that language within the policy.

Chairperson Musgrove referenced language found in the St. Francis policy and asked if that would be appropriate to have in the policy.

Parks and Assistant Public Works Director Riverblood provided additional details on the responsibility to repair sidewalk panels and the cost for that, which is a rate/charge adopted by the City Council annually. He did not see a problem leaving that language within the policy.

Chairperson Musgrove suggested a location for the trail maintenance photo. She noted a reference to City Code that she did not believe matched Ramsey's City Code and asked if that should be updated. She stated that there are some trails and sidewalks mapped out and asked for clarification on whether the map should simply state trails or whether every sidewalk would be included on the map.

Parks and Assistant Public Works Director Riverblood replied that sidewalks and trails would want to be kept together. He stated that there is not an official map for trail and sidewalk snow removal, although they do have plow maps.

Assistant City Engineer Feriancek stated that there is a trail and sidewalk map for plowing, although it is a plow map and not an official City map. He stated that they would have the means to create one if desired.

Parks and Assistant Public Works Director Riverblood suggested striking the word official.

Chairperson Musgrove referenced language related to the lifecycle of a boardwalk and the approach for repair. She stated that some of that detail seems to be more appropriate for plans and specifications rather than a policy but noted that she would be fine leaving the language in the policy as well.

Parks and Assistant Public Works Director Riverblood replied that the entirety of letter D could be removed.

Chairperson Musgrove referenced language related to trail bridges, expressing similar concern but stated that she would be fine leaving the language as is. She moved to funding and stated that it is a lot of information. She commented that she likes the comparison to what has been done and will need to be done. She suggested that information that would seem more specific to a case could be removed. She suggested that statement 14.03 be reviewed by staff and legal counsel. She stated that typically the Committee does not meet in December, but this could be brought back in December if desired. She noted that the other options would be for this to move forward to a Council worksession or on the regular City Council agenda.

City Engineer/Public Works Director Westby commented that the policies will be reformatted to match and both policies could be ready for the December 10th City Council worksession.

It was confirmed that this will move forward to the December 10th City Council worksession and then onto the regular agenda as an item on consent if there are no substantiative changes.

5.02: Trail Maintenance Policy

This item was discussed at part of Item 5.01 and the consensus was that this policy will move to the December 10th City Council worksession.

5.03: Consider Recommending City Council Authorization to Prepare Plans and Specifications for 2025 Pavement Maintenance Improvement Projects

Assistant City Engineer Feriancek reviewed the staff report and the recommendation for City Council authorization to prepare plans and specifications for 2025 pavement maintenance improvement projects.

Chairperson Musgrove commented that she recalled the budget was $750,000 whereas the proposed cost is $650,000. She asked if anything was removed from the list to result in the lesser cost. She asked if the MSA pavement marking would come from MSA funding.

Assistant City Engineer Feriancek replied that there was a one-year bump to $750,000. He stated that based on the ten-year CIP and projected needs, he has reviewed what would be needed for crack seal and rejuvenation as well as pavement marking. He confirmed that a portion of the MSA funds is designated towards maintenance, therefore technically MSA funds are used but as an automatic contribution towards maintenance. He stated that the $600,000 should be sufficient and projects were not pulled from the list.

Chairperson Musgrove asked for additional clarification on pothole repair.

Assistant City Engineer Feriancek replied that if there are funds left over from the $600,000, those funds could be used for skim patching or other pothole repairs. He stated that staff plans to bring

this item to the City Council next week to receive authorization to develop the plans and specification and reviewed the anticipated timeline for bidding.

Motion by Councilmember Olson, seconded by Councilmember Howell, to recommend City Council authorization to prepare plans and specifications for 2025 Pavement Maintenance Improvement Projects.

Motion carried. Voting Yes: Chairperson Musgrove, Councilmembers Olson and Howell. Voting No: None.

5.04: Consider Recommending City Council Authorization to Prepare Plans and Specifications for 2025 Pavement Management Program Projects

Assistant City Engineer Feriancek reviewed the staff report and recommendation to recommend City Council authorization to prepare plans and specifications for 2025 pavement management program projects.

Chairperson Musgrove referenced crosswalk markings in different locations on Alpine and received confirmation that those markings would be removed. She also asked if the trail near the fire station would be raised to prevent it from flooding.

Assistant City Engineer Feriancek provided details on the storm sewer in that area and stated that perhaps the inlet needs to be adjusted to allow better drainage.

Chairperson Musgrove commented that if the road is going to be redone, it would make sense to also address the trail.

Assistant City Engineer Feriancek commented that while there are parts of the trail that are not terrible, there are some parts that need work. He asked if the Committee would support including a bid alternate for the trail replacement.

Chairperson Musgrove confirmed the consensus of the Committee in support of including the trail replacement as a bid alternate. She also referenced a segment of trail that goes nowhere.

Assistant City Engineer Feriancek replied that the short segment would be removed as there would be too many challenges to extending the trail to the intersection.

Chairperson Musgrove referenced a drainage issue that was discussed in the plans for the 161st Avenue reconstruction project and asked for more detail on where that is located.

Assistant City Engineer Feriancek identified the path that much of the drainage from Central Park and its parking lot system followed. He stated that as part of the 161st project, storm sewer and catch basins were installed along with a swale into the pond. He identified the low point coming off 159th and identified the larger area that is serviced by the pond.

Assistant City Engineer Feriancek reviewed the anticipated timeline for moving forward to the Council and related to bidding and construction.

Chairperson Musgrove referenced the Alpine Drive project, noting there is a median at the intersection of Alpine and Highway 47 and asking if that would stay.

Assistant City Engineer Feriancek replied that the median would stay.

Chairperson Musgrove asked if the trail bids were based on the length of the trail to create a rough estimate.

Assistant City Engineer Feriancek replied that the trails were based off a quick estimate of the area.

Motion by Councilmember Howell, seconded by Councilmember Olson, to recommend City Council authorization to prepare plans and specifications for 2025 Pavement Management Program Projects, including the bid alternates for trails as discussed.

Motion carried. Voting Yes: Chairperson Musgrove, Councilmembers Howell and Olson. Voting No: None.

6. COMMITTEE / STAFF INPUT

6.01: Discuss Use of Recycled Asphalt Shingles for Paving Operations

City Engineer/Public Works Director Westby reviewed the staff report and asked for input from the Committee.

Councilmember Olson stated that he would be interested in the additional information as he had the same questions that were included in the staff presentation.

City Engineer/Public Works Director Westby confirmed that staff can continue to do research once some of the road planning is wrapped up.

Councilmember Howell thanked staff for bringing this forward and hoped that she could gather some additional information as well.

City Engineer/Public Works Director Westby confirmed the consensus of the Committee to place this item on the future topics calendar.

Chairperson Musgrove recognized that sometimes staff is required to complete training and perhaps there would be some type of training or education session on this topic.

City Engineer/Public Works Director Westby commented that there are many avenues that could be used to learn more about this. He explained that if the City chose to use this method for patching, they would use a contractor that uses the mix and would not make the mix themselves.

Councilmember Howell asked if there could be a requirement for residents to dispose of asphalt shingles at a City location. She stated that the City could then partner with a company that would collect the material and provide a cost savings in return to the City on the patching mix.

6.02: Receive Updates on Improvement Projects, Studies, and Items of Interest

City Engineer/Public Works Director 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.

Chairperson Musgrove thanked staff, and the partners involved in the River's Bend regional pond. She noted a project for Waco that is slated for 2033 and asked if that could be moved to 2030.

Assistant City Engineer Feriancek stated that project would be MSA funded and therefore it is a matter of funding allocation. He stated that the CIP is reviewed annually, and they can continue to monitor that.

6.03: Review Future Topics Calendar

City Engineer/Public Works Director Westby reviewed the future topics calendar.

Chairperson Musgrove asked and received confirmation that the County would be the lead on potential roundabouts for County Road 5. She asked why the gravel road policy was highlighted.

City Engineer/Public Works Director Westby commented that staff is working to develop solid cost estimates for each segment and will present that information at the January meeting. He stated that staff had a meeting scheduled with MnDOT for the TH 47 trail segment, but that was canceled. He stated that staff will continue to work on rescheduling the meeting. He stated that typically, there is not a December meeting and received confirmation from the Committee to cancel that meeting.

Chairperson Musgrove acknowledged that she and Councilmember Howell will not be returning in January and thanked staff for their hard work, noting that it has been great to be a member of the Committee.

7. ADJOURNMENT

Motion by Councilmember Howell, seconded by Councilmember Olson, to adjourn the Public Works Committee meeting.

Motion carried.

The regular meeting of the Public Works Committee adjourned at 7:48 p.m.

Respectfully submitted,

Bruce Westby
City Engineer/Public Works Director

Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Not Applicable

Title:

Appoint Chair and Vice-Chair of the Public Works Committee

Purpose/Background:

Annually, the Public Works Committee appoints a Chair and Vice-Chair of the Committee.

Time Frame/Observations/Alternatives:

Staff anticipates 5 minutes will be required to appoint a Chair and Vice-Chair.

Annually, a Chair and Vice-Chair are appointed to the Public Works Committee by Committee members. In election years, this will occur at the first Public Works Committee meeting following City Council appointments to the Public Works Committee.

Funding Source:

N/A

Recommendation:

N/A

Outcome/Action:

Motion to appoint as Chairperson, and as Vice-Chairperson, of the Public Works Committee for the term January 21, 2025 to December 31, 2025.

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/17/2025 10:22 AM
Brian Hagen	Marsha Weidner	01/17/2025 10:23 AM
Form Started By: Marsha Weidner		Started On: 01/17/2025 09:05 AM
Final Approval Date: 01/17/2025		

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Address infrastructure needs.

Title:

Consider Recommendation for City Council to Accept Bids and Award Contract for MSA Sunwood Drive Reconstruction, Improvement Project #25-02

Purpose/Background:

Purpose:

The purpose of this case is to consider a recommendation for the City Council to accept bids and award a construction contract for MSA Sunwood Drive Reconstruction, Improvement Project #25-02.

Background:

The proposed 2025 – 2034 Capital Improvement Plan (CIP) identifies Sunwood Drive between Nowthen Boulevard (CSAH 5) and Erkium Street for street reconstruction in 2025. A street segment summary for the project is attached to this case.

Existing Conditions

Sunwood Drive between Nowthen Boulevard and Erkium Street is a 40-foot-wide urban section street, totaling 0.20 miles in length. Westbound Sunwood Drive includes a stop condition at Nowthen Boulevard, with a right turn only and a thru and left turn lane. The Average Daily Traffic (ADT) is 1,050. The corridor includes 5-foot wide concrete sidewalk on both sides of the street.

City watermain, sanitary sewer, and storm sewer exist within the project area. However, there are no storm sewer inlets in the curb line of this section of Sunwood Drive.

Project History

- May 28, 2024, the Ramsey City Council adopted Resolution #24-138, accepting and awarding a proposal to Hakanson Anderson for topographic survey of the project area.
- August 12, 2024, the Ramsey City Council adopted Resolution #24-220, accepting and awarding a proposal to Independent Testing Technologies, Inc. for a geotechnical report of the project area.
- November 12, 2024, the Ramsey City Council adopted Resolution #24-309, accepting and awarding a proposal to Hydro-Klean, LLC for sewer cleaning and televising of the project area.
- November 19, 2024, the Ramsey Public Works Committee recommended City Council order plans and specifications for said improvements.
- November 26, 2024, the Ramsey City Council adopted Resolution #24-338, ordering plans and specifications for said improvements.
- January 13, 2025, bids were publicly opened.

Pavement History

This segment of Sunwood Drive was constructed in 1993. The street received crack seal / seal coat improvements in 1998, 2006, and 2013. Public Works staff has performed pavement patching over the last several years.

Ground Penetrating Radar (GPR) has been performed on this street, indicating an average of 4.2 inches of bituminous over 2.2 inches of aggregate base.

Proposed Improvements

Sunwood Drive is a Municipal State Aid (MSA) street and must conform to MSA design standards, including

meeting a 10-ton pavement design standard. Because the existing pavement section is only 4.2-inches of bituminous over 2.2-inches aggregate base (6.4-inch total section), the typical full-depth reclamation (FDR) process cannot be used to meet pavement strength design requirements. Staff is proposing to place 4-inches of new bituminous over 6-inches aggregate base. This will be achieved by removing the existing pavement and aggregate base, removing an additional 4-inches of subbase material, and placing 6-inches of new aggregate base and 4-inches of new bituminous pavement. Ideally the new aggregate base will be made of recycled reclamation material, but to allow for the best bidding environment, the project will not require it.

The existing concrete curb and gutter is proposed to remain in-place with spot replacements. Per the ADA Transition Plan, existing pedestrian ramps will be updated to current ADA standards. There are 10 such pedestrian ramps within the project area. Replacing the pedestrian ramps will also result in three concrete valley gutters being replaced.

Review of the geotechnical report found clean sands, ideal for both utility and pavement support within the project area. Additionally, groundwater is not anticipated to be a concern for the street reconstruction.

Improvements to the existing municipal utilities are not anticipated other than a minor improvement to a watermain gate valve identified by the City Utilities Department.

Additional Permitting

Sunwood Drive is an MSA street, approval by the MnDOT MSA department was received prior to bidding the project. Because the project goes up to the Anoka County right-of-way, and will require temporary signage within said right-of-way, an Anoka County Highway Department Right-of-Way Permit will be required. No other permits are anticipated.

Preliminary Schedule Remaining

- City Council awards contract to the lowest Responsible Contractor
  - January 28, 2025
- Contractor begins construction
  - Spring / Summer 2025
- Contractor substantially completes construction
  - New bituminous pavement in-place, topsoil and seed in-place
  - August 2, 2025
- Contractor final completion
  - Verify final restoration; punch list created
  - August 30, 2025

Notification:

Notification is not required for this case.

Time Frame/Observations/Alternatives:

Timeframe:

Staff anticipates up to 10 minutes will be required to present this case and answer any questions.

Alternatives:

Alternative #1 – Motion to recommend the City Council accept bids and award a construction contract for MSA Sunwood Drive Reconstruction, Improvement Project #25-012 to North Valley, Inc. in the amount of $272,962.90.

Alternative #2 – Motion of other.

Funding Source:

Funding for this improvement is proposed to come from Municipal State Aid (MSA) Funds and Water Utility Funds.

Bids were advertised in the Anoka Union Herald on December 13 and December 20, 2024. On January 13, 2025 a total of ten (10) bids were received, opened, and tabulated, and the following bids were found to comply with the advertisement for bids.

Contractor	**Total Bid**
North Valley, Inc.	$272,962.90
GMH Asphalt Corporation	$276,796.05
Asphalt Surface Technologies Corp.	$299,757.80
Park Construction Company	$307,200.95
Bituminous Roadways Inc.	$317,090.20
Valley Paving, Inc.	$321,960.00
S.M. Hentges & Sons, Inc.	$333,924.00
Knife River Corporation – North Central	$338,807.44
Northwest	$348,750.74
Landall Services LLC	$384,584.00
Engineer's Estimate	*$265,777.50*

The bid of North Valley, Inc. of Nowthen, Minnesota, in the amount of $272,962.90 for the total bid of said improvements in accordance with the approved plans and specifications and advertisement for bids is the lowest responsible bidder. Adding indirect costs in the amount of 23-percent brings the total project costs to $335,744.37.

The low bid is 1-percent higher than the engineer's estimate, primarily due to higher than anticipated cost as a result of the relatively small project size.

Funding Source Breakdown:

Funding Source	**Construction Costs**	**Indirect Costs**	**Total Costs**
MSA Funds	$270,412.12	$62,194.79	$332,606.91
Water Utility Funds	$2,550.78	$586.68	$3,137.46
Project Total	***$272,962.90***	***$62,781.47***	***$335,744.37***

The CIP level estimate had a total estimated project cost of $348,450, which includes street costs of $303,000 and storm sewer costs of $45,450. The final project costs may change depending upon the actual construction quantities.

Hakanson Anderson submitted a proposal for construction staking of the proposed improvements for a total not-to-exceed amount of $6,500.00. The construction staking is included in the indirect project costs.

City staff proposes to administer and inspect construction. Plans and specifications were prepared in-house as part of staff's normal duties.

Recommendation:

Staff recommends Alternative #1.

Outcome/Action:

Motion to recommend the City Council accept bids and award a construction contract for MSA Sunwood Drive Reconstruction, Improvement Project #25-02 to North Valley, Inc. in the amount of $272,962.90.

Attachments

25-02 Final Plans

25-02 Street Summary

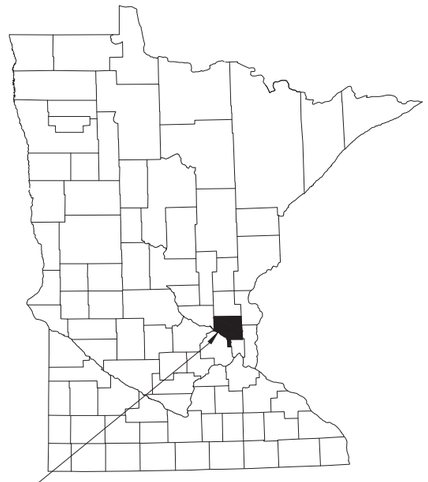
25-02 Construction Staking Proposal

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/15/2025 07:03 PM
Brian Hagen	Brian Hagen	01/16/2025 04:03 PM
Form Started By: Joe Feriancek		Started On: 01/13/2025 08:15 AM
Final Approval Date: 01/16/2025		

CITY OF RAMSEY
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY IMPROVEMENT PROJECT NO. 25-02

S.A.P. 199-104-015 LOCATED ON SUNWOOD DRIVE BETWEEN NOWTHEN BOULEVARD (CSAH 5) AND ERKIUM STREET
FROM NW 1/4 OF THE NW 1/4 OF S25, T32, R25 TO NW 1/4 OF THE NW 1/4 OF S25, T32, R25



CITY OF RAMSEY
ANOKA COUNTY, MINNESOTA
DISTRICT: METRO

PROJECT	STA. TO STA.	GROSS LENGTH	BRIDGE LENGTH	NET LENGTH	NET LENGTH (MILES)	ADT (2025)	ADT (2045)	DESIGN ESAL	R VALUE	TON DESIGN	DESIGN SPEED	NUMBER OF LANES	WIDTH OF LANES	FUNCTIONAL CLASSIFICATION
S.A.P. 199-104-015 SUNWOOD DR	0+61 TO 11+07	1,046 FT	0 FT	1,046 FT	0.20 MI	1,050	1,155	351,000	70	10	30 MPH	2	12'	COLLECTOR

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 25 SHEETS

SHEET No.	DESCRIPTION
01	TITLE SHEET
02	STATEMENT OF ESTIMATED QUANTITIES
03	TABULATIONS
04	ALIGNMENT LAYOUT
05	TYPICAL SECTION
06 - 07	CITY DETAILS
08 - 13	MNDOT PEDESTRIAN RAMP DETAILS
14	INTERSECTION DETAILS - SUNWOOD DR & GERMANIUM ST
15	INTERSECTION DETAILS - SUNWOOD DR & FLUORINE ST
16	INTERSECTION DETAILS - SUNWOOD DR & ERKIUM ST
17	EROSION CONTROL
18	REMOVALS
19 - 20	STREET IMPROVEMENTS
21	PAVEMENT MARKING PLAN
22 - 23	CROSS SECTIONS
24 - 25	SWPPP

LEGEND

- SANITARY MANHOLE
- CATCH BASIN
- FLARED END SECTION
- CULVERT END SECTION
- HYDRANT
- VALVE
- TREE - CONIFEROUS
- TREE - DECIDUOUS
- SHRUB
- LIGHT POLE
- SIGN
- MAILBOX
- PEDESTAL - TELECOM
- PEDESTAL - ELECTRIC
- HAND HOLE
- REMOVE BIT PAVE
- REMOVE CONCRETE PAVE
- REMOVE GRAVEL SURFACE
- MILL BIT PAVEMENT
- RECLAIM BIT PAVEMENT
- CONSTRUCTION EXIT
- RIPRAP CLASSIII
- CURB & GUTTER
- VALLEY GUTTER
- Easement - Drainage & Utility
- Easement - Northern Natural Gas
- Easement - Roadway
- LOT LINE
- ELECTRIC LINE
- ELECTRIC LINE - BURIED
- ELECTRIC LINE - OVERHEAD
- GAS LINE
- TELECOMMUNICATION LINE
- TELECOMM - OVERHEAD
- FIBER OPTIC LINE
- TREE LINE
- LANDSCAPE
- RETAINING WALL
- FENCE
- SILT FENCE
- FLOTATION SILT CURTAIN
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- DRAIN TILE
- LANDSCAPE - ROCK
- LANDSCAPE - MULCH
- LANDSCAPE - RIP RAP
- BIT PAVEMENT
- PR. CONCRETE WALK
- PR. SEEDING 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.

JOE FERIANCEK, P.E. — 57095 LIC. NO. — DATE 11/22/24

APPROVED: _____ CITY ENGINEER, CITY OF RAMSEY — DATE 11/22/24

Lucas Lortie — Digitally signed by Lucas Lortie Date: 2024.12.17 11:03:28 -06'00' — DATE _____
DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

Lucas Lortie — Digitally signed by Lucas Lortie Date: 2024.12.17 11:03:46 -06'00' — DATE _____
STATE AID ENGINEER: APPROVED FOR STATE AID FUNDING

SHEET 01 OF 25 SHEETS

City of RAMSEY
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 199-104-015

DATE	REVISION
12/16/24	ADDED SWPPP

Dec 16, 2024 - 10:05am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Title Sheet.dwg

STATEMENT OF ESTIMATED QUANTITIES							
IP 25-02 MSA Sunwood Drive - CSAH 5 to Erkium Street Reconstruction							
					S.A.P. 199-112-010		
					PROJECT TOTAL	PARTICIPATING	NON-PARTICIPATING
						STREET	WATERMAIN
NOTES	**ITEM NO.**	**MNDOT NO.**	**ITEM**	**UNIT**		**QUANTITY**	**QUANTITY**
	1	2021.501	MOBILIZATION	LS	1	1	0
	2	2104.502	REMOVE VALVE BOX & VALVE EXTENSION	EA	1	0	1
1	3	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	230	230	0
1	4	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	65	65	0
1	5	2104.503	REMOVE CONCRETE CURB AND GUTTER	LF	285	285	0
1	6	2104.504	REMOVE CONCRETE VALLEY GUTTER	SY	81	81	0
1	7	2104.504	REMOVE CONCRETE PAVEMENT	SY	145	145	0
1	8	2104.518	REMOVE BITUMINOUS PAVEMENT	SY	60	60	0
	9	2106.507	EXCAVATION - COMMON (EV)	CY	260	260	0
8	10	2106.607	HAUL & STOCKPILE RECLAIM MATERIAL (LV)	CY	1050	1050	0
	11	2112.604	SUBGRADE PREPARATION	SY	4800	4800	0
	12	2123.610	STREET SWEEPER (WITH PICKUP BROOM)	HOUR	5	5	0
	13	2130.523	WATER	MGAL	10	10	0
	14	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	760	760	0
9	15	2215.504	FULL DEPTH RECLAMATION	SY	4600	4600	0
1	16	2231.603	SAWED & SEALED JOINT	EA	30	30	0
	17	2232.504	MILL BITUMINOUS PAVEMENT 2.0"	SY	360	360	0
3	18	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	350	350	0
4	19	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C)	TON	520	520	0
4	20	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TON	560	560	0
	21	2503.602	GROUT CATCH BASIN	EA	4	4	0
	22	2504.602	ADJUST VALVE BOX	EA	4	4	0
	23	2504.602	VALVE BOX	EA	1	0	1
	24	2506.502	ADJUST FRAME & RING CASTING	EA	5	5	0
11	25	2521.518	6" CONCRETE WALK	SY	150	150	0
	26	2521.602	DRILL & GROUT REINF BAR (EPOXY COATED)	EA	70	70	0
11	27	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	285	285	0
11	28	2531.604	7" CONCRETE VALLEY GUTTER	SY	80	80	0
	29	2531.618	TRUNCATED DOMES	SF	240	240	0
7	30	2563.601	TRAFFIC CONTROL	LS	1	1	0
	31	2563.601	ALTERNATE PEDESTRIAN ROUTE	LS	1	1	0
	32	2573.502	STORM DRAIN INLET PROTECTION	EA	4	4	0
	33	2573.602	STABILIZED CONSTRUCTION EXIT	EA	2	2	0
2,10	34	2574.507	TOPSOIL (LV)	CY	30	30	0
5	35	2574.508	FERTILIZER TYPE 3	LBS	10	10	0
	36	2575.505	SEEDING	ACRE	0.05	0.05	0
6	37	2575.508	HYDRAULIC MULCH MATRIX	LBS	200	200	0
5	38	2575.508	SEED MIXTURE 25-151	LBS	10	10	0
	39	2575.602	LANDSCAPE RESTORATION	EA	1	1	0
	40	2582.503	4" SOLID LINE PAINT (MULTI-COMP)	LF	1700	1700	0
	41	2582.503	4" DOUBLE SOLID LINE PAINT (MULTI-COMP)	LF	850	850	0
	42	2582.518	CROSSWALK PAINT (MULTI-COMP)	SF	144	144	0

PAY ITEM NOTES:

1. REMOVAL LIMITS SHALL BE MARKED IN THE FIELD BY CITY STAFF.
2. LV TO CV CONVERSION FACTOR = 1.30.
3. ESTIMATED QUANTITY BASED ON APPLICATION RATE OF 0.07 GAL/SY.
4. ESTIMATED QUANTITY BASED ON APPLICATION RATE OF 113 LB/SY-IN.
5. ESTIMATED QUANTITY BASED ON 200 LB/ACRE.
6. ESTIMATED QUANTITY BASED ON 4000 LB/ACRE.
7. LUMP SUM QUANTITY SHALL INCLUDE ALL COST REQUIRED FOR MAINTAINING ALL FLAGGING OPERATIONS AS NECESSARY, MAINTAINING PEDESTRIAN ACCESS ROUTES, ANY SIGNAGE AND BARRICADES AS NECESSARY.
8. RECLAMATION STOCKPILE LOCATION IS AT 16600 SAINT FRANCIS BLVD. THE EXPECTED RECLAMATION DEPTH IS 8 INCHES.
9. SHAPING OF RECLAMATION MATERIAL TO PROFILE AND CROSS SLOPES MATCHING THE PLANS IS INCIDENTAL TO THE FULL-DEPTH RECLAMATION PAY ITEM.
10. STOCKPILING OF ANY SALVAGED TOPSOIL USED IS INCIDENTAL TO THE TOPSOIL PAY ITEM.
11. FINISH WITH CLEAR CURING COMPOUND

GENERAL NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. IT IS NOT GUARANTEED ANY OR ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT CONSTRUCTION LIMITS BEFORE COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR AVOIDING DAMAGE TO IRRIGATION SYSTEMS WHERE POSSIBLE.
3. STREET INTERSECTION RADII ASSUMED 20', UNLESS OTHERWISE NOTED.
4. PERMANENT SIGN REMOVAL AND INSTALLATION IS TO BE PERFORMED BY CITY OF RAMSEY PUBLIC WORKS DEPARTMENT.
5. THE CENTERLINE PROFILES ARE GENERALLY REMAINING THE SAME. THIS IS PROPOSED TO BE ACHIEVED BY RECLAIMING AND HAULING OFF 8 INCHES OF THE EXISTING BITUMINOUS AND AGGREGATE BASE, REMOVAL OF 2 INCHES OF SUBSOIL, SUBGRADE PREPARATION, PLACEMENT OF 6 INCHES OF AGGREGATE BASE (RECLAMATION MATERIAL MEETING CITY OF RAMSEY STANDARD DETAIL STR-26 MAY BE USED AS AGGREGATE BASE CLASS 5 MODIFIED), PLACEMENT OF 2 INCHES NON-WEAR COURSE BITUMINOUS PAVEMENT AND PLACEMENT OF 2 INCHES WEAR COURSE BITUMINOUS PAVEMENT.
6. STREET CROSS SLOPES SHALL HAVE A MINIMUM 2% GRADE.
7. SEEDING AND RESTORATION NUMBERS WERE DETERMINED BASED ON 4' OF DISTURBANCE FROM THE EDGE OF CURB AND CONCRETE WALK REPLACEMENTS.

DATE	REVISION

Nov 22, 2024 - 2:02pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\102.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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

City of RAMSEY

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

STATEMENT OF ESTIMATED QUANTITIES

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 02 OF 25 SHEETS

PAVEMENT MARKING TABULATION						
DESCRIPTION	DIRECTION	STATION		CROSSWALK	4" SOLID LINE	4" DOUBLE LINE
		START	END	WHITE	WHITE	YELLOW
				SF	LF	LF
FOG LINE	EB	0+61	3+32		260	
CENTERLINE		0+61	3+32			270
FOG LINE	WB	0+61	3+32		280	
FOG LINE	EB	3+93	6+95		305	
CENTERLINE		3+93	6+95			302
FOG LINE	WB	3+93	6+95		298	
FOG LINE	EB	7+60	10+38		276	
CENTERLINE		7+60	10+38			277
FOG LINE	WB	7+60	10+38		279	
CROSSWALK		10+88	10+96	144		
TOTALS				144	1698	849

DATE	REVISION

Nov 22, 2024 - 10:33am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Tabulations.dwg

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JOE FERIANCEK
Date 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

City of RAMSEY

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

TABULATIONS

S.A.P. 199-104-015

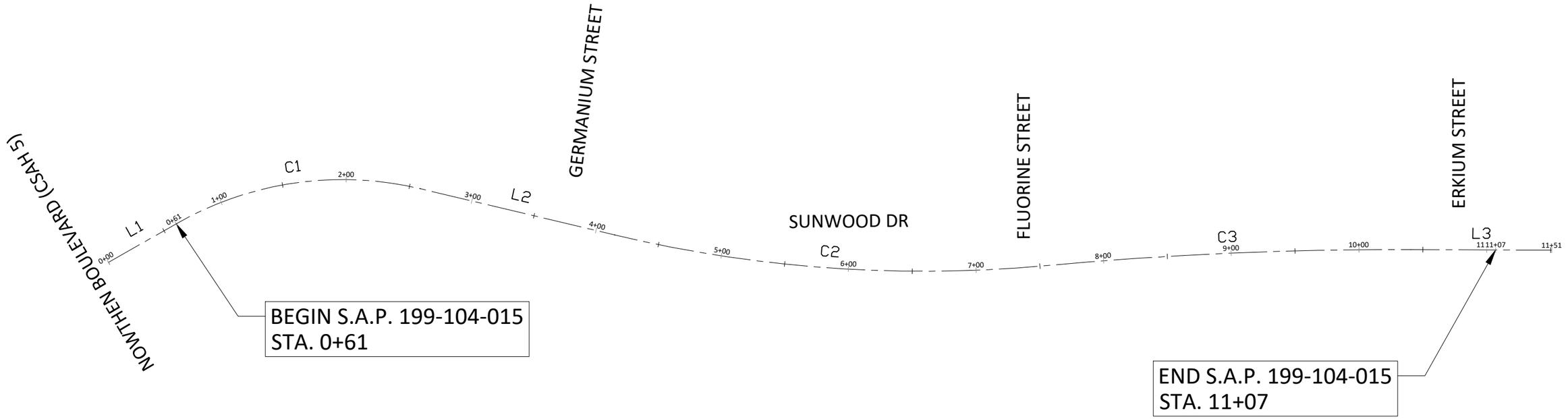
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

0 40 80 120
SCALE (FEET)

N

LINE TABLE: ALIGNMENTS			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L1	61.49'	N60° 19' 27"E	Sunwood
L2	156.52'	S76° 36' 40"E	Sunwood
L3	110.23'	S89° 46' 26"E	Sunwood

CURVE TABLE: ALIGNMENTS				
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	ALIGNMENT NAME
C1	262.12'	197.01'	N81° 51' 24"E	Sunwood
C2	1043.58'	339.42'	S85° 55' 43"E	Sunwood
C3	2996.80'	286.21'	N87° 29' 24"E	Sunwood



DATE	REVISION

Nov 22, 2024 - 10:20am
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JOE FERIANCEK
Date 11/22/24 Lic. No. 57095

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CHECKED BY:	JJF	FILE: 25-02

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

ALIGNMENT LAYOUT

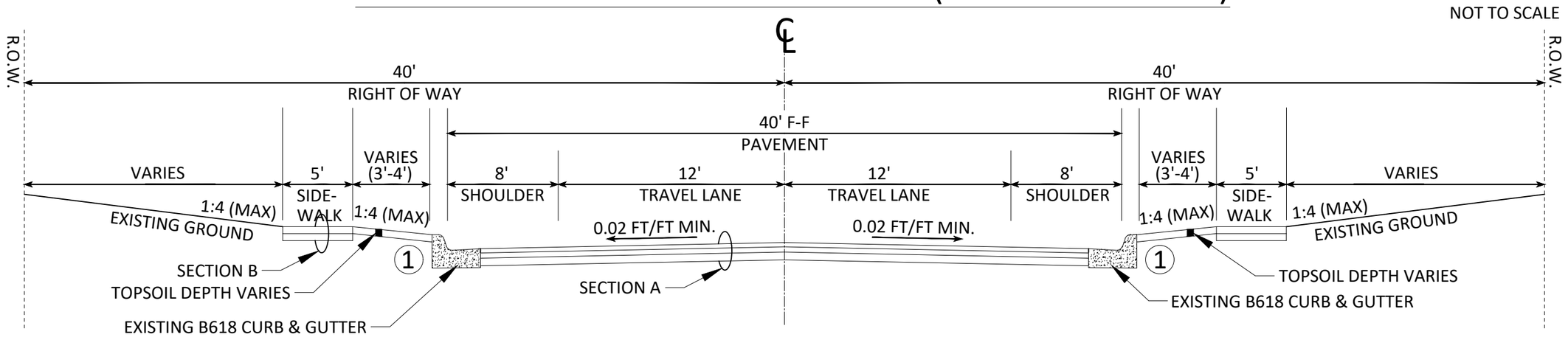
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 04 OF 25 SHEETS

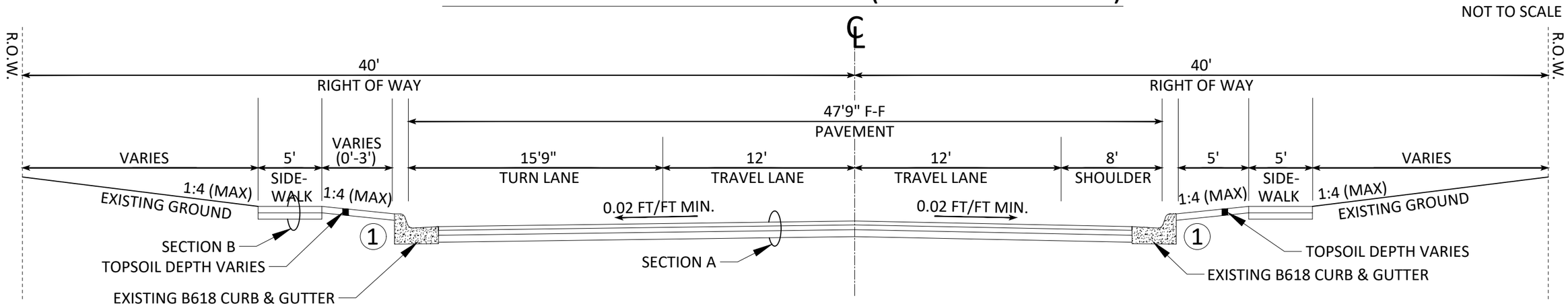
TYPICAL SECTION: RECONSTRUCTION (STA. 3+32 - 11+07)

NOT TO SCALE



TYPICAL SECTION: TURN LANE (STA. 0+61 - 3+32)

NOT TO SCALE



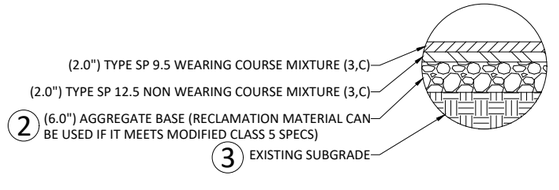
REFERENCE NOTES:

① GRADE TO MATCH EXISTING GROUND (1:4 MAX, 4% MIN). ESTABLISH TURF USING A MINIMUM OF 4" TOPSOIL AND HYDROSEED WITH MNDOT SEED MIXTURES PER SPECIFICATIONS.
SEE CITY DETAIL ERO-6 ON SHEET 06 FOR TOPSOIL REQUIREMENTS.

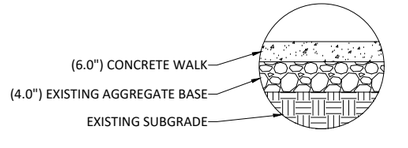
② MODIFY CLASS 5 AGGREGATE BASE PER CITY STANDARD DETAIL STR-26 ON SHEET 06. RECYCLED RECLAMATION MATERIAL MEETING STR-26 MAY BE USED AS AGGREGATE BASE.

③ 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.

SECTION A: ROADWAY



SECTION B: SIDEWALK



DATE	REVISION

Dec 13, 2024 - 9:13am
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JOE FERIANCEK
Date 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

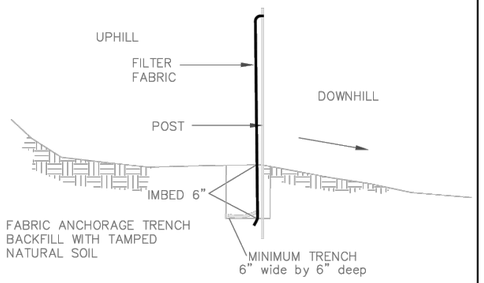
City of RAMSEY

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

TYPICAL SECTION

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

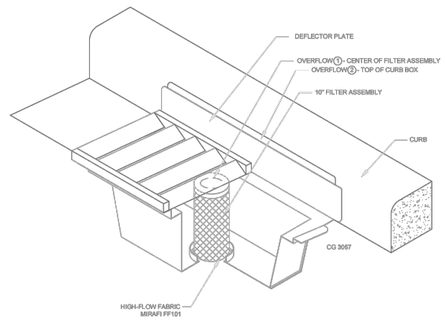


INSTALL AS PER FILTER FABRIC MANUFACTURER'S RECOMMENDATIONS

SILT FENCE DETAIL

NO SCALE

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

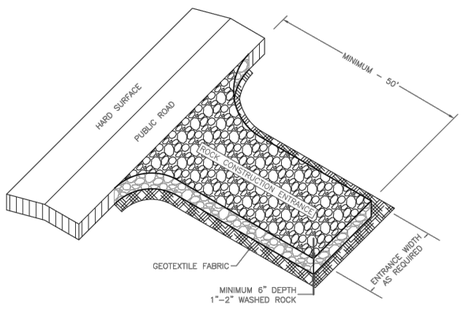


INLET PROTECTION – WIMCO OR EQUAL

N.T.S.

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

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



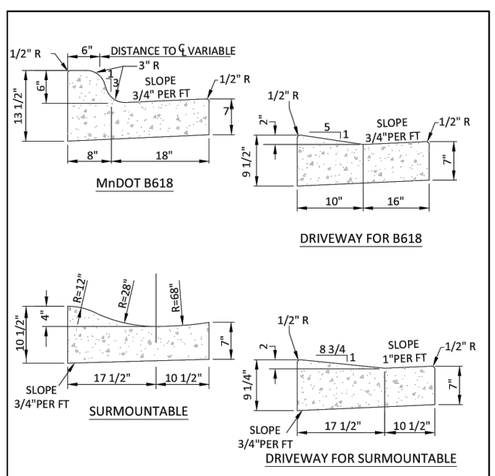
NOTE:
1. MINIMUM CONSTRUCTION ENTRANCE WIDTH EQUAL TO PROPOSED ROADWAY WIDTH.
2. WIDTH OF RADIUS AS REQUIRED TO ENSURE VEHICLES DO NOT TRACK ONTO PUBLIC ROAD.
3. MAINTAINENCE AS REQUIRED TO PREVENT TRACKING ONTO PUBLIC ROADS. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION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

NOT TO SCALE

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

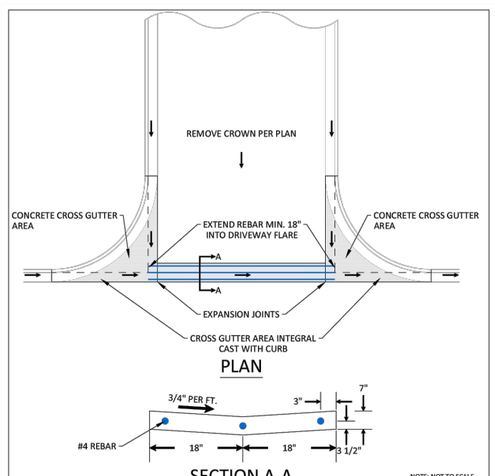
Notes:
1. INSTALLATION OF 4" OF TOPSOIL REQUIRED ACROSS ALL DISTURBED AREAS.
2. TOPSOIL IS DEFINED AS BLACK DIRT COMPOSED OF UNCONSOLIDATED MATERIAL, LARGELY UNDECOMPOSED ORGANIC MATTER WHICH IS SUITABLE FOUNDATION FOR VEGETATIVE GROWTH.
3. THE COMPOSITION OF TOPSOIL SHOULD CONTAIN NO MORE THAN THIRTY-FIVE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

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



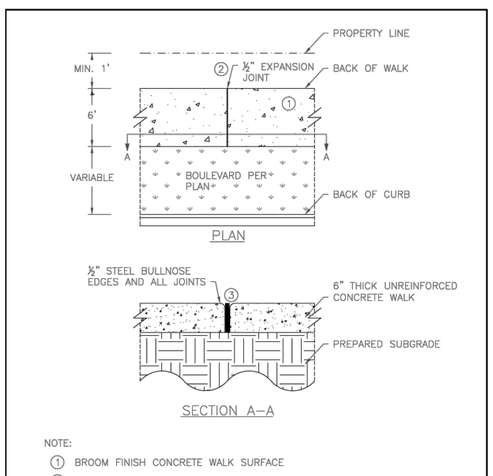
NOTES:
1. ON WEAR COURSE MILL THE EXISTING BITUMINOUS 1.5" BY 24" IN FRONT OF THE REPLACEMENT CURB. (INCIDENTAL TO CURB REPLACEMENT)
2. ON BASE COURSE SAW CUT AND REMOVE EXISTING BITUMINOUS 18" IN FRONT OF THE REPLACEMENT CURB. (INCIDENTAL TO CURB REPLACEMENT)

APPROVED: 10 - 2024	City of RAMSEY	STANDARD DETAILS: CURB AND GUTTER
		CITY PLATE No. STR-1



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 < 2%.
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

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

DATE	REVISION

Nov 22, 2024 - 10:45am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Details.dwg

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JOE FERIANCEK
Date 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

City of RAMSEY

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

CITY DETAILS

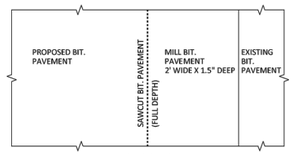
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

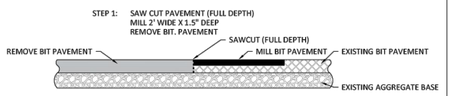
SHEET 06 OF 25 SHEETS

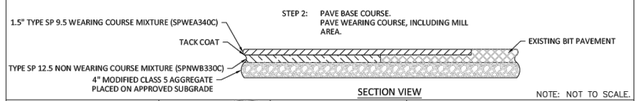
NOTES:

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.



PLAN VIEW





SECTION VIEW

NOTE: NOT TO SCALE.

APPROVED:
3 - 2017

City of RAMSEY

CITY PLATE No. STR-31

STANDARD DETAILS: STREET TIE-IN

STANDARD PLATES	
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT	
7038 A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100 H	CONCRETE CURB AND GUTTER (DESIGN B)
8000 K	TEMPORARY CHANNELIZERS - (3 SHEETS)

DATE	REVISION

Nov 22, 2024 - 10:40am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\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 11/22/24 Lic. No. 57095

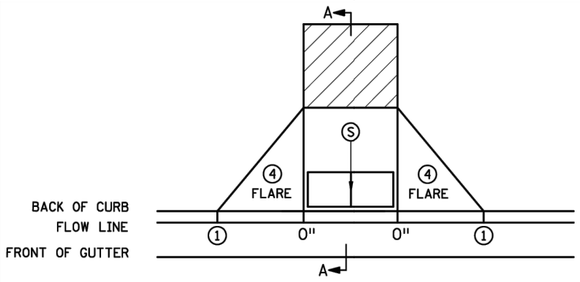
DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

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

CITY DETAILS

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA



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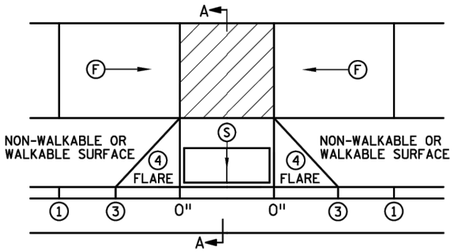

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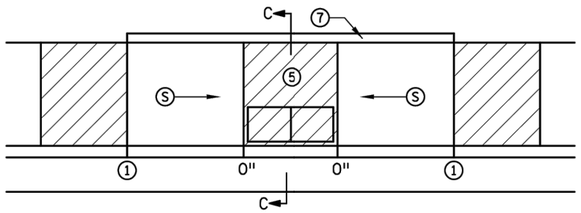
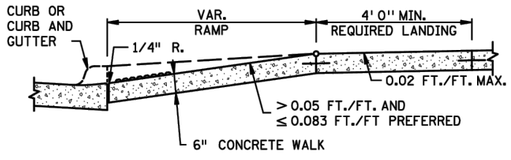
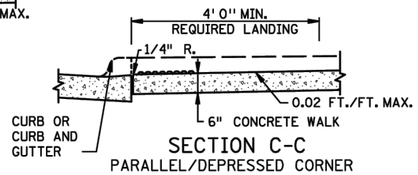


PARALLEL



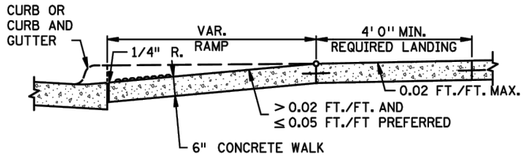
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



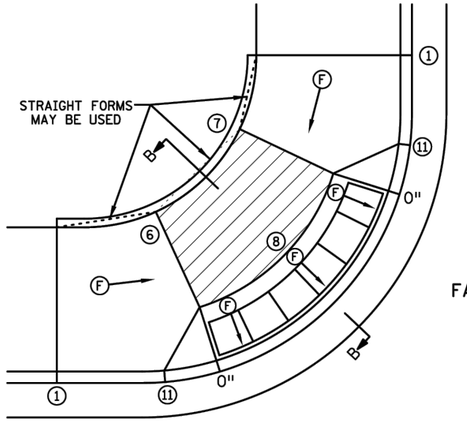
SECTION C-C

PARALLEL/DEPRESSED CORNER

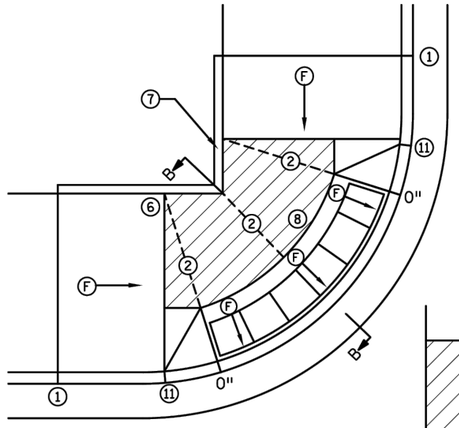


SECTION B-B

FAN

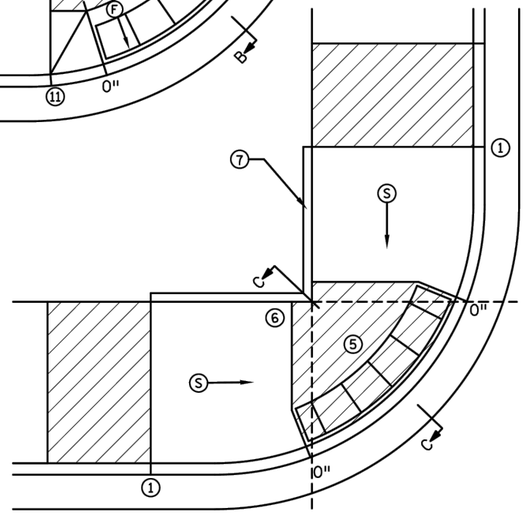


FAN⑩



MODIFIED FAN ⑩

USED WHEN RIGHT-OF-WAY IS CONSTRAINED



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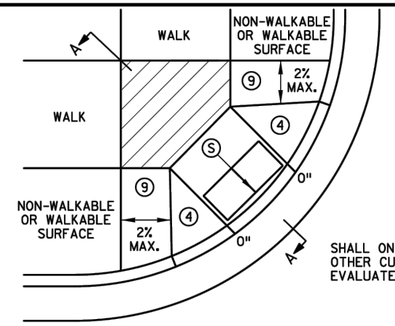


DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL, THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.
② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
⑨ PAVE FULL WALK WIDTH.
⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE 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%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.250 | 1 OF 6

APPROVED: 11-04-2021
REVISED:

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 22, 2024 - 10:46am
C:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Details.dwg

City of RAMSEY

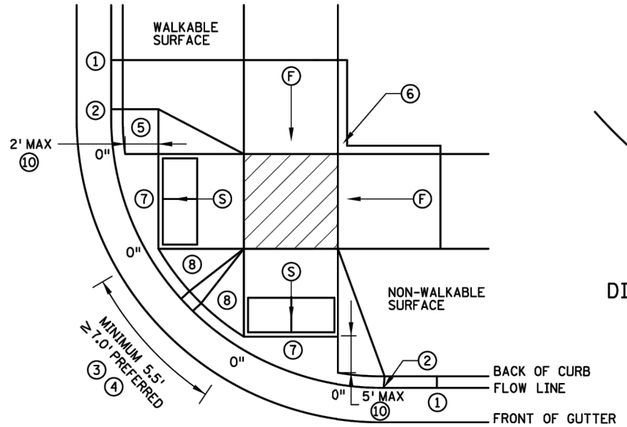
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

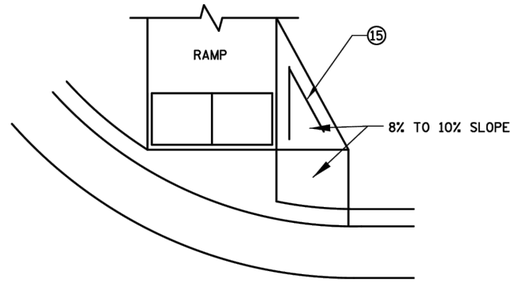
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

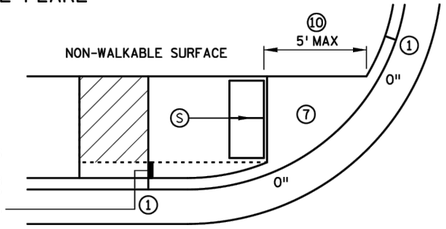
SHEET 08 OF 25 SHEETS



COMBINED DIRECTIONAL

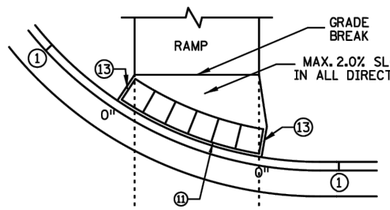


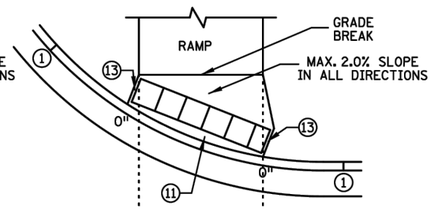
DIRECTIONAL RAMP WALKABLE FLARE



IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

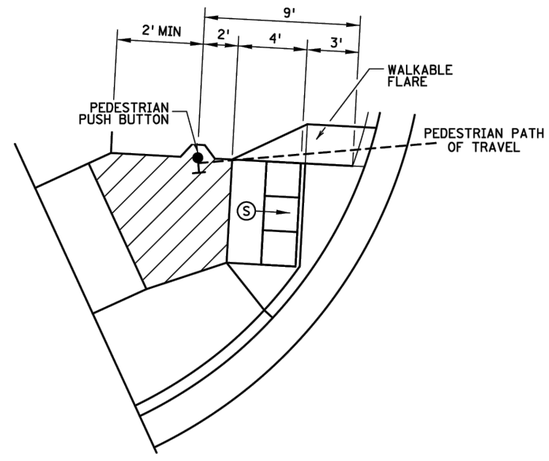
STANDARD ONE-WAY DIRECTIONAL ⑨





DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

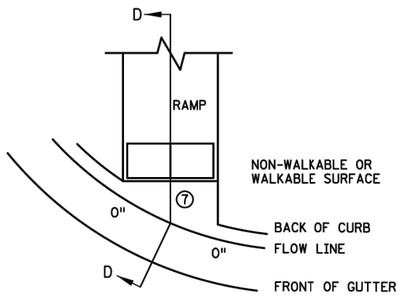
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

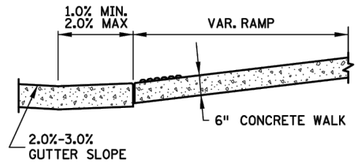


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE 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%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021
JEFFREY J. PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 2 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS J. STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

DATE	REVISION

Nov 22, 2024 - 10:46am
C:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkum St 25-02\Plan Drawings\Details.dwg

City of RAMSEY

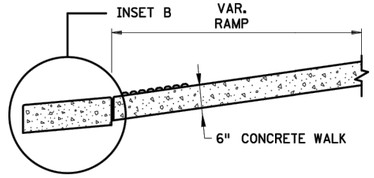
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

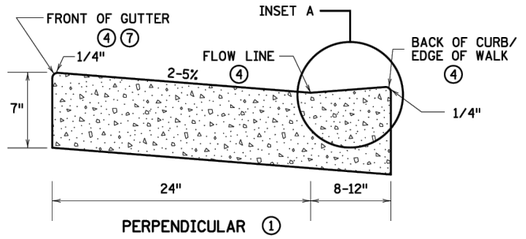
MNDOT PEDESTRIAN RAMP DETAILS

S.A.P. 199-104-015

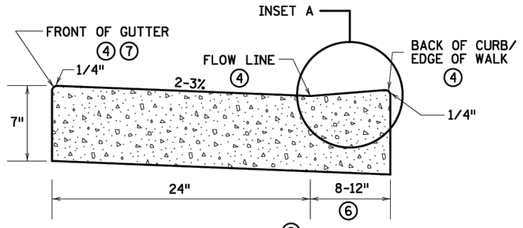
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 09 OF 25 SHEETS

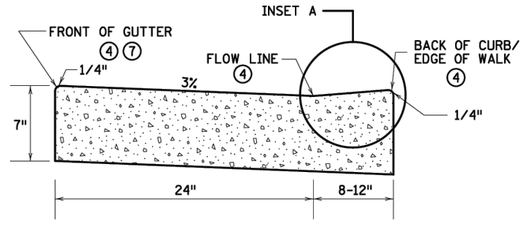




PERPENDICULAR ①

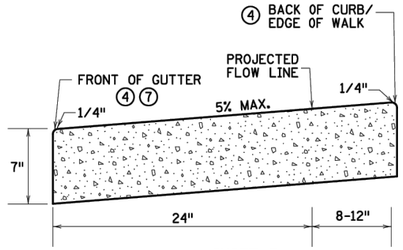


NON PERPENDICULAR ②



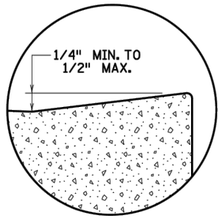
FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)

PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL

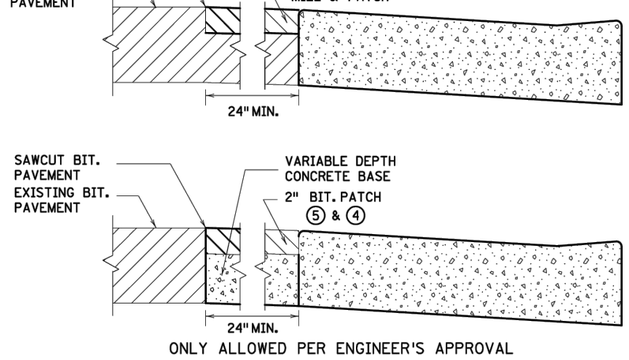


INSET B

OUTFLOW GUTTER ⑧



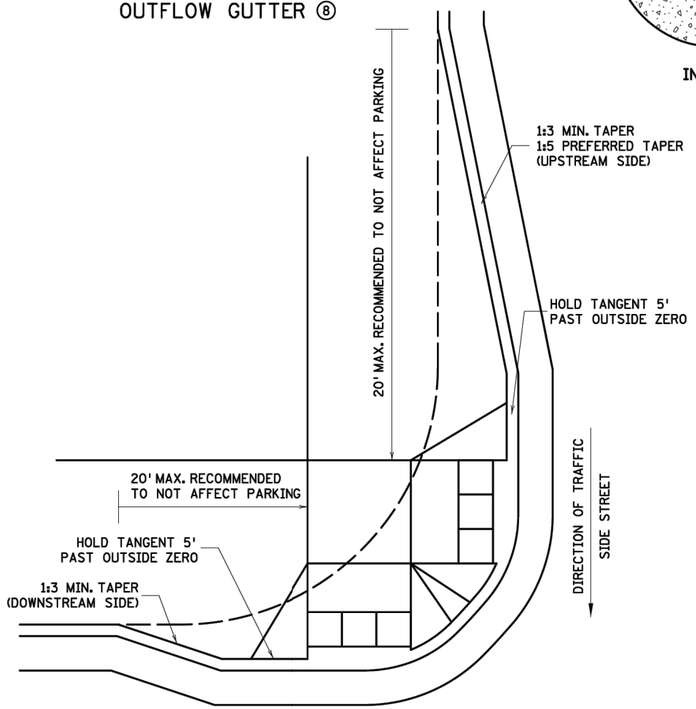
INSET A



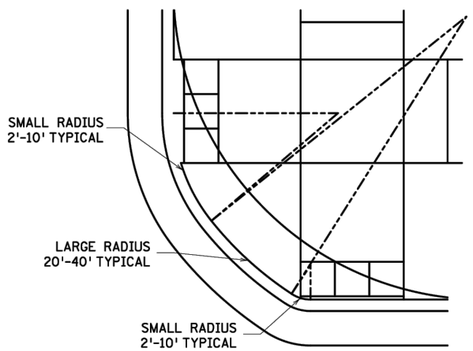
ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.
NO PONDING SHALL BE PRESENT IN THE PAR.
ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED.
PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:

APPROVED: 11-04-2021

JEFFREY J. PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

THOMAS STYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.250 | 3 OF 6

APPROVED: 11-04-2021
REVISED:

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 22, 2024 - 10:46am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkum St 25-02\Plan Drawings\Details.dwg

City of RAMSEY

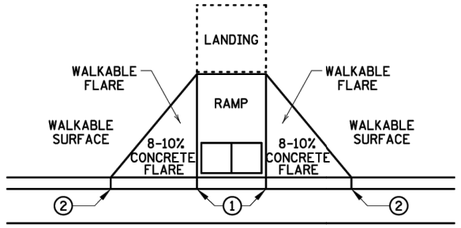
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

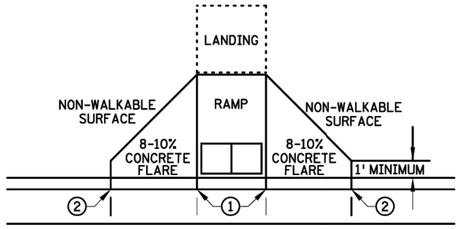
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

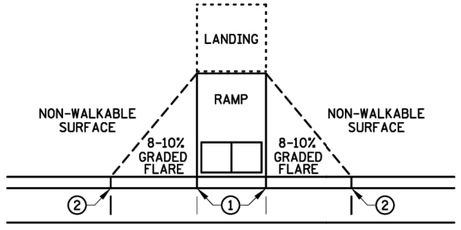
SHEET 10 OF 25 SHEETS



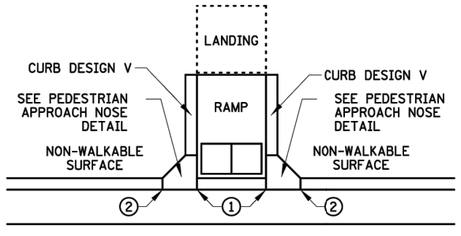
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

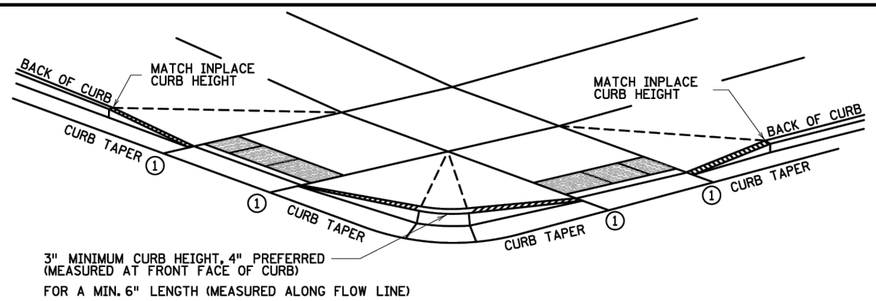


GRADED FLARES

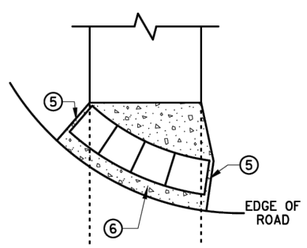


RETURNED CURB ④

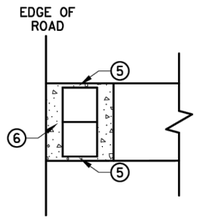
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

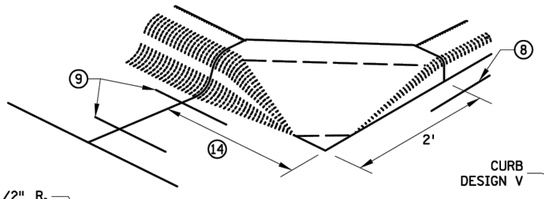


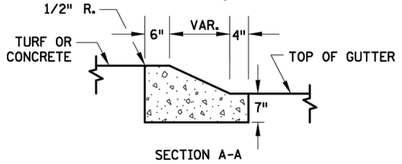
RADIAL DETECTABLE WARNING



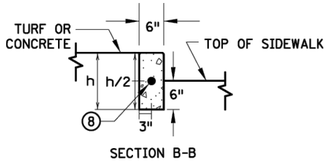
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

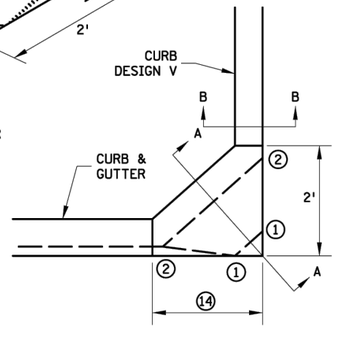




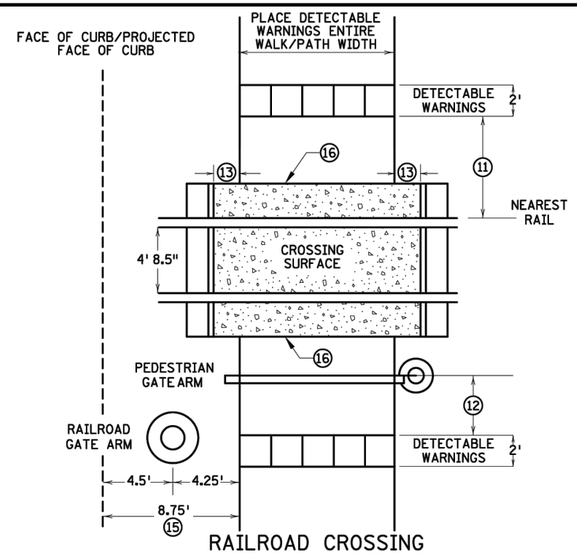
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY D. PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 4 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS J. STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 22, 2024 - 10:47am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Details.dwg

City of RAMSEY

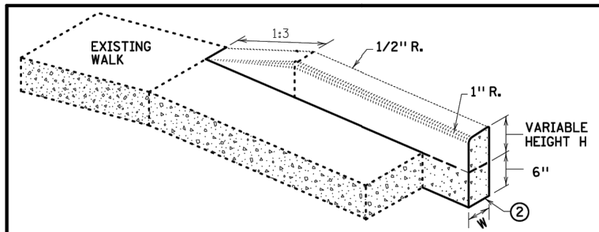
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

S.A.P. 199-104-015

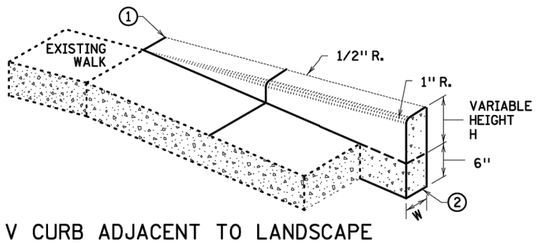
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 11 OF 25 SHEETS



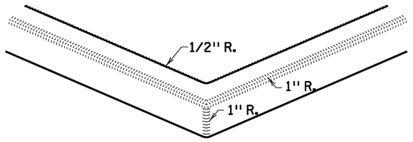
V CURB ADJACENT TO LANDSCAPE

CURB WITHIN SIDEWALK LIMITS

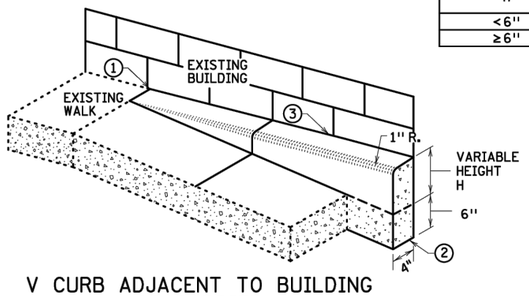


V CURB ADJACENT TO LANDSCAPE

CURB OUTSIDE SIDEWALK LIMITS

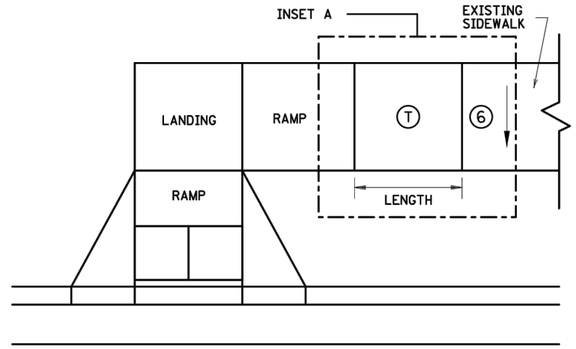


V CURB INTERSECTION

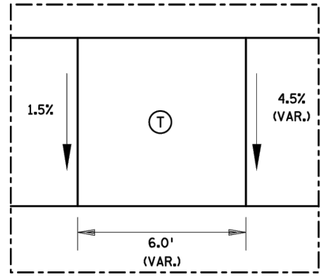


V CURB ADJACENT TO BUILDING OR BARRIER

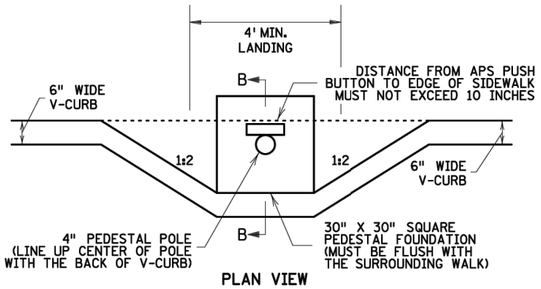
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
< 6"	4"
≥ 6"	6"



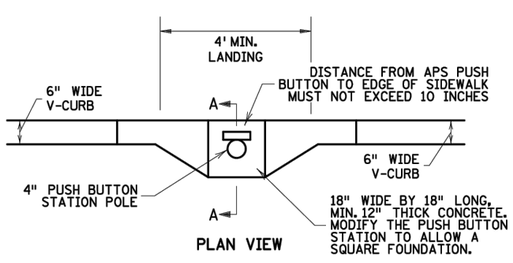
TRANSITION PANEL ④⑤



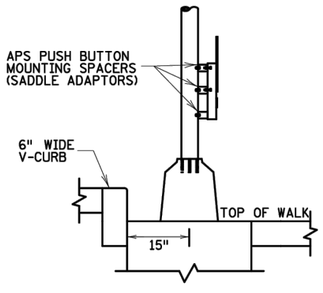
INSET A



PLAN VIEW

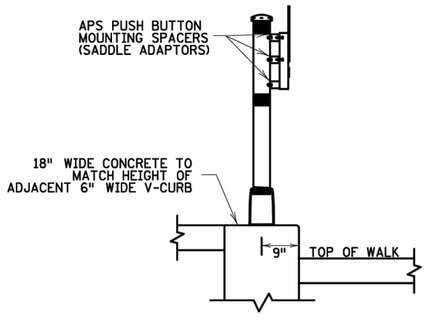


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

⑤ TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

Ⓣ TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

THOMAS CZYRBICKI
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
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PEDESTRIAN CURB RAMP DETAILS

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MNDOT PEDESTRIAN RAMP DETAILS

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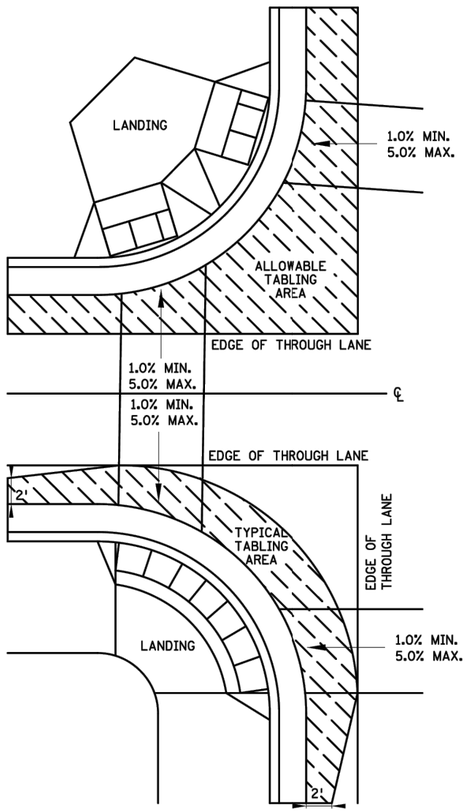
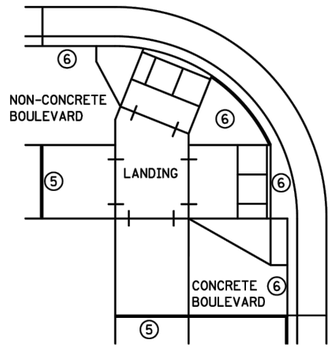
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

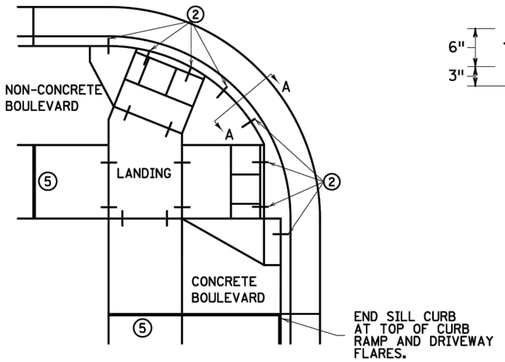
SHEET 12 OF 25 SHEETS



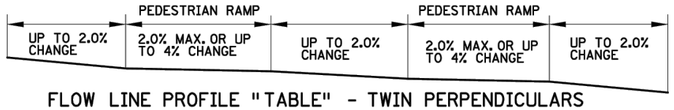
CURB LINE AND ROAD CROSSING ADJUSTMENTS



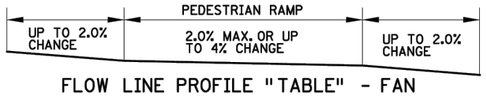
EXPANSION MATERIAL PLACEMENT
FOR CONCRETE ROADWAYS



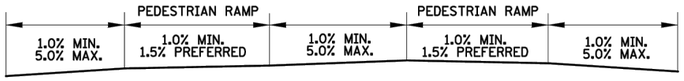
CURB LINE REINFORCEMENT ④
PLACEMENT ON BITUMINOUS ROADWAYS



FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS

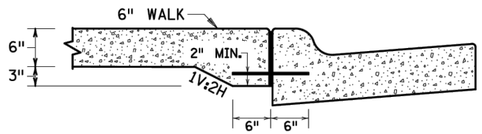


FLOW LINE PROFILE "TABLE" - FAN

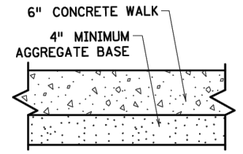


FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS

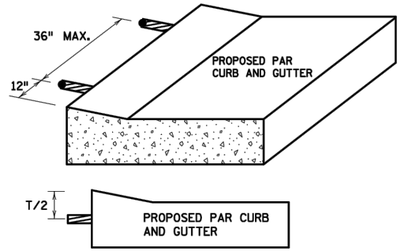
FLOW LINE PROFILE RAISE - FAN



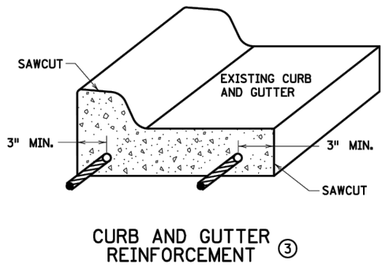
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



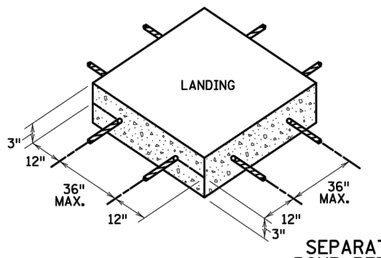
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

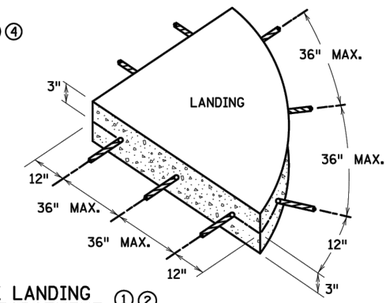


CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER
REINFORCEMENT ③





SEPARATE LANDING
POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.

④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.

⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 6 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 22, 2024 - 10:47am
G:\Engineering\Acad\Cad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkrum St 25-02\Plan Drawings\Details.dwg

City of RAMSEY

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

MNDOT PEDESTRIAN RAMP DETAILS

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 13 OF 25 SHEETS

0 5 10 15
SCALE (FEET)

N

869.20
13'
FHC
3'
0" HC
868.87
F
869.10
3'
0" HC
868.99
FHC

FHC
0" HC
868.54
5'
3'
868.76
S
3'
4'
868.66
0" HC
868.40
FHC

SUNWOOD DR

GERMANIUM ST

FHC
0" HC
869.06
869.24
5'
3'
F
869.34
3'
0" HC
869.00
8'
FHC

FHC
0" HC
868.30
3'
7'
868.63
0" HC
868.53
FHC
S
3'
7'
868.73

LEGEND

- (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%.
- LANDING AREA - 4'X4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS.
- CONCRETE
- BITUMINOUS PAVEMENT
- 2" BITUMINOUS OVERLAY
- TRUNCATED DOME
- DRAINAGE FLOW ARROW
- GUTTER LINE
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- P–BUR BURIED POWER
- C BURIED COMMUNICATIONS
- FO BURIED FIBRE OPTIC
- G BURIED GAS
- STREET LIGHT

DATE	REVISION

Nov 22, 2024 - 11:03am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkrum St 25-02\Plan Drawings\Intersection 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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

City of RAMSEY

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

INTERSECTION DETAILS - SUNWOOD DR & GERMANIUM ST
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 14 OF 25 SHEETS

0 5 10 15
SCALE (FEET)

N

FLUORINE ST

SUNWOOD DR

867.05
3'
FHC
0" HC
866.72
866.95
3'
0" HC
866.80
FHC

FHC
3'
0" HC
866.62
867.12
867.02
3'
FHC
0" HC
866.76

LEGEND

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- CONCRETE
- BITUMINOUS PAVEMENT
- 2" BITUMINOUS OVERLAY
- TRUNCATED DOME
- DRAINAGE FLOW ARROW
- GUTTER LINE
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- P—BUR BURIED POWER
- C BURIED COMMUNICATIONS
- FO BURIED FIBRE OPTIC
- G—G—G—G—G BURIED GAS
- STREET LIGHT

0" HC
866.68
FHC
3' 3'
866.94
867.04
0" HC
866.60
FHC
3'
9'

866.96
3'
FHC
0" HC
866.64
867.06
3'
0" HC
866.56
8'
FHC

DATE	REVISION

Nov 22, 2024 - 12:37pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Intersection 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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

City of RAMSEY

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

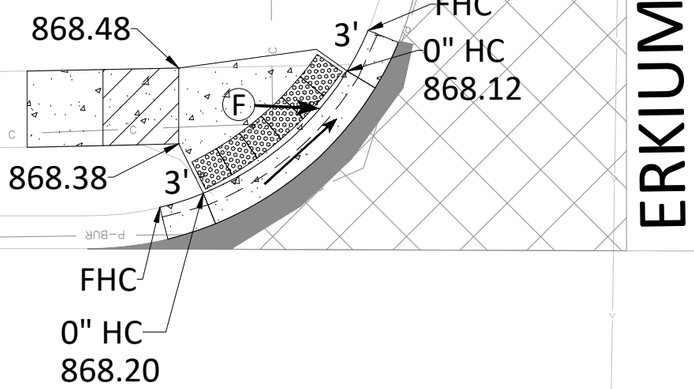
INTERSECTION DETAILS - SUNWOOD DR & FLUORINE ST
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 15 OF 25 SHEETS

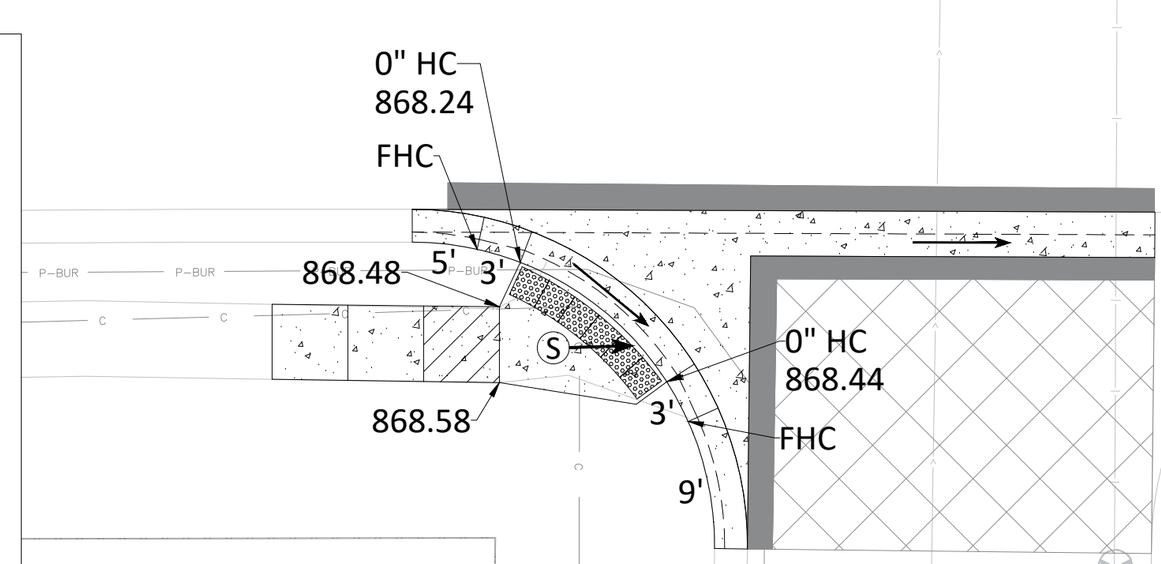
0 5 10 15
SCALE (FEET)

N



ERKIUM ST

SUNWOOD DR



LEGEND

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- LANDING AREA - 4'X4' MIN. DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS.
- CONCRETE
- BITUMINOUS PAVEMENT
- 2" BITUMINOUS OVERLAY
- TRUNCATED DOME
- DRAINAGE FLOW ARROW
- GUTTER LINE
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- BURIED POWER
- BURIED COMMUNICATIONS
- BURIED FIBRE OPTIC
- BURIED GAS
- STREET LIGHT

DATE	REVISION

Nov 22, 2024 - 2:28pm
C:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Intersection 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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

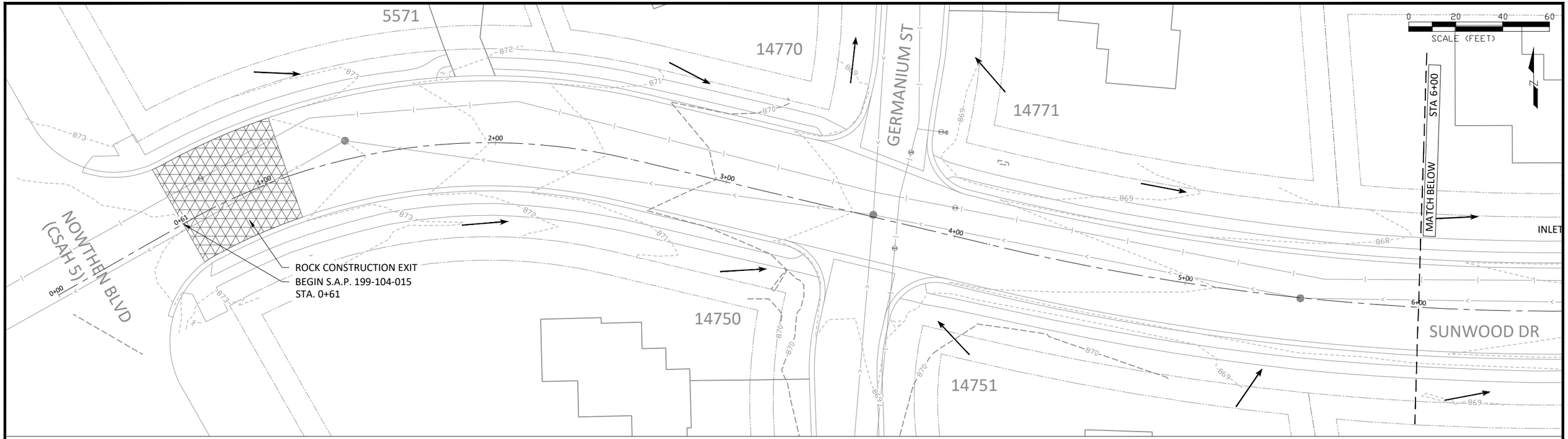
City of RAMSEY

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

INTERSECTION DETAILS - SUNWOOD DR & ERKIUM ST
S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

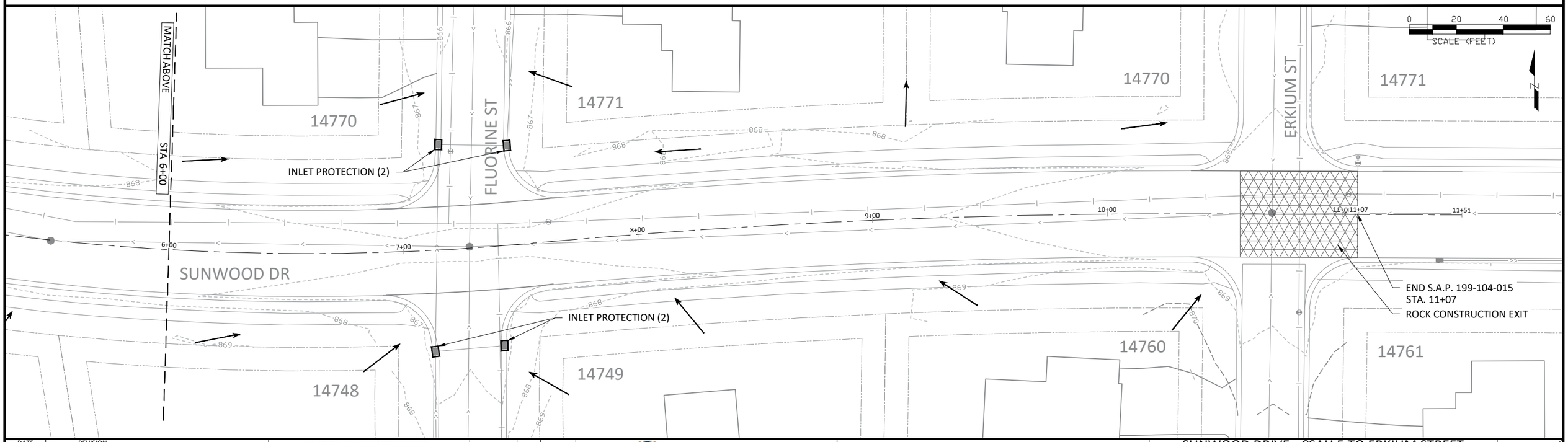
SHEET 16 OF 25 SHEETS



LEGEND

- INLET PROTECTION
- DRAINAGE ARROW
- CONSTRUCTION EXIT
- LOT LINE
- EASEMENT - DRAINAGE & UTILITY
- MINOR CONTOUR
- MAJOR CONTOUR

NOTE:
1. ROCK CONSTRUCTION EXITS MUST BE MAINTAINED THROUGHOUT THE PROJECT, THE CONTRACTOR WILL BE RESPONSIBLE FOR SWEEPING TRACKING ONTO ADJACENT STREETS WITHIN 3 HOURS OF NOTIFICATION BY THE CITY.



DATE	REVISION

Nov 22, 2024 - 11:08am
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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 11/22/24 Lic. No. 57095

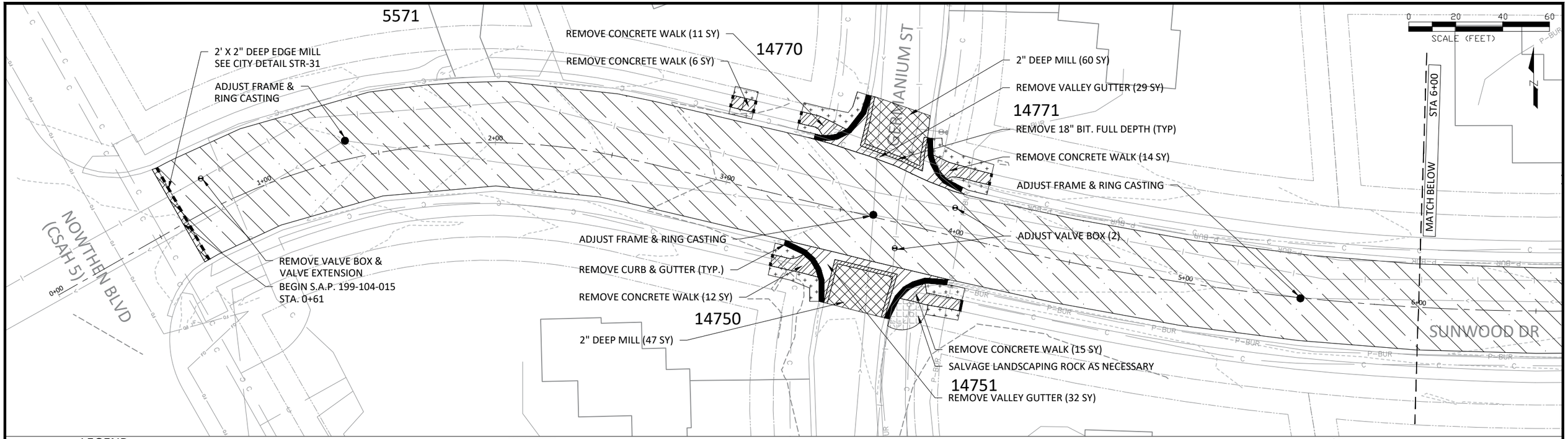
DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

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

EROSION CONTROL

S.A.P. 199-104-015

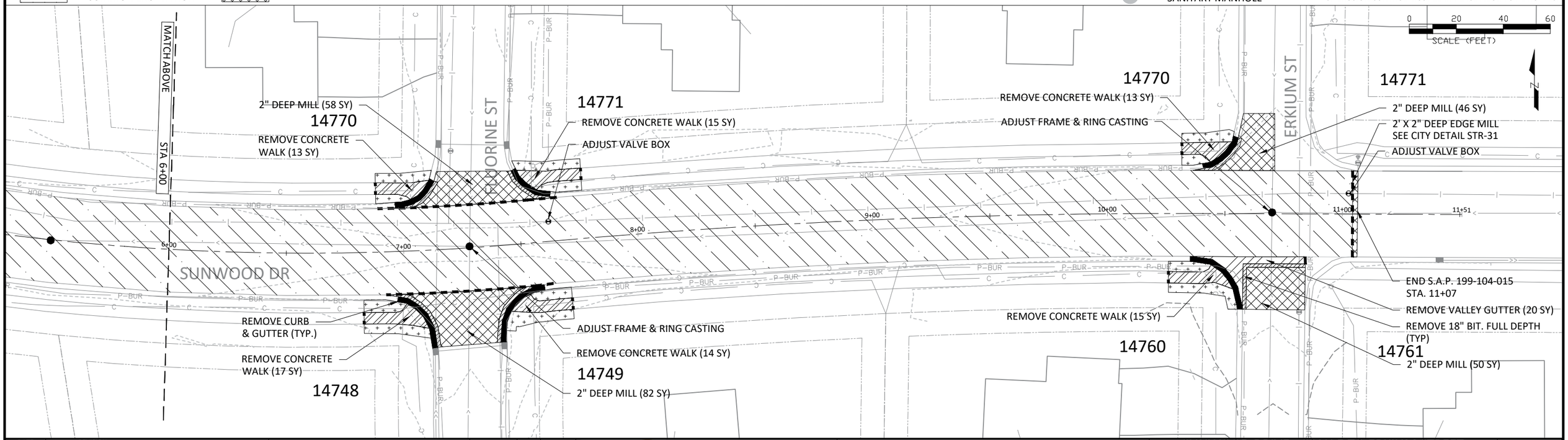
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA



LEGEND

- SAWCUT - FULL DEPTH
- REMOVE CURB - CONCRETE
- COMMON EXCAVATION
- FULL DEPTH RECLAMATION
- REMOVE PAVEMENT - BITUMINOUS
- REMOVE CONCRETE VALLEY GUTTER
- MILL BITUMINOUS PAVEMENT - STREET TIE-IN
- REMOVE CONCRETE WALK
- LANDSCAPE - ROCK
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- UNDERGROUND POWER
- COMMUNICATION LINE
- GAS LINE
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- WATERMAIN VALVE
- HYDRANT
- CATCH BASIN
- SANITARY MANHOLE

NOTE:
1. REMOVALS WILL BE MARKED IN THE FIELD BY CITY STAFF. ALL REMOVALS MUST BE SAWCUT.
2. PROTECT LANDSCAPING AND IRRIGATION. PROPERTY OWNERS ARE TO LOCATE AND MOVE IRRIGATION BEFORE CONSTRUCTION.
3. EROSION CONTROL MUST BE IN-PLACE PRIOR TO REMOVALS.



DATE	REVISION

Nov 22, 2024 - 1:41pm
C:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Removals.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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

City of RAMSEY

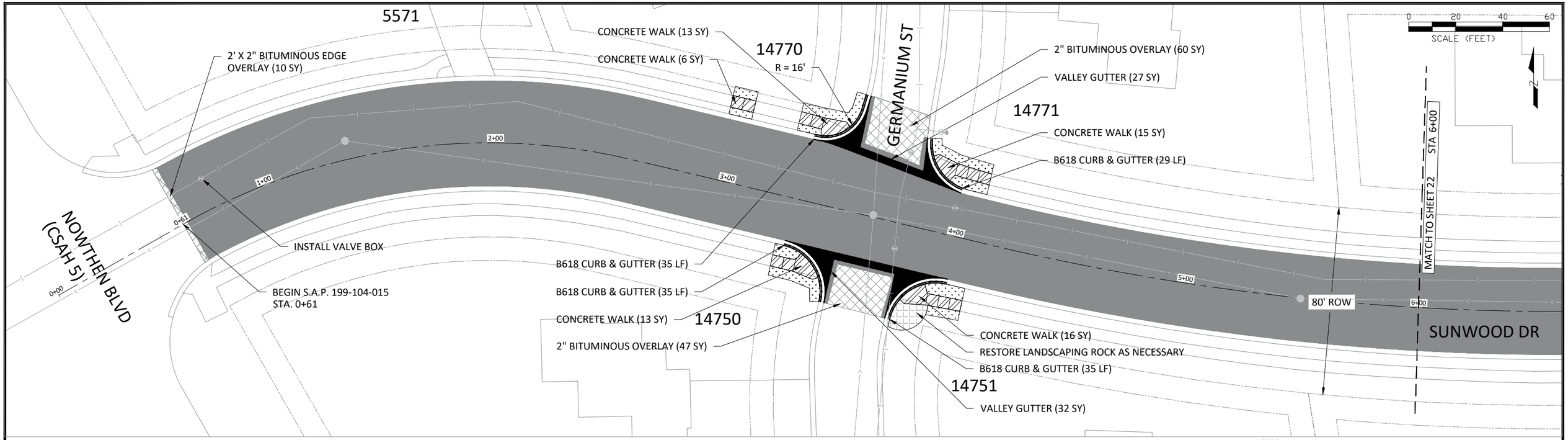
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

REMOVALS

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 18 OF 25 SHEETS

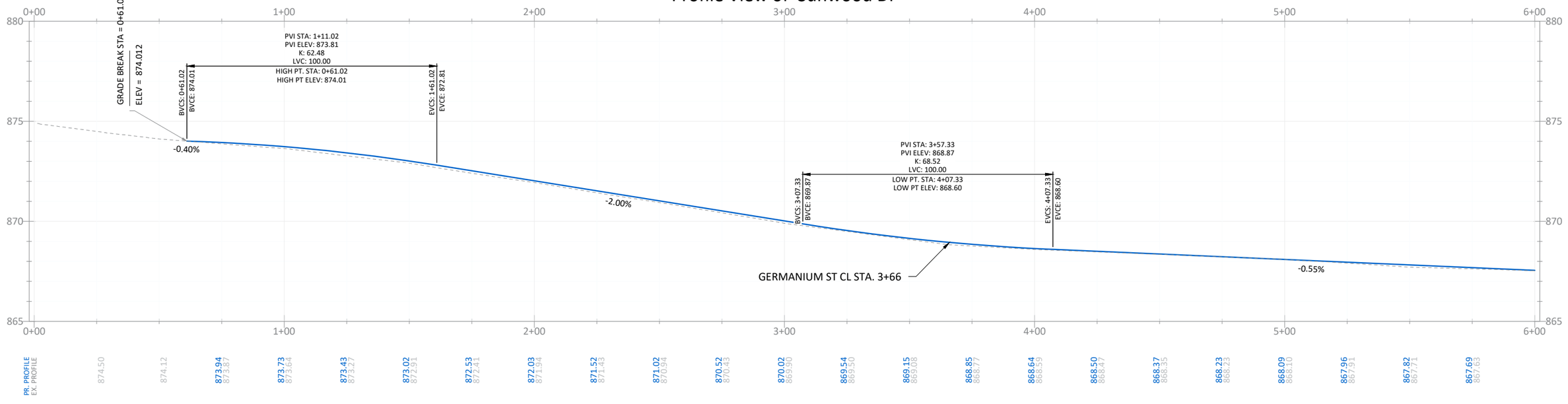


LEGEND

- BIT PAVEMENT
- 2" BITUMINOUS OVERLAY
- B618 CURB & GUTTER
- VALLEY GUTTER
- CONCRETE WALK
- SEEDING AREA
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- LANDSCAPE - ROCK
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- WATERMAIN VALVE
- HYDRANT
- CATCH BASIN
- SANITARY MANHOLE
- GROUT CATCH BASIN

NOTES:
1. ALL RADII TO BE CONSTRUCTED AT 20' UNLESS OTHERWISE NOTED.
2. TYPICAL SECTION SEE SHEET 05.
3. RESTORATION AREAS ARE SHOWN IN A GENERAL MANNER ONLY.
4. RESTORE ALL DISTURBED AREAS WITH 4" TOPSOIL, HYDROSEED, MNDOT SEED MIX 25-151, AND HYDRAULIC MATRIX TYPE MULCH UNLESS OTHERWISE NOTED.
5. CONSTRUCTION LIMITS BORDER ALL HATCHED AREAS ON PLAN VIEW.

Profile View of Sunwood Dr



PR. PROFILE	874.50	874.12	873.94	873.73	873.43	873.02	872.53	872.03	871.52	871.02	870.52	870.02	869.54	869.15	868.85	868.64	868.50	868.37	868.23	868.09	867.96	867.82	867.69
EX. PROFILE			873.87	873.64	873.27	872.91	872.41	871.94	871.43	870.94	870.43	869.90	869.50	869.08	868.77	868.59	868.47	868.35	868.23	868.10	867.91	867.71	867.63

DATE	REVISION

Dec 13, 2024 - 9:11am
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Street Improvements.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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

City of RAMSEY

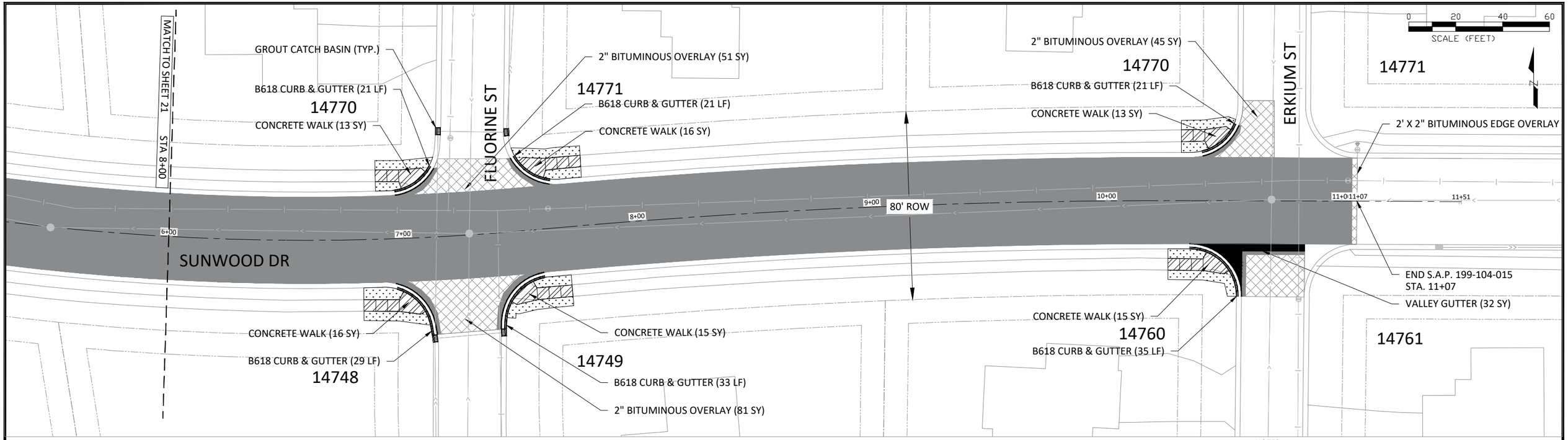
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

STREET CONSTRUCTION

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 19 OF 25 SHEETS

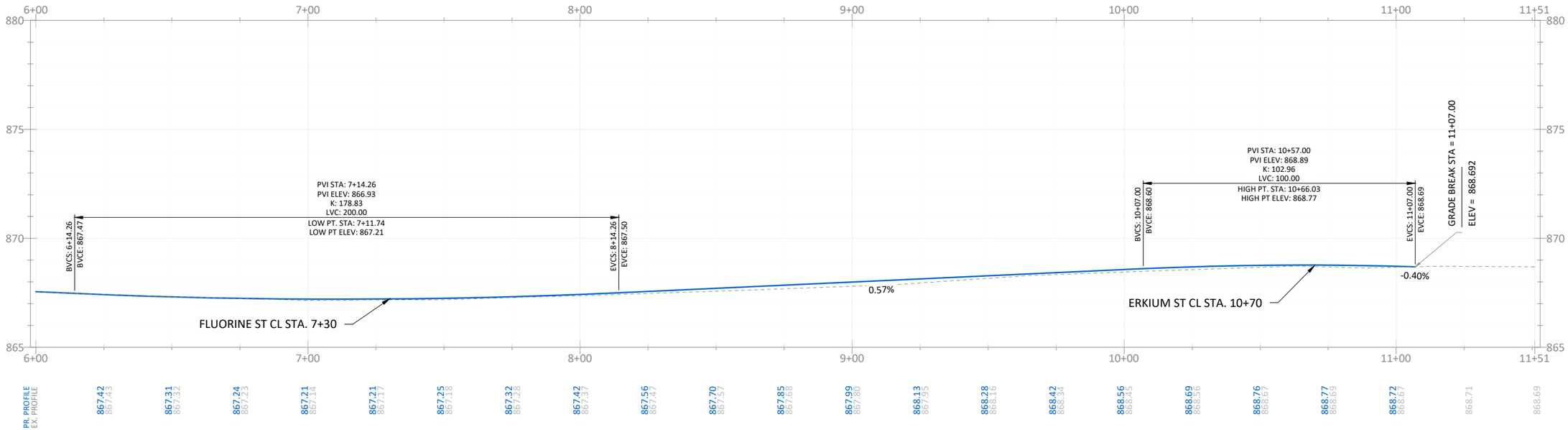


LEGEND

- BIT PAVEMENT
- 2" BITUMINOUS OVERLAY
- B618 CURB & GUTTER
- VALLEY GUTTER
- CONCRETE WALK
- SEEDING AREA
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- LANDSCAPE - ROCK
- SANITARY SEWER
- STORM SEWER
- WATERMAIN
- WATERMAIN VALVE
- HYDRANT
- CATCH BASIN
- SANITARY MANHOLE
- GROUT CATCH BASIN

NOTES:
1. ALL RADII TO BE CONSTRUCTED AT 20' UNLESS OTHERWISE NOTED.
2. TYPICAL SECTION SEE SHEET 05.
3. RESTORATION AREAS ARE SHOWN IN A GENERAL MANNER ONLY.
4. RESTORE ALL DISTURBED AREAS WITH 4" TOPSOIL, HYDROSEED, MNDOT SEED MIX 25-151, AND HYDRAULIC MATRIX TYPE MULCH UNLESS OTHERWISE NOTED.
5. CONSTRUCTION LIMITS BORDER ALL HATCHED AREAS ON PLAN VIEW.

Profile View of Sunwood Dr



DATE	REVISION

Dec 13, 2024 - 9:10am
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CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

LEGEND

STRIPING KEY & LEGEND

PAVEMENT MARKING

CROSSWALK MARKING

CIRCLE - EPOXY

1ST DIGIT WIDTH 4",8",ETC.

2ND DIGIT PATTERN S-SOLID B-BROKEN D-DOUBLE

3RD DIGIT COLOR W-WHITE Y-YELLOW B-BLACK

EXAMPLE: 4SW = 4" SOLID WHITE - EPOXY

5571

14770

14771

14750

14751

14748

14749

14760

14761

GERMANIUM ST

NOWTHEN BLVD (CSAH 5)

SUNWOOD DR

FLUORINE ST

ERKIUM ST

MATCH ABOVE

MATCH BELOW

4SW

4DY

0+00 1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00 9+00 10+00 11+00 11+51

(6) 3'x 8' CROSSWALK MARKING (MULTI-COMP)

0 20 40 60 SCALE (FEET)

N

DATE	REVISION

Nov 22, 2024 - 1:49pm
G:\Engineering\Aust\Cad Dwgs\Projects To Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\Pavement Marking.dwg

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City of RAMSEY

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7550 SUNWOOD DRIVE
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PAVEMENT MARKING

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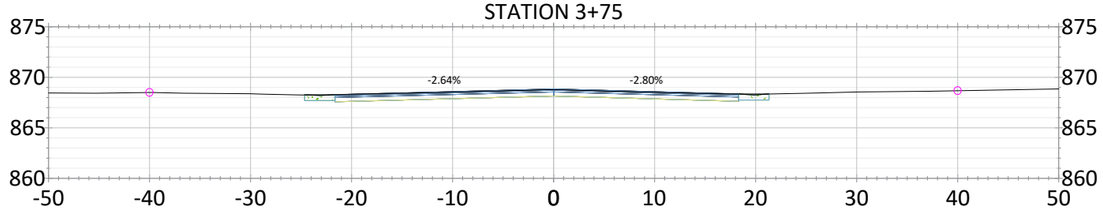
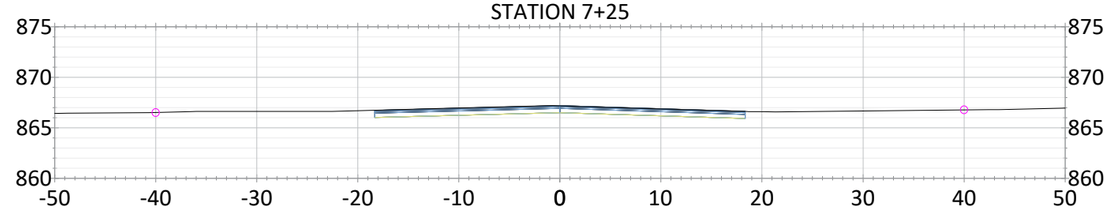
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 21 OF 25 SHEETS

STATION 3+75



STATION 7+25



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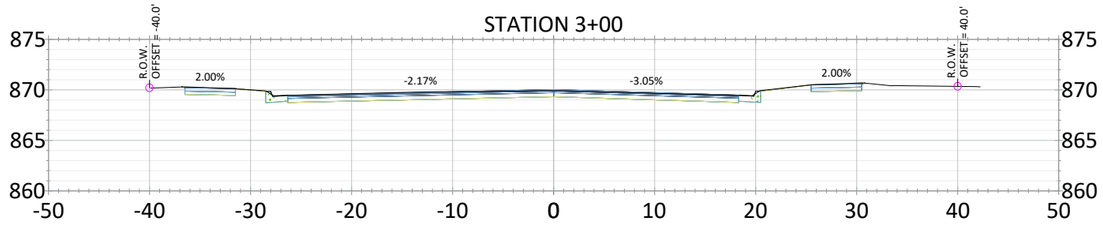
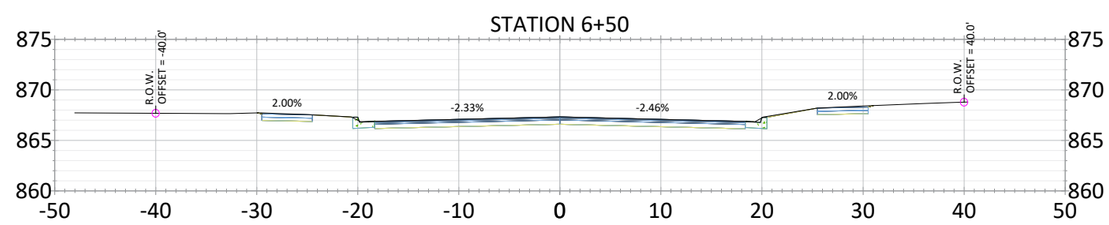


STATION 6+50



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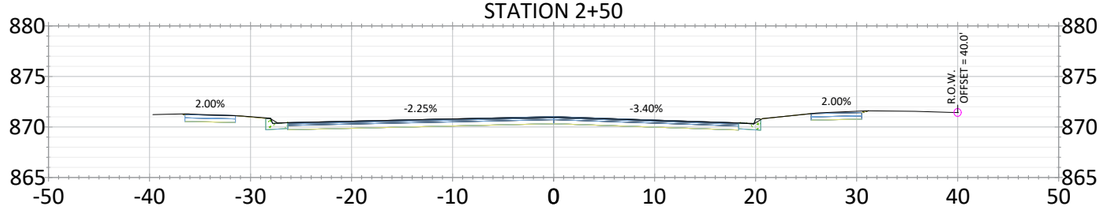

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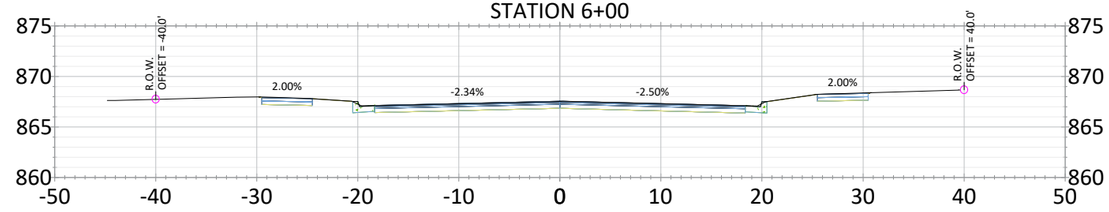
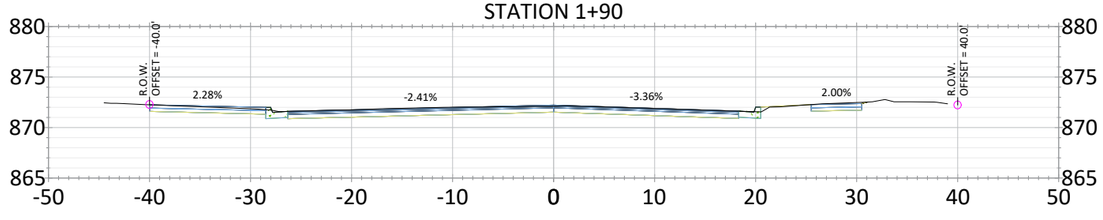
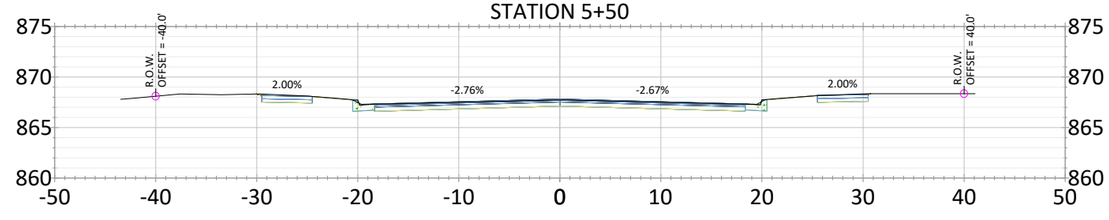


STATION 1+90



STATION 5+50



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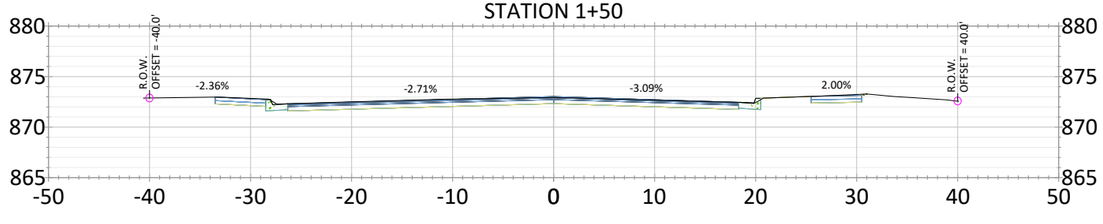

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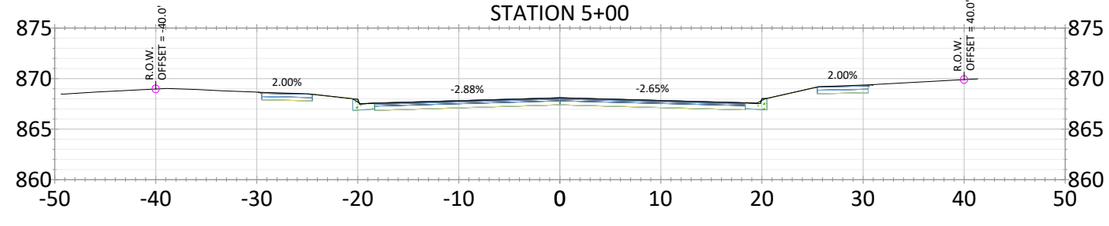

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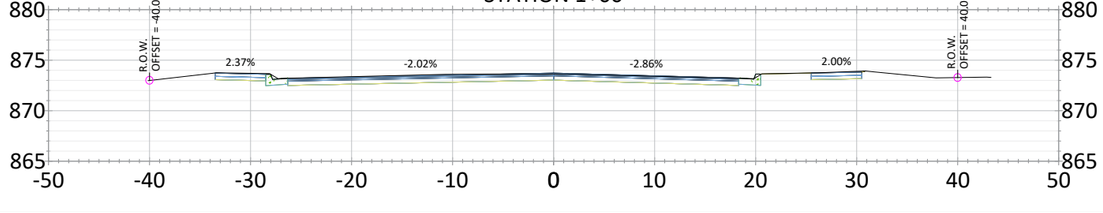

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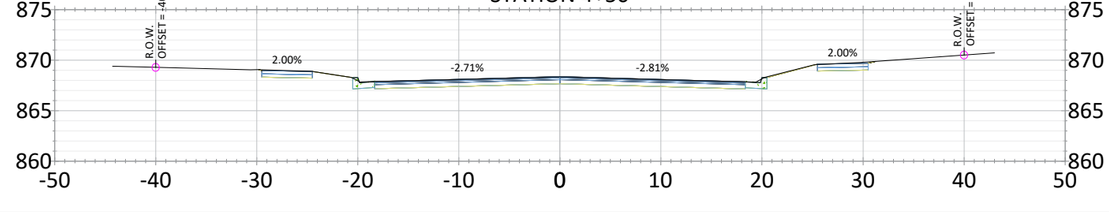

DATE	REVISION

Nov 22, 2024 - 2:21pm
O:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkrum St 25-02\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

City of RAMSEY

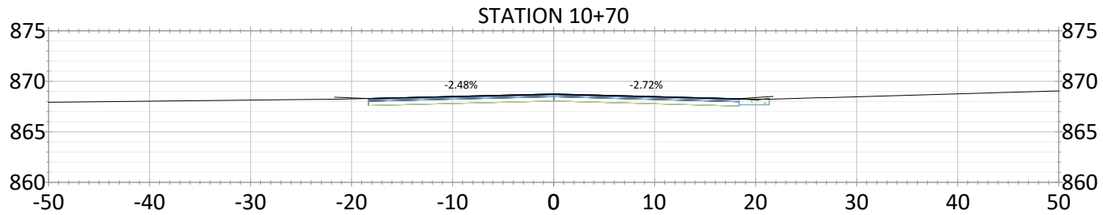
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

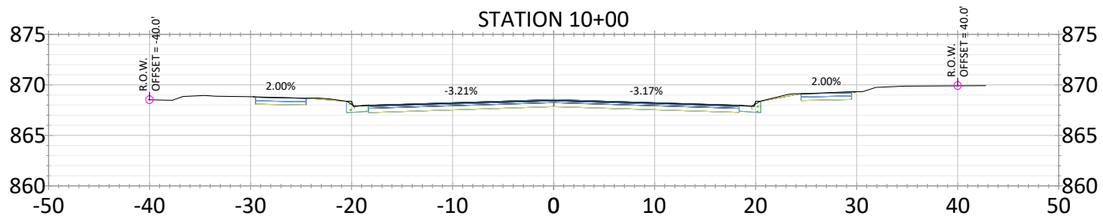
CROSS SECTIONS - STA. 1+00 - 7+25

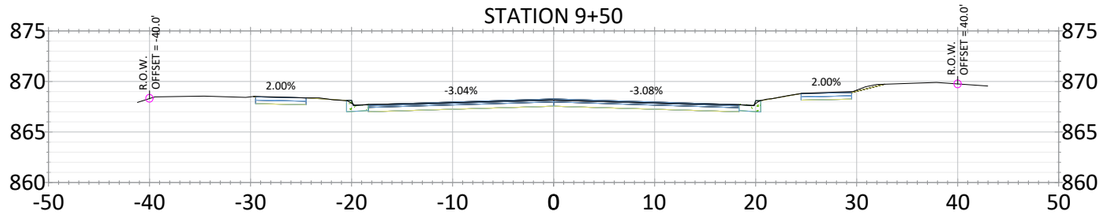
S.A.P. 199-104-015

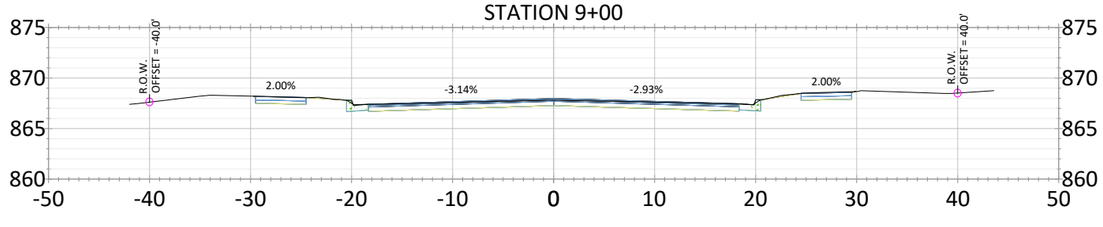
SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

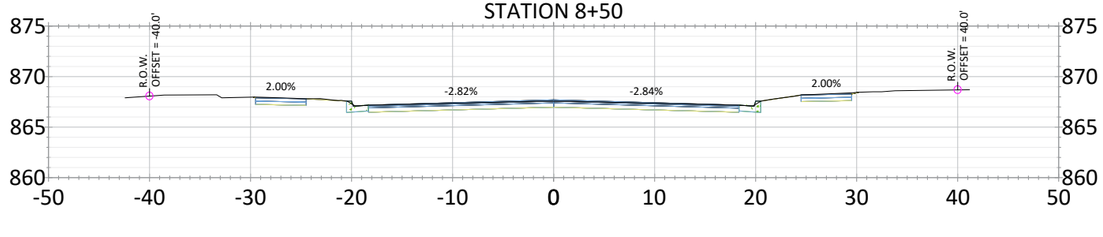
SHEET 22 OF 25 SHEETS

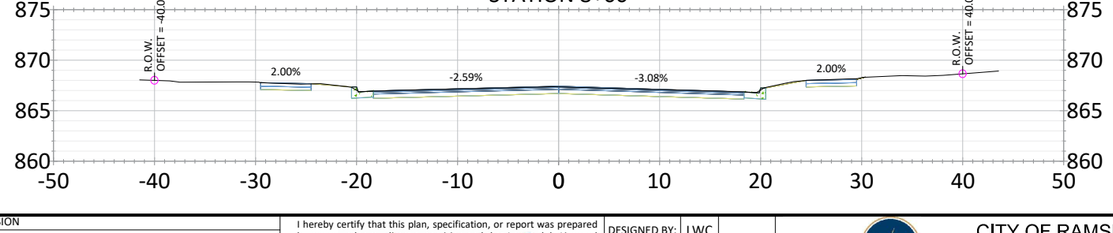












DATE	REVISION

Nov 22, 2024 - 2:22pm
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Date 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/22/24
CHECKED BY:	JJF	FILE: 25-02

City of RAMSEY

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

CROSS SECTIONS - STA. 8+00 - 10+70

S.A.P. 199-104-015

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET
RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 23 OF 25 SHEETS

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION

CITY OF RAMSEY
ANOKA COUNTY, MINNESOTA

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:

Construction activities include; Site Grading, Temporary Erosion and Sediment Control, Roadway Construction, and Permanent Stabilization.

Project Description: This project consists of reconstructing 0.20 miles of existing urban bituminous streets, using full depth reclamation. The project also includes the replacement of 10 pedestrian ramps and 3 concrete valley gutters. The drainage for the existing streets use concrete curb and gutter. Outfall locations will remain the same.

RESPONSIBLE PARTIES:

The Contractor and Owner must apply for coverage under the MPCA's General Storm Water Permit for Construction Activity as required by the National Pollution Discharge Elimination System (NPDES) Phase II program. Coverage under the permit will begin automatically 7 calendar days after the electronic submittal date or after the postmarked date of a complete application. (Longer time frames will apply to areas disturbing 50 acres or discharge within 1 mile of a special water).

	COMPANY	CONTACT PERSON	PHONE
OWNER:	CITY OF RAMSEY	BRUCE WESTBY, PE	763-433-9825
SWPPP DESIGNER:	CITY OF RAMSEY	LOGAN CZECH	763-453-2531
CONTRACTOR:			
SITE MANAGER:			
PARTY RESPONSIBLE FOR LONG TERM O&M:	CITY OF RAMSEY	BRUCE WESTBY, PE	763-433-9825

Individuals listed above, including the SWPPP preparer, individual overseeing implementation of, revising and amending the SWPPP, Individuals performing or supervising the installation, maintenance and repair of BMP's must be trained. At least one individual present on the permitted project, or available within 72 hours shall be trained in the applicable job duties. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Copies of the SWPPP preparer information is included in the Project Manual. The Contractor shall provide information for the individual(s) overseeing implementation, supervising installation, maintenance, and repair of BMP's to be included in the Project Manual prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

Documentation shall include:

a. Names of trained personnel associated with this project.
b. Dates of training, names of instructor(s) and entity providing training.
c. Content of training course or workshop including the number of hours trained.
d. As an alternative to a, b, and c listed above, a photocopy of the current Erosion and Stormwater Management card issued by the University of Minnesota can be attached to the SWPPP as suitable documentation of training.

DOCUMENTATION RETENTION:

The following documentation will be retained for a period of not less than 3-years form the date of submittal of the NOT.

1. The final SWPPP.
2. Copies of all stormwater related permits required for the project.
3. Records of all inspection and maintenance conducted during construction.
4. Copies of all permanent operation and maintenance agreements; including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance.
5. All required calculations for design of temporary and permanent BMP's.

IMPLEMENTATION SCHEDULE AND PHASING:

1. Furnish & Install inlet protection.
2. Reclamation of existing bituminous pavement.
3. Remove excess subsoil.
4. Place aggregate base material.
5. Rough grade site.
6. Furnish & install curb & gutter.
7. Furnish & install bituminous pavement.
8. Add additional temporary BMP's as necessary during construction based on inspection reports.
9. Submit Notice of Termination (NOT) to MPCA within 30 days of final stabilization.

FINAL STABILIZATION:

The permittee(s) must ensure final stabilization of the site. The permittee(s) must submit a NOT within 30 days after final stabilization is complete, or another owner/operator (permittee) has assumed control over all areas of the site which have not undergone final stabilization. Final stabilization can be achieved in one of the following ways:

1. All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;

a. All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
b. All temporary synthetic, and structural erosion prevention and sediment control BMP's (such as silt fence) must be removed as part of the site final stabilization; and
c. The permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins to be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.

2. Final vegetation cover shall be in the Project Specifications.
3. For residential construction only, final stabilization has been achieved when temporary erosion protection and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the permittee must distribute the MPCA "Homeowner fact sheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization.

SPECIAL ENVIRONMENTAL CONSIDERATIONS:

Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
Does any portion of the site have the potential to affect threatened or endangered species?	NO
Does any portion of this site discharge to a Calcareous Fen and the letter of approval from the DNR is located in the Project Manual?	NO
Will any portion of this site potentially affect properties listed on the National Register of Historic Places or a Known or Discovered Archeological site?	NO
Have any Karst features been identified in the project vicinity?	NO
Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO

POLLUTION PREVENTION MANAGEMENT MEASURES:

The permittee(s) shall implement the following pollution prevention management measures on the site:

1. Solid waste: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal regulations.
2. Hazardous materials: oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
3. External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.

GENERAL STORMWATER DISCHARGE REQUIREMENTS:

All requirements listed in Part 15 of the permit for the design of permanent stormwater treatment system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

1. The expected amount, frequency, intensity and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site.
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
4. The range of soil particle sizes expected to be present on the site.

RECEIVING WATERS:

Recieving waters, including surface water, wetlands, Public Waters, and stormwater ponds are identified on the USGS 7.5min quad map within 1 mile of the project boundary. Receiving waters that are impaired, the impairment and WLA are listed as follows. All specific BMP's relative to construction activities listed in this permit for special and impaired waters have been incorporated into this plan. All specific BMP's listed in approved TMDLs and those BMP's listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (DITCH, POND, WETLAND, LAKE, ETC.)	APPENDIX A SPECIAL WATER?	FLOWS TO IMPAIRED WATER WITHIN 1 MILE?	USEPA APPROVED TMDL?
RUM RIVER	RIVER	YES	YES	YES
DO; FISHESBIO; INVERTBIO				

PROJECT AREAS:

Total project size (disturbed area) =	1.13	acres
Existing area of impervious surface =	1.08	acres
Post construction area of impervious surface =	1.08	acres
Impervious surface area increased =	0.00	acres

Planned construction start date: **May 2025**
Planned construction completion date: **August 2025**

PROJECT LOCATION:

County: ANOKA Township: 32 Range: 25 Section: 25 Latitude: 45.238529 Longitude: -93.406599

PERMANENT STORMWATER MANAGEMENT SYSTEM:

Type of storm water management used if more than 1 acre of new impervious surface is created:

a. Wet Sedimentation Pond
b. Infiltration / Filtration
c. Regional Pond
d. Permanent Stormwater Management Not Required

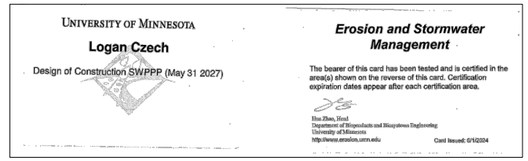
LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN:

DESCRIPTION	LOCATION
TEMPORARY EROSION CONTROL MEASURES	SHEET No. 17
FINAL STABILIZATION	SHEETS No. 19 - 20
EROSION AND SEDIMENT CONTROL DETAILS	SHEET No. 06

EROSION AND SEDIMENT CONTROL QUANTITIES:

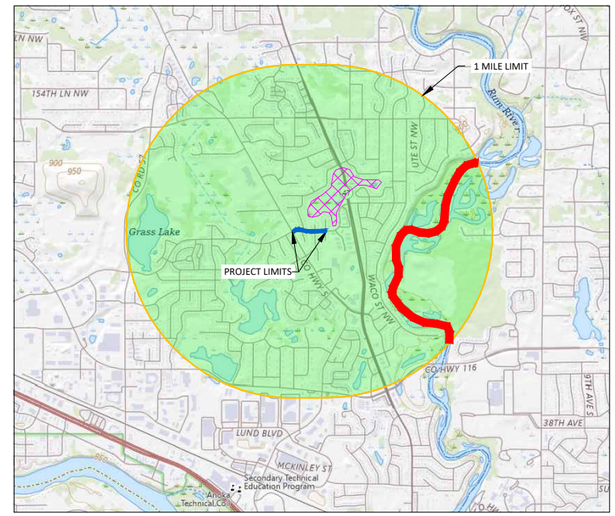
			S.A.P. 199-112-010		
			PROJECT TOTAL	PARTICIPATING	NON-PARTICIPATING
2573.502	STORM DRAIN INLET PROTECTION	EA	4	4	0
2573.602	STABILIZED CONSTRUCTION EXIT	EA	2	2	0

CERTIFICATION:



LEGEND

PROJECT LIMITS
RECEIVING WATER
1 MILE LIMIT
IMPAIRED WATER



DATE	REVISION
12/16/24	ADDED SWPPP

Dec 16, 2024 - 2:05pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\02-SWPPP.dwg

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Date 11/22/24 Lic. No. 57095

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CHECKED BY:	JJF	FILE:	25-02

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

SWPPP

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

SHEET 24 OF 25 SHEETS

SEQUENCE OF CONSTRUCTION:

Construction shall proceed in the following sequence:

1. Contractor shall schedule and conduct a pre-construction meeting with the City.
2. Contractor shall secure all necessary permits and licenses.
3. Furnish & install erosion control measures.
4. Maintain erosion control measures, i.e. silt fence, inlet protection.
5. Reclaim existing bituminous pavement and base.
6. Haul-off excess reclamation material.
7. Remove excess subsoil.
8. Place aggregate base material.
8. Grade and compact base material.
9. Furnish & install curb & gutter
13. Furnish & install base course of bituminous pavement
14. Complete restoration per plan.
14. Furnish & install wear course of bituminous pavement
15. Remove erosion control after vegetation is established.

ADDITIONAL STORMWATER POLLUTION PREVENTION, GRADING PLAN, AND SCHEDULE NOTES:

1. All slopes to be 1:4 unless approved by the city engineer.
2. Below grade structures shall be protected and meet drainage requirements per the city engineer.
3. Construction operation hours are from 7:00 a.m. - 10:00 p.m. Monday through Saturday.
4. Call Gopher State One Call for utility locations prior to any work at 1-800-252-1166.
5. Permittee may need to modify SWPPP if the general objectives of controlling pollutants is not being met.
6. Operator shall implement these and any other BMP's that may be required to meet the general permit requirements.
7. Site is not in karst area or pollution or remediation site.
8. Silt fence to be installed downhill from any grading activity.
9. If tracking onto adjacent streets occurs a street sweeper shall be used to clean streets within 8 hours or as directed by the engineer.
10. Dust control may be necessary during rough grading. No grading can take place if wind speed exceeds 25 mph.
11. Solid waste shall be collected and disposed of properly and must comply with MPCA disposal requirements.
12. Hazardous materials shall be stored properly to prevent spills and vandalism.
13. No engine degreasing is allowed on site. External washing of vehicles shall be limited to a defined area (bone yard) on site.
14. Permittee(s) shall adhere to all SWPPP specifications on the plan and other MPCA permit requirements.

EROSION PREVENTION PRACTICES:

1. The permittee(s) must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion, so that the inspection and maintenance requirements are complied with. The location of areas not to be disturbed must be delineated (e.g. with flags, stakes, signs, silt fence, etc.) on the development site before work begins.
2. All exposed soil areas must be stabilized as soon as practical, but in no case later than 7 days after the construction area has temporarily or permanently ceased.
   These areas include constructed stormwater management pond side slopes, and any exposed soil areas with a positive slope to a stormwater conveyance system, such as a curb and gutter system, storm sewer inlet, temporary or permanent drainage ditch or other natural or man made systems that discharge to a surface water.
3. The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization must be completed within 24 hours of connecting to a surface water.
4. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.
5. All disturbed areas, except roadways, building areas, parking areas, islands and sidewalk, shall be restored with minimum 4 inches topsoil, seeded and mulched within 7 days of completion of site grading. Seeding shall be in accordance with MnDOT Specification 2575. Where side slopes exceed or equal 1:3 and running slope is greater than 1:50, a polypropylene netting or wood fiber blanket shall be provided and staked over the mulched area. Seed and mulch types and applications rates are per plan and specification.
6. Refer to restoration plan for areas to be seeded or sodded for erosion control.

DEWATERING AND BASIN DRAINING:

1. Dewatering or basin draining (e.g. pumped discharges, trench/ditch cuts for drainage) related to the construction activity that may have turbid or sediment laden discharge water must be discharged to a temporary or permanent sedimentation basin on the project site whenever possible. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMP's, such that the discharge does not adversely affect the receiving water or downstream landowners. The permittee(s) must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock rip rap, sand bags, plastic sheeting or other accepted energy dissipation measures. Adequate sedimentation control measures are required for discharge water that contains suspended solids.
2. All water from dewatering or basin draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in wetlands causing significant adverse impact to the wetland.

SEDIMENT CONTROL PRACTICES:

1. Sediment control practices must minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets.
   a. Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g. ditches with rock check dams) require sediment control practices only as appropriate for site conditions.
   b. If the down gradient treatment system is overloaded, additional upgradient sediment control practices must be installed to eliminate the overloading, and the SWPPP must be amended to identify these additional practices.
   c. In order to maintain sheet flow and minimize rills and/or gullies, there shall be no unbroken slope length of greater than 75 feet for slopes with a grade of 1:3 or steeper.
2. Sediment control practices must be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until final stabilization has been established.
3. The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed before the next precipitation event even if the activity is not complete.
4. All storm drain inlets must be protected by appropriate BMP's during construction until all sources with potential for discharging to the inlet have been stabilized.
5. Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches.
6. Stockpile areas which remain on the site for more than seven days shall be seeded, mulched, and surrounded by silt fence.
7. Vehicle tracking of sediment from the construction site must be minimized by BMP's such as stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such BMPs are not adequate to prevent sediment from being tracked onto the street.
8. The permittee must install temporary sedimentation basins as required.

INSPECTIONS AND MAINTENANCE:

1. The permittee(s) (either the owner or operator, whoever is identified in the SWPPP) must routinely inspect the construction site once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5-inches in 24 hours. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within 7 days.
2. All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained with the SWPPP. Records of each inspection and maintenance activity shall include:
   a. Date and time of inspections;
   b. Name of persons conducting inspections;
   c. Accurate findings of inspections, including the specific location where corrective actions are needed;
   d. Corrective actions taken (including dates, times, and party completing maintenance activities);
   e. Date of all rainfall events greater than ½ inches in 24 hours, and the amount of rainfall for each event. Permittee(s) must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of your location, or a weather reporting system that provides site specific rainfall data from radar summaries;
   f. If permittee(s) observe a discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutant(s);
   g. Any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Section 6 of the general permit within seven (7) calendar days.
3. Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month. Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever occurs first.
4. All erosion prevention and sediment control BMP's must be inspected to ensure integrity and effectiveness. All nonfunctional BMP's must be repaired, replaced, or supplemented with functional BMP's. The permittee(s) must investigate and comply with the following inspection and maintenance requirements:
   a. All silt fence must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches ⅓ of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.
   b. Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches ½ the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access.
   c. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion. The permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The permittee shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The permittee is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.
   d. Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces within 3 hours after notification by the City that sweeping is required.
   e. The permittee(s) are responsible for the operation and maintenance of temporary and permanent water quality management BMP's as well as all erosion prevention and sediment control BMP's, for the duration of the construction work at the site. The permittee(s) are responsible until another permittee has assumed control over all areas of the site that have not been finally stabilized or the site has undergone final stabilization, and a NOT has been submitted to the MPCA.
   f. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g. fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).
5. All infiltration areas must be inspected to ensure that no sediment from ongoing construction activities is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
6. Storm sewer pipes and structures to be inspected and cleaned out.

DATE	REVISION
12/16/24	ADDED SWPPP

Dec 16, 2024 - 2:06pm
G:\Engineering\AutoCad Dwgs\Projects N-Z\Sunwood Drive - CSAH 5 to Erkium St 25-02\Plan Drawings\GI\SWPPP.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 11/22/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/22/24
CHECKED BY:	JJF	FILE:	25-02

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

SWPPP

SUNWOOD DRIVE - CSAH 5 TO ERKIUM STREET RECONSTRUCTION
CITY PROJECT NO. 25-02
CITY OF RAMSEY, MINNESOTA

25-02 MSA Sunwood Drive (CSAH 5 / Erkium Street) Reconstruction
Street Segment Summary

Street	Segment Description	Length (feet)	Section (Urban / Rural)	2024 PASER	Year Built	Maint. 1	Maint. 2	Maint. 3	Avg HMA (inches)	Avg Agg. Base (inches)	Avg Section (inches)
Sunwood Drive	Nowthen Boulevard (CSAH 5) / Erkium Street	1065	Urban	4	1993	SC 1998	SC 2006	SC 2013	4.2	2.2	6.4
Sunwood Drive Total Length		*1065*	*0.2 mi.*								

Hakanson Anderson

Main Office:
3601 Thurston Avenue, Anoka, MN 55303
Phone: 763/427-5860
www.haa-inc.com

45 YEARS

January 7, 2025 SENT VIA EMAIL: jferiancek@ci.ramsey.mn.us

Joe Feriancek
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

RE: Construction Staking Services – City of Ramsey Projects 25-02 Sunwood Drive Reconstruction

Dear Mr. Feriancek:

Thank you for the opportunity to submit a proposal for our services on the above projects. I understand that the scope of our services is to provide construction staking services as needed and directed.

SCOPE OF WORK

- Office setup and coordination
- Stake 10 pedestrian ramps
- Stake 3 concrete valley gutters
- Blue top 1,050 feet of centerline every 50 feet for both top of subgrade and top of gravel

Hourly Not to Exceed ……..…….. $6,500.00

- As-built Surveys are not included in this estimate

The above-mentioned hourly amount is based on survey control points being found in place, electronic files of necessary construction documents being available for our use and a one-time staking per item. Significant re-staking and services provided in addition to those proposed will be billed hourly per the attached standard fee schedule.

To better serve you, we request that final plans and specifications for new projects arrive in our office a minimum of five working days before staking is needed on site. After staking has started on site, a two to three-day notice for return visits is requested. It is the contractor's responsibility to provide shop drawings or updated plans when applicable.

If this proposal meets with your approval, please sign the acceptance below and return a copy to our office. If you have any questions or need any further information, feel free to call at your convenience. 763-852-0486

Sincerely,
Hakanson Anderson Associates

Brian Person PLS
Vice President

ACCEPTANCE OF PROPOSAL: The above fees and conditions are satisfactory and hereby accepted. Hakanson Anderson Associates is authorized to do the work as specified. Invoices for the above work will be issued on a monthly basis and at the completion of the project. Payment for invoices will be due within thirty (30) days of the date of billing.

Accepted by: _____ Date: _____
Name/Title

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Address infrastructure needs.

Title:

Consider Recommendation for City Council to Accept Bids and Award Contract for Fox Ridge Estates 1st & 2nd Street Reconstructions, Improvement Project #24-13

Purpose/Background:

Purpose:

The purpose of this case is to consider a recommendation for the City Council to accept bids and award a construction contract for Fox Ridge Estates 1st & 2nd Street Reconstructions, Improvement Project #24-13.

Background:

The 2025 – 2034 Capital Improvement Program (CIP) identifies the streets within the Fox Ridge Estates 1st & 2nd subdivision for street reconstruction in 2025. A street segment summary for this project is attached to this case.

Existing Conditions

The streets are generally 31 feet wide urban section including bituminous curbing, totaling 2.16 miles in length. Traffic counts have not been taken, but Staff anticipates slightly higher than typical neighborhood traffic due to the location of the subdivision, and the possible thru traffic for subdivisions to the west. Fox Park is located on the west side of Potassium Street. Trott Brook Cemetery is located between the northeast corner of Potassium Street and TH 47. Neither the existing park or cemetery are large of enough facilities to increase traffic above normal.

Municipal sewer and water do not exist in the project area, and utility extensions to the area are not proposed. Storm sewer runoff is handled by storm sewer inlets and piping, which generally carries stormwater to the existing wetlands in the center of the subdivision. A mix of concrete storm sewer piping (RCP), generally found along Potassium Street, and corrugated metal storm sewer piping (CMP) was found. The RCP was found to be in good condition, and is generally proposed to stay in-place. The CMP was found to be in poor condition and is proposed replaced with RCP.

Project History

- 2024 – 2033 Capital Improvement Program – listed as street reconstruction for 2025.
- June 13, 2023, Resolution #23-130, the Ramsey City Council accepted proposals for topographic survey of the project area
- June 27, 2023, Resolution #23-129, the Ramsey City Council accepted proposals for geotechnical report of the project area.
- October 10, 2023, Resolution #23-253, the Ramsey City Council accepted proposals for cleaning and televising of storm sewer pipes within the project area.
- May 8, 2024, Resolution #24-126, the Ramsey City Council ordered plans and specifications for said improvements.
- September 18, 2024, Ramsey Staff held a public open house for said improvements.
- October 15, 2024, the Ramsey Public Works Committee recommended the City Council approve plans and authorize advertisement for bids for said improvements.
- November 12, 2024, Resolution #24-316, the Ramsey City Council approved plans and specifications and authorized advertisement for bids for said improvements.
- January 13, 2025, bids were publicly opened.

Pavement History

The streets within Fox Ridge Estates 1st & 2nd subdivision were built in 1991. The street received crack seal / seal coat improvements in 1996 and 2007. Public Works Staff has performed patching over the last several years. In 2023 several intersections were included in the high priority mill and overlay improvements, in 2024 the streets were included in the skim patching project.

GPR was performed on the streets in 2020, at that time the street averaged 2.5 to 2.9 inches of bituminous over 3.3 to 4.2 inches of aggregate base. Due to the skim patching, an additional 0.5 to 0.75 of bituminous covers the streets.

Proposed Improvements

Staff review of the geotechnical report found generally sandy subsoil make up approximately two-thirds of the roadway embankment. The eastern and northern portion of the project will require subsoil corrections due to silt and clay within the roadway embankment. The subsoil corrections will be addressed by placing a 1-foot sand section on top of geotextile fabric.

This method, which has become the typical soil correction section used on City projects, also requires drain tile to be placed on top of the fabric, to properly drain the pavement section. Staff observes the subgrade material as it is being excavated, and can adjust the subsoil correction areas based on conditions found in the field.

The bituminous curbing is proposed to be replaced with surmountable concrete curb and gutter. At driveways, a curb cut similar to what is typically placed in B-Style curb will be placed, to avoid high transition from the roadway to driveways. A review of the existing storm sewer was performed, and the existing storm sewer inlet locations are not proposed to change, though structures will be replaced as necessary. Where storm sewer outlets to the wetlands are located at the top of slope, the project is proposing to extend the outlets as close to the normal water level as practical, this will reduce erosion issues.

Restoration of the impacted boulevard areas will include a minimum of 4-inches topsoil and hydroseed with a residential turf seed mix. Though the pavement is generally going back to the same location and elevation, driveway aprons will be replaced to match into the new bituminous pavement as minor changes will occur. In general, driveway aprons will be going back 6 feet to tie the driveways into the new curb and gutter.

At the request of the Parks Department, the project includes creating parking stalls at the northeast corner of Potassium Street for future access to the Trott Brook Cemetery. A curb cut will be installed, but a trail or drive to the cemetery is not proposed with this project. The parking stalls and future access are located at City-owned property.

Preliminary Schedule Remaining

- Council Awards Contract to the Lowest Responsible Bidder
  - January 28, 2025
- Contractor Begins Construction
  - Spring 2025
- Contractor Substantially Completes Construction
  - New bituminous pavement in-place, topsoil and seed in-place
  - August 2, 2025
- Contractor Final Completion
  - Verify final restoration; punch list created
  - August 30, 2025

Notification:

Notification is not required for this case.

Time Frame/Observations/Alternatives:

Timeframe:
Staff estimates up to 15 minutes will be needed to present this case and respond to questions.

Alternatives:
Alternative #1 - Motion to recommend the City Council accept bids and award a construction contract for Fox Ridge Estates 1st & 2nd Street Reconstructions, Improvement Project #24-13 to Douglas-Kerr Underground, L.L.C. in the amount of $2,099,737.06.

Alternative #2 – Motion of other.

Funding Source:
Funding for this improvement is proposed to come from Pavement Management Funds and Stormwater Utility Funds. Additionally, Park Funds are proposed to pay for the Trott Brook Cemetery parking stalls.

Bids were advertised in the Anoka Union Herald on November 15 and November 22, 2024. On January 13, 2025 a total of ten (10) bids were received, opened, and tabulated, and the following bids were found to comply with the advertisement for bids.

Contractor	**Total Bid**
Douglas-Kerr Underground, L.L.C.	$2,099,737.06
Omann Brothers Paving, Inc.	$2,149,278.23
GMH Asphalt Corporation	$2,157,452.85
North Valley, Inc.	$2,353,159.87
Park Construction Company	$2383,538.31
Asphalt Surface Technologies Corp.	$2,421,645.33
Northwest	$2,582,984.89
Valley Paving, Inc.	$2,608,388.50
S.M. Hentges & Sons, Inc.	$2,665,000.00
Bituminous Roadways, Inc.	$3,075,383.75
Engineer's Estimate	*$2,473,083.00*

The bid of Douglas-Kerr Underground, L.L.C. of Mora, Minnesota, in the amount of $2,099,737.06 for the total bid of said improvements in accordance with the approved plans and specifications and advertisement for bids, is the lowest responsible bidder. Adding indirect costs in the amount of 23-percent brings the total project costs to $2,582,676.58

The low bid is 15-percent lower than the engineer's estimate, primarily due to lower than anticipated removal and excavation costs.

Funding Source Breakdown:

Funding Source	**Construction Costs**	**Indirect Costs**	**Total Costs**
Pavement Management Funds	$1,881,935.13	$432,845.07	$2,314780.20
Storm Sewer Utility Funds	$206,767.33	$47,556.49	$254,323.82
Park Funds	$11,034.60	$2,537.96	$13,572.56
Project Total	***$2,099,737.06***	***$482,939.54***	***$2,582,676.58***

The CIP level estimate had a total estimated project cost of $3,024,546, which includes street costs of $2,630,040 and storm sewer costs of $394,506. The final project costs may change depending upon bid prices and actual construction quantities.

Bolton & Menk submitted a proposal for construction staking and as-built survey of the proposed improvements for a total not-to-exceed amount of $52,844.00. The construction staking and as-built survey are included in the indirect project costs.

City staff proposes to administer and inspect construction. Plans and specifications were prepared in-house as part of staff's normal duties.

Recommendation:

Staff recommends Alternative #1.

Outcome/Action:

Motion to recommend the City Council accept bids and award a construction contract for Fox Ridge Estates 1st & 2nd Street Reconstructions, Improvement Project #24-13 to Douglas-Kerr Underground, L.L.C. in the amount of $2,099,737.06.

Attachments

24-13 Final Plans

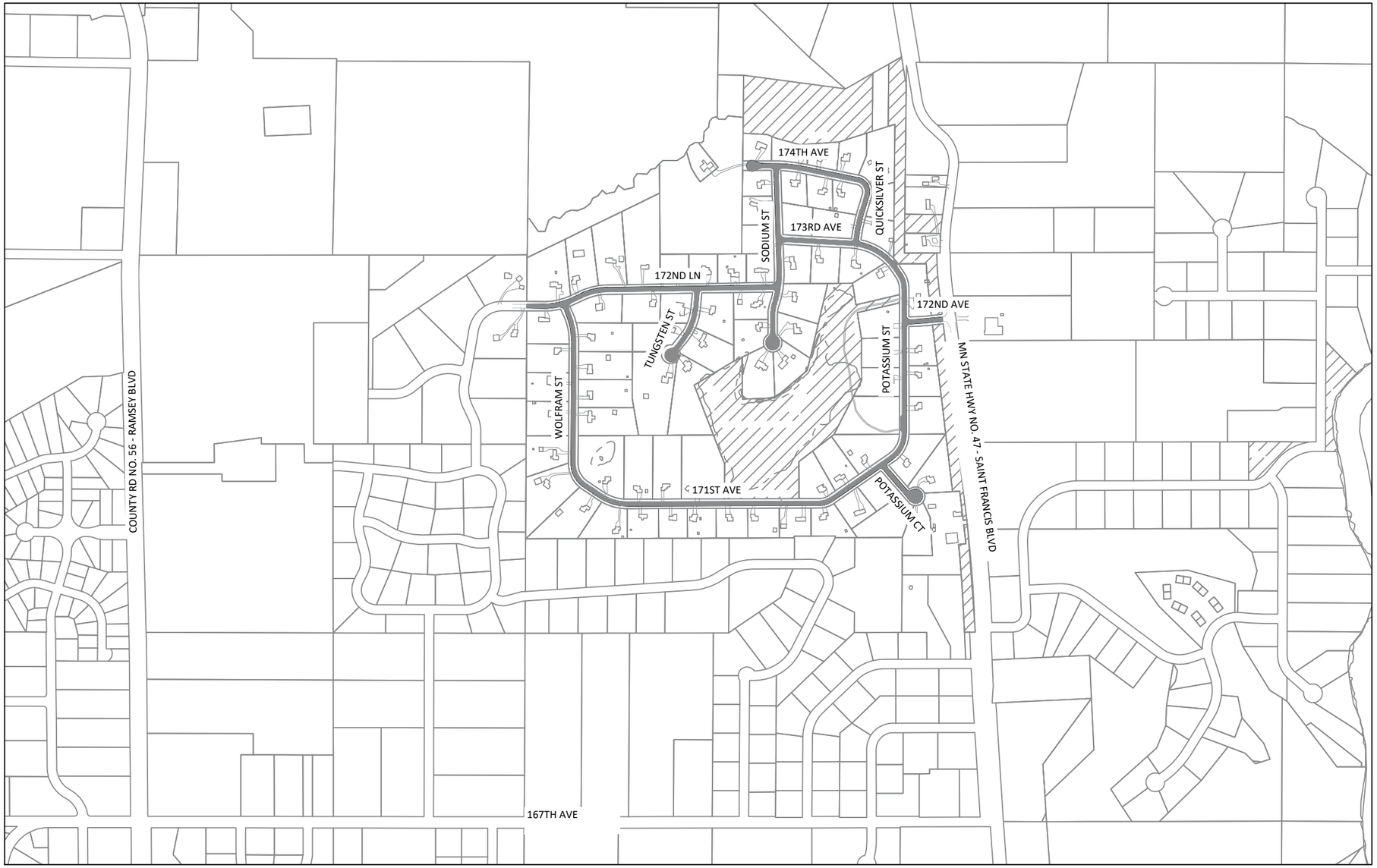
24-13 Street Summary

24-13 Construction Staking Proposal

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/15/2025 07:02 PM
Brian Hagen	Brian Hagen	01/16/2025 04:02 PM
Form Started By: Joe Feriancek		Started On: 01/13/2025 08:14 AM
Final Approval Date: 01/16/2025		

CITY OF RAMSEY
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY IMPROVEMENT PROJECT NO. 24-13



0 400 800 1200
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 77 SHEETS

SHEET No.	DESCRIPTION
01	TITLE SHEET
02	STATEMENT OF ESTIMATED QUANTITIES
03	ALIGNMENT LAYOUT
04	TABULATIONS
05	TYPICAL SECTION
06 - 07	CITY DETAILS
08 - 13	MNDOT PEDESTRIAN RAMP DETAILS
14 - 15	SWPPP
16 - 24	EROSION CONTROL
25 - 33	REMOVALS
34 - 50	STREET CONSTRUCTION
51	STORM SEWER PROFILES
52 - 77	CROSS SECTIONS

LEGEND

- SANITARY MANHOLE
- STORM SEWER MANHOLE
- CATCH BASIN MANHOLE
- CATCH BASIN
- CULVERT END SECTION
- HYDRANT
- VALVE
- TREE - CONIFEROUS
- TREE - DECIDUOUS
- SHRUB
- LIGHT POLE
- SIGN
- MAILBOX
- PEDESTAL - TELECOM
- PEDESTAL - ELECTRIC
- HAND HOLE
- BITUMINOUS PAVEMENT
- DRIVE - BITUMINOUS
- DRIVE - CONCRETE
- DRIVE - GRAVEL
- CONCRETE WALK
- VALLEY GUTTER
- SEEDING AREA
- MILL & OVERLAY BITUMINOUS PAVEMENT
- CURB & GUTTER
- SAWCUT FULL DEPTH
- FULL-DEPTH RECLAMATION
- REMOVE PAVEMENT BITUMINOUS
- REMOVE PAVEMENT CONCRETE
- REMOVE GRAVEL
- REMOVE CONCRETE CURB & GUTTER
- REMOVE BITUMINOUS CURB & GUTTER
- SOIL CORRECTION
- EASEMENT - DRAINAGE & UTILITY
- SECTION LINE
- LOT LINE
- ELECTRIC LINE
- ELECTRIC LINE - BURIED
- ELECTRIC LINE - OVERHEAD
- GAS LINE
- TELECOMMUNICATION LINE
- TELECOMM - OVERHEAD
- FIBER OPTIC LINE
- TREE LINE
- LANDSCAPE
- RETAINING WALL
- TREE SAVE FENCE
- SILT FENCE
- WATERMAIN
- SANITARY SEWER
- STORM SEWER
- DRAIN TILE
- LANDSCAPE - ROCK
- LANDSCAPE - MULCH
- LANDSCAPE - RIP RAP

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.
ASSISTANT CITY ENGINEER

57095 LIC. NO.

DATE 11/18/24

DATE	REVISION

SHEET 01 OF 77 SHEETS

Nov 14, 2024 – 11:09am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Title & SEQ.dwg

IP 24-13 FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION

Statement of Estimated Quantities

Item No.	MnDOT No.	Note	Item Description	Unit	Quantity
1	2021.501		MOBILIZATION	LS	1
2	2101.502	1	CLEARING	ACRE	0.34
3	2101.502	1	GRUBBING	ACRE	0.34
4	2101.503		REMOVE STORM SEWER	LF	558
5	2104.502		REMOVE STRUCTURE (STORM)	EA	9
6	2104.502		SALVAGE MAIL BOX SUPPORT	EA	79
7	2104.503	1	SAWING BITUMINOUS PAVEMENT - FULL DEPTH	LF	1050
8	2104.503	1	SAWING CONCRETE PAVEMENT - FULL DEPTH	LF	590
9	2104.503		REMOVE CONCRETE CURB & GUTTER	LF	152
10	2104.503		REMOVE BITUMINOUS CURB	LF	22300
11	2104.504	20	REMOVE BITUMINOUS PAVEMENT - SOIL CORRECTION AREA	SY	12900
12	2104.504	1	REMOVE BITUMINOUS PAVEMENT - DRIVEWAYS	SY	870
13	2104.504	1	REMOVE BITUMINOUS PAVEMENT - TRAIL	SY	65
14	2104.504	1	REMOVE CONCRETE PAVEMENT - DRIVEWAYS	SY	520
15	2104.504		REMOVE CONCRETE VALLEY GUTTER	SY	27
16	2104.504	1	REMOVE GRAVEL SURFACE - DRIVEWAYS	SY	11
17	2104.504		REMOVE BITUMINOUS FLUME	SY	31
18	2105.507		GEOTEXTILE FABRIC TYPE 4	SY	160
19	2105.507		GEOTEXTILE FABRIC TYPE 10	SY	13800
20	2105.607	18	COMMON EXCAVATION (EV)	CY	1460
21	2105.607	19	SUBGRADE EXCAVATION, REMOVE UNSUITABLE MATERIALS (EV)	CY	4500
22	2106.507	2	SELECT GRANULAR BORROW (CV)	CY	5000
23	2106.607		HAUL & STOCKPILE RECLAIM MATERIAL (LV)	CY	2050
24	2112.519		SUBGRADE PREPARATION	RDST	114
25	2123.610		STREET SWEEPER (WITH PICKUP BROOM)	HOUR	20
26	2130.523		WATER	MGAL	50
27	2211.507		AGGREGATE BASE CLASS 5 - MODIFIED (CV)	CY	4350
28	2215.504	8	FULL DEPTH RECLAMATION	SY	26200
29	2232.504		MILL BITUMINOUS PAVEMENT (2.0")	SY	170
30	2357.506	4	BITUMINOUS MATERIAL FOR TACK COAT	GAL	2500
31	2360.509	5	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	4000
32	2360.509	5	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	3000
33	2360.509	5	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 2.0" DRIVEWAYS	TON	85
34	2411.502		CONCRETE FLUME	SY	10
35	2501.502		15" RC PIPE APRON	EA	8
36	2501.502		15" ARCH RC PIPE APRON	EA	2
37	2501.502		21" RC PIPE APRON	EA	1
38	2501.503	12	15" RC PIPE SEWER DESIGN 3006 CLASS III	LF	547
39	2501.503	12	15" ARCH RC PIPE SEWER CLASS IIIA	LF	82
40	2501.503	12	21" RC PIPE SEWER DESIGN 3006 CLASS III	LF	301
41	2501.602		TRASH GUARD FOR 15" PIPE APRON	EA	1
42	2501.602		TRASH GUARD FOR 21" PIPE APRON	EA	1
43	2501.603		PLUG FILL AND ABANDON PIPE SEWER	LF	30
44	2502.503	16	4" PERF PVC PIPE DRAIN	LF	638
45	2503.503		CLEAN AND VIDEO SEWER	LF	996
46	2506.502		CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020	EA	10
47	2506.502		CASTING ASSEMBLY (STORM)	EA	14
48	2506.502		RESET CASTING	EA	9
49	2506.502		CONSTRUCT DRAINAGE STRUCTURE DESIGN 2'X3'	EA	4
50	2507.603		INSTALL CULVERT PIPE LINER 12"	LF	21
51	2511.509		RANDOM RIPRAP CLASS III	CY	61
52	2521.518	14	6" CONCRETE WALK	SY	26
53	2521.602		DRILL & GROUT REINF BAR (EPOXY COATED)	EA	16
54	2531.503	14	CONCRETE CURB & GUTTER DESIGN SURMOUNTABLE	LF	19600
55	2531.503	14	CONCRETE CURB & GUTTER DESIGN B618	LF	1000
56	2531.503	14	CONCRETE CURB & GUTTER DESIGN CURB CUT	LF	1860
57	2531.504	14	6" CONCRETE PAVEMENT DRIVEWAY	SY	460
58	2531.504	15	6" CONCRETE PAVEMENT DRIVEWAY SPECIAL	SY	18
59	2531.504		GRAVEL SURFACE	SY	10
60	2531.604		7" CONCRETE VALLEY GUTTER	SY	235
61	2531.618		TRUNCATED DOMES	SF	32
62	2540.602	13	TEMPORARY MAIL BOX CLUSTER	EA	4
63	2540.602	12	INSTALL MAIL BOX SUPPORT	EA	79
64	2563.601	7	TRAFFIC CONTROL	LS	1
65	2573.501		STABILIZED CONSTRUCTION ENTRANCE	EA	2
66	2573.502		STORM DRAIN INLET PROTECTION	EA	23
67	2573.503		SEDIMENT CONTROL LOG TYPE STRAW	LF	50
68	2573.503	17	SILT FENCE, TYPE MS	LF	3610
69	2574.507	3, 9	TOPSOIL (LV)	CY	1900
70	2575.501	6	TURF ESTABLISHMENT	ACRE	2.7
71	2575.504		ROLLED EROSION PREVENTION CATEGORY 20	SY	1620
72	2575.602	10	LANDSCAPE RESTORATION	EA	20
73	2582.502		4" SOLID LINE WHITE (MULTI-COMP)	LF	116

PAY ITEM NOTES:

1. REMOVAL LIMITS SHALL BE MARKED IN THE FIELD BY CITY STAFF.
2. EV TO CV CONVERSION FACTOR = 1.25.
3. EV TO CV CONVERSION FACTOR = 1.30.
4. ESTIMATED QUANTITY BASED ON APPLICATION RATE OF 0.07 GAL/SY.
5. ESTIMATED QUANTITY BASED ON APPLICATION RATE OF 113 LB/SY-IN.
6. TURF ESTABLISHMENT INCLUDES SEEDING, SEED MIXTURES, HYDRAULIC MULCH MATRIX, FERTILIZER AND OTHER SOIL AMENDMENTS. SEED MIXTURE SHALL BE 25-151 AND MIXTURE 33-261 IN STORMWATER AREAS. FOLLOW MNDOT SEEDING MANUAL GUIDLINES FOR APPLICATION RATES. SEED MUST BE PLACED WITHIN 5 CALENDAR DAYS OF TOPSOIL PLACEMENT.
7. LUMP SUM QUANTITY SHALL INCLUDE ALL COST REQUIRED FOR MAINTAINING ALL FLAGGING OPERATIONS AS NECESSARY, MAINTAINING PEDESTRIAN ACCESS ROUTES, ANY SIGNAGE AND BARRICADES AS NECESSARY, ANY DETOUR ROUTES AS NECESSARY.
8. RECLAMATION STOCKPILE LOCATION IS AT 16600 SAINT FRANCIS BLVD. SILT FENCE SHALL BE ADDED AROUND BASE OF STOCKPILE IF IT REMAINS IN PLACE FOR GREATER THAN 72 HRS. THE EXPECTED RECLAMATION DEPTH IS 6 INCHES.
9. STOCKPILING OF ANY SALVAGED TOPSOIL USED IS INCIDENTAL TO THE TOPSOIL PAY ITEM.
10. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL LANDSCAPING TO AS GOOD OR BETTER CONDITION. THE EACH QUANTITY CONSIST OF LANDSCAPING PER LOT.
11. SALVAGED MAILBOX POSTS TO BE PLACED TO ORIGINAL LOCATION OR AS DIRECTED BY THE ENGINEER.
12. LINEAR FOOT MEASUREMENT DOES NOT INCLUDE FLARED END SECTIONS.
13. COORDINATE WITH USPS ON PREFERRED LOCATIONS OF TEMPORARY MAILBOX CLUSTERS.
14. FINISH WITH WHITE CURING COMPOUND
15. CONCRETE SPECIAL DRIVEWAYS SHALL BE MATCHED TO EXISTING COLOR AND FINISH.
16. DRAINTILE FITTINGS ARE INCIDENTAL TO CONSTRUCTION.
17. 100' OF ADDITIONAL SILT FENCE WAS ASSUMED FOR AROUND RECLAMATION STOCKPILE.
18. COMMON EXCAVATION INCLUDES TOPSOIL MATERIAL REMOVED IN AREAS DISTURBED OUTSIDE OF ROADWAYS.
19. SUBGRADE EXCAVATION INCLUDES MATERIAL REMOVED BENEATH THE EXISTING ROAD SECTION IN SOIL CORRECTION AREAS.
20. BASE MATERIAL REMOVED IS INCIDENTAL TO THE REMOVE BITUMINOUS PAVEMENT - SOIL CORRECTION AREA PAY ITEM.

GENERAL NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. IT IS NOT GUARANTEED ANY OR ALL EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING IRRIGATION SYSTEMS WITHIN THE PROJECT CONSTRUCTION LIMITS BEFORE COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR AVOIDING DAMAGE TO IRRIGATION SYSTEMS WHERE POSSIBLE.
3. PERMANENT SIGN REMOVAL AND INSTALLATION IS TO BE PERFORMED BY CITY OF RAMSEY PUBLIC WORKS DEPARTMENT.
4. THE EDGE OF ROAD IS GENERALLY BEING RAISED 1.5" FROM ITS ORIGINAL ELEVATION (SEE STREET PROFILES FOR MORE PRECISE CHANGES). THIS IS PROPOSED TO BE ACHIEVED BY RECLAIMING 6 INCHES OF THE EXISTING BITUMINOUS AND AGGREGATE BASE FULL-DEPTH, HAULING APPROXIMATELY 2 INCHES OF RECLAIM AWAY, SHAPE AND COMPACT REMAINING IN-PLACE RECLAIM MATERIAL, REPLACEMENT OF BITUMINOUS CURB WITH CONCRETE CURB & GUTTER, PLACEMENT OF 2 INCHES NON-WEAR COURSE BITUMINOUS PAVEMENT AND PLACEMENT OF 1.5 INCHES WEAR COURSE BITUMINOUS PAVEMENT. THE CROSS SLOPE IS BEING RAISED FROM 2% TO 3% WHICH SHOULD BE ACHIEVED BY GRADING THE IN-PLACE RECLAIM MATERIAL. IN SOIL CORRECTION AREAS ALL BITUMINOUS PAVEMENT AND BASE MATERIAL SHALL BE REMOVED, SUBBASE MATERIAL REMOVED TO 1' BELOW PROPOSED PAVEMENT SECTION, GEOTEXTILE FABRIC AND SELECT GRANULAR PLACED, BASE AGGREGATE PLACED AND COMPACTED (RECLAMATION MATERIAL CAN BE USED IF IT MEETS SPEC), PLACEMENT OF 2 INCHES NON-WEAR COURSE BITUMINOUS PAVEMENT AND PLACEMENT OF 1.5 INCHES WEAR COURSE BITUMINOUS PAVEMENT.
5. SEEDING AND RESTORATION NUMBERS WERE DETERMINED BASED ON A MINIMUM 5' OF DISTURBANCE FROM THE EDGE OF ROADWAY, WITH ADDITIONAL AREA IN CLEARING LOCATIONS AND AROUND STORM SEWER.
6. DRIVEWAY REMOVALS ARE GENERALLY 6' FOR BITUMINOUS DRIVEWAYS AND TO THE FIRST JOINT ON CONCRETE DRIVEWAYS. REMOVALS LIMITS WILL BE MARKED IN THE FIELD BY CITY STAFF.
7. FLARED END STRUCTURE INVERTS ARE LOCATED AT THE END OF THE APRON.

DATE	REVISION

Nov 20, 2024 - 11:44am
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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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

City of RAMSEY

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

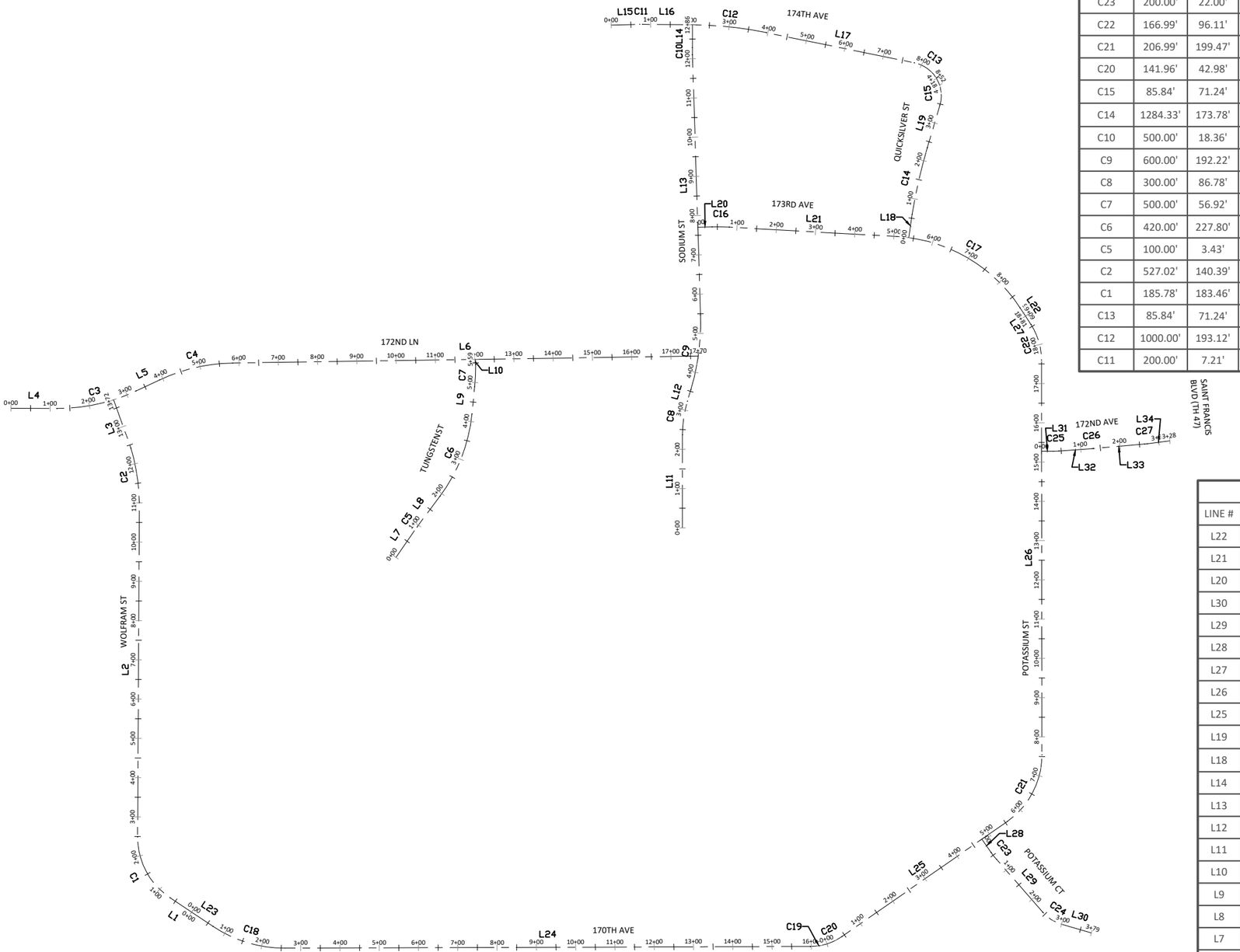
STATEMENT OF ESTIMATED QUANTITES

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

0 150 300 450

SCALE (FEET)

N



CURVE TABLE: ALIGNMENTS				
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	ALIGNMENT NAME
C17	400.89'	376.04'	S59° 54' 28"E	IP 24-13 - 173RD AVE CL
C16	500.00'	43.65'	S89° 16' 50"E	IP 24-13 - 173RD AVE CL
C24	100.00'	56.50'	S57° 20' 39"E	IP 24-13 - POTASSIUM CRT CL
C23	200.00'	22.00'	S38° 00' 23"E	IP 24-13 - POTASSIUM CRT CL
C22	166.99'	96.11'	N16° 32' 46"W	IP 24-13 - POTASSIUM ST CL
C21	206.99'	199.47'	N27° 32' 26"E	IP 24-13 - POTASSIUM ST CL
C20	141.96'	42.98'	N63° 49' 09"E	IP 24-13 - POTASSIUM ST CL
C15	85.84'	71.24'	N07° 09' 47"W	IP 24-13 - QUICKSILVER ST CL
C14	1284.33'	173.78'	N12° 44' 26"E	IP 24-13 - QUICKSILVER ST CL
C10	500.00'	18.36'	N00° 43' 48"W	IP 24-13 - SODIUM ST CL
C9	600.00'	192.22'	N07° 23' 47"E	IP 24-13 - SODIUM ST CL
C8	300.00'	86.78'	N08° 17' 14"E	IP 24-13 - SODIUM ST CL
C7	500.00'	56.92'	N02° 23' 57"E	IP 24-13 - TUNGSTEN ST CL
C6	420.00'	227.80'	N21° 11' 56"E	IP 24-13 - TUNGSTEN ST CL
C5	100.00'	3.43'	N35° 45' 14"E	IP 24-13 - TUNGSTEN ST CL
C2	527.02'	140.39'	N08° 47' 03"W	IP 24-13 - WOLFRAM ST CL
C1	185.78'	183.46'	N28° 00' 16"W	IP 24-13 - WOLFRAM ST CL
C13	85.84'	71.24'	S54° 42' 33"E	24-13 - 174TH AVE CL
C12	1000.00'	193.12'	S84° 00' 53"E	24-13 - 174TH AVE CL
C11	200.00'	7.21'	N89° 25' 10"E	24-13 - 174TH AVE CL

CURVE TABLE: ALIGNMENTS				
CURVE #	RADIUS	LENGTH	CHORD DIRECTION	ALIGNMENT NAME
C19	141.96'	42.98'	N81° 10' 00"E	IP 24-13 - 170TH AVE CL
C18	328.16'	194.11'	S73° 14' 29"E	IP 24-13 - 170TH AVE CL
C27	200.00'	7.02'	N83° 56' 35"E	IP 24-13 - 172ND LN EAST CL
C26	200.00'	3.03'	N85° 22' 58"E	IP 24-13 - 172ND LN EAST CL
C25	200.00'	14.37'	N87° 52' 29"E	IP 24-13 - 172ND LN EAST CL
C4	452.71'	192.30'	N76° 58' 40"E	IP 24-13 - 172ND LN WEST CL
C3	466.32'	207.69'	N77° 33' 15"E	IP 24-13 - 172ND LN WEST CL

LINE TABLE: ALIGNMENTS			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L22	24.99'	S33° 02' 05"E	IP 24-13 - 173RD AVE CL
L21	427.98'	S86° 46' 46"E	IP 24-13 - 173RD AVE CL
L20	36.38'	N88° 13' 06"E	IP 24-13 - 173RD AVE CL
L30	80.04'	S73° 31' 48"E	IP 24-13 - POTASSIUM CRT CL
L29	179.51'	S41° 09' 30"E	IP 24-13 - POTASSIUM CRT CL
L28	41.27'	S34° 51' 16"E	IP 24-13 - POTASSIUM CRT CL
L27	24.99'	N33° 02' 05"W	IP 24-13 - POTASSIUM ST CL
L26	1005.59'	N00° 04' 03"W	IP 24-13 - POTASSIUM ST CL
L25	512.00'	N55° 08' 44"E	IP 24-13 - POTASSIUM ST CL
L19	112.65'	N16° 37' 01"E	IP 24-13 - QUICKSILVER ST CL
L18	60.17'	N08° 10' 48"E	IP 24-13 - QUICKSILVER ST CL
L14	58.15'	N00° 19' 18"E	IP 24-13 - SODIUM ST CL
L13	663.38'	N01° 46' 54"W	IP 24-13 - SODIUM ST CL
L12	30.94'	N16° 34' 27"E	IP 24-13 - SODIUM ST CL
L11	236.61'	N00° 00' 00"E	IP 24-13 - SODIUM ST CL
L10	12.84'	N00° 51' 43"W	IP 24-13 - TUNGSTEN ST CL
L9	69.41'	N05° 39' 38"E	IP 24-13 - TUNGSTEN ST CL
L8	94.27'	N36° 44' 15"E	IP 24-13 - TUNGSTEN ST CL
L7	94.28'	N34° 46' 13"E	IP 24-13 - TUNGSTEN ST CL
L3	130.74'	N19° 40' 24"W	IP 24-13 - WOLFRAM ST CL

LINE TABLE: ALIGNMENTS			
LINE #	LENGTH	DIRECTION	ALIGNMENT NAME
L2	851.59'	N00° 17' 44"E	IP 24-13 - WOLFRAM ST CL
L1	66.00'	N56° 17' 44"W	IP 24-13 - WOLFRAM ST CL
L17	384.51'	S78° 28' 56"E	24-13 - 174TH AVE CL
L16	123.51'	S89° 32' 51"E	24-13 - 174TH AVE CL
L15	72.40'	N88° 23' 11"E	24-13 - 174TH AVE CL
L24	1337.56'	N89° 48' 48"E	IP 24-13 - 170TH AVE CL
L23	66.00'	S56° 17' 44"E	IP 24-13 - 170TH AVE CL
L34	57.89'	N82° 56' 16"E	IP 24-13 - 172ND LN EAST CL
L33	131.08'	N84° 56' 55"E	IP 24-13 - 172ND LN EAST CL
L32	84.61'	N85° 49' 01"E	IP 24-13 - 172ND LN EAST CL
L31	29.80'	N89° 55' 57"E	IP 24-13 - 172ND LN EAST CL
L6	1185.98'	N89° 08' 17"E	IP 24-13 - 172ND LN WEST CL
L5	66.44'	N64° 48' 32"E	IP 24-13 - 172ND LN WEST CL
L4	117.16'	S89° 41' 11"E	IP 24-13 - 172ND LN WEST CL

DATE	REVISION

Nov 14, 2024 - 11:17am
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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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

City of RAMSEY

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

ALIGNMENT LAYOUT

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 03 OF 77 SHEETS

STORM SEWER TABULATION

STRUCTURE	STATION, OFFSET	STRUCTURE SIZE DIA. (IN.)	CASTING TYPE	RIM ELEV.	INVERT ELEV.	SUMP ELEV.	BUILD HEIGHT	INVERT DIRECTION	PIPE DIA. (IN.)	PIPE MATERIAL	PIPE GRADE (%)	PIPE LENGTH (LF)	STRUCTURE CONNECTED TO:
FES1	1+51.26, 32.4L*	15	N/A	N/A	878.81	N/A	N/A	SW	15	RCP	-5.38	18	CBMH1
FES2	1+52.27, 61.0R*	15	N/A	N/A	872.28	N/A	N/A	NE	15	RCP	5.95	47	CBMH2
FES3	7+34.94, 42.6R*	15 ARCH	N/A	N/A	877.94	N/A	N/A	S	15 ARCH	RCP	0.40	29	CBMH3
FES4	7+32.69, 39.4L*	15 ARCH	N/A	N/A	877.60	N/A	N/A	N	15 ARCH	RCP	2.55	25	CBMH4
FES5	0+17.43, 78.0L*	15	N/A	N/A	887.70	N/A	N/A	W	15	RCP	0.42	37	CB5
FES6	0+33.94, 103.3L*	15	N/A	N/A	873.00	N/A	N/A	SW	15	RCP	2.89	59	CBMH6
FES7	10+51.38, 35.9R*	15	N/A	N/A	887.29	N/A	N/A	E	15	RCP	2.07	22	CBMH7
FES8	3+69.28, 35.9L*	15	TG	N/A	884.62	N/A	N/A	N	15	RCP	-1.00	50	CBMH10
FES9	4+33.61, 314.9R*	21	TG	N/A	868.19	N/A	N/A	S	21	RCP	4.78	301	CBMH9
FES10	13+18.24, 33.0R*	15	N/A	N/A	870.32	N/A	N/A	S	15	RCP	-1.40	19	CBMH13
FES11	13+18.01, 33.0L*	15	N/A	N/A	869.76	N/A	N/A	N	15	RCP	0.40	19	CBMH14
CBMH1	1+51.03, 14.0L	48	R-3501TB	880.75	877.50	877.50	3.25	SW	15	RCP	5.38	18	FES1
					877.50			NE	15	RCP	-7.37	28	CBMH2
CBMH2	1+51.60, 14.1R	48	R-3501TB	880.75	875.43	875.43	5.32	SW	15	RCP	7.37	28	CBMH1
					875.43			NE	15	RCP	-5.95	47	FES2
CBMH3	7+34.36, 14.0R	48	R-3501TB	880.56	878.08	878.08	2.48	S	15 ARCH	RCP	-0.40	29	FES3
					878.08			N	15 ARCH	RCP	0.40	28	CBMH4
CBMH4	7+33.53, 14.0L	48	R-3501TB	880.56	878.19	878.19	2.37	S	15 ARCH	RCP	-0.40	28	CBMH3
					878.39			N	15 ARCH	RCP	-2.55	25	FES4
CB5	0+36.13, 45.6L	2x3	R-3501TB	891.63	887.70	887.70	3.93	W	15	RCP	-0.42	37	FES5
CBMH6	0+54.39, 48.3L	48	R-3501TB	878.66	874.87	874.87	3.79	W	15	RCP	-2.89	59	FES6
					874.97			NE	15	RCP	3.00	95	CB11
CBMH7	10+52.76, 14.0R	48	R-3501TB	891.72	887.85	887.85	3.87	E	15	RCP	-2.07	22	FES7
					887.95			W	15	RCP	1.00	28	CB12
CB8	4+35.63, 14.0L	2x3	R-3501TB	888.40	884.10	884.10	4.30	S	15	RCP	-1.00	28	CBMH9
CBMH9	4+35.68, 14.3R	48	R-3501TB	888.75	882.96	882.86	5.61	N	15	RCP	1.00	28	CB8
					882.96			W	15	RCP	1.50	66	CBMH10
					882.86			S	21	RCP	-4.78	301	FES9
CBMH10	3+69.44, 14.0R	48	R-3501TB	888.83	884.06	883.96	4.88	N	15	RCP	1.00	50	FES8
					883.96			E	15	RCP	-1.50	66	CBMH9
CB11	3+73.50, 14.0R	2X3	R-3501TB	881.45	877.82	877.82	3.63	SW	15	RCP	-3.00	95	CBMH6
CB12	10+52.94, 14.0L	2X3	R-3501TB	891.72	888.23	888.23	3.49	E	15	RCP	-1.00	28	CBMH7
CBMH13	13+18.15, 14.0R	48	R-3501TB	872.82	869.97	869.97	2.85	N	15	RCP	-0.40	28	CBMH14
					869.97			S	15	RCP	1.40	19	FES10
CBMH14	13+18.15, 14.0L	48	R-3501TB	872.82	869.86	869.86	2.96	N	15	RCP	-0.40	19	FES11
					869.86			S	15	RCP	0.40	28	CBMH13

*FES STATION OFFSET DOES NOT INCLUDE LENGTH OF APRON, LENGTH OF APRON MUST BE ADDED FOR INVERT LOCATION

DATE	REVISION

Nov 14, 2024 - 11:18am
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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

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Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

City of RAMSEY

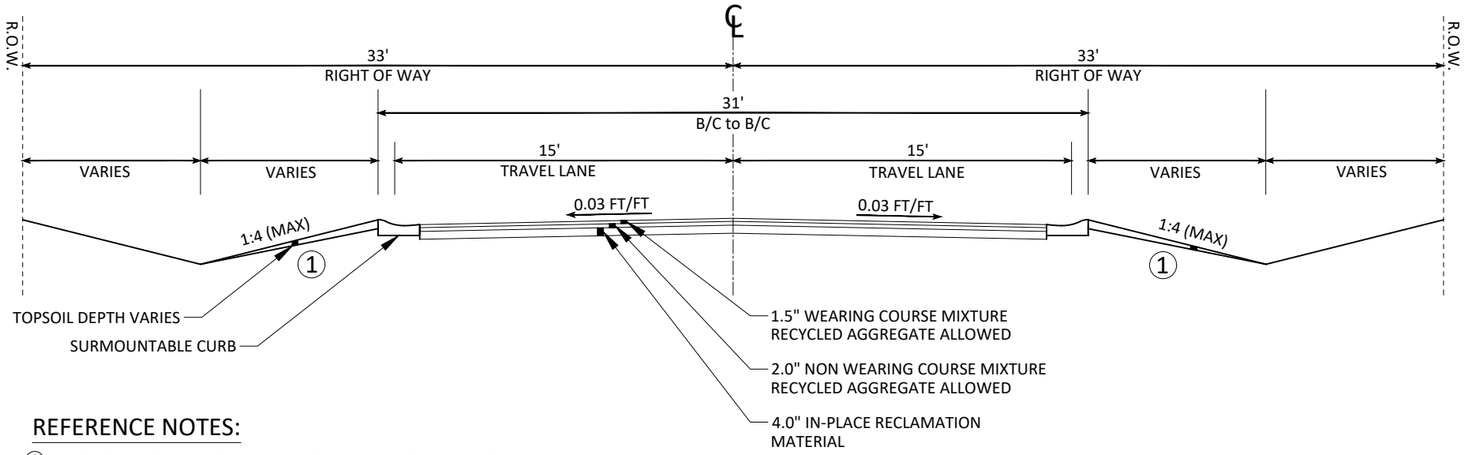
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

TABULATIONS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 04 OF 77 SHEETS

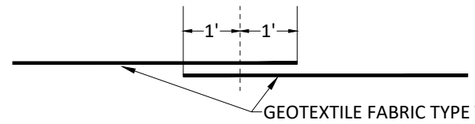
TYPICAL SECTION



REFERENCE NOTES:

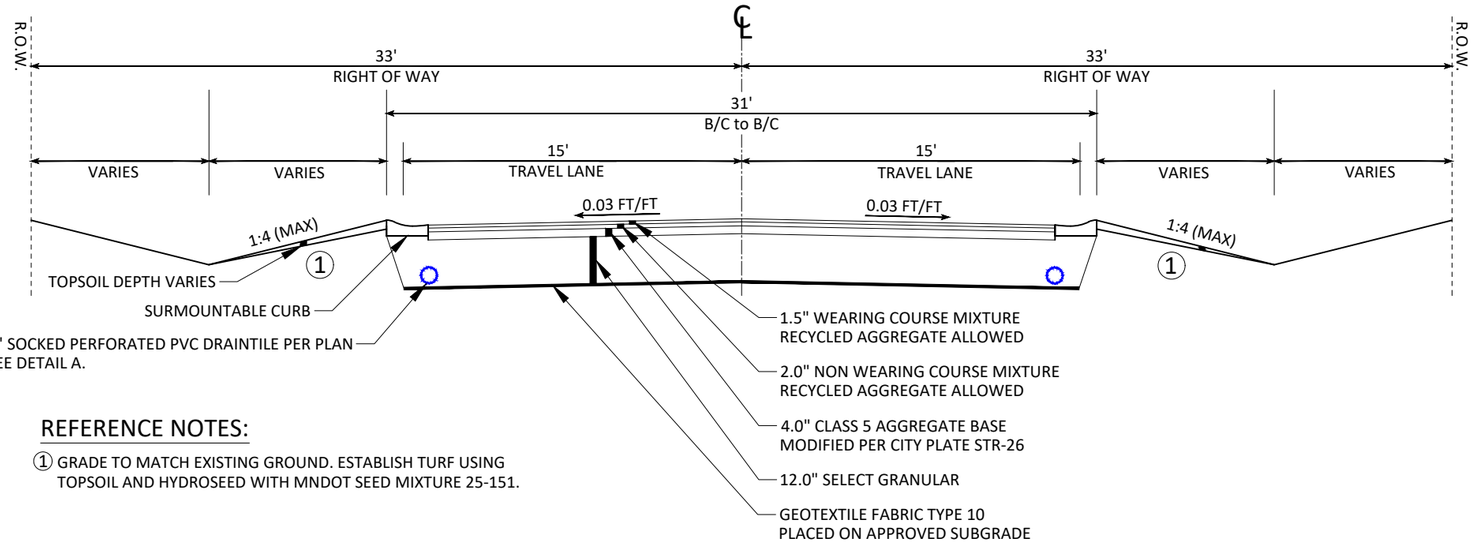
① GRADE TO MATCH EXISTING GROUND. ESTABLISH TURF USING TOPSOIL AND HYDROSEED WITH MNDOT SEED MIXTURE 25-151.

DETAIL B: GEOTEXTILE FABRIC SEAM



1. GEOTEXTILE FABRIC SHALL BE OVERLAPPED 2-FEET AS SHOWN.
2. THE GEOTEXTILE FABRIC MUST BE SECURED SO THAT IT IS NOT DISPLACED DURING SUBSEQUENT CONSTRUCTION. NO TRAFFIC OR CONSTRUCTION EQUIPMENT IS TO OPERATE DIRECTLY ON THE FABRIC, 1-FOOT OF SELECT GRANULAR FILL MUST BE PLACED FIRST.
3. MEASUREMENT FOR PAYMENT DOES NOT INCLUDE ALLOWANCE FOR SEAMS OR OVERLAPS.

TYPICAL SECTION: SOIL CORRECTION AREA

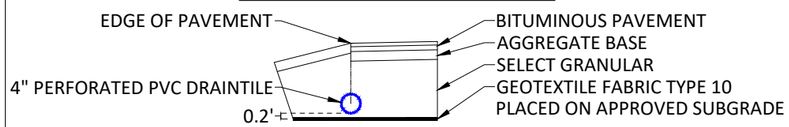


REFERENCE NOTES:

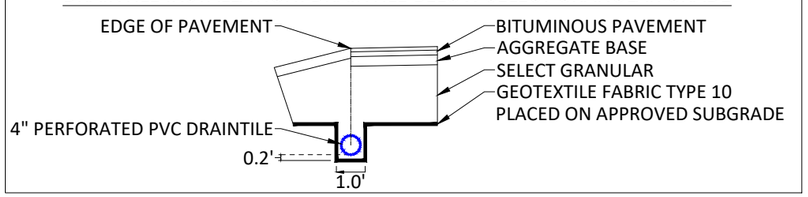
① GRADE TO MATCH EXISTING GROUND. ESTABLISH TURF USING TOPSOIL AND HYDROSEED WITH MNDOT SEED MIXTURE 25-151.

DETAIL A: DRAINTILE INSTALLATION

TYPICAL DRAINTILE INSTALLATION



DRAINTILE INSTALLATION: DRAINTILE BELOW SELECT GRANULAR GRADE



DATE	REVISION

Nov 14, 2024 - 11:22am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Reconstruction 24-13\Plan Drawings\Typical Section.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

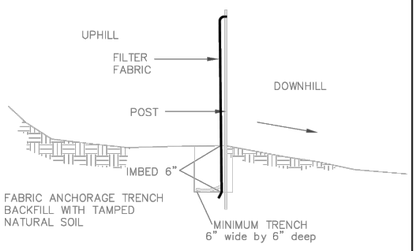
JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

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

TYPICAL SECTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

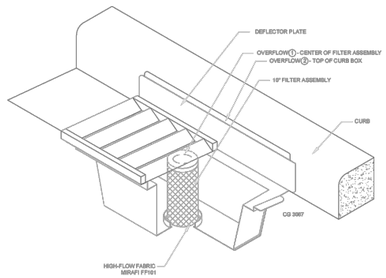


INSTALL AS PER FILTER FABRIC MANUFACTURER'S RECOMMENDATIONS

SILT FENCE DETAIL

NO SCALE

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

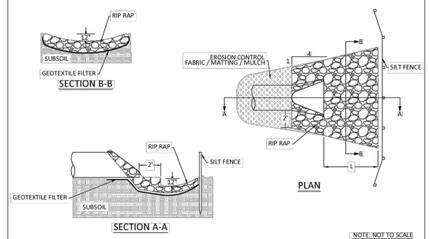


INLET PROTECTION – WIMCO OR EQUAL

N.T.S.

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

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



NOTE: NOT TO SCALE

NOTES:
1. ON SLOPES 4:1 OR GREATER, ANCHOR OR STRAIGHT DISKED STRAW MULCH, SEEDED NETTING, GABRIC, OR MATTING SUCH AS EXCELSIOR SHALL BE USED TO STABILIZE DISTURBED SOILS. THESE EXPOSED SOILS MUST BE STABILIZED IMMEDIATELY AFTER GRADING OF SOIL IS COMPLETE.
2. A SKIRTING OF EROSION CONTROL FABRIC OR MULCH MUST BE USED TO PROTECT OUTLETS AS ILLUSTRATED REGARDLESS OF SLOPE.
3. RIP RAP IS CLASS III PLACED 18" THICK.
4. FOR PIPE GREATER THAN 48" DIAMETER OR 58" SPAN, QUANTITY OF GEOTEXTILE FABRIC AND RIP RAP WILL BE HANDLED IN A CASE BY CASE MANNER.
5. GEOTEXTILE FABRIC SHALL COVER THE BOTTOM AND SIDES OF THE AREA EXCAVATED FOR THE RIP RAP MATERIAL.

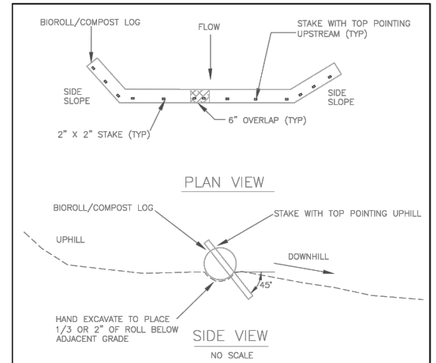
RIP RAP AT RCP OUTLETS

DIA. OF PIPE (IN.)	L (FT.)	GEOTEXTILE FABRIC (SY)	18" DEPTH RIP RAP (CU. YD)
12	8	19.8	4.4
15	8	20.8	4.8
18	10	25.6	6.4
21	10	27.4	7.1
24	12	33.4	9.2
27	12	35.2	9.9
30	14	41.6	12.3
36	16	50.5	15.8
42	18	57.1	18.7
48	20	66.5	22.2

RIP RAP AT RCP-A OUTLETS

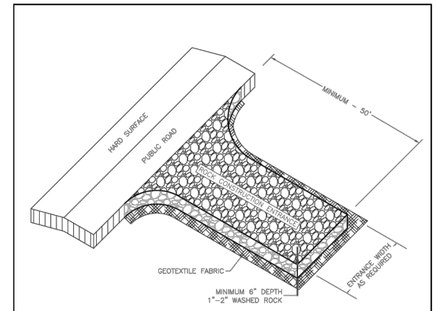
SPAN OF PIPE (IN.)	L (FT.)	GEOTEXTILE FABRIC (SY)	18" DEPTH RIP RAP (CU. YD)
22	10	26.6	6.1
28	12	33.2	8.5
36	14	43.5	11.7
43	16	50.5	14.3
51	18	57.5	16.9
58	20	65.2	19.8

APPROVED: 9 – 2016	City of RAMSEY	STANDARD DETAILS: RIP–RAP
		CITY PLATE No. ERO–3



NOTE:
STAKE INTO GROUND WITH WOOD STAKES DRIVING STAKE 6" INTO GROUND AND PROTRUDING 2" ABOVE LOG
WOOD STAKES ARE A MINIMUM 0.5" X 2" X 16" AND PLACED EVERY 1' UNLESS PRECLUDED BY A ROCK
WHEN MORE THAN 1 BIOROLL/COMPOST LOG IS NEEDED, OVERLAP ENDS A MINIMUM OF 6" AND STAKE
WOOD STAKES ARE DRIVEN THROUGH BACK HALF OF BIOROLL OR COMPOST LOG AT 45° ANGLE WITH TOP OF STAKE POINTING UPHILL

APPROVED: 3 – 2016	City of RAMSEY	STANDARD DETAILS: BIO ROLL (COMPOST LOG)
		CITY PLATE No. ERO–4



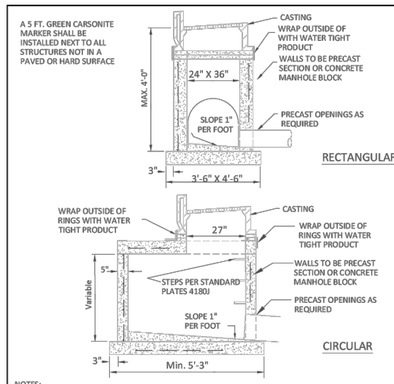
NOTE:
1. MINIMUM CONSTRUCTION ENTRANCE WIDTH EQUAL TO PROPOSED ROADWAY WIDTH.
2. WIDTH OF RADIUS AS REQUIRED TO ENSURE VEHICLES DO NOT TRACK ONTO PUBLIC ROAD.
3. MAINTAINENCE AS REQUIRED TO PREVENT TRACKING ONTO PUBLIC ROADS. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL ROCK OR REMOVAL AND REINSTALLATION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

NOT TO SCALE

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

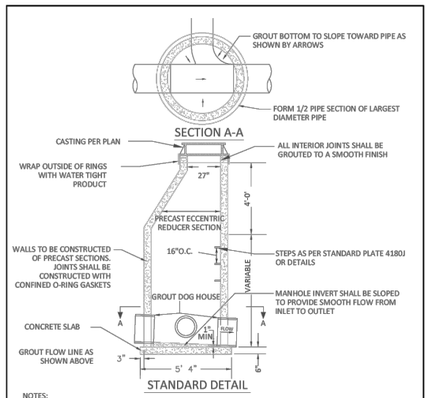
Notes:
1. INSTALLATION OF 4" OF TOPSOIL REQUIRED ACROSS ALL DISTURBED AREAS.
2. TOPSOIL IS DEFINED AS BLACK DIRT COMPOSED OF UNCONSOLIDATED MATERIAL, LARGELY UNDECOMPOSED ORGANIC MATTER WHICH IS SUITABLE FOUNDATION FOR VEGETATIVE GROWTH.
3. THE COMPOSITION OF TOPSOIL SHOULD CONTAIN NO MORE THAN THIRTY-FIVE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

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



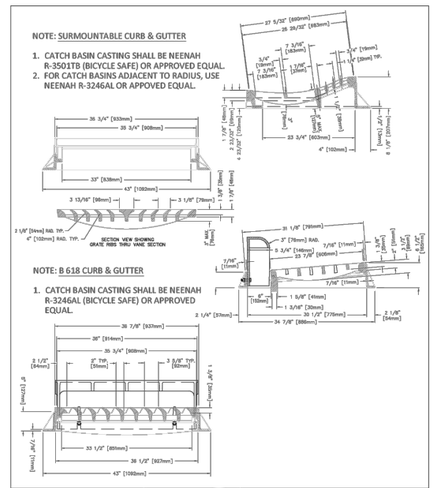
NOTES:
1. MANHOLE INVERT SHALL SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET
2. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB
3. CONCRETE ADJUSTING RINGS TO BE INSTALLED MAX 7-2" RINGS, MIN 2-2" RINGS
4. GROUT BETWEEN RINGS, SHIMS SHALL BE METAL, CONCRETE OR PLASTIC
5. INSPECTION OF MANHOLE REQUIRED BEFORE BACKFILLING
6. A 12 GAUGE COPPER CLAD STEEL TRACER WIRE IS REQUIRED WITH ALL STORM LINES
7. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
8. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS
9. STEPS ARE REQUIRED IF STRUCTURE FROM THE CASTING TO THE INVERT IS GREATER THAN 4 FEET

APPROVED: 1 - 2024	City of RAMSEY	STANDARD DETAILS: CATCH BASIN
		CITY PLATE No. STO-1

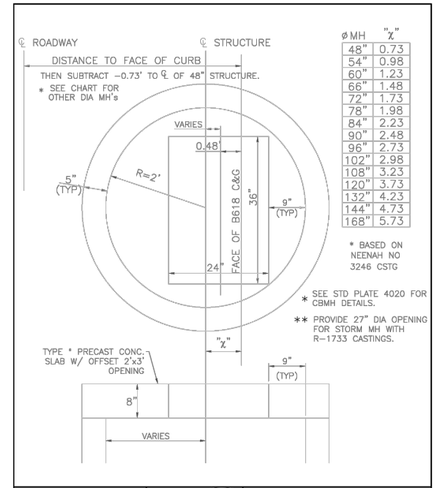


NOTES:
1. MANHOLE INVERT SHALL SLOPED TO PROVIDE A SMOOTH FLOW FROM INLET TO OUTLET
2. INSPECTION OF MANHOLE REQUIRED BEFORE BACKFILLING
3. ALL INLET INVERTS TO BE 0.10 ABOVE OUTLET INVERTS UNLESS OTHERWISE NOTED
4. CONCRETE ADJUSTING RINGS TO BE INSTALLED MAX 7-2" RINGS, MIN 2-2" RINGS
5. GROUT BETWEEN RINGS, SHIMS SHALL BE METAL, CONCRETE OR PLASTIC
6. A 12 GAUGE COPPER CLAD STEEL TRACER WIRE IS REQUIRED WITH ALL STORM LINES
7. CONDUCTIVITY IS REQUIRED ON ALL TRACER WIRE
8. STEPS ARE REQUIRED IF STRUCTURE FROM THE CASTING TO THE INVERT IS GREATER THAN 4 FEET
9. TRACER WIRES ARE TO END IN STRUCTURES, AT FINISHED GRADE ON ALL SERVICES AND STUBS

APPROVED: 1 - 2024	City of RAMSEY	STANDARD DETAILS: STORM MANHOLE
		CITY PLATE No. STO-3



APPROVED: 4 - 2024	City of RAMSEY	STANDARD DETAILS: STORMWATER CASTING
		CITY PLATE No. STO-4



ØMH	"X"
48"	0.73
54"	0.98
60"	1.23
66"	1.48
72"	1.73
78"	1.98
84"	2.23
90"	2.48
96"	2.73
102"	2.98
108"	3.23
120"	3.73
132"	4.23
144"	4.73
168"	5.73

APPROVED: 4 – 2005	City of RAMSEY	STANDARD DETAILS: SLAB TOP MANHOLE COVER
		CITY PLATE No. STO–5

DATE	REVISION

Nov 14, 2024 - 11:24am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\City 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 11/18/24 Lic. No. 57095

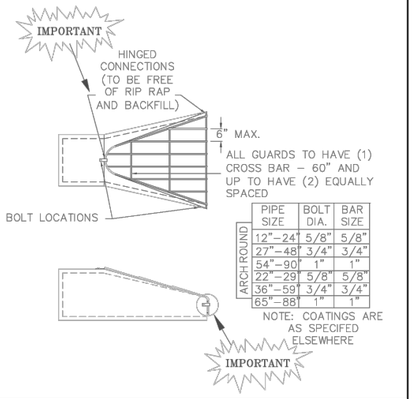
DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

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

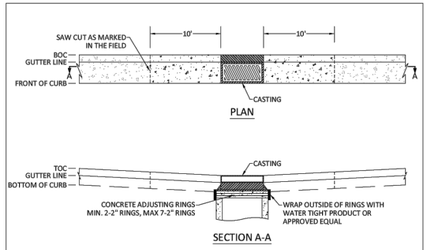
CITY DETAILS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 06 OF 77 SHEETS



APPROVED:		STANDARD DETAILS:
2 – 2006	City of RAMSEY	TRASH GUARD
		CITY PLATE No. STO–8

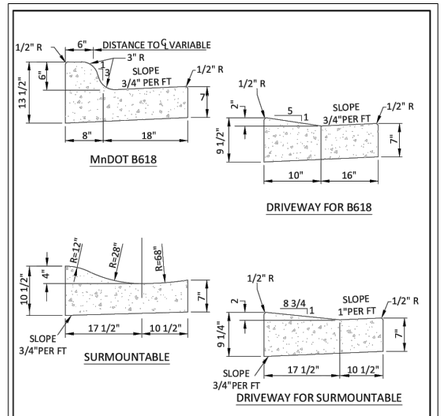


NOTE: NOT TO SCALE

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.

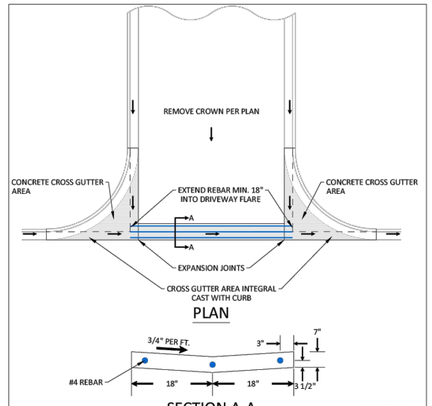
APPROVED:		STANDARD DETAILS:
3 – 2017	City of RAMSEY	RESET CATCH BASIN CASTING
		CITY PLATE No. STO–13



NOTES:

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

APPROVED:		STANDARD DETAILS:
10 - 2024	City of RAMSEY	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 < 2%.
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.

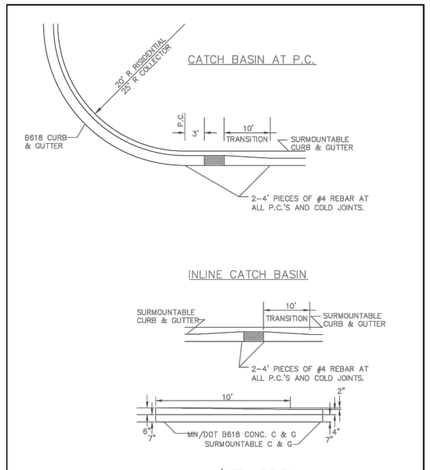
APPROVED:		STANDARD DETAILS:
3 - 2017	City of RAMSEY	CROSS GUTTER
		CITY PLATE No. STR-2

TABLE A
MODIFIED CLASS 5 SPECIFICATIONS
% PASSING

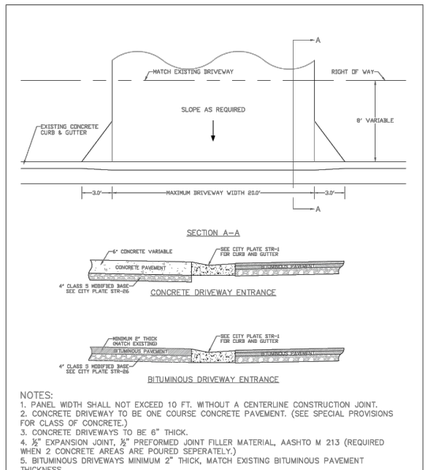
1"	100
3/4"	90 – 100
3/8"	50 – 80
No.4	35 – 70
No.10	20 – 60
No.40	10 – 35
No.200	5 – 10

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

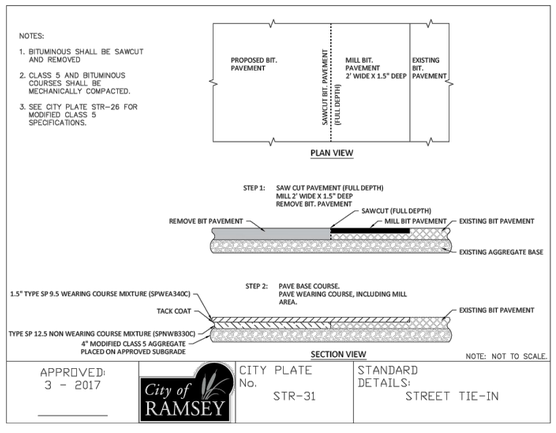


APPROVED:		STANDARD DETAILS:
4 – 2016	City of RAMSEY	CATCHBASIN PLACEMENT – SURMOUNTABLE CURB
		CITY PLATE No. STR–27



NOTES:
1. PANEL WIDTH SHALL NOT EXCEED 10 FT. WITHOUT A CENTERLINE CONSTRUCTION JOINT.
2. CONCRETE DRIVEWAY TO BE ONE COURSE CONCRETE PAVEMENT. (SEE SPECIAL PROVISIONS FOR CLASS OF CONCRETE.)
3. CONCRETE DRIVEWAYS TO BE 6" THICK.
4. ½" EXPANSION JOINT, ½" 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 THIOKNESS.

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



NOTE: NOT TO SCALE.

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

DATE	REVISION

Nov 14, 2024 - 11:25am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\City 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 11/18/24 Lic. No. 57095

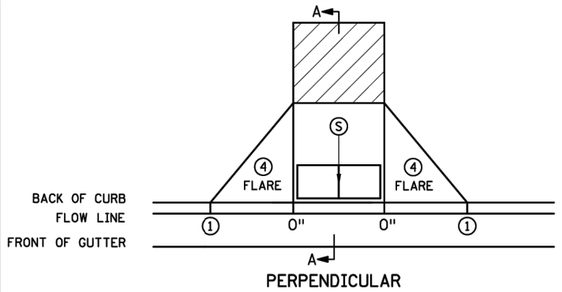
DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

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

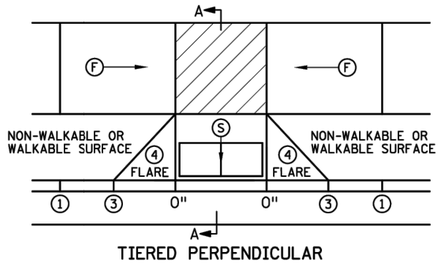
CITY DETAILS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

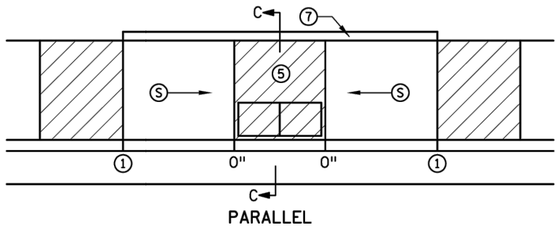
SHEET 07 OF 77 SHEETS



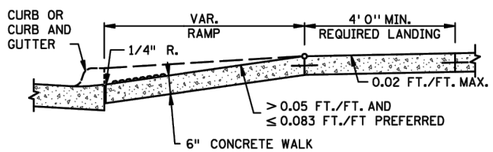
PERPENDICULAR



TIERED PERPENDICULAR

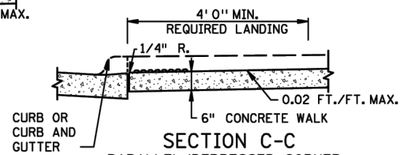


PARALLEL



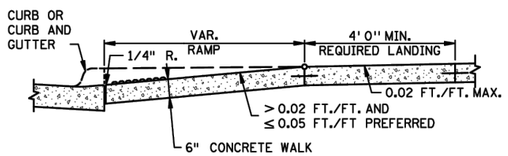
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



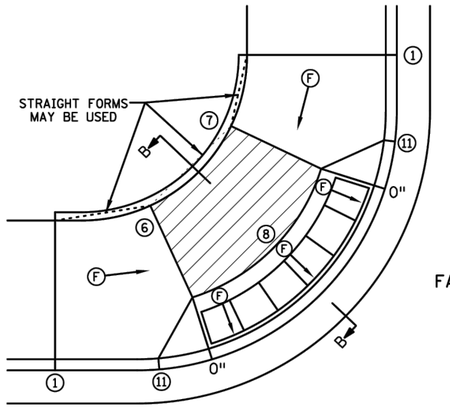
SECTION C-C

PARALLEL/DEPRESSED CORNER

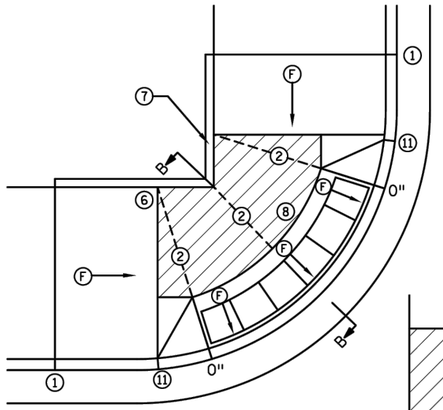


SECTION B-B

FAN

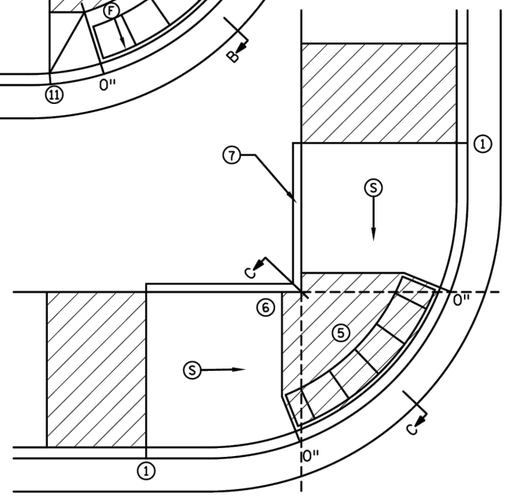


FAN ⑩

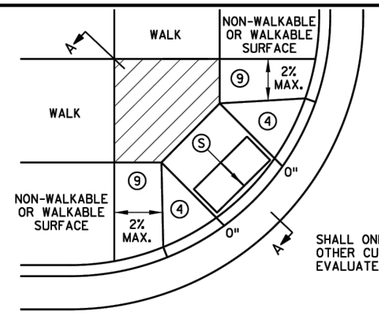


MODIFIED FAN ⑩

USED WHEN RIGHT-OF-WAY IS CONSTRAINED



DEPRESSED CORNER



DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.

② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.

③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.

④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.

⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.

⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)

⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.

⑨ PAVE FULL WALK WIDTH.

⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.

⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE 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%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 1 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYBRICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 14, 2024 - 11:25am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\City Details.dwg

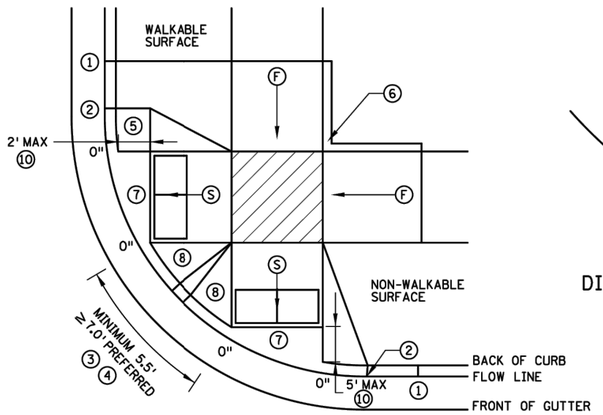
DESIGNED BY:	---		
DRAWN BY:	---	DATE:	
CHECKED BY:	---	FILE:	24-13

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

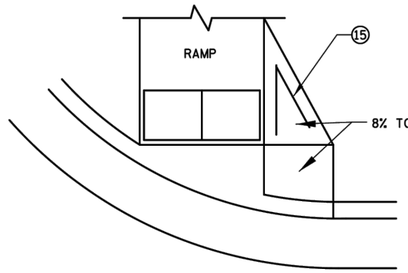
MNDOT PEDESTRIAN RAMP DETAILS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

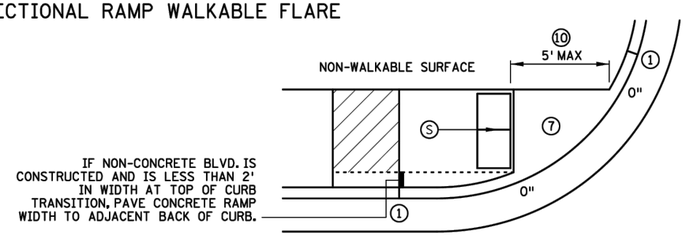
SHEET 08 OF 77 SHEETS



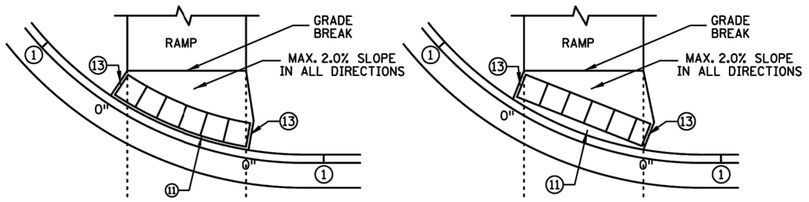
COMBINED DIRECTIONAL



DIRECTIONAL RAMP WALKABLE FLARE

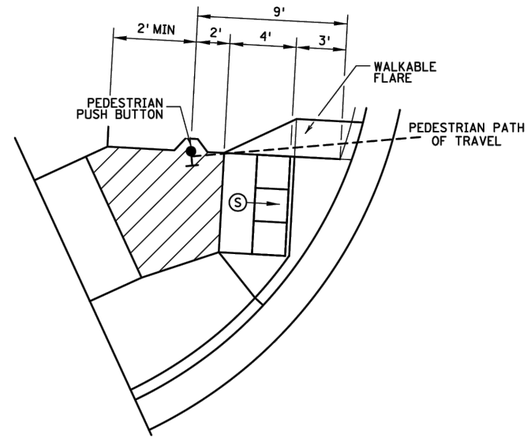


STANDARD ONE-WAY DIRECTIONAL ⑨



DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

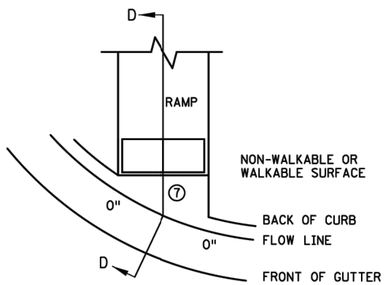
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

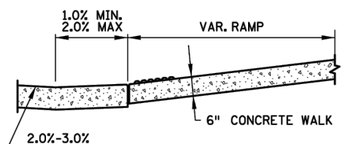


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE. ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

Ⓕ 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%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 2 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. | (T.H.) | SHEET NO. | OF | SHEETS

DATE	REVISION

Nov 14, 2024 - 11:20am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Reconstruction 24-13\Plan Drawings\City Details.dwg

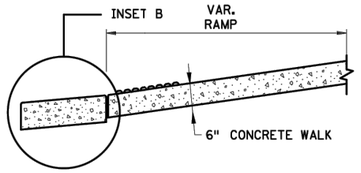
DESIGNED BY:	---		
DRAWN BY:	---	DATE:	
CHECKED BY:	---	FILE:	24-13

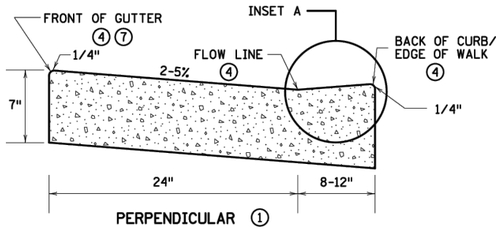
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

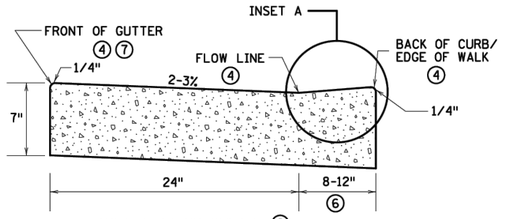
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 09 OF 77 SHEETS

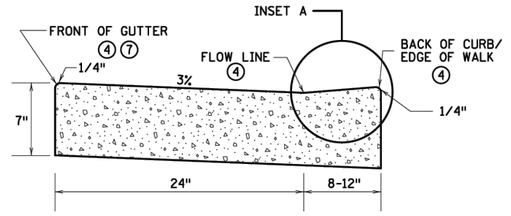




PERPENDICULAR ①

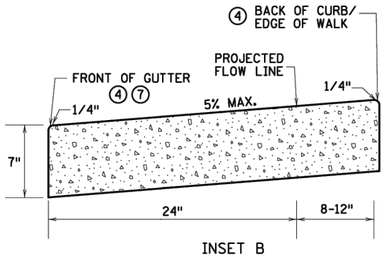


NON PERPENDICULAR ②

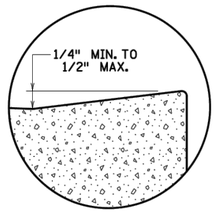


FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)

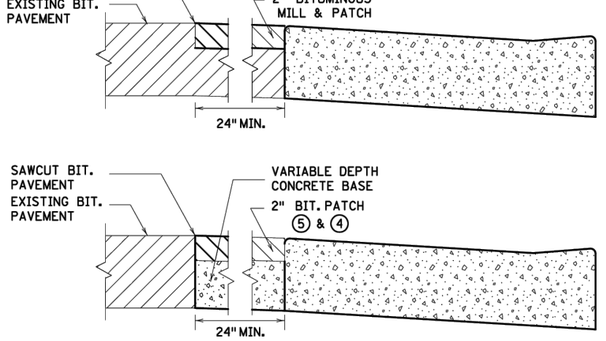
PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



INSET B
OUTFLOW GUTTER ⑧



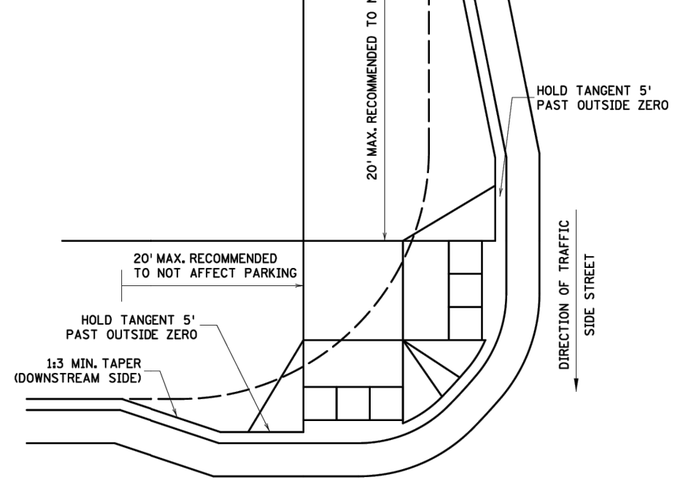
INSET A



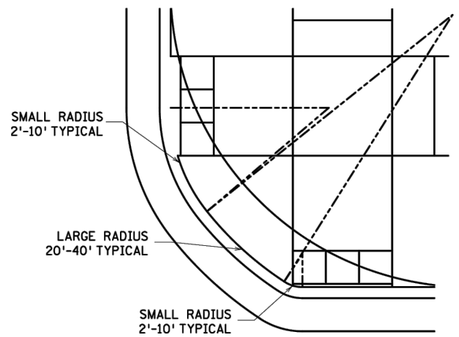
ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS



ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.

NO PONDING SHALL BE PRESENT IN THE PAR.

ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED.
PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:
APPROVED: 11-04-2021
JEFFREY PERKINS OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250	3 OF 6	PEDESTRIAN CURB RAMP DETAILS
APPROVED: 11-04-2021 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	
STATE PROJ. NO.	(TH)	SHEET NO. OF SHEETS

DATE	REVISION

Nov 14, 2024 - 11:26am
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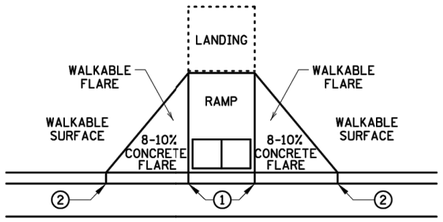
DESIGNED BY:	---	
DRAWN BY:	---	DATE:
CHECKED BY:	---	FILE: 24-13

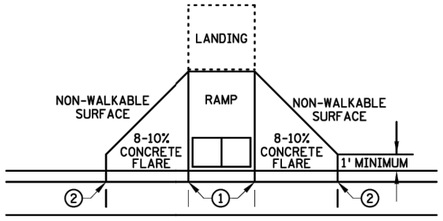
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

MNDOT PEDESTRIAN RAMP DETAILS

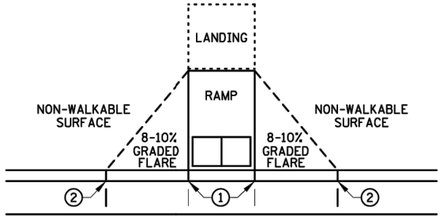
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA



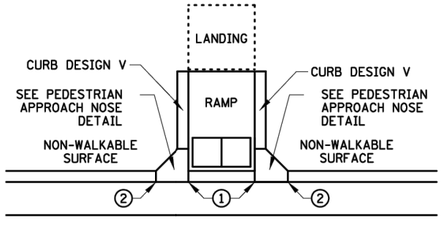
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

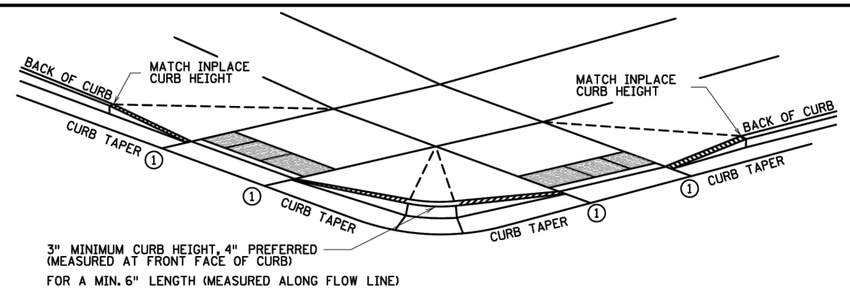


GRADED FLARES

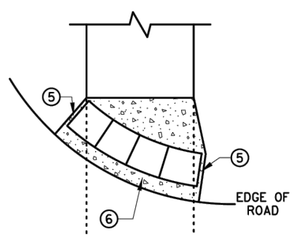


RETURNED CURB ④

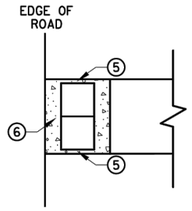
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

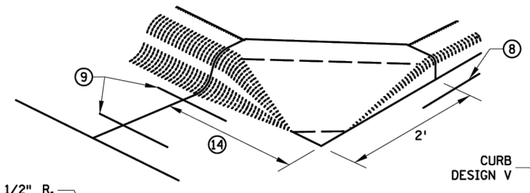


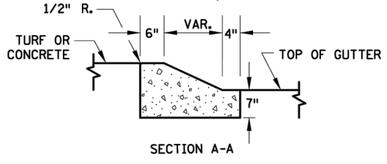
RADIAL DETECTABLE WARNING



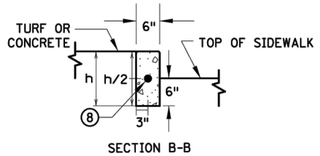
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER

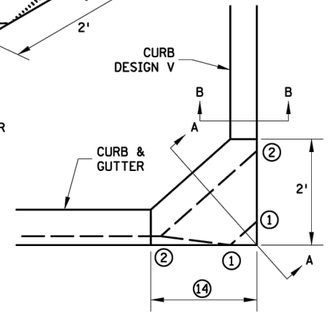




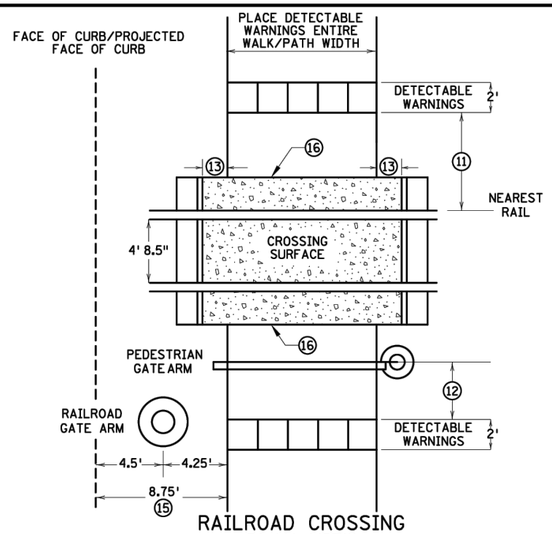
SECTION A-A



SECTION B-B



PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS, AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 4 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 14, 2024 - 11:27am
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DESIGNED BY:	---	
DRAWN BY:	---	DATE:
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CITY OF RAMSEY
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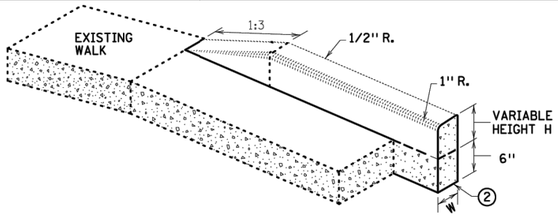
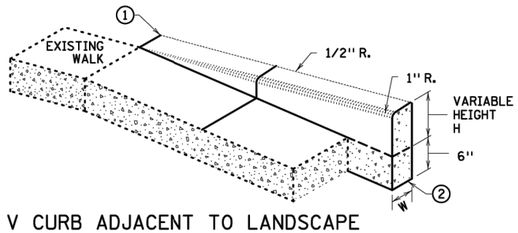
MNDOT PEDESTRIAN RAMP DETAILS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

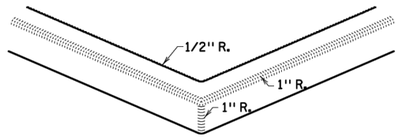
SHEET 11 OF 77 SHEETS



V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

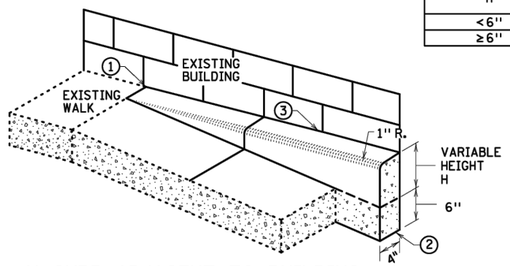


V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS

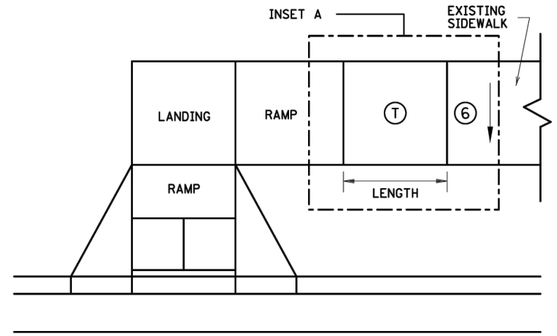


V CURB INTERSECTION

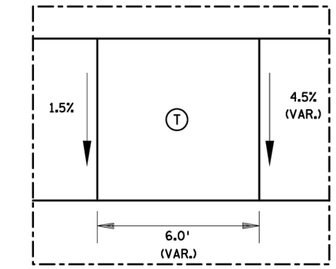
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
<6"	4"
≥6"	6"



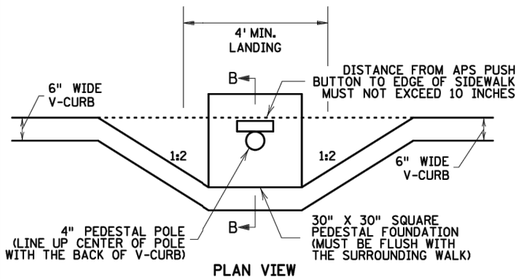
V CURB ADJACENT TO BUILDING OR BARRIER



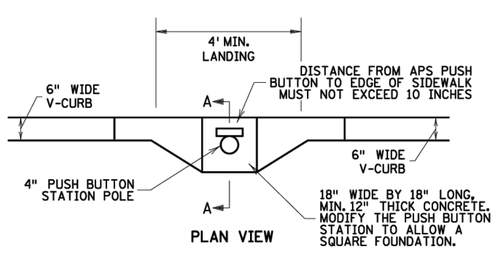
TRANSITION PANEL ④⑤



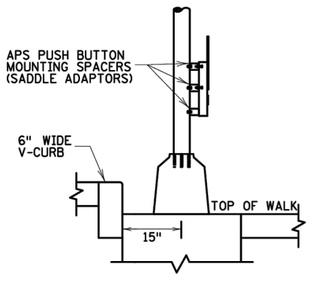
INSET A



PLAN VIEW

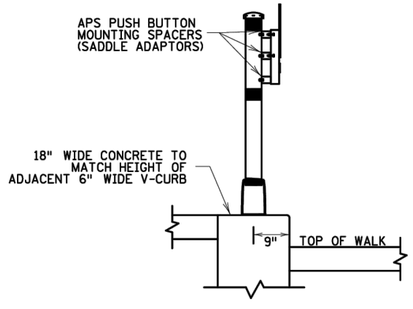


PLAN VIEW



SECTION B-B

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

(1) END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

(2) ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

(3) CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

(4) THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

(5) TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

(6) EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

(T) TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

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CITY OF RAMSEY
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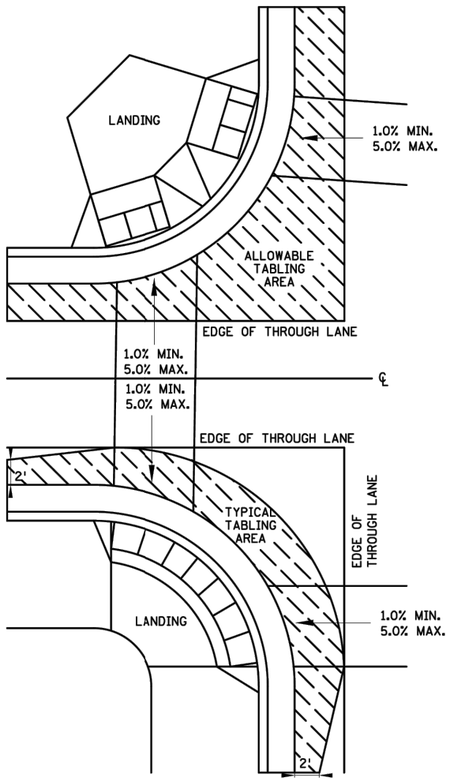
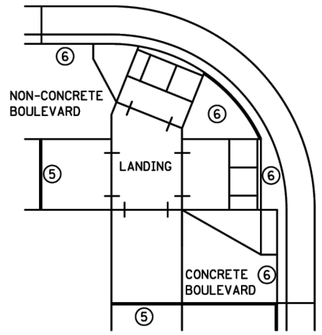
MNDOT PEDESTRIAN RAMP DETAILS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

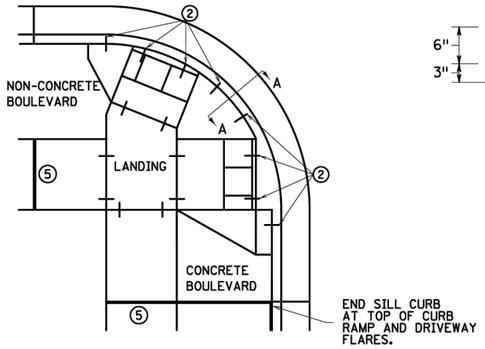
SHEET 12 OF 77 SHEETS



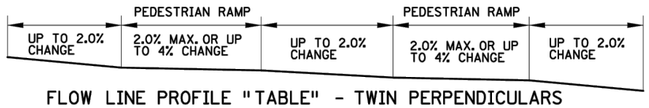
CURB LINE AND ROAD CROSSING ADJUSTMENTS



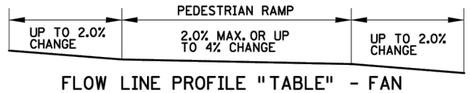
EXPANSION MATERIAL PLACEMENT
FOR CONCRETE ROADWAYS



CURB LINE REINFORCEMENT ④
PLACEMENT ON BITUMINOUS ROADWAYS

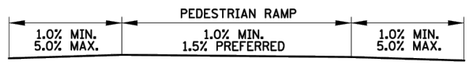


FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS

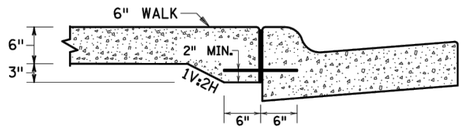


FLOW LINE PROFILE "TABLE" - FAN

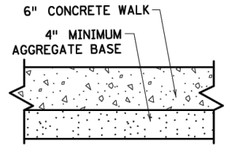
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



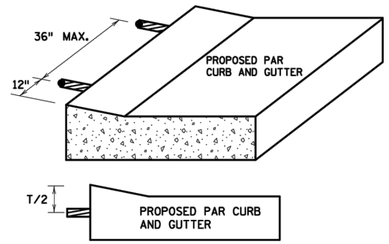
FLOW LINE PROFILE RAISE - FAN



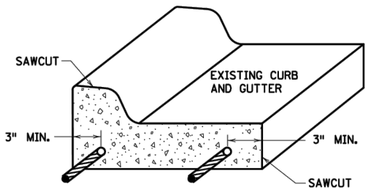
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



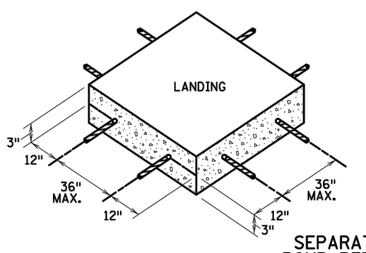
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

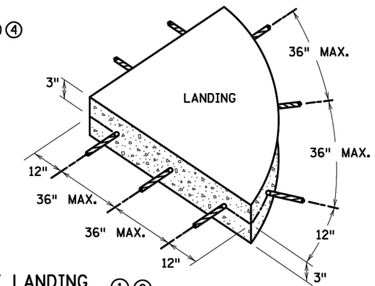


CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER
REINFORCEMENT ③





SEPARATE LANDING
POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.

④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.

⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 6 OF 6

APPROVED: 11-04-2021
REVISED:
THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

DATE	REVISION

Nov 14, 2024 - 11:28am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Reconst 24-13\Plan Drawings\City Details.dwg

DESIGNED BY:	---	
DRAWN BY:	---	DATE:
CHECKED BY:	---	FILE: 24-13

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

MNDOT PEDESTRIAN RAMP DETAILS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 13 OF 77 SHEETS

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION

CITY OF RAMSEY
ANOKA COUNTY, MINNESOTA

DESCRIPTION OF CONSTRUCTION ACTIVITIES AND STORMWATER MANAGEMENT:

Construction activities include; Site Grading, Storm Sewer Replacement, Temporary Erosion and Sediment Control, Roadway Construction, and Permanent Stabilization.

Project Description: This project consists of reconstructing 2.16 miles of existing urban bituminous streets, using full depth reclamation and some soil corrections. The project also includes two new pedestrian ramps as well as replacement of existing damaged storm sewer and some new storm sewer. The drainage for the existing streets use bituminous curb which will be switched to concrete surmountable curb and gutter. Outfall locations will generally remain the same, with the exception of one storm sewer pipe which will extend further south than the existing pipe from 173rd Ave to an existing wetland in the center of the subdivision. Runoff generally drains north to Trott Brook.

RESPONSIBLE PARTIES:

The Contractor and Owner must apply for coverage under the MPCA's General Storm Water Permit for Construction Activity as required by the National Pollution Discharge Elimination System (NPDES) Phase II program. Coverage under the permit will begin automatically 7 calendar days after the electronic submittal date or after the postmarked date of a complete application. (Longer time frames will apply to areas disturbing 50 acres or discharge within 1 mile of a special water).

	COMPANY	CONTACT PERSON	PHONE
OWNER:	CITY OF RAMSEY	BRUCE WESTBY, PE	763-433-9825
SWPPP DESIGNER:	CITY OF RAMSEY	LOGAN CZECH	763-453-2531
CONTRACTOR:			
SITE MANAGER:			
PARTY RESPONSIBLE FOR LONG TERM O&M:	CITY OF RAMSEY	BRUCE WESTBY, PE	763-433-9825

Individuals listed above, including the SWPPP preparer, individual overseeing implementation of, revising and amending the SWPPP, Individuals performing or supervising the installation, maintenance and repair of BMP's must be trained. At least one individual present on the permitted project, or available within 72 hours shall be trained in the applicable job duties. Documentation showing training commensurate with the job duties and responsibilities is required to be included in the SWPPP prior to any work beginning on the site. Copies of the SWPPP preparer information is included in the Project Manual. The Contractor shall provide information for the individual(s) overseeing implementation, supervising installation, maintenance, and repair of BMP's to be included in the Project Manual prior to the start of construction. This information shall be kept up to date until the project NOT is filed.

Documentation shall include:

a. Names of trained personnel associated with this project.
b. Dates of training, names of instructor(s) and entity providing training.
c. Content of training course or workshop including the number of hours trained.
d. As an alternative to a, b, and c listed above, a photocopy of the current Erosion and Stormwater Management card issued by the University of Minnesota can be attached to the SWPPP as suitable documentation of training.

DOCUMENTATION RETENTION:

The following documentation will be retained for a period of not less than 3-years form the date of submittal of the NOT.

1. The final SWPPP.
2. Copies of all stormwater related permits required for the project.
3. Records of all inspection and maintenance conducted during construction.
4. Copies of all permanent operation and maintenance agreements; including all right-of-way, contracts, covenants and other binding requirements regarding perpetual maintenance.
5. All required calculations for design of temporary and permanent BMP's.

IMPLEMENTATION SCHEDULE AND PHASING:

1. Furnish & Install perimeter sediment control and inlet protection.
2. Reclamation of existing bituminous pavement.
3. Replacement of damaged storm sewer and addition of new storm sewer.
4. Perform soil corrections.
5. Rough grade site.
6. Furnish & install curb & gutter.
7. Furnish & install bituminous pavement.
8. Add additional temporary BMP's as necessary during construction based on inspection reports.
9. Submit Notice of Termination (NOT) to MPCA within 30 days of final stabilization.

FINAL STABILIZATION:

The permittee(s) must ensure final stabilization of the site. The permittee(s) must submit a NOT within 30 days after final stabilization is complete, or another owner/operator (permittee) has assumed control over all areas of the site which have not undergone final stabilization. Final stabilization can be achieved in one of the following ways:

1. All soil disturbing activities at the site have been completed and all soils must be stabilized by a uniform perennial vegetative cover with a density of 70 percent over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions and;

a. All drainage ditches, constructed to drain water from the site after construction is complete, must be stabilized to preclude erosion;
b. All temporary synthetic, and structural erosion prevention and sediment control BMP's (such as silt fence) must be removed as part of the site final stabilization; and
c. The permittee(s) must clean out all sediment from conveyances and from temporary sedimentation basins to be used as permanent water quality management basins. Sediment must be stabilized to prevent it from being washed back into the basin, conveyances or drainage ways discharging off-site or to surface waters. The cleanout of permanent basins must be sufficient to return the basin to design capacity.

2. Final vegetation cover shall be in the Project Specifications.
3. For residential construction only, final stabilization has been achieved when temporary erosion protection and down gradient perimeter control for individual lots has been completed and the residence has been transferred to the homeowner. Additionally, the permittee must distribute the MPCA "Homeowner fact sheet" to the homeowner to inform the homeowner of the need for, and benefits of, final stabilization.

SPECIAL ENVIRONMENTAL CONSIDERATIONS:

Was an environmental review required for this project or any part of a common plan of development or sale that includes all or any portion of this project?	NO
Does any portion of the site have the potential to affect threatened or endangered species?	NO
Does any portion of this site discharge to a Calcareous Fen and the letter of approval from the DNR is located in the Project Manual?	NO
Will any portion of this site potentially affect properties listed on the National Register of Historic Places or a Known or Discovered Archeological site?	NO
Have any Karst features been identified in the project vicinity?	NO
Is compliance with temporary or permanent stormwater management design requirements infeasible for this project?	NO

POLLUTION PREVENTION MANAGEMENT MEASURES:

The permittee(s) shall implement the following pollution prevention management measures on the site:

1. Solid waste: collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal regulations.
2. Hazardous materials: oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spills, leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.
3. External washing of trucks and other construction vehicles must be limited to a defined area of the site. Runoff must be contained and waste properly disposed of. No engine degreasing is allowed on site.

GENERAL STORMWATER DISCHARGE REQUIREMENTS:

All requirements listed in Part 15 of the permit for the design of permanent stormwater treatment system and discharge have been included in the preparation of this SWPPP. These include but are not limited to:

1. The expected amount, frequency, intensity and duration of precipitation.
2. The nature of stormwater runoff and run-on at the site.
3. Peak flow rates and stormwater volumes to minimize erosion at outlets and downstream channel and stream bank erosion.
4. The range of soil particle sizes expected to be present on the site.

RECEIVING WATERS:

Recieving waters, including surface water, wetlands, Public Waters, and stormwater ponds are identified on the USGS 7.5min quad map within 1 mile of the project boundary. Receiving waters that are impaired, the impairment and WLA are listed as follows. All specific BMP's relative to construction activities listed in this permit for special and impaired waters have been incorporated into this plan. All specific BMP's listed in approved TMDLs and those BMP's listed for construction related waste load allocations have also been incorporated.

NAME OF WATER BODY	TYPE (DITCH, POND, WETLAND, LAKE, ETC.)	APPENDIX A SPECIAL WATER?	FLOWS TO IMPAIRED WATER WITHIN 1 MILE?	USEPA APPROVED TMDL?
RUM RIVER	RIVER	YES	YES	YES
DO; FISHESBIO; INVERTBIO				

PROJECT AREAS:

Total project size (disturbed area) =	11.46	acres
Existing area of impervious surface =	8.63	acres
Post construction area of impervious surface =	8.76	acres
Impervious surface area increased =	0.13	acres
Planned construction start date:	**May 2025**	
Planned construction completion date:	**Aug 2025**	

PROJECT LOCATION:

County: ANOKA Township: 32 Range: 25 Section: 2,11 Latitude: 45.282474 Longitude: -93.423542

PERMANENT STORMWATER MANAGEMENT SYSTEM:

Type of storm water management used if more than 1 acre of new impervious surface is created:

a. Wet Sedimentation Pond
b. Infiltration / Filtration
c. Regional Pond
d. Permanent Stormwater Management Not Required

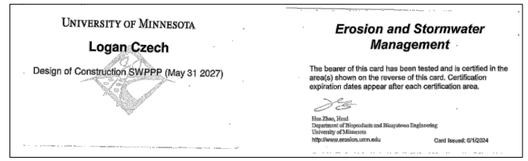
LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN:

DESCRIPTION	LOCATION
TEMPORARY EROSION CONTROL MEASURES	SHEETS No. 16 - 24
FINAL STABILIZATION	SHEETS No. 34 - 50
EROSION AND SEDIMENT CONTROL DETAILS	SHEET No. 06

EROSION AND SEDIMENT CONTROL QUANTITIES:

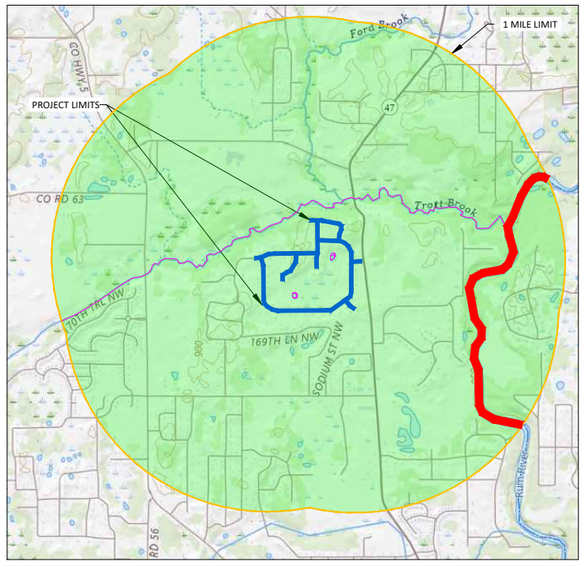
2573.501	STABILIZED CONSTRUCTION ENTRANCE	EA	2
2573.502	STORM DRAIN INLET PROTECTION	EA	23
2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	50
2573.503	SILT FENCE, TYPE MS	LF	3610
2575.504	ROLLED EROSION PREVENTION CATEGORY 20	SY	1620

CERTIFICATION:



LEGEND

- PROJECT LIMITS
- 1 MILE LIMIT
- RECEIVING WATER
- IMPAIRED WATER



DATE	REVISION

Nov 15, 2024 - 9:23am
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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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

City of RAMSEY

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

SWPPP

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 14 OF 77 SHEETS

SEQUENCE OF CONSTRUCTION:

Construction shall proceed in the following sequence:

1. Contractor shall schedule and conduct a pre-construction meeting with the City.
2. Contractor shall secure all necessary permits and licenses.
3. Furnish & install erosion control measures.
4. Maintain erosion control measures, i.e. silt fence, inlet protection.
5. Reclaim existing bituminous pavement and base.
6. Haul-off excess reclamation material.
8. Replace damaged storm sewer & Install new storm sewer.
9. Perform soil corrections.
10. Grade and compact reclamation material.
11. Furnish & install curb & gutter
13. Furnish & install base course of bituminous pavement
14. Complete restoration per plan.
14. Furnish & install wear course of bituminous pavement
15. Remove erosion control after vegetation is established.

ADDITIONAL STORMWATER POLLUTION PREVENTION, GRADING PLAN, AND SCHEDULE NOTES:

1. All slopes to be 1:4 unless approved by the city engineer.
2. Below grade structures shall be protected and meet drainage requirements per the city engineer.
3. Construction operation hours are from 7:00 a.m. - 10:00 p.m. Monday through Saturday.
4. Call Gopher State One Call for utility locations prior to any work at 1-800-252-1166.
5. Permittee may need to modify SWPPP if the general objectives of controlling pollutants is not being met.
6. Operator shall implement these and any other BMP's that may be required to meet the general permit requirements.
7. Site is not in karst area or pollution or remediation site.
8. Silt fence to be installed downhill from any grading activity.
9. If tracking onto adjacent streets occurs a street sweeper shall be used to clean streets within 8 hours or as directed by the engineer.
10. Dust control may be necessary during rough grading. No grading can take place if wind speed exceeds 25 mph.
11. Solid waste shall be collected and disposed of properly and must comply with MPCA disposal requirements.
12. Hazardous materials shall be stored properly to prevent spills and vandalism.
13. No engine degreasing is allowed on site. External washing of vehicles shall be limited to a defined area (bone yard) on site.
14. Permittee(s) shall adhere to all SWPPP specifications on the plan and other MPCA permit requirements.

EROSION PREVENTION PRACTICES:

1. The permittee(s) must plan for and implement appropriate construction phasing, vegetative buffer strips, horizontal slope grading, and other construction practices that minimize erosion, so that the inspection and maintenance requirements are complied with. The location of areas not to be disturbed must be delineated (e.g. with flags, stakes, signs, silt fence, etc.) on the development site before work begins.
2. All exposed soil areas must be stabilized as soon as practical, but in no case later than 7 days after the construction area has temporarily or permanently ceased.
   These areas include constructed stormwater management pond side slopes, and any exposed soil areas with a positive slope to a stormwater conveyance system, such as a curb and gutter system, storm sewer inlet, temporary or permanent drainage ditch or other natural or man made systems that discharge to a surface water.
3. The normal wetted perimeter of any temporary or permanent drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized within 200 lineal feet from the property edge, or from the point of discharge to any surface water. Stabilization must be completed within 24 hours of connecting to a surface water.
4. Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.
5. All disturbed areas, except roadways, building areas, parking areas, islands and sidewalk, shall be restored with minimum 4 inches topsoil, seeded and mulched within 7 days of completion of site grading. Seeding shall be in accordance with MnDOT Specification 2575. Where side slopes exceed or equal 1:3 and running slope is greater than 1:50, a polypropylene netting or wood fiber blanket shall be provided and staked over the mulched area. Seed and mulch types and applications rates are per plan and specification.
6. Refer to restoration plan for areas to be seeded or sodded for erosion control.

DEWATERING AND BASIN DRAINING:

1. Dewatering or basin draining (e.g. pumped discharges, trench/ditch cuts for drainage) related to the construction activity that may have turbid or sediment laden discharge water must be discharged to a temporary or permanent sedimentation basin on the project site whenever possible. If the water cannot be discharged to a sedimentation basin prior to entering the surface water, it must be treated with the appropriate BMP's, such that the discharge does not adversely affect the receiving water or downstream landowners. The permittee(s) must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock rip rap, sand bags, plastic sheeting or other accepted energy dissipation measures. Adequate sedimentation control measures are required for discharge water that contains suspended solids.
2. All water from dewatering or basin draining activities must be discharged in a manner that does not cause nuisance conditions, erosion in receiving channels or on downslope properties, or inundation in wetlands causing significant adverse impact to the wetland.

SEDIMENT CONTROL PRACTICES:

1. Sediment control practices must minimize sediment from entering surface waters, including curb and gutter systems and storm sewer inlets.
   a. Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g. ditches with rock check dams) require sediment control practices only as appropriate for site conditions.
   b. If the down gradient treatment system is overloaded, additional upgradient sediment control practices must be installed to eliminate the overloading, and the SWPPP must be amended to identify these additional practices.
   c. In order to maintain sheet flow and minimize rills and/or gullies, there shall be no unbroken slope length of greater than 75 feet for slopes with a grade of 1:3 or steeper.
2. Sediment control practices must be established on all down gradient perimeters before any upgradient land disturbing activities begin. These practices shall remain in place until final stabilization has been established.
3. The timing of the installation of sediment control practices may be adjusted to accommodate short-term activities such as clearing or grubbing, or passage of vehicles. Any short-term activity must be completed as quickly as possible and the sediment control practices must be installed immediately after the activity is completed. However, sediment control practices must be installed before the next precipitation event even if the activity is not complete.
4. All storm drain inlets must be protected by appropriate BMP's during construction until all sources with potential for discharging to the inlet have been stabilized.
5. Temporary soil stockpiles must have silt fence or other effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches.
6. Stockpile areas which remain on the site for more than seven days shall be seeded, mulched, and surrounded by silt fence.
7. Vehicle tracking of sediment from the construction site must be minimized by BMP's such as stone pads, concrete or steel wash racks, or equivalent systems. Street sweeping must be used if such BMPs are not adequate to prevent sediment from being tracked onto the street.
8. The permittee must install temporary sedimentation basins as required.

INSPECTIONS AND MAINTENANCE:

1. The permittee(s) (either the owner or operator, whoever is identified in the SWPPP) must routinely inspect the construction site once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 0.5-inches in 24 hours. Following an inspection that occurs within 24 hours after a rainfall event, the next inspection must be conducted within 7 days.
2. All inspections and maintenance conducted during construction must be recorded in writing and these records must be retained with the SWPPP. Records of each inspection and maintenance activity shall include:
   a. Date and time of inspections;
   b. Name of persons conducting inspections;
   c. Accurate findings of inspections, including the specific location where corrective actions are needed;
   d. Corrective actions taken (including dates, times, and party completing maintenance activities);
   e. Date of all rainfall events greater than ½ inches in 24 hours, and the amount of rainfall for each event. Permittee(s) must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of your location, or a weather reporting system that provides site specific rainfall data from radar summaries;
   f. If permittee(s) observe a discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutant(s);
   g. Any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Section 6 of the general permit within seven (7) calendar days.
3. Where parts of the construction site have undergone final stabilization, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month. Where work has been suspended due to frozen ground conditions, the required inspections and maintenance must take place within 24 hours after runoff occurs at the site or 24 hours prior to resuming construction, whichever occurs first.
4. All erosion prevention and sediment control BMP's must be inspected to ensure integrity and effectiveness. All nonfunctional BMP's must be repaired, replaced, or supplemented with functional BMP's. The permittee(s) must investigate and comply with the following inspection and maintenance requirements:
   a. All silt fence must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches ⅓ of the height of the fence. These repairs must be made within 24 hours of discovery, or as soon as field conditions allow access.
   b. Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches ½ the storage volume. Drainage and removal must be completed within 72 hours of discovery, or as soon as field conditions allow access.
   c. Surface waters, including drainage ditches and conveyance systems, must be inspected for evidence of sediment being deposited by erosion. The permittee(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems, and restabilize the areas where sediment removal results in exposed soil. The removal and stabilization must take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access constraints. The permittee shall use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. The permittee is responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work.
   d. Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces. Tracked sediment must be removed from all paved surfaces within 3 hours after notification by the City that sweeping is required.
   e. The permittee(s) are responsible for the operation and maintenance of temporary and permanent water quality management BMP's as well as all erosion prevention and sediment control BMP's, for the duration of the construction work at the site. The permittee(s) are responsible until another permittee has assumed control over all areas of the site that have not been finally stabilized or the site has undergone final stabilization, and a NOT has been submitted to the MPCA.
   f. If sediment escapes the construction site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts (e.g. fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets).
5. All infiltration areas must be inspected to ensure that no sediment from ongoing construction activities is reaching the infiltration area and these areas are protected from compaction due to construction equipment driving across the infiltration area.
6. Storm sewer pipes and structures to be inspected and cleaned out.

DATE	REVISION

Nov 14, 2024 - 11:30am
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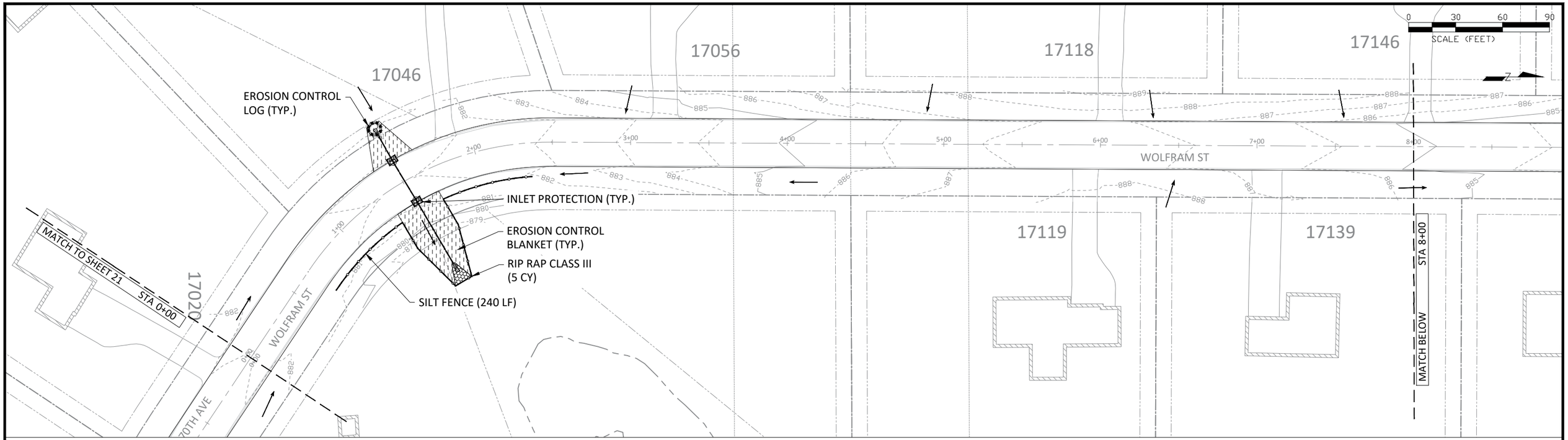
JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

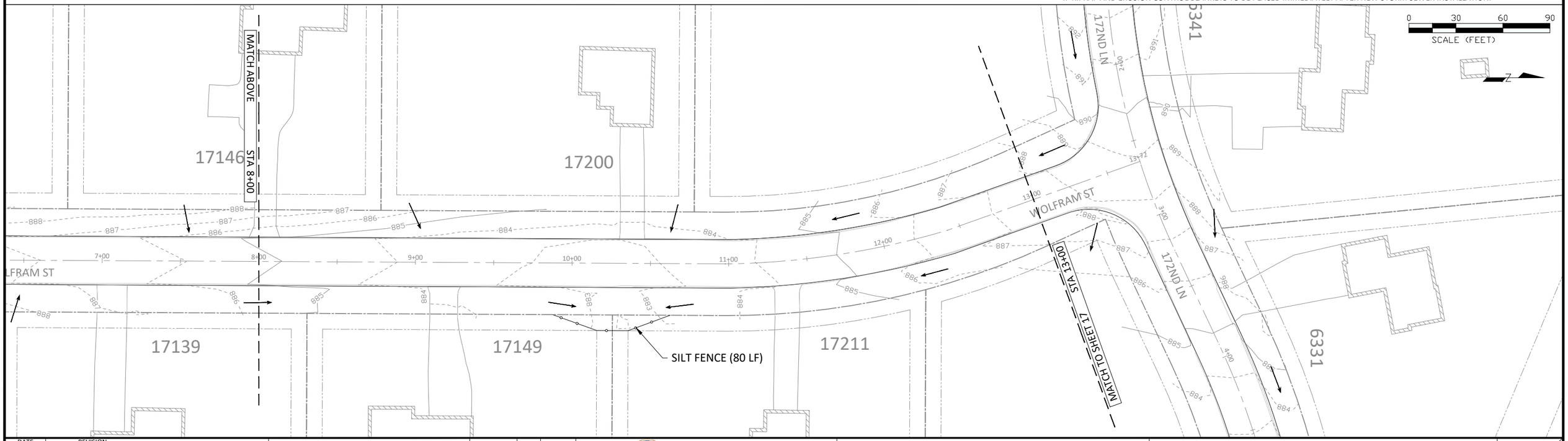
DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

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

SWPPP

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA





LEGEND

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Nov 15, 2024 - 9:52am
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EROSION CONTROL

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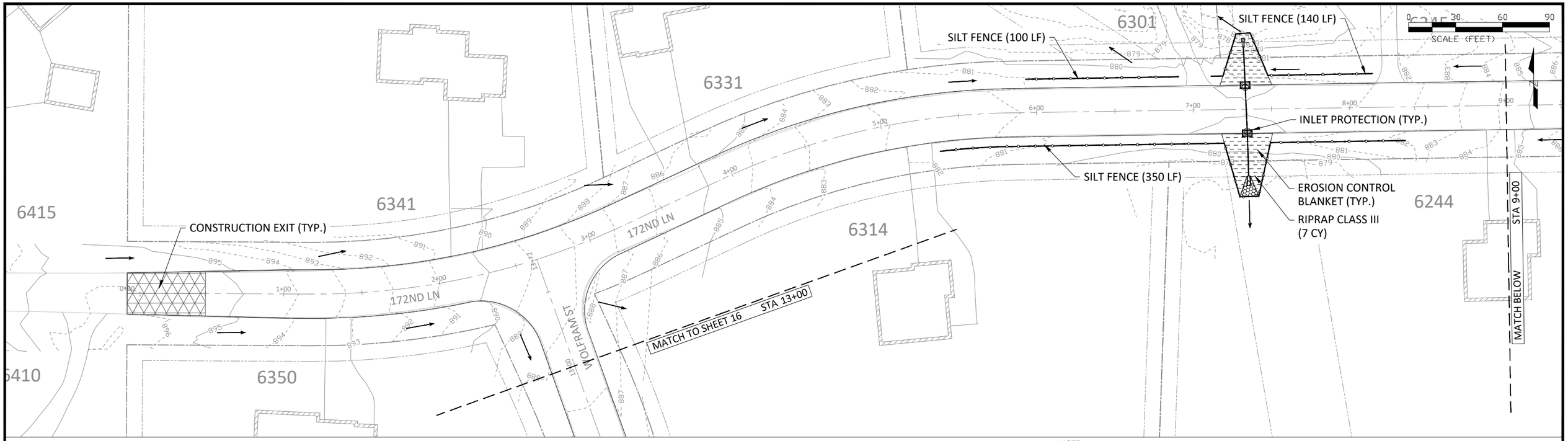
SHEET 16 OF 77 SHEETS



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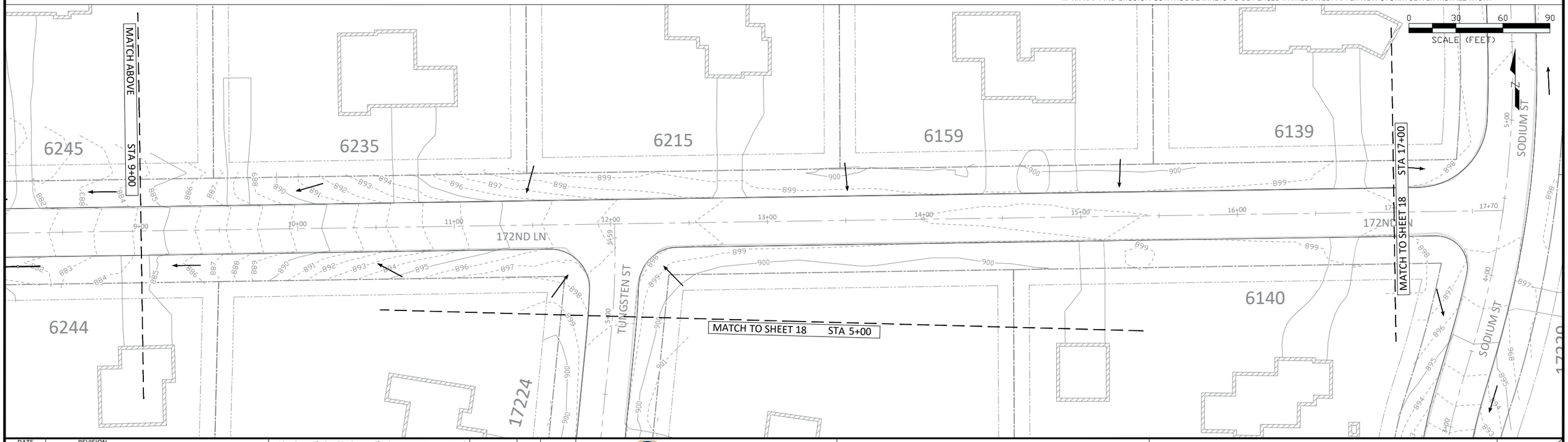

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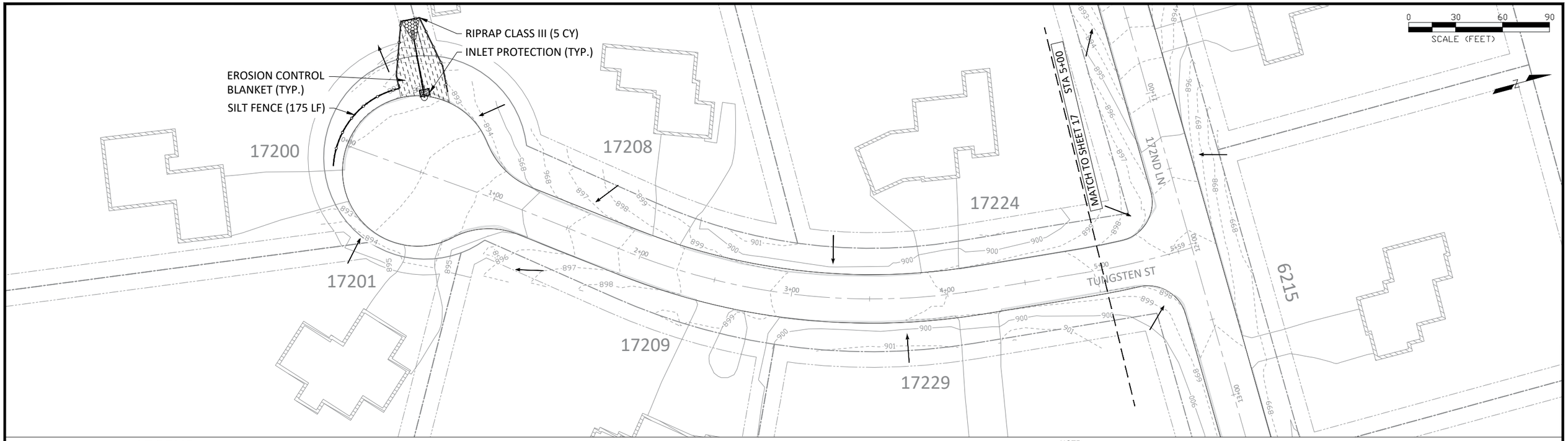

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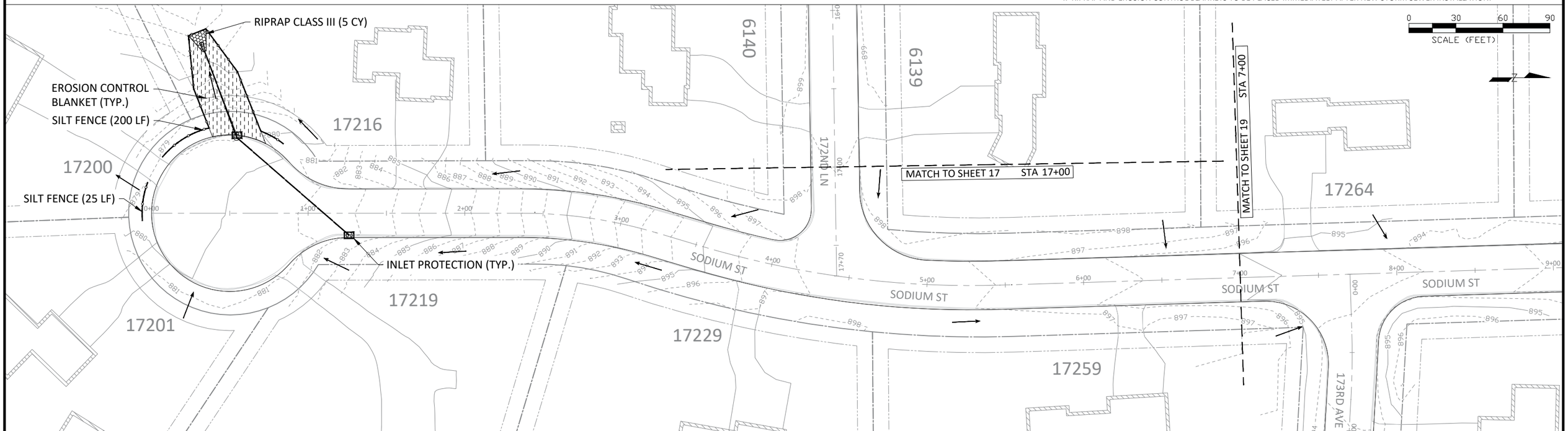

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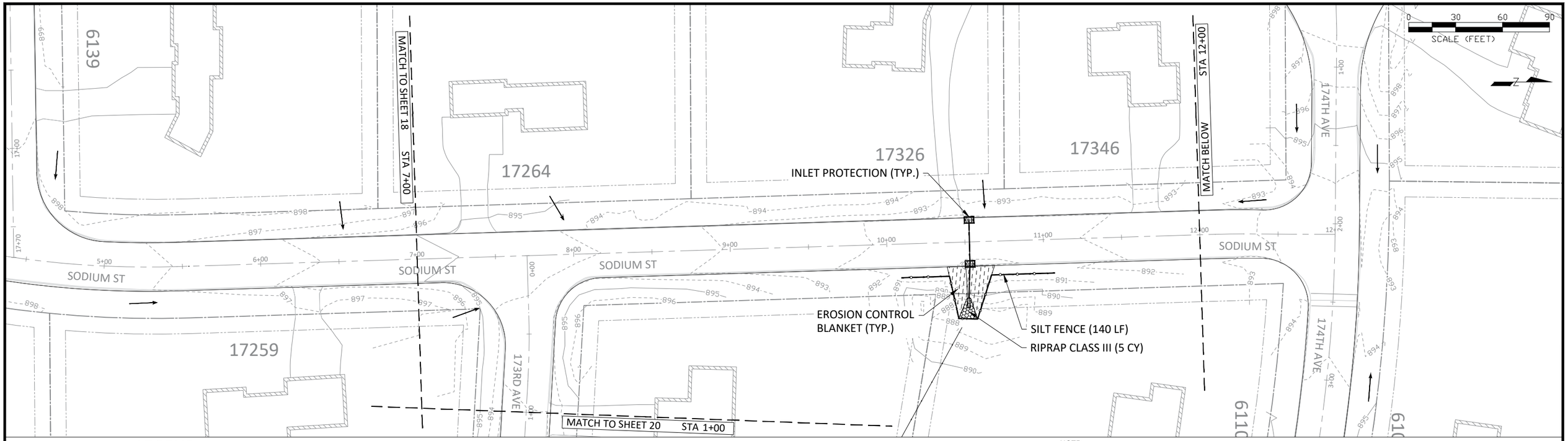

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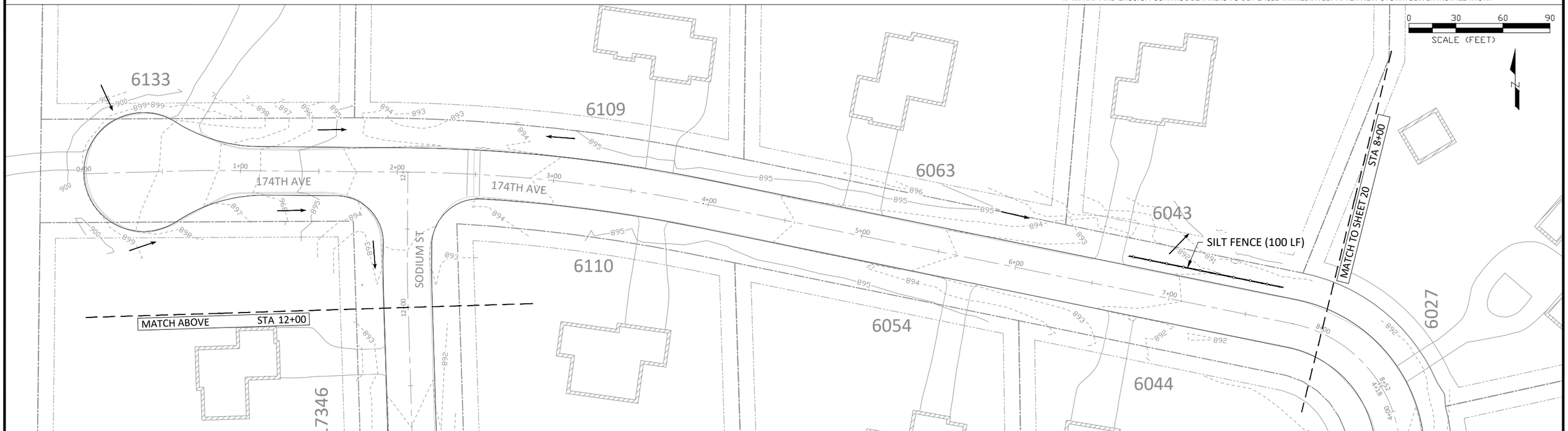

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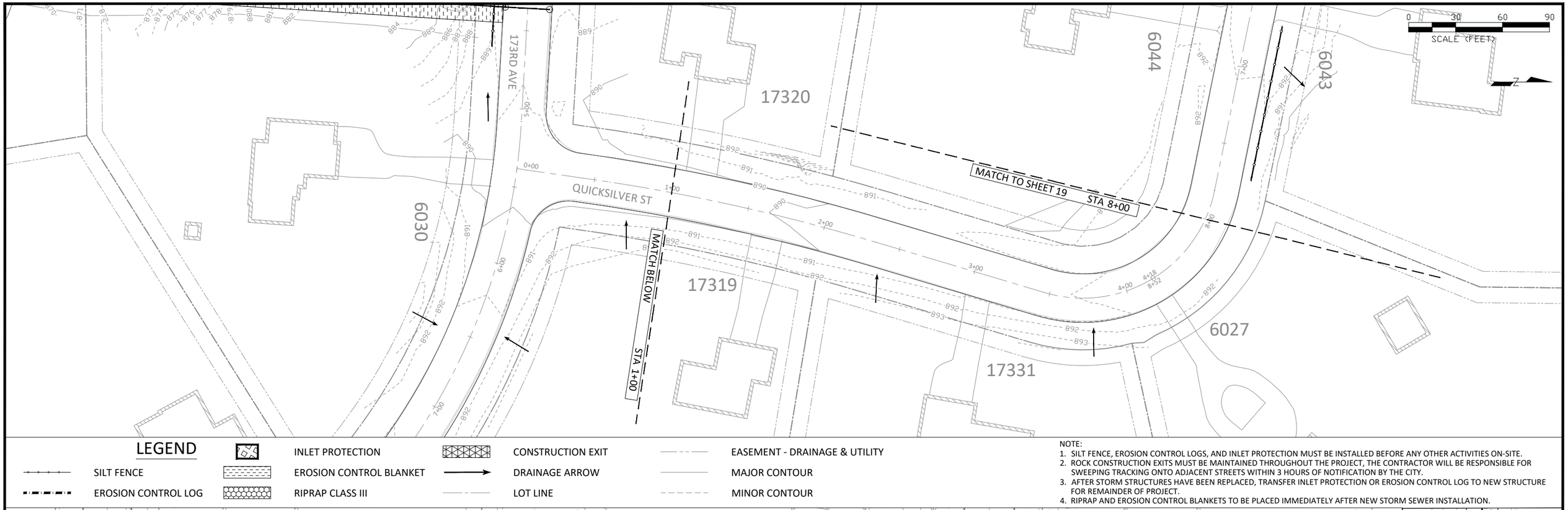
SHEET 19 OF 77 SHEETS



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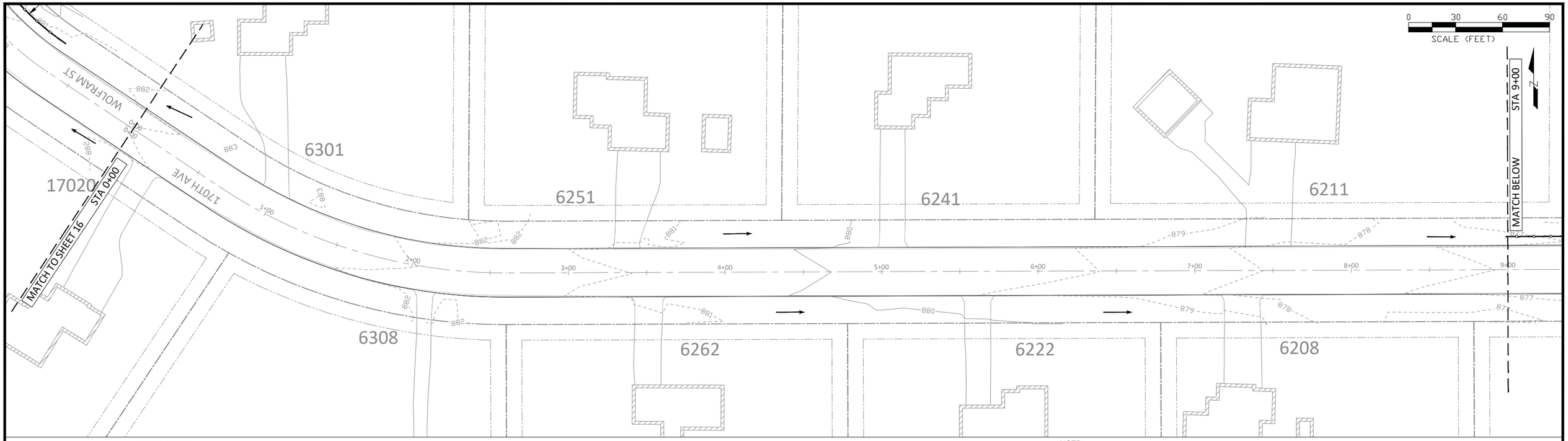

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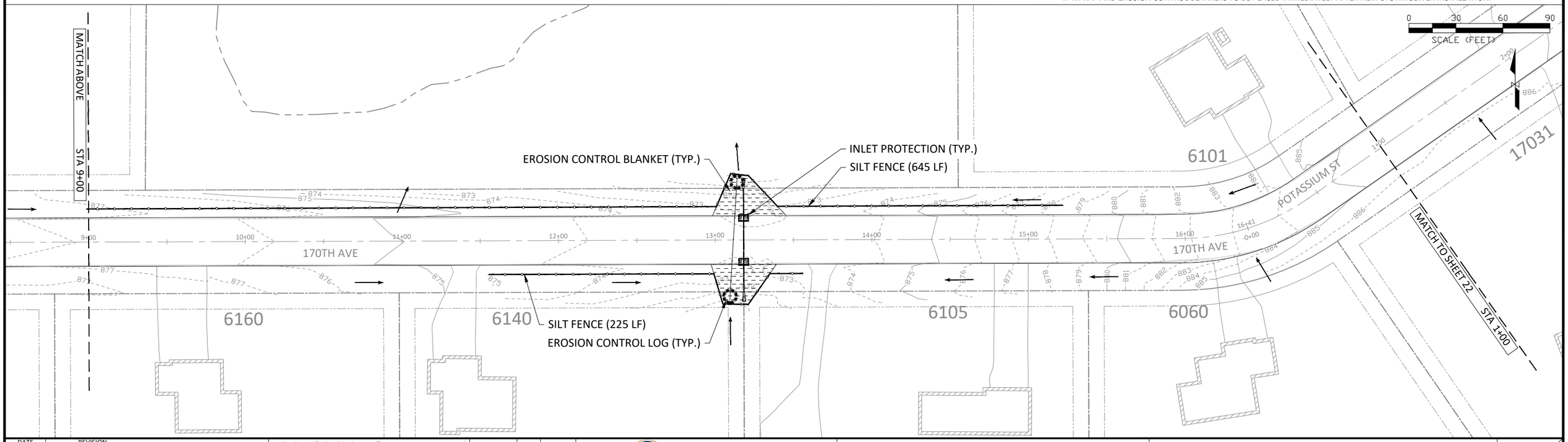

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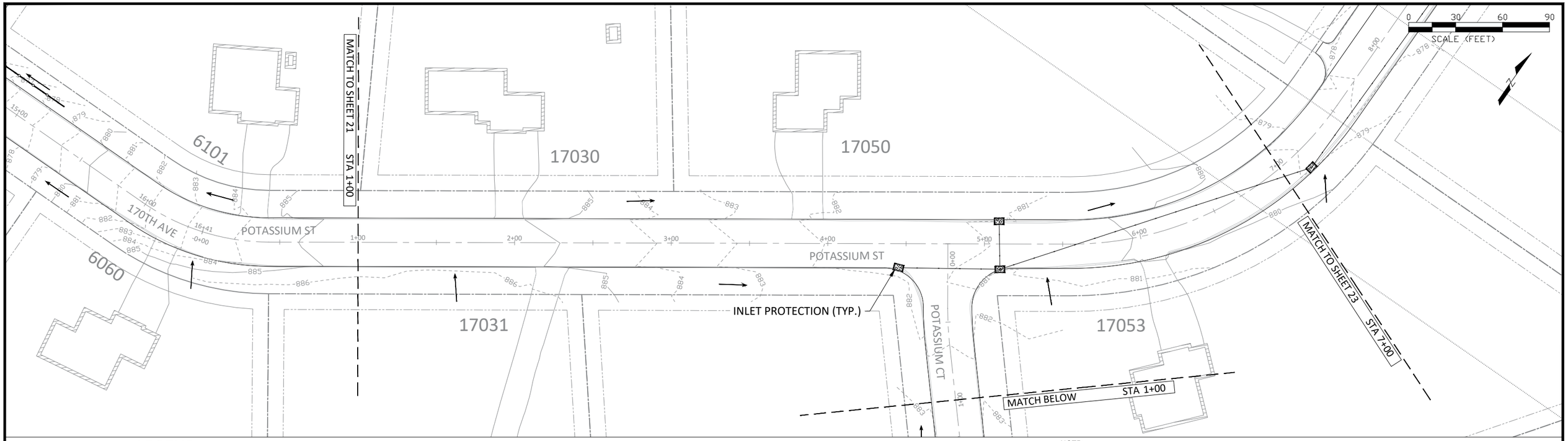

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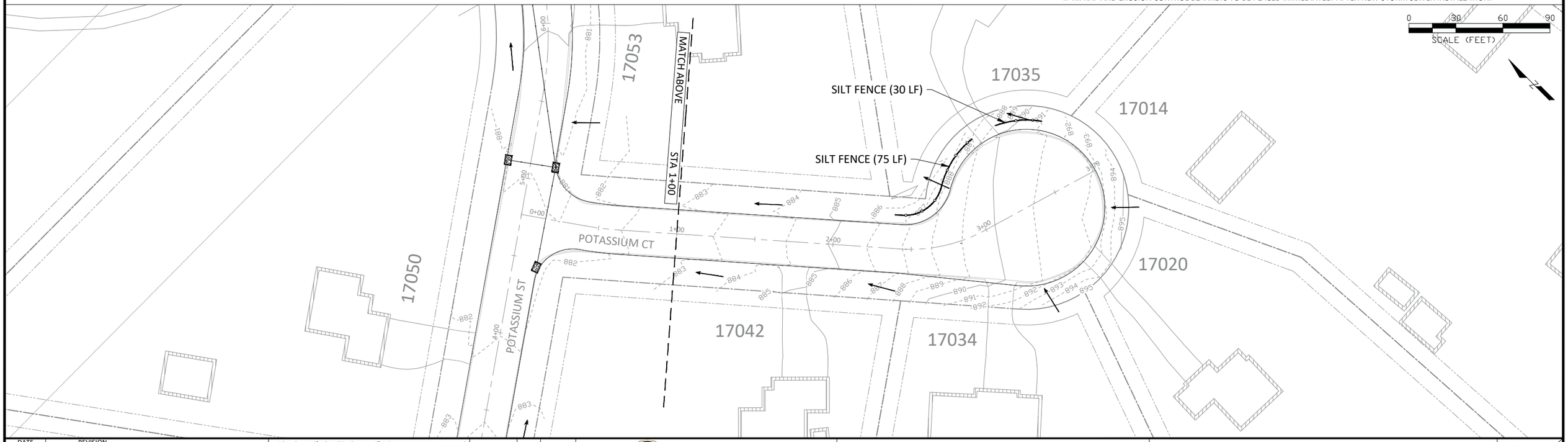

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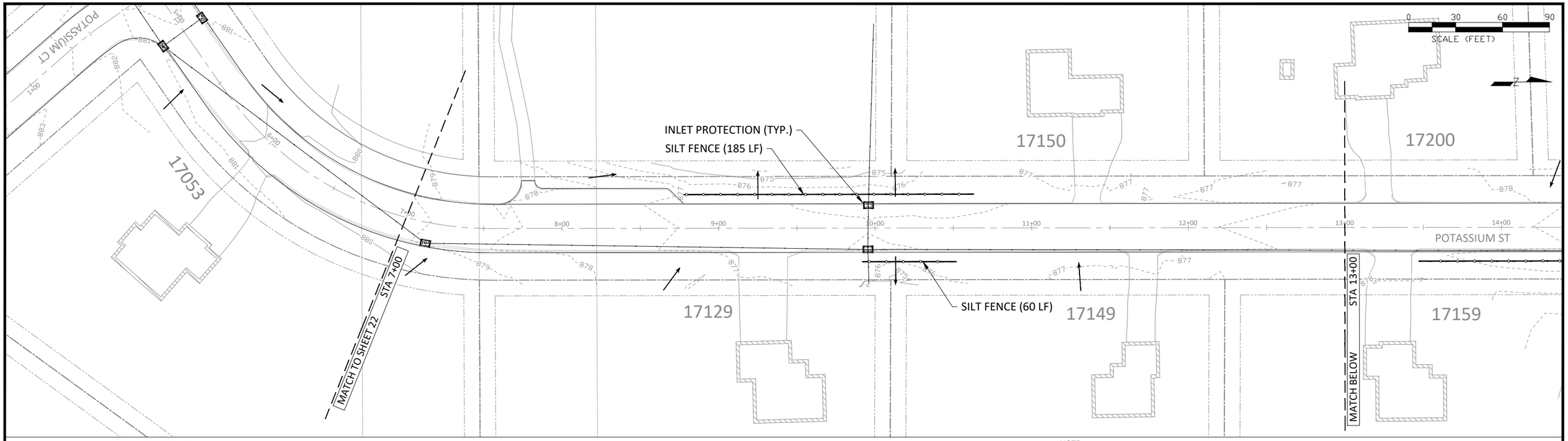

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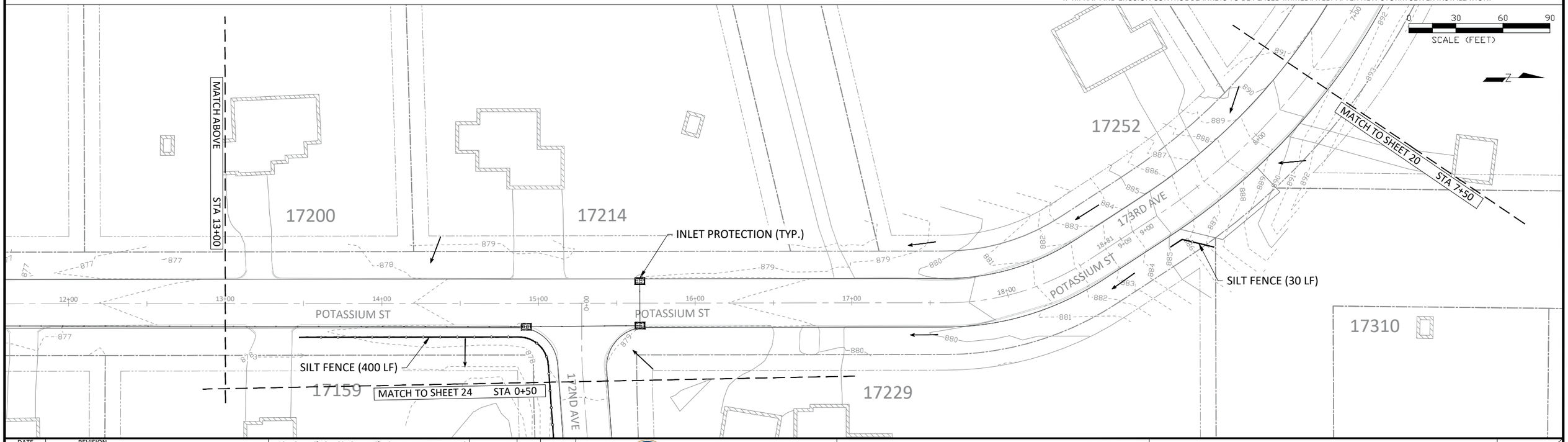

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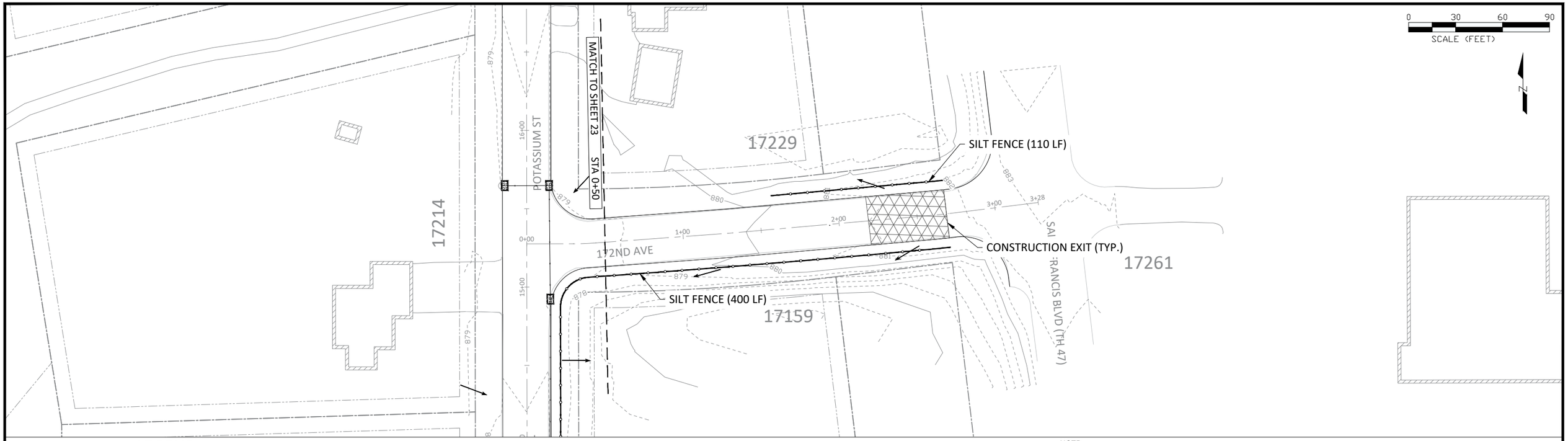

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REMOVE BIT. DRIVE (16 SY)

REMOVE BIT. DRIVE (11 SY)

REMOVE STORM SEWER (23 LF)

REMOVE CATCH BASIN (2)

REMOVE STORM SEWER (30 LF)

REMOVE STORM SEWER (52 LF)

CLEAR & GRUB (0.05 ACRE)

REMOVE BIT. DRIVE (16 SY)

REMOVE BIT. DRIVE (12 SY)

REMOVE BIT. DRIVE (15 SY)

MATCH TO SHEET 30 STA 0+00

MATCH BELOW STA 8+00

WOLFRAM ST

170TH AVE

17046 17056 17118 17146 17120 17119 17139

SCALE (FEET) 0 30 60 90

LEGEND

REMOVE STORM SEWER	FULL DEPTH RECLAMATION	MILL BIT PAVEMENT	REMOVE CONC. CURB & GUTTER	LOT LINE	EX. STORM SEWER
SAWCUT - FULL DEPTH	REMOVE PAVEMENT - BITUMINOUS	SOIL CORRECTION	REMOVE VALLEY GUTTER	GAS LINE	FILL & ABANDON STORM SEWER
REMOVE BIT CURB	REMOVE PAVEMENT - CONCRETE	REMOVE BIT FLUME	EASEMENT - NORTHERN NATURAL GAS	COMMUNICATION LINE	SALVAGE MAILBOX
	REMOVE GRAVEL	CLEAR & GRUB	EASEMENT - DRAINAGE & UTILITY	UNDERGROUND POWER	

NOTE:
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MATCH ABOVE STA 8+00

REMOVE CONC. DRIVE (16 SY)

REMOVE BIT. DRIVE (18 SY)

REMOVE BIT. DRIVE (19 SY)

REMOVE BIT. DRIVE (12 SY)

REMOVE BIT. FLUME (15 SY)

MATCH TO SHEET 26 STA 13+00

172ND LN

17146 17200 17139 17149 17211 6341 6331

SCALE (FEET) 0 30 60 90

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

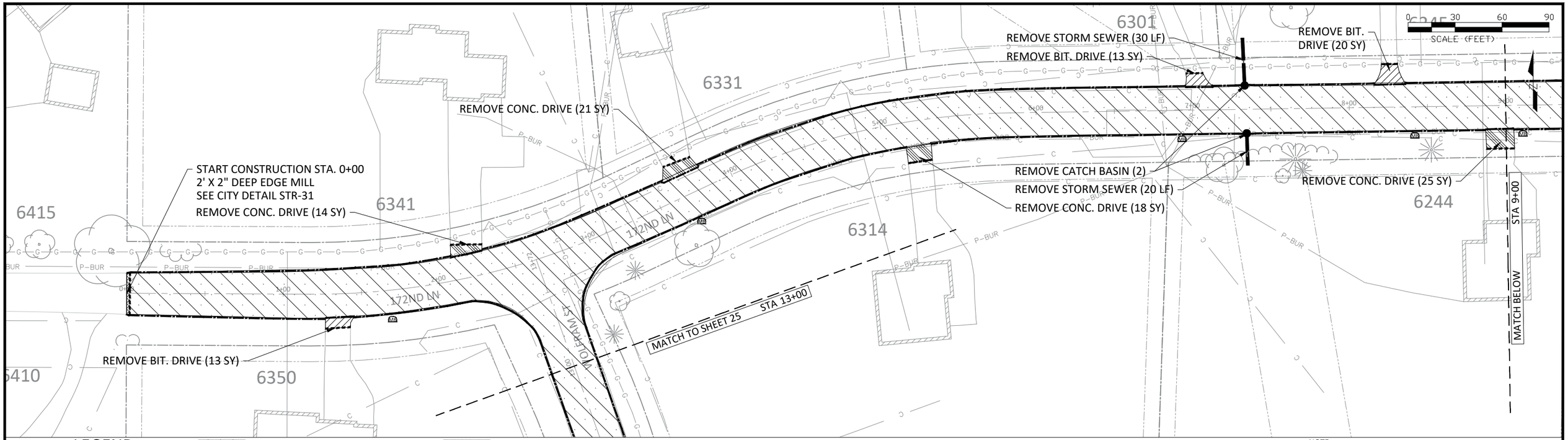
City of RAMSEY

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

REMOVALS

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 25 OF 77 SHEETS



LEGEND

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- SAWCUT - FULL DEPTH
- REMOVE BIT CURB
- FULL DEPTH RECLAMATION
- REMOVE PAVEMENT - BITUMINOUS
- REMOVE PAVEMENT - CONCRETE
- REMOVE GRAVEL
- MILL BIT PAVEMENT
- SOIL CORRECTION
- REMOVE BIT FLUME
- CLEAR & GRUB
- REMOVE CONC. CURB & GUTTER
- REMOVE VALLEY GUTTER
- EASEMENT - NORTHERN NATURAL GAS
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- GAS LINE
- COMMUNICATION LINE
- UNDERGROUND POWER
- EX. STORM SEWER
- FILL & ABANDON STORM SEWER
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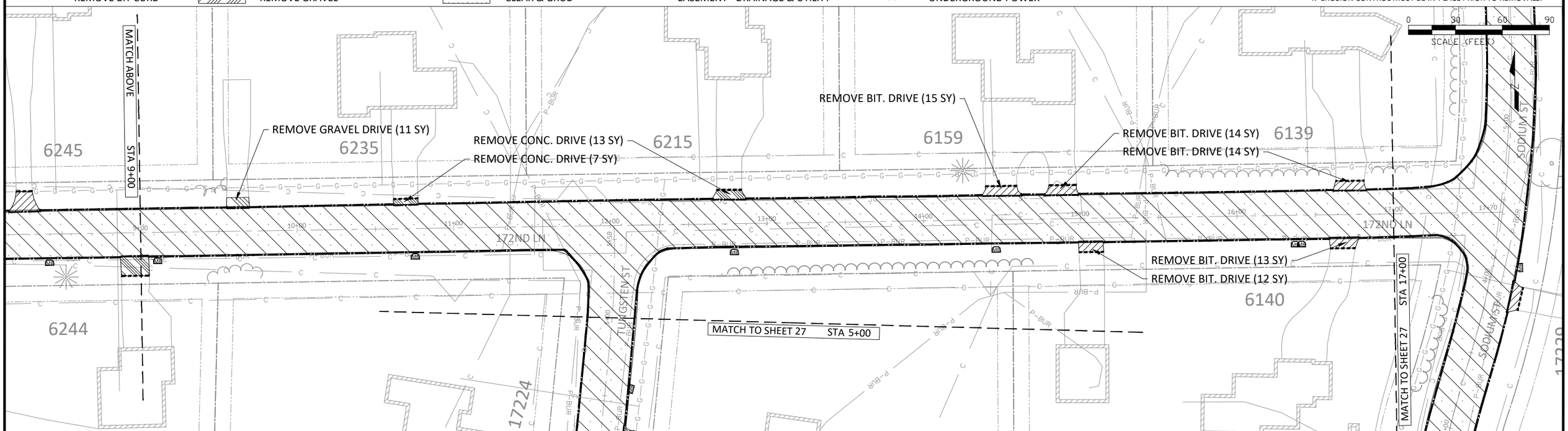

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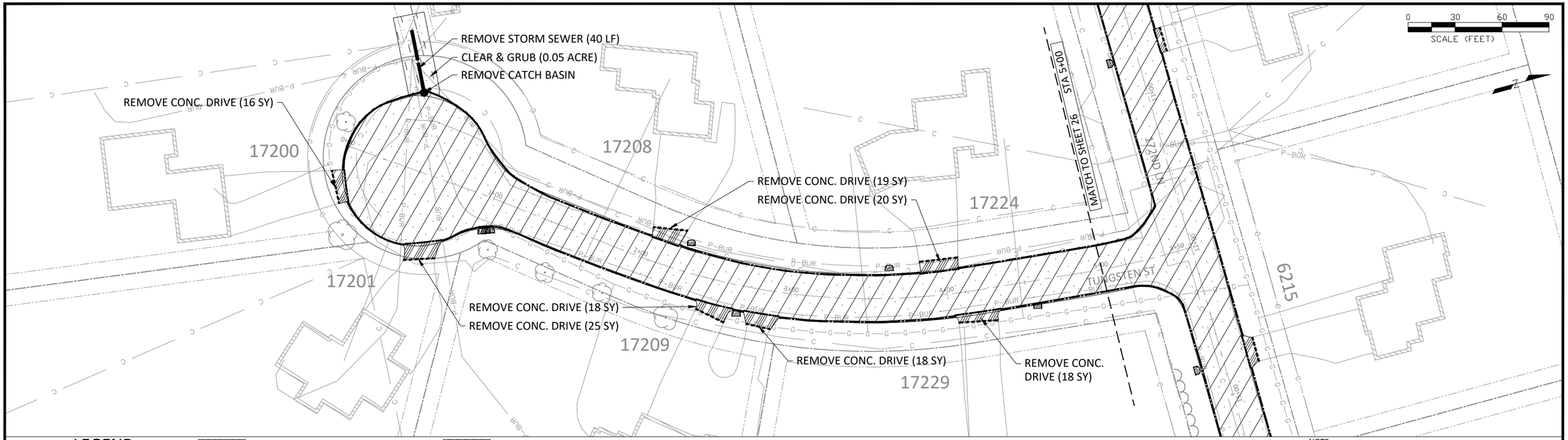
SHEET 26 OF 77 SHEETS



LEGEND

- REMOVE STORM SEWER
- SAWCUT - FULL DEPTH
- REMOVE BIT CURB
- FULL DEPTH RECLAMATION
- REMOVE PAVEMENT - BITUMINOUS
- REMOVE PAVEMENT - CONCRETE
- REMOVE GRAVEL
- MILL BIT PAVEMENT
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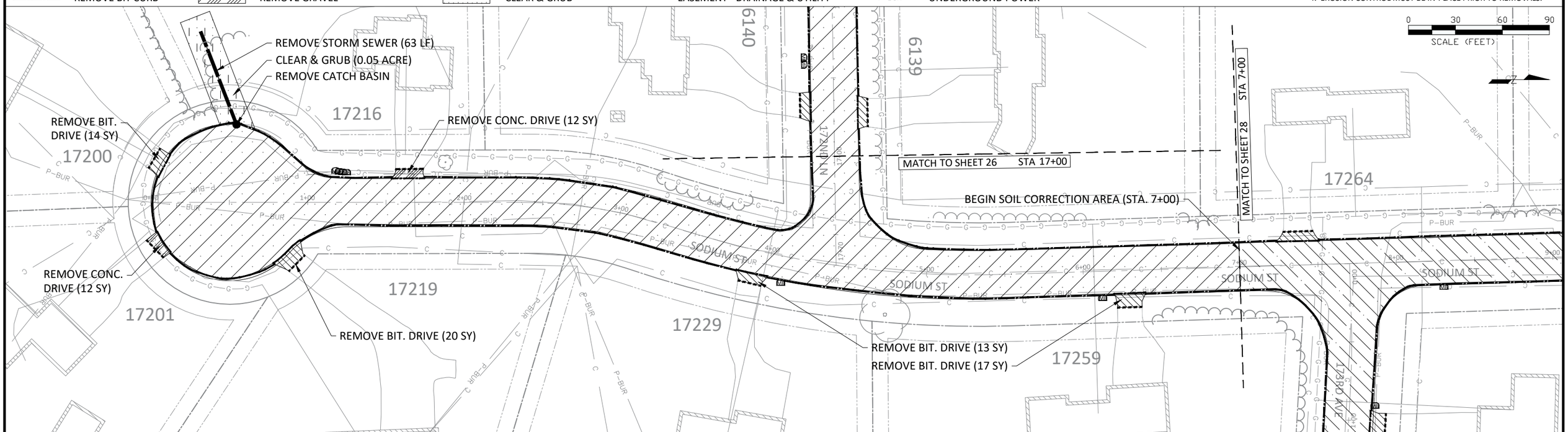

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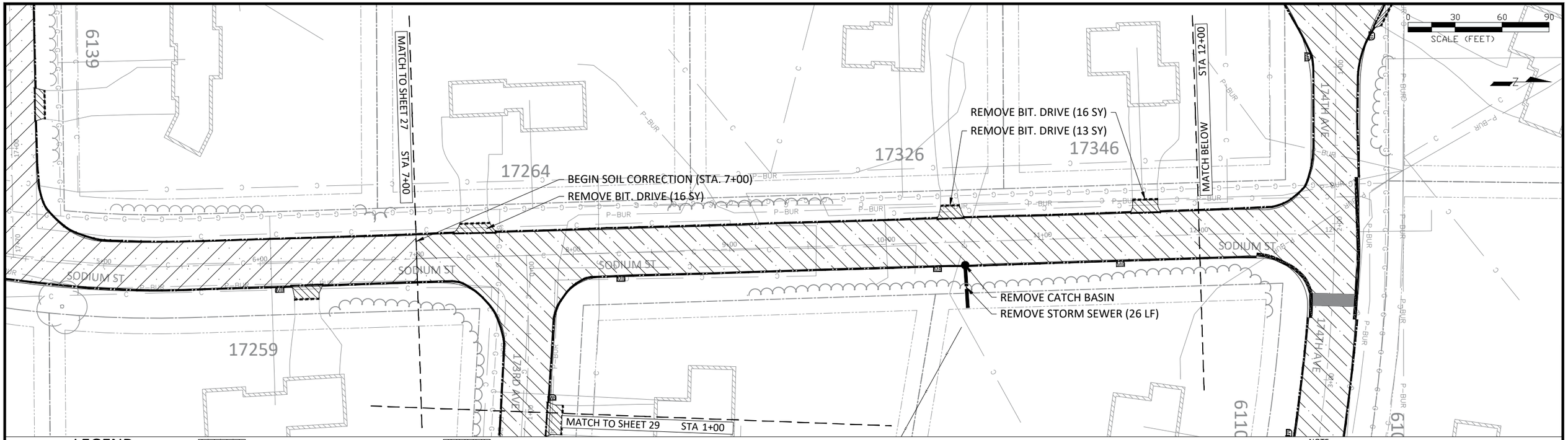
SHEET 27 OF 77 SHEETS



LEGEND

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- SAWCUT - FULL DEPTH
- REMOVE BIT CURB
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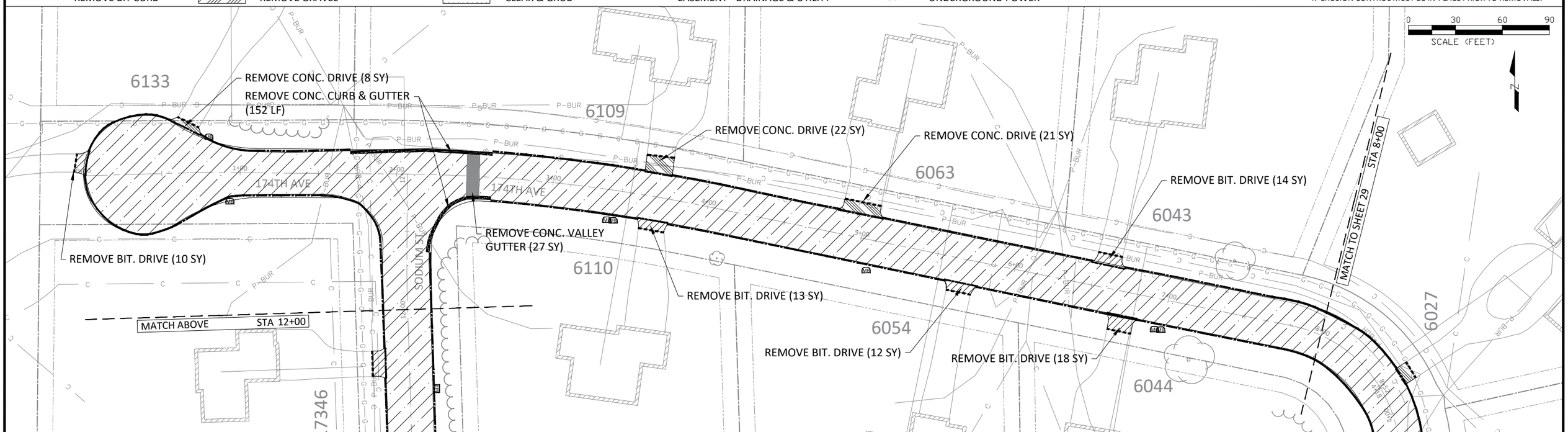

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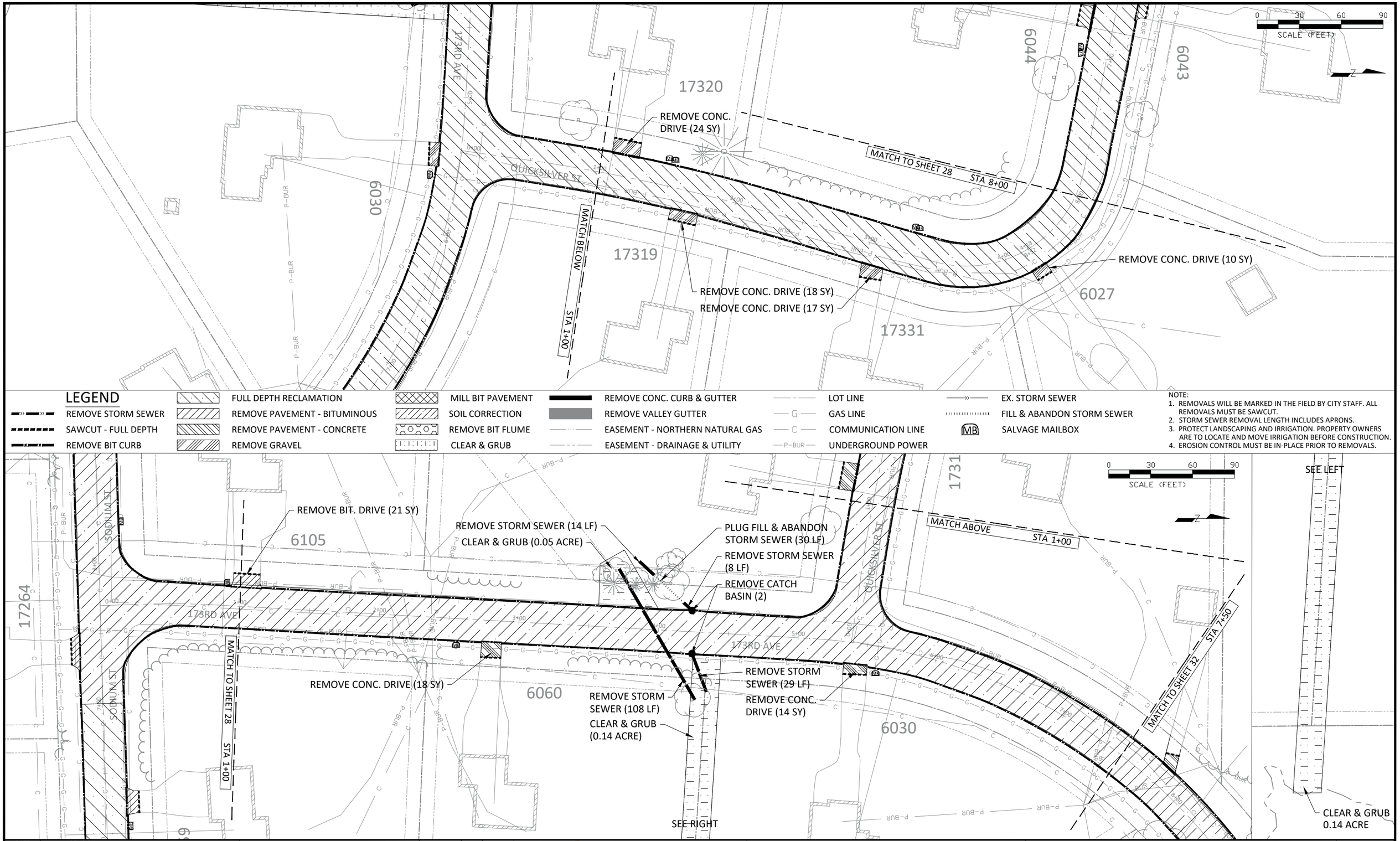
SHEET 28 OF 77 SHEETS



LEGEND

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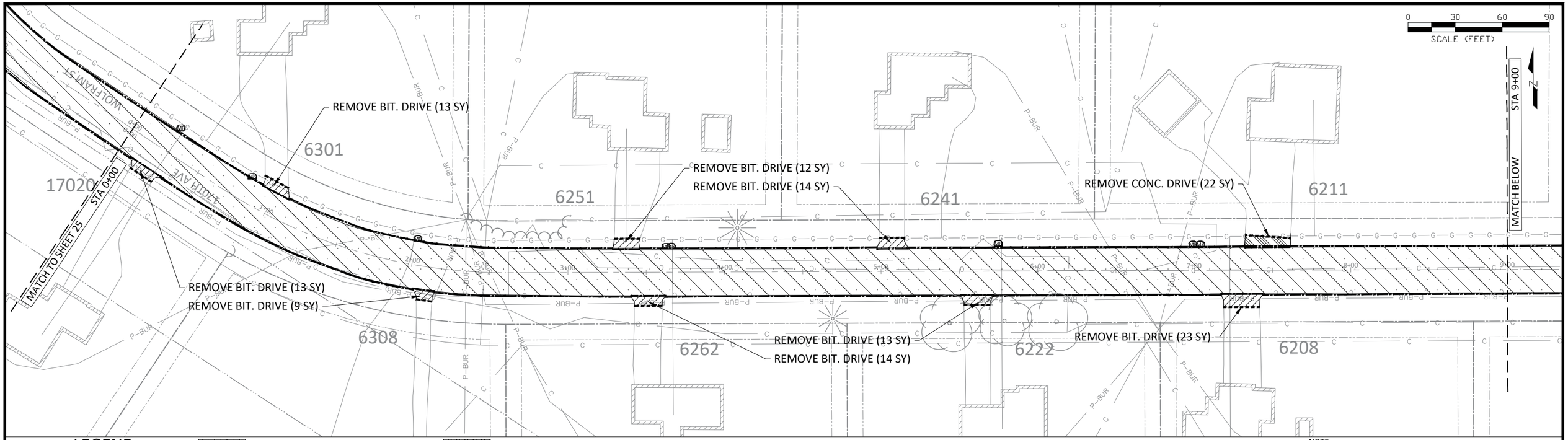

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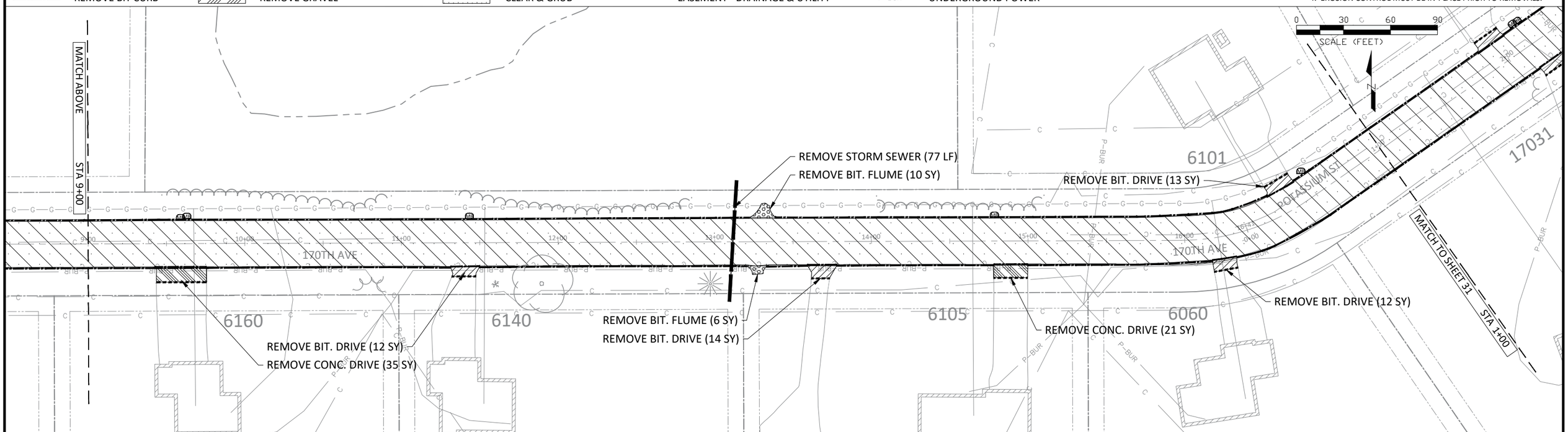

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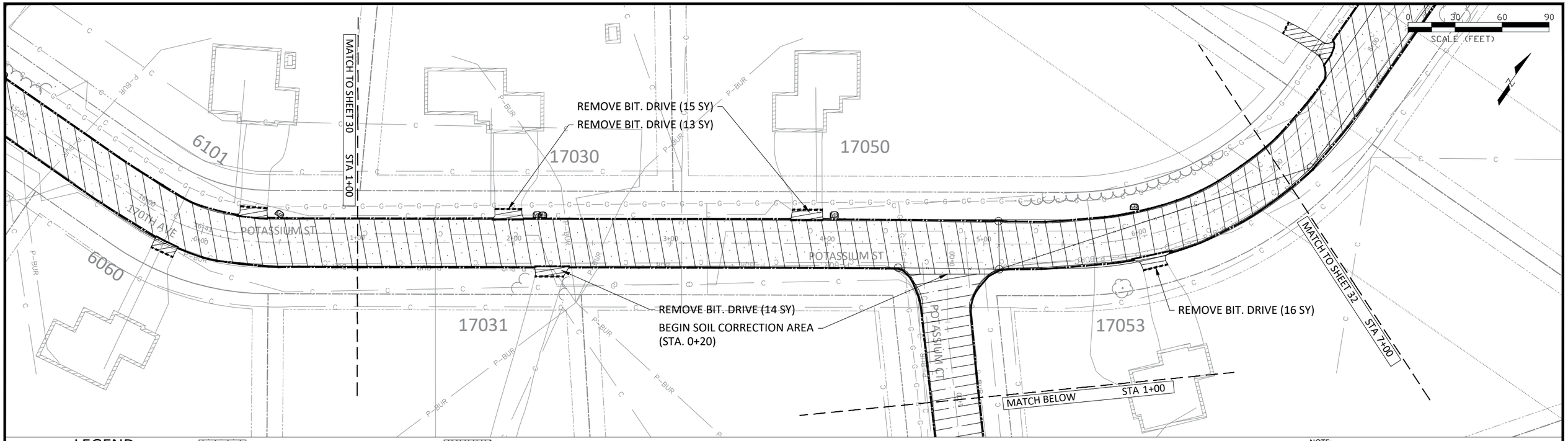
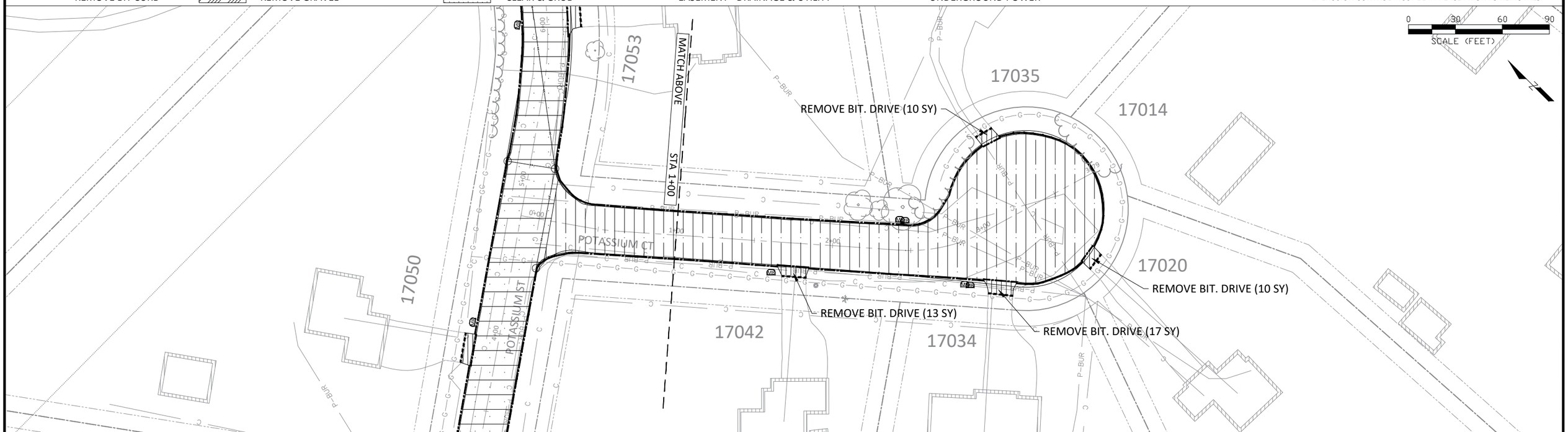
SHEET 30 OF 77 SHEETS





LEGEND

- REMOVE STORM SEWER
- SAWCUT - FULL DEPTH
- REMOVE BIT CURB
- FULL DEPTH RECLAMATION
- REMOVE PAVEMENT - BITUMINOUS
- REMOVE PAVEMENT - CONCRETE
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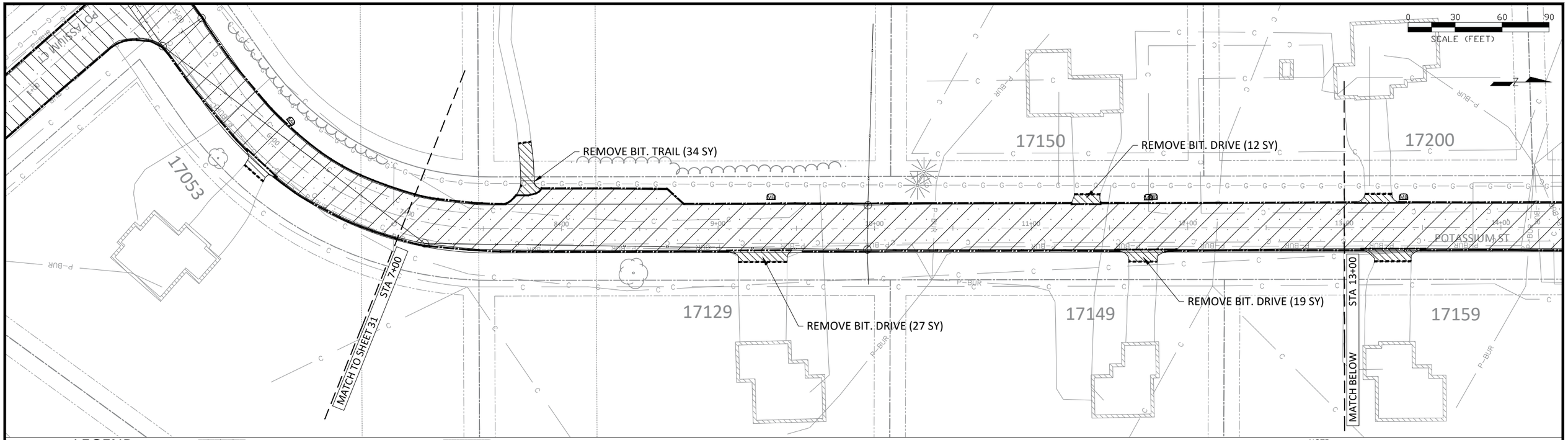

LEGEND

- REMOVE STORM SEWER
- SAWCUT - FULL DEPTH
- REMOVE BIT CURB
- FULL DEPTH RECLAMATION
- REMOVE PAVEMENT - BITUMINOUS
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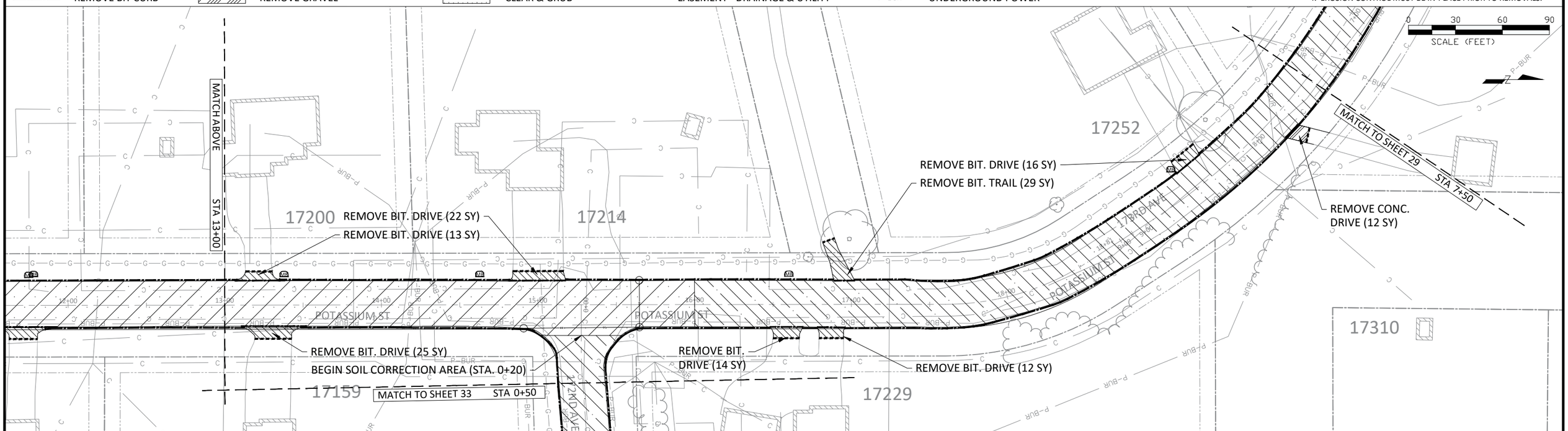

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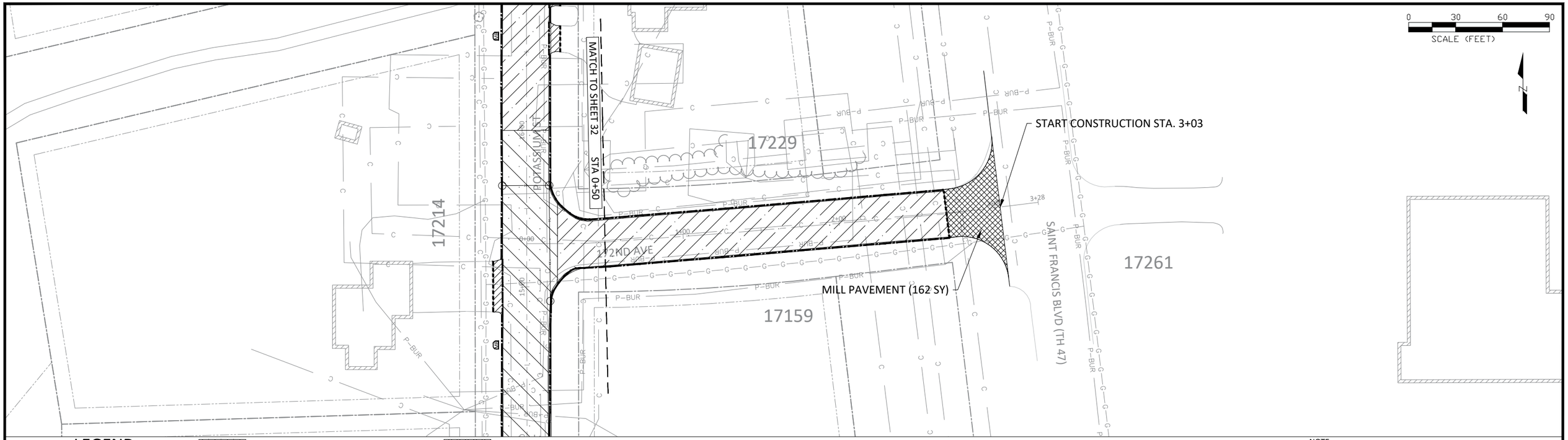

LEGEND

- REMOVE STORM SEWER
- SAWCUT - FULL DEPTH
- REMOVE BIT CURB
- FULL DEPTH RECLAMATION
- REMOVE PAVEMENT - BITUMINOUS
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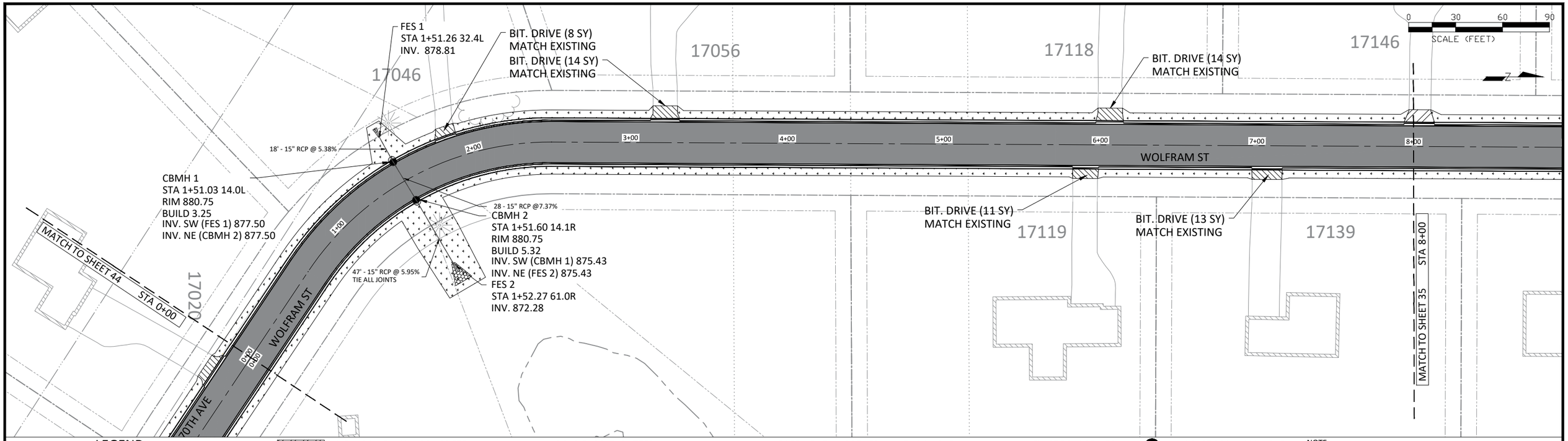
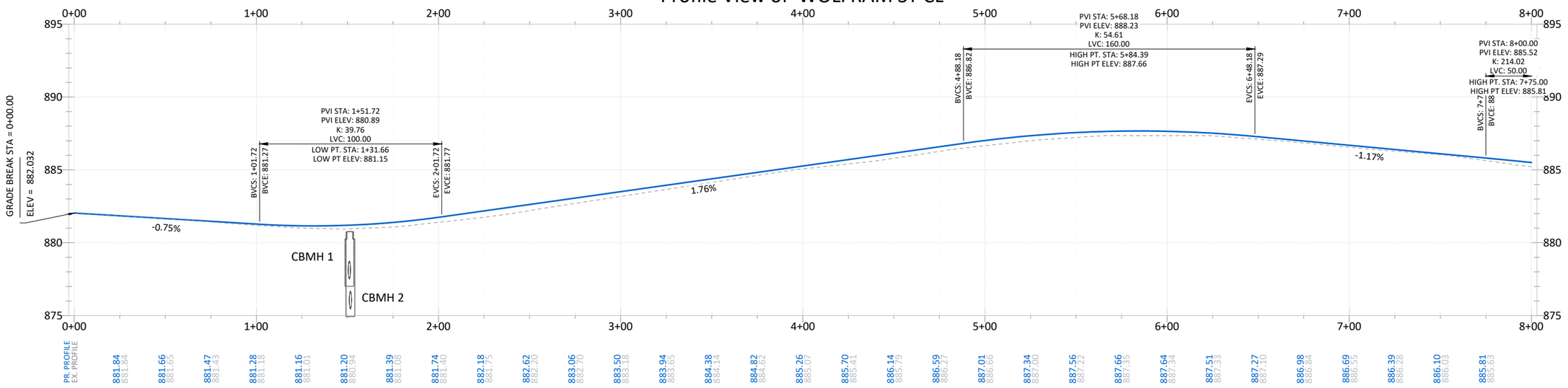


LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
- NEW DRIVEWAY - GRAVEL
- B618 CURB & GUTTER
- CURB CUT
- SURMOUNTABLE CURB & GUTTER
- VALLEY GUTTER
- EASEMENT - NORTHERN NATURAL GAS
- EASEMENT - NORTHERN STATES POWER
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- EX. STORM SEWER
- PR. STORM SEWER
- RIPRAP CLASS III
- CONCRETE FLUME
- PR. STORM MANHOLE
- PR. STORM CATCH BASIN
- PR. FLARED END SECTION

NOTE:
1. STREET WIDTHS ARE 31' B-B UNLESS OTHERWISE NOTED.
2. TYPICAL SECTION SEE SHEET 05.
3. RESTORATION AREAS ARE SHOWN IN A GENERAL MANNER ONLY.
4. RESTORE ALL DISTURBED AREAS WITH 4" TOPSOIL, HYDROSEED, MNDOT SEED MIX 25-151, AND HYDRAULIC MATRIX TYPE MULCH UNLESS OTHERWISE NOTED.

Profile View of WOLFRAM ST CL



DATE	REVISION

Nov 20, 2024 – 7:34am
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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

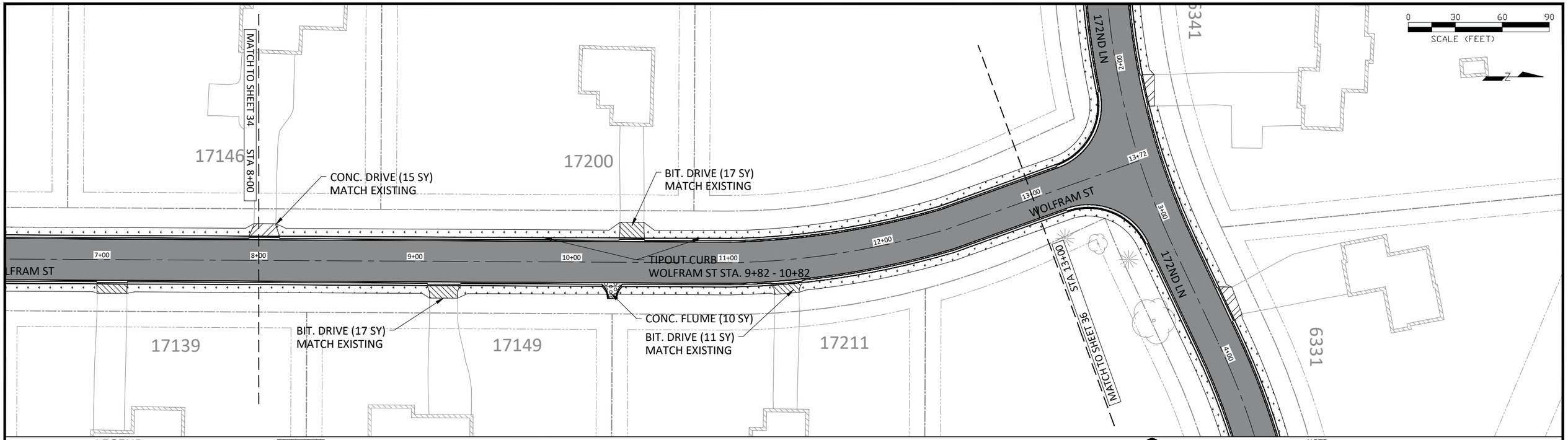
City of RAMSEY

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

STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 34 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
- NEW DRIVEWAY - GRAVEL
- B618 CURB & GUTTER
- CURB CUT
- SURMOUNTABLE CURB & GUTTER
- VALLEY GUTTER
- EASEMENT - NORTHERN NATURAL GAS
- EASEMENT - NORTHERN STATES POWER
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- EX. STORM SEWER
- PR. STORM SEWER
- RIPRAP CLASS III
- CONCRETE FLUME
- PR. STORM MANHOLE
- PR. STORM CATCH BASIN
- PR. FLARED END SECTION

NOTE:
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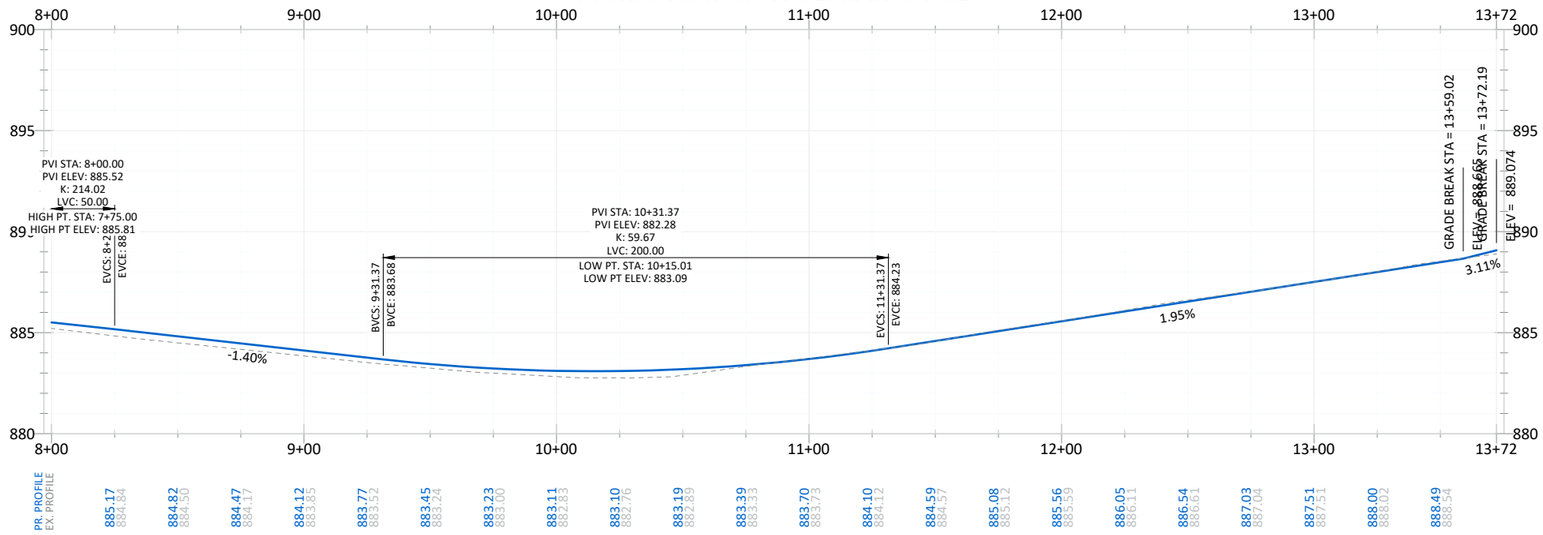
Profile View of WOLFRAM ST CL



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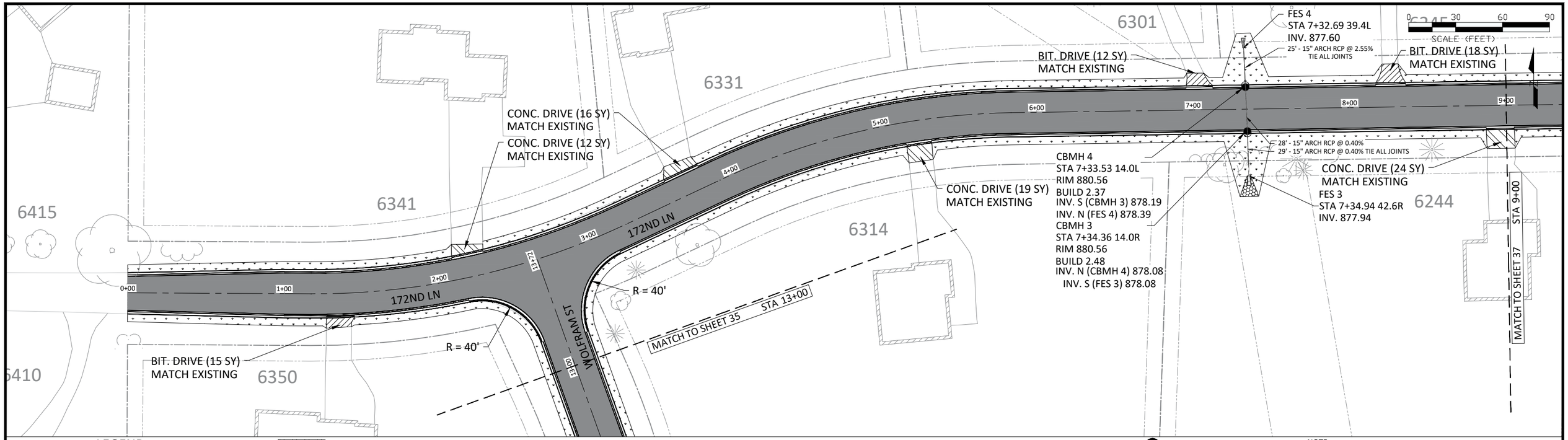
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 35 OF 77 SHEETS



LEGEND

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- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
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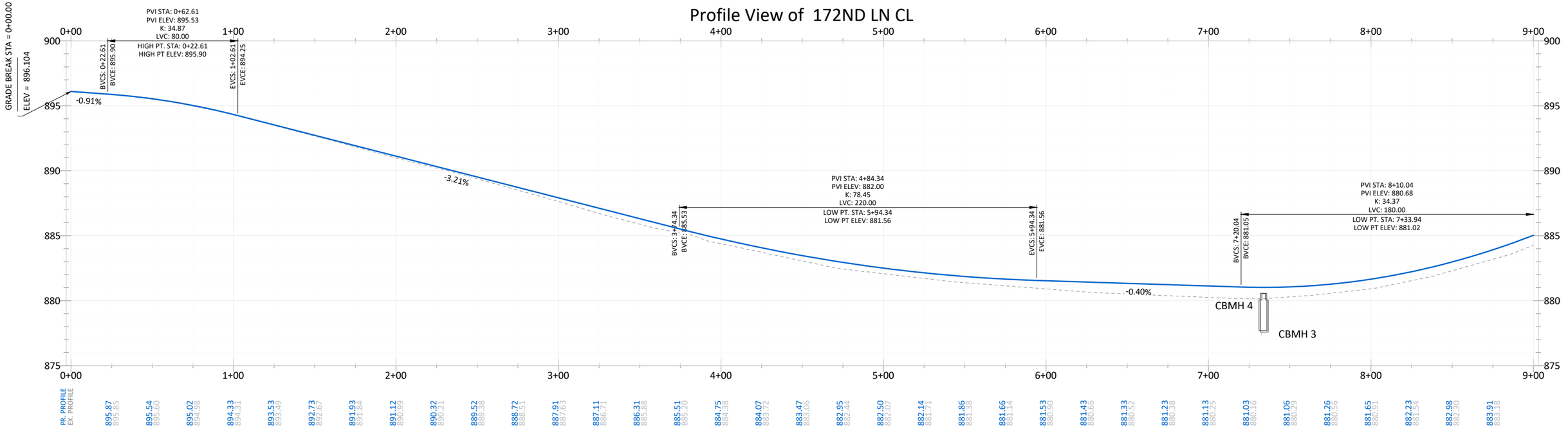
Profile View of 172ND LN CL



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CITY PROJECT NO. 24-13
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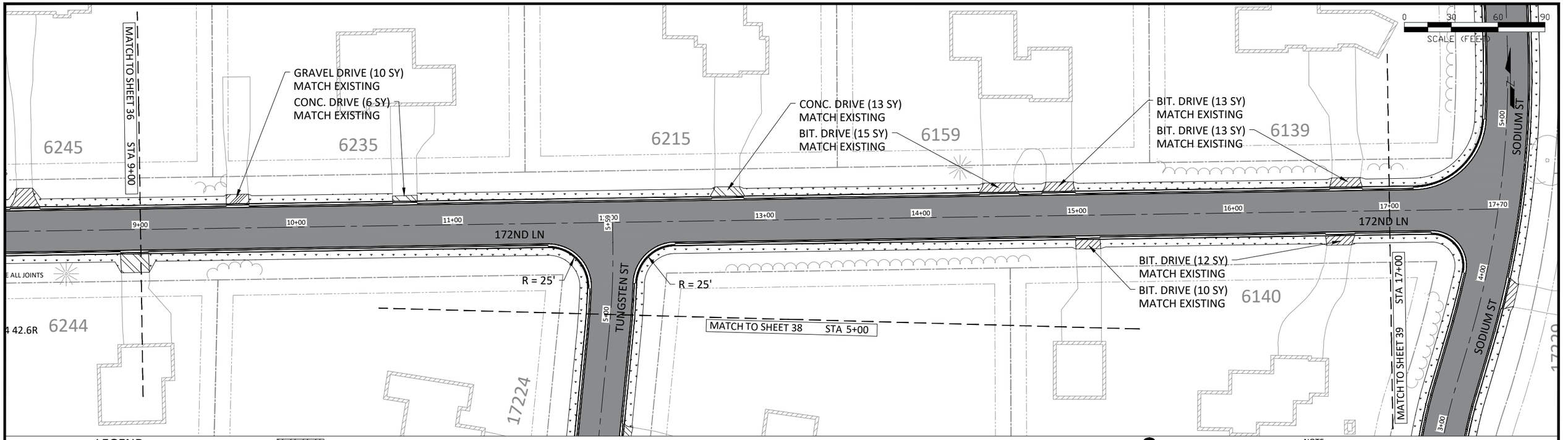

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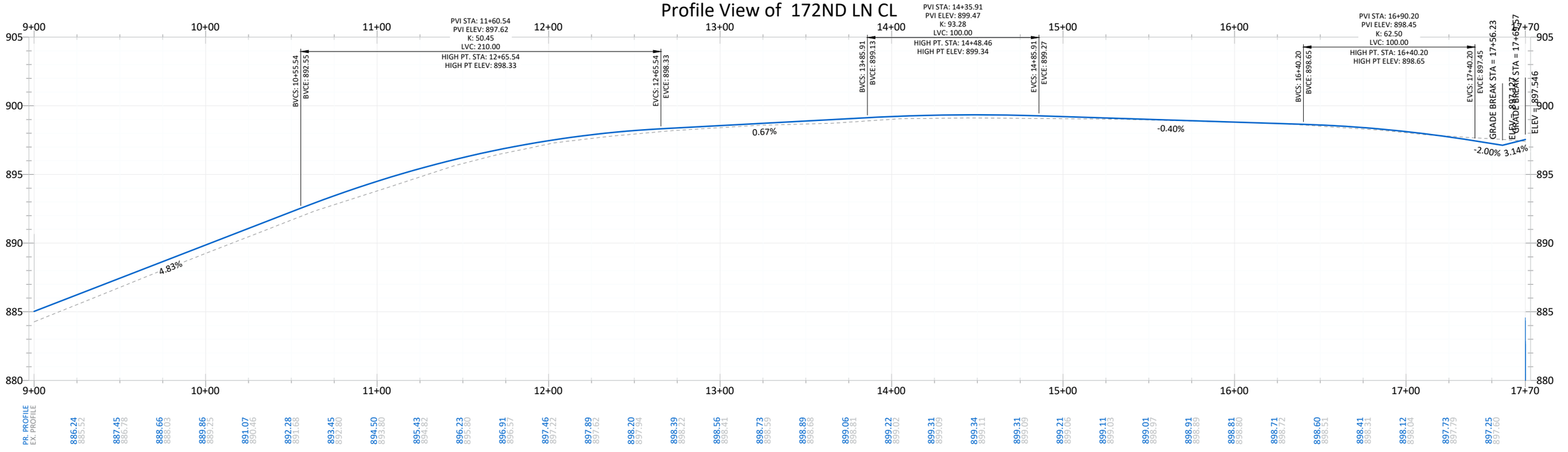

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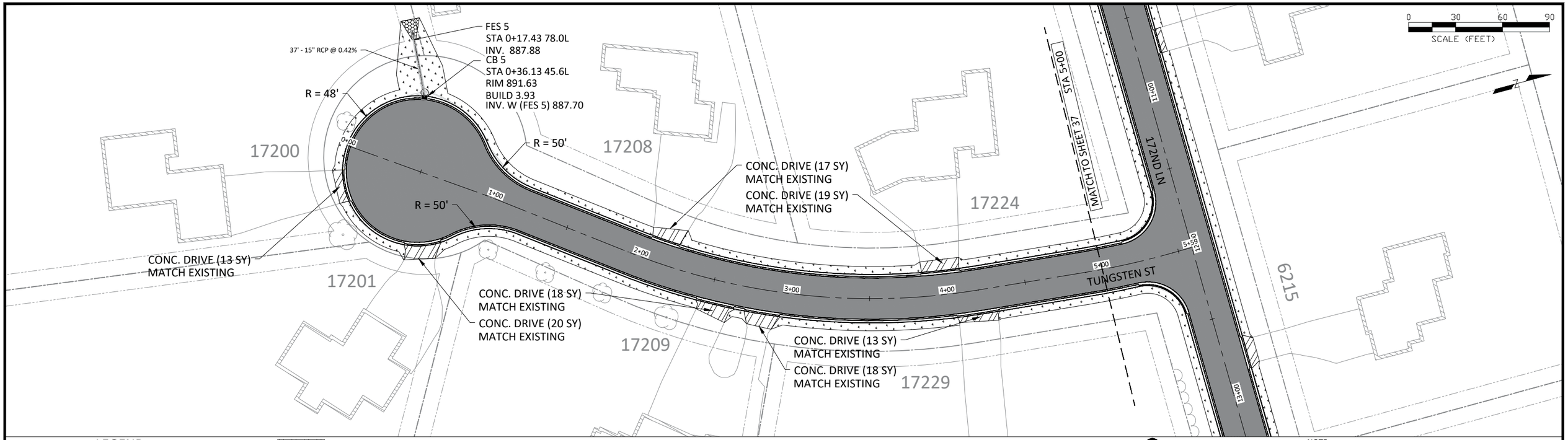

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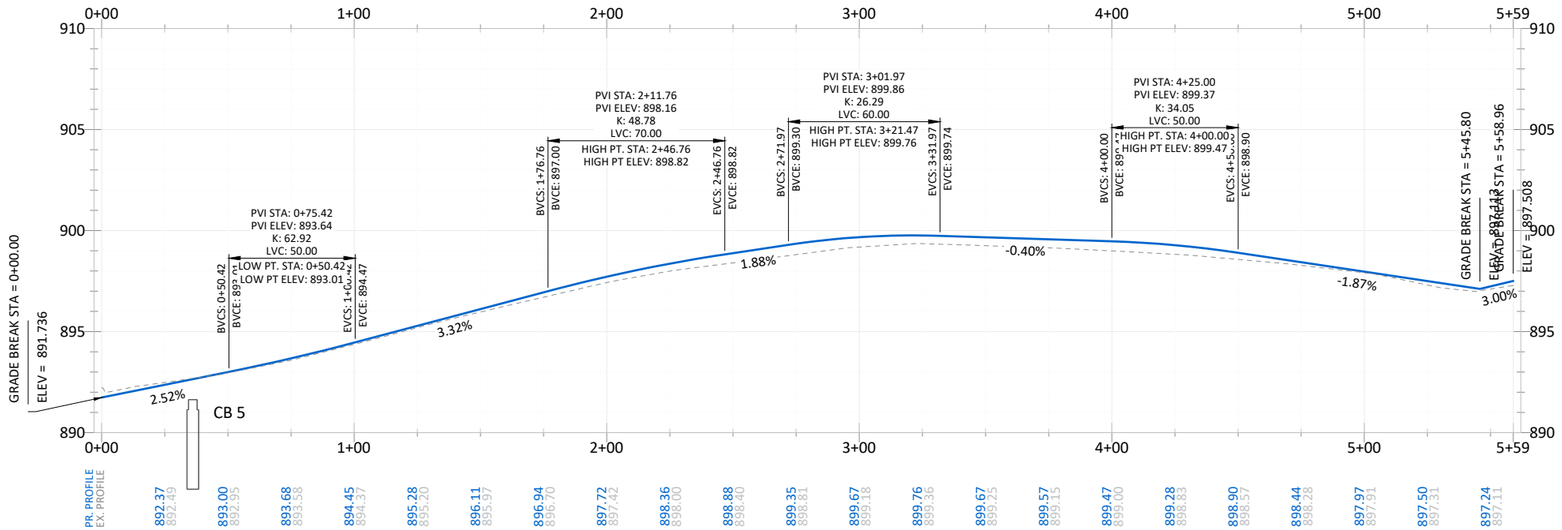
Profile View of TUNGSTEN ST CL



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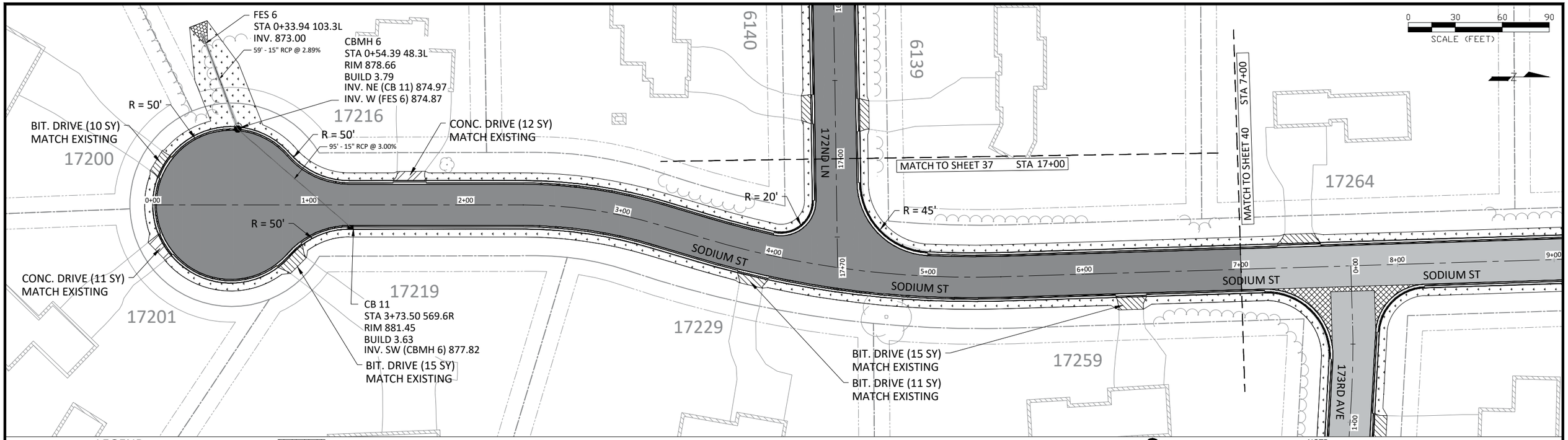
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 38 OF 77 SHEETS



LEGEND

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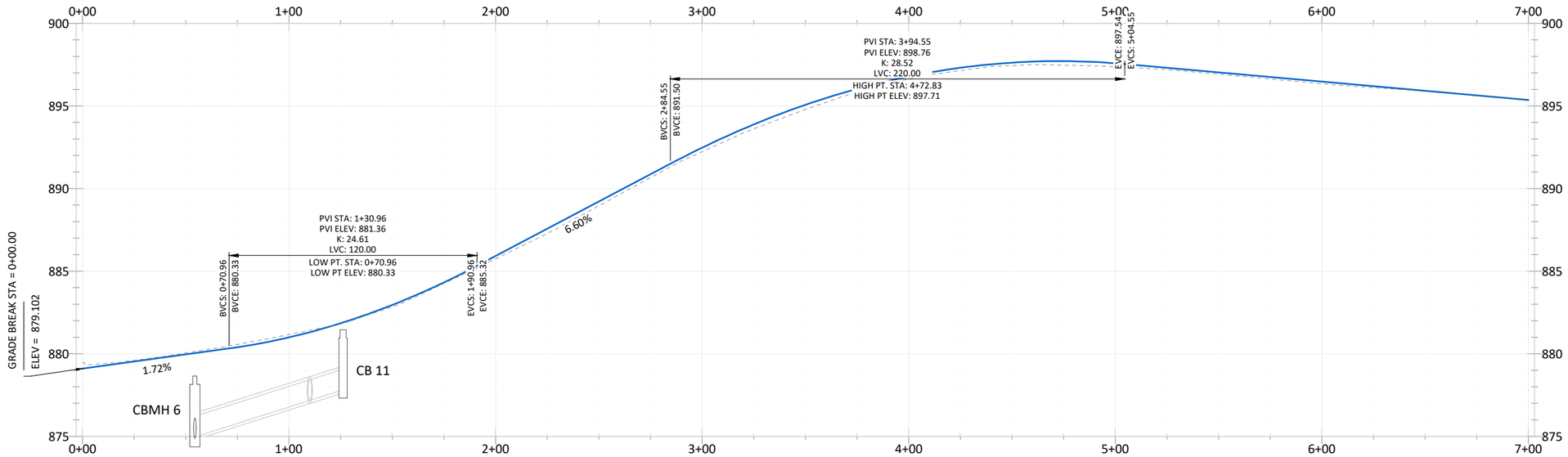
Profile View of SODIUM ST CL



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7550 SUNWOOD DRIVE
RAMSEY, MN 55303
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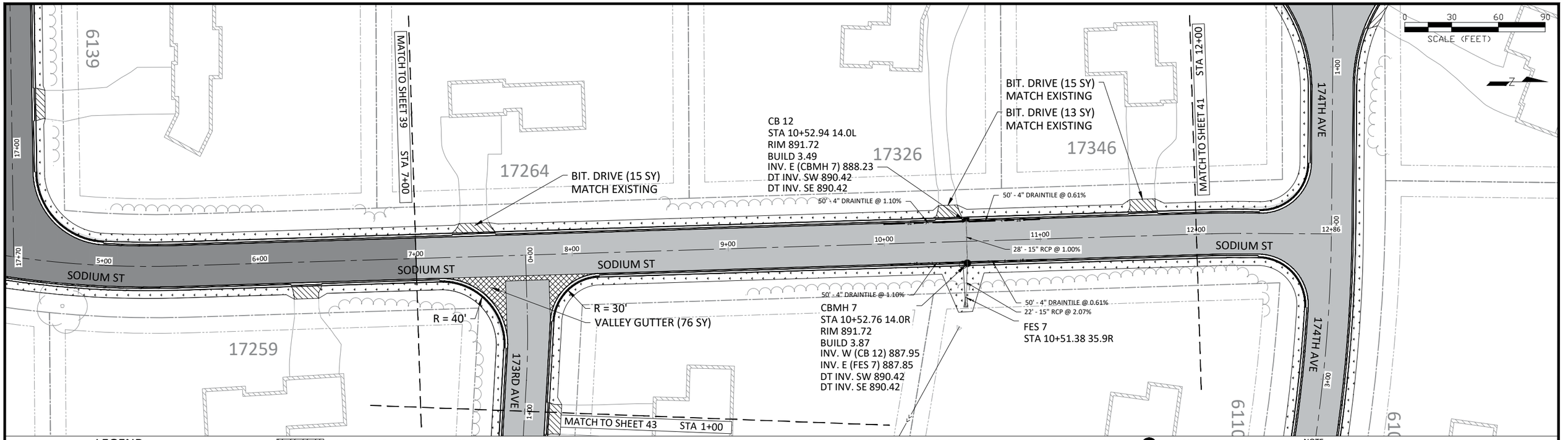
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 39 OF 77 SHEETS



LEGEND

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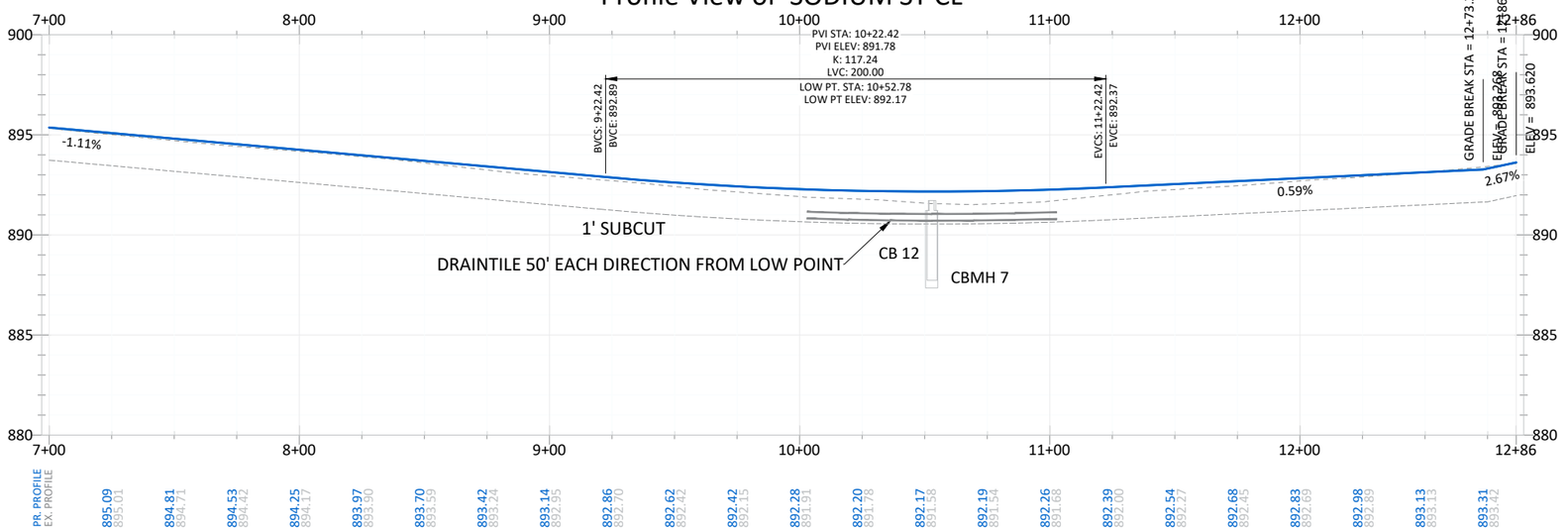
Profile View of SODIUM ST CL



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STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
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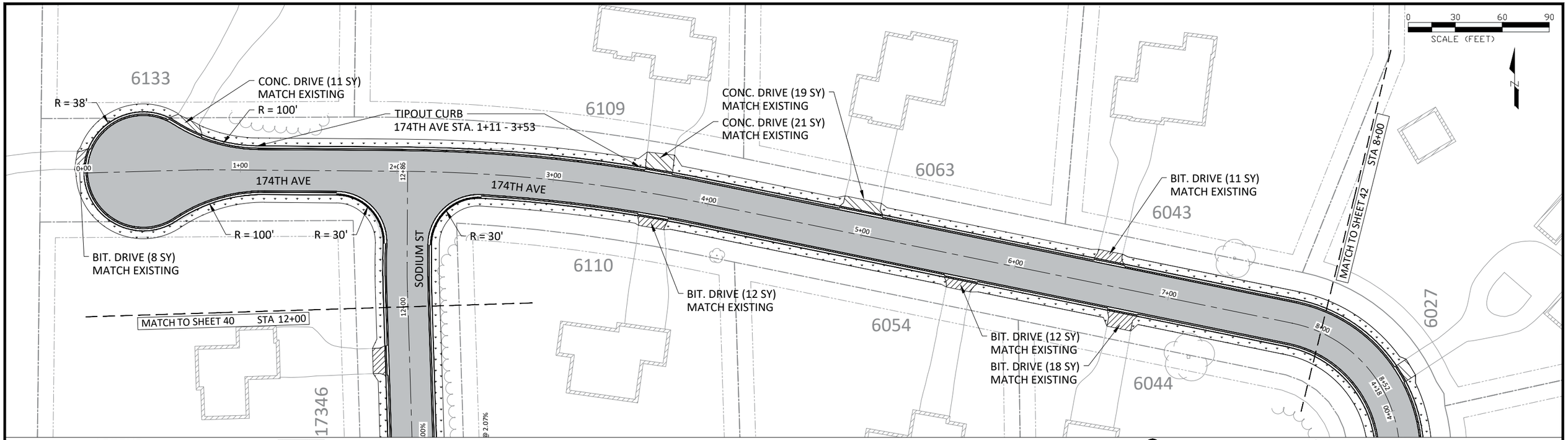
CITY OF RAMSEY, MINNESOTA

SHEET 40 OF 77 SHEETS



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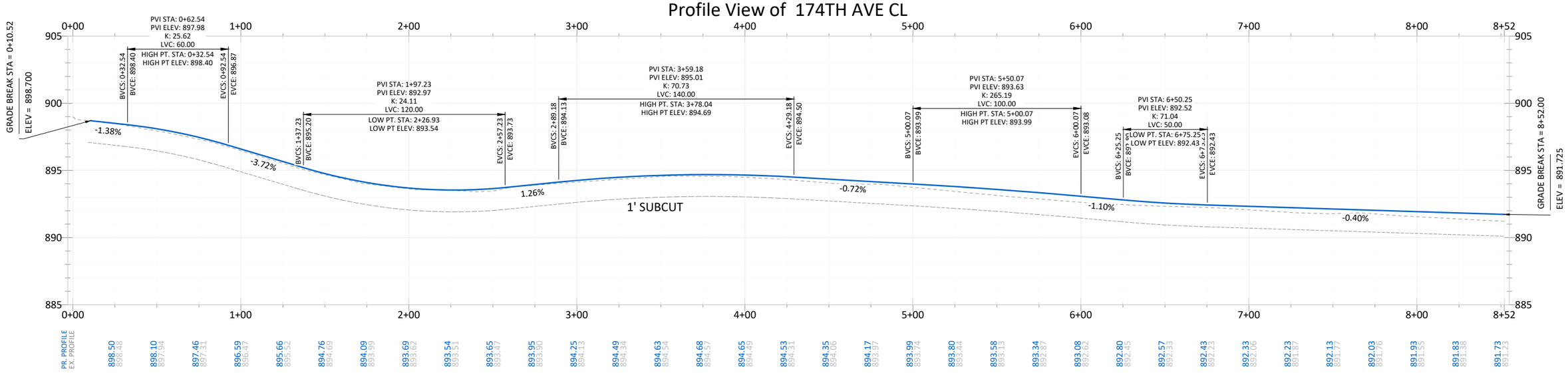
Profile View of 174TH AVE CL



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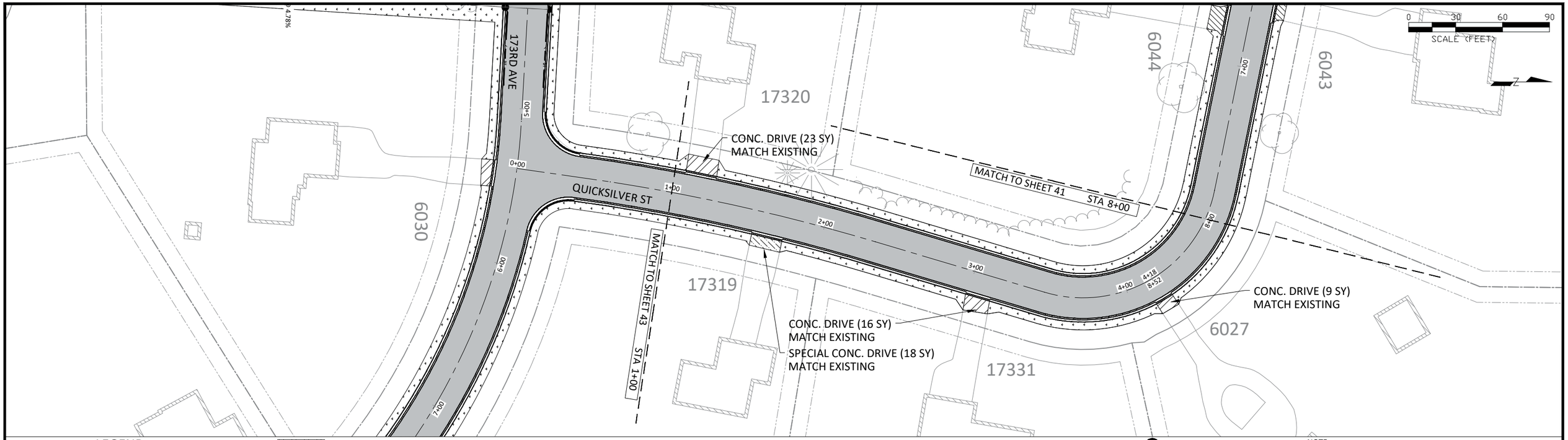

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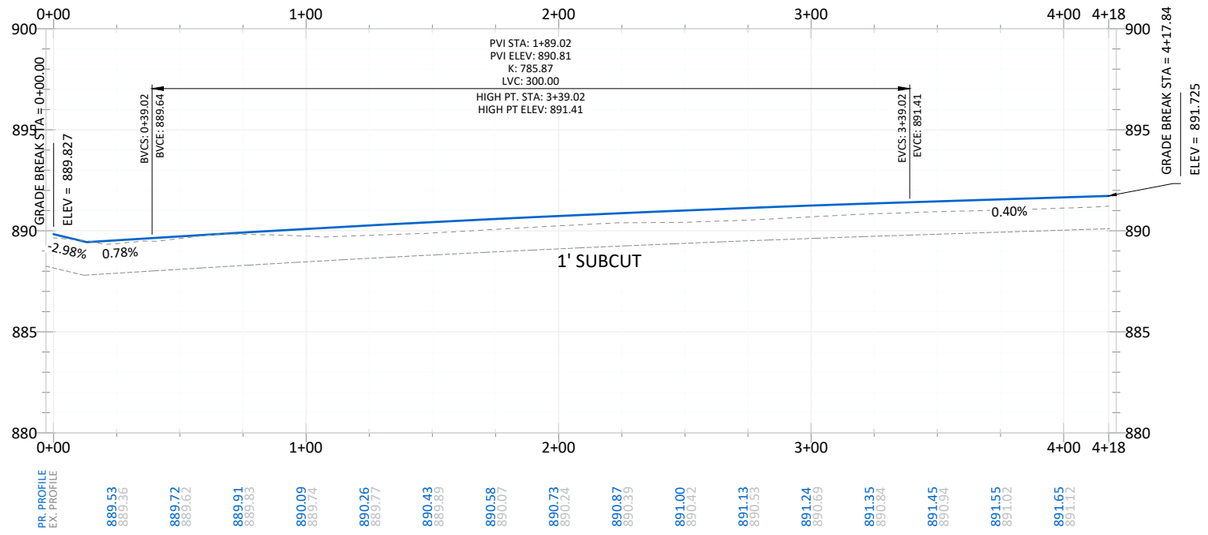
Profile View of QUICKSILVER ST CL



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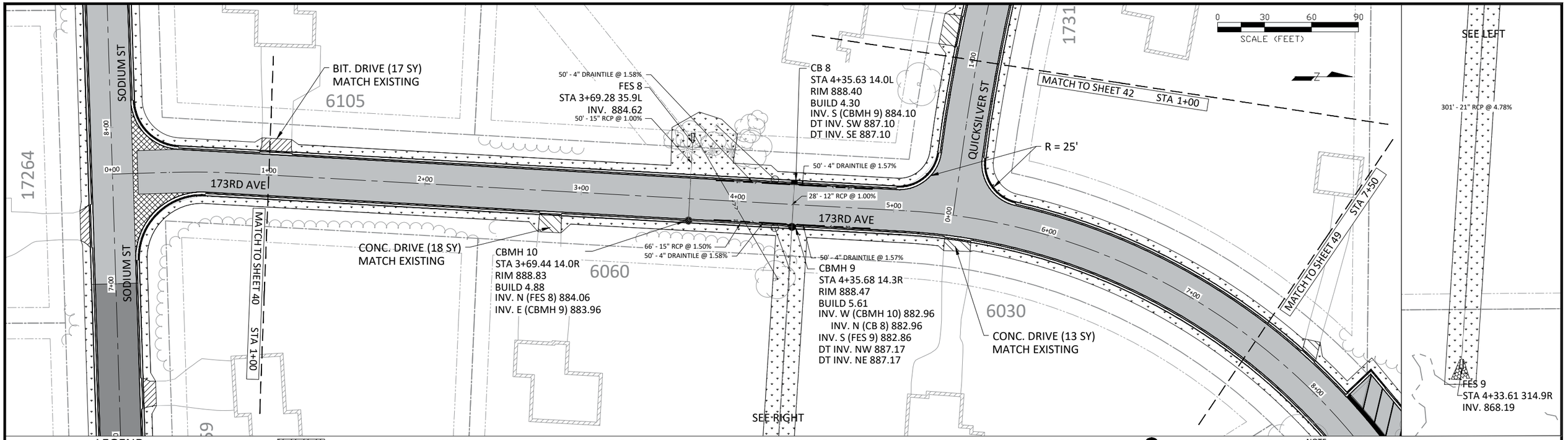

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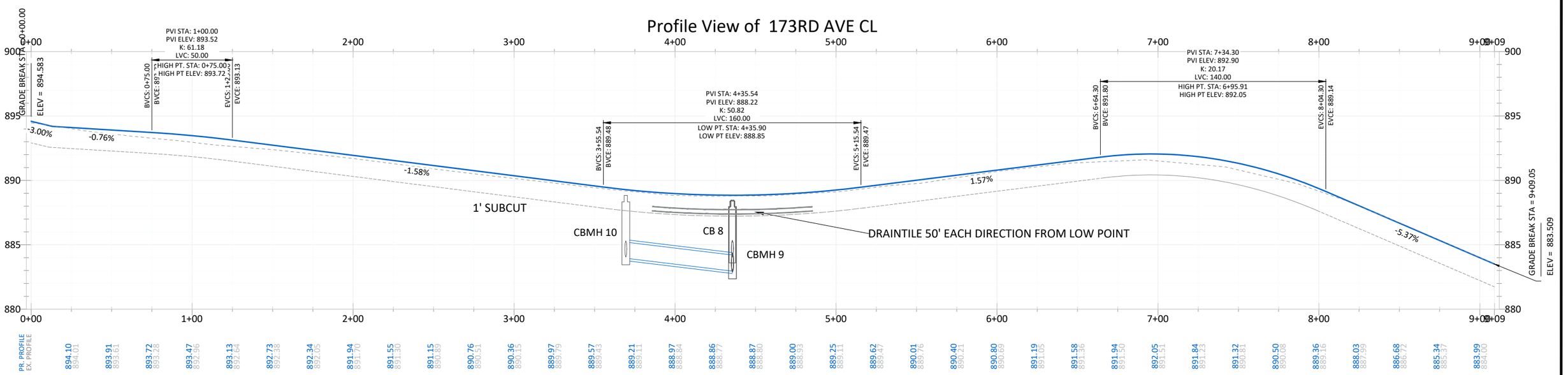
3. RESTORATION AREAS ARE SHOWN IN A GENERAL MANNER ONLY.
4. RESTORE ALL DISTURBED AREAS WITH 4" TOPSOIL, HYDROSEED, MNDOT SEED MIX 25-151, AND HYDRAULIC MATRIX TYPE MULCH UNLESS OTHERWISE NOTED.



DATE	REVISION

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

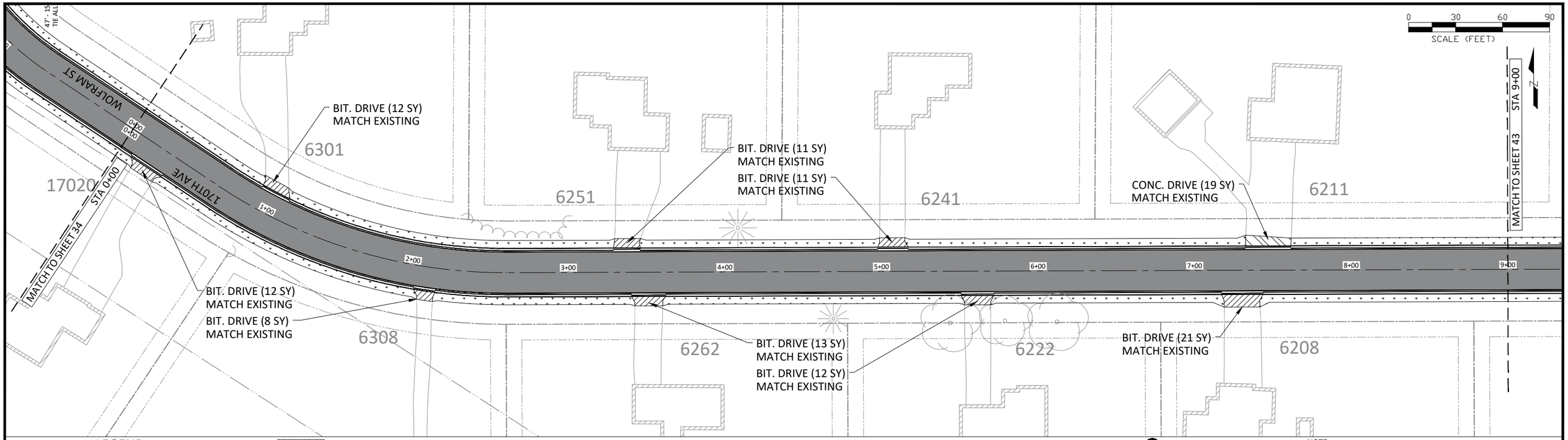
DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

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

STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 43 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
- NEW DRIVEWAY - GRAVEL
- B618 CURB & GUTTER
- CURB CUT
- SURMOUNTABLE CURB & GUTTER
- VALLEY GUTTER
- EASEMENT - NORTHERN NATURAL GAS
- EASEMENT - NORTHERN STATES POWER
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- EX. STORM SEWER
- PR. STORM SEWER
- RIPRAP CLASS III
- CONCRETE FLUME
- PR. STORM MANHOLE
- PR. STORM CATCH BASIN
- PR. FLARED END SECTION

NOTE:
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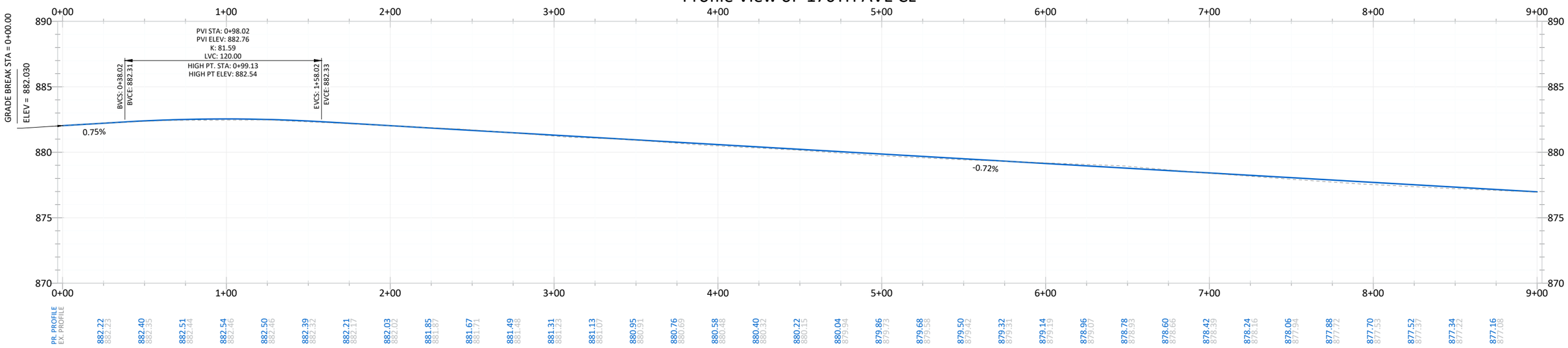
Profile View of 170TH AVE CL



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EX. PROFILE	882.23	882.39	882.44	882.46	882.46	882.32	882.17	882.02	881.87	881.71	881.48	881.23	881.07	880.91	880.69	880.48	880.32	880.15	879.94	879.73	879.58	879.42	879.31	879.19	879.07	878.93	878.66	878.39	878.16	877.94	877.72	877.53	877.37	877.22	877.08

DATE	REVISION

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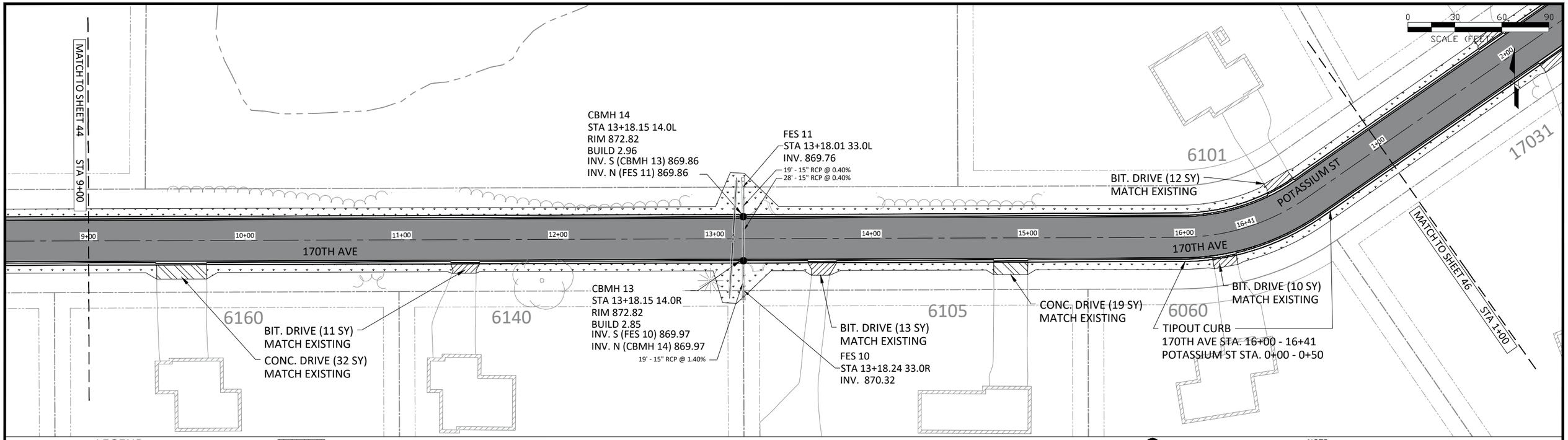
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 44 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
- NEW DRIVEWAY - GRAVEL
- B618 CURB & GUTTER
- CURB CUT
- SURMOUNTABLE CURB & GUTTER
- VALLEY GUTTER
- EASEMENT - NORTHERN NATURAL GAS
- EASEMENT - NORTHERN STATES POWER
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- EX. STORM SEWER
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- RIPRAP CLASS III
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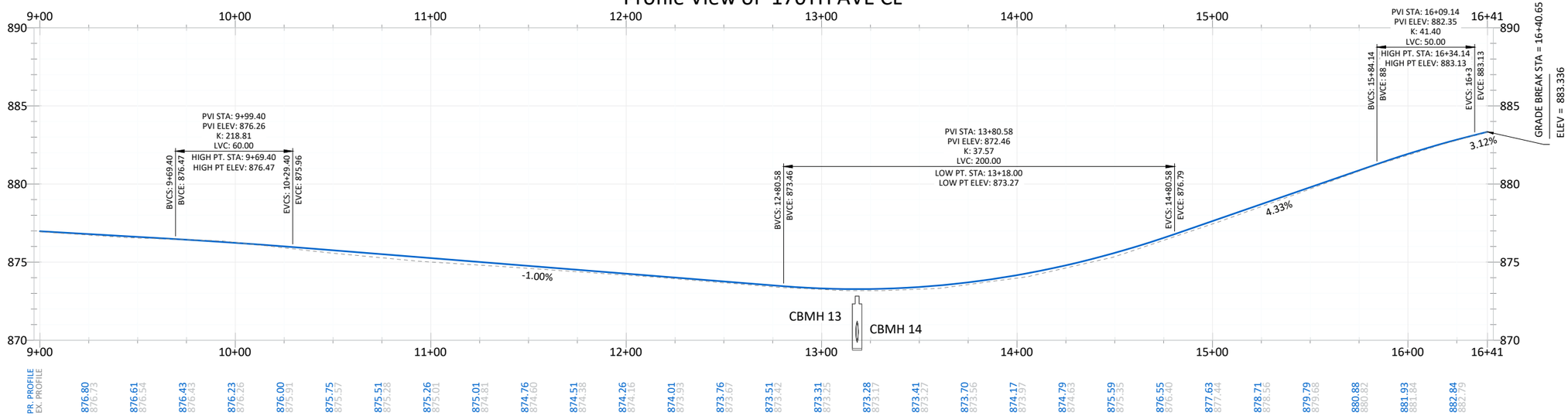
Profile View of 170TH AVE CL



DATE	REVISION

Nov 20, 2024 – 7:36am
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City of RAMSEY

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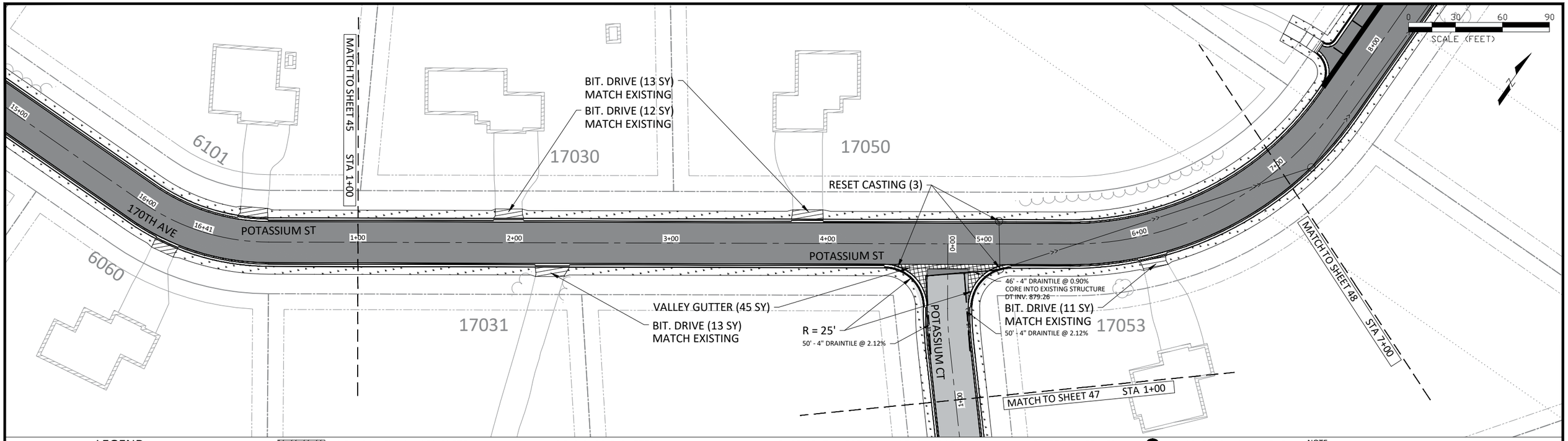
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 45 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
- NEW DRIVEWAY - GRAVEL
- B618 CURB & GUTTER
- CURB CUT
- SURMOUNTABLE CURB & GUTTER
- VALLEY GUTTER
- EASEMENT - NORTHERN NATURAL GAS
- EASEMENT - NORTHERN STATES POWER
- EASEMENT - DRAINAGE & UTILITY
- LOT LINE
- EX. STORM SEWER
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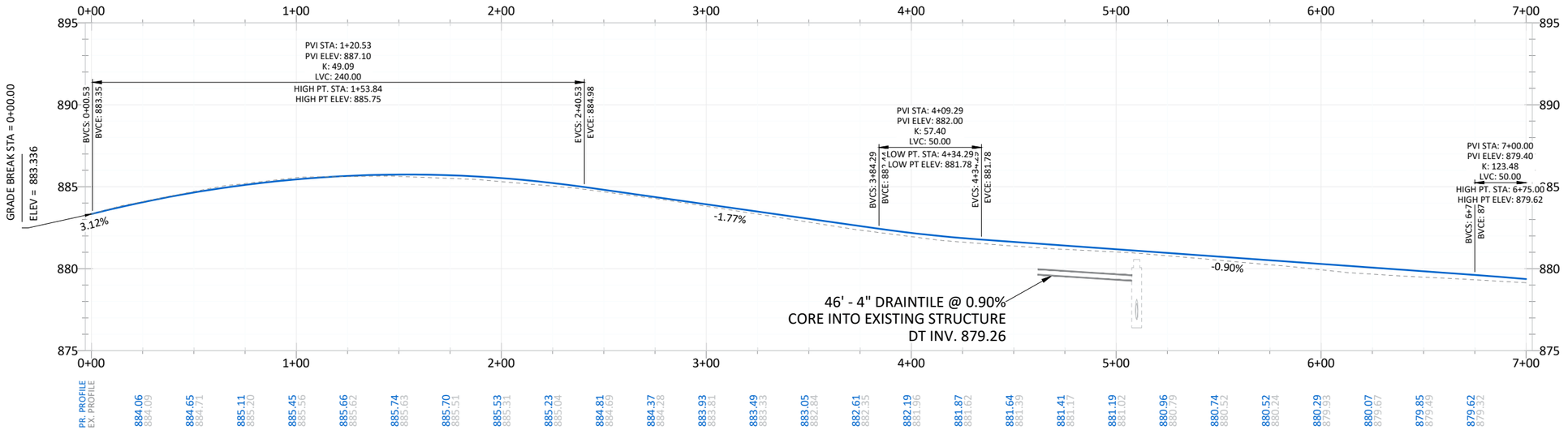
Profile View of POTASSIUM ST CL



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Joe Feriancek

JOE FERIANCEK

Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
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CHECKED BY:	JJF	FILE: 24-13

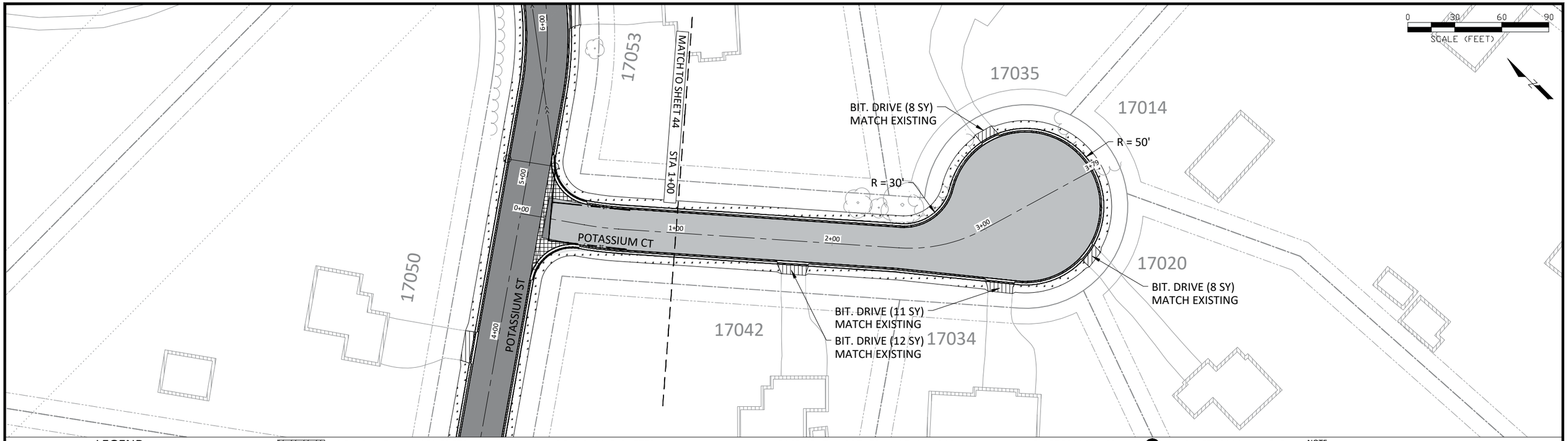
City of RAMSEY

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

STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 46 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
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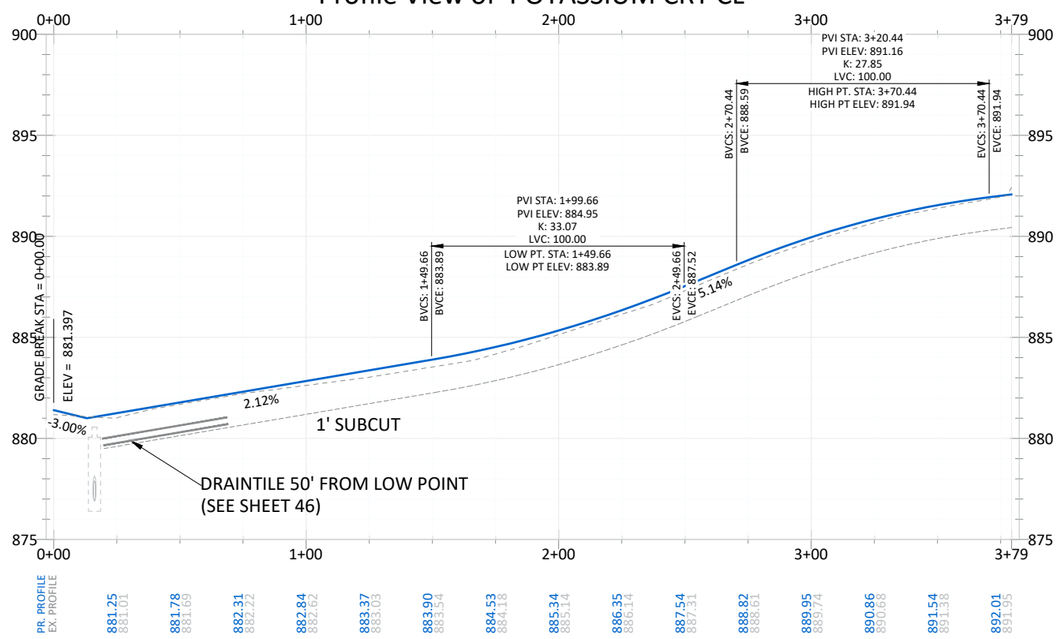
Profile View of POTASSIUM CRT CL



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City of RAMSEY

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7550 SUNWOOD DRIVE
RAMSEY, MN 55303
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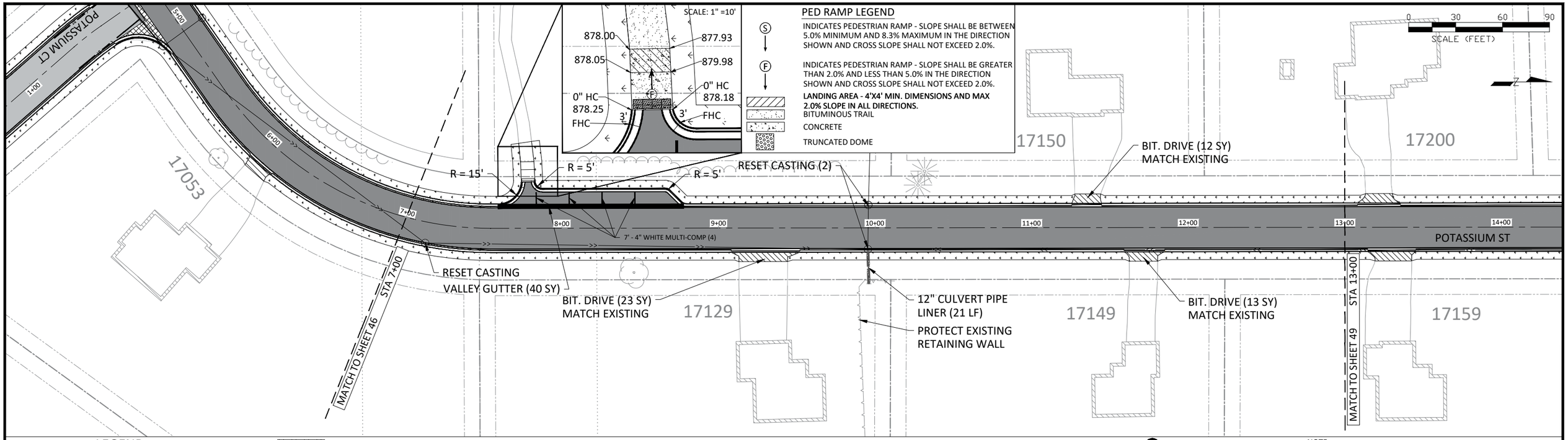
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 47 OF 77 SHEETS



LEGEND

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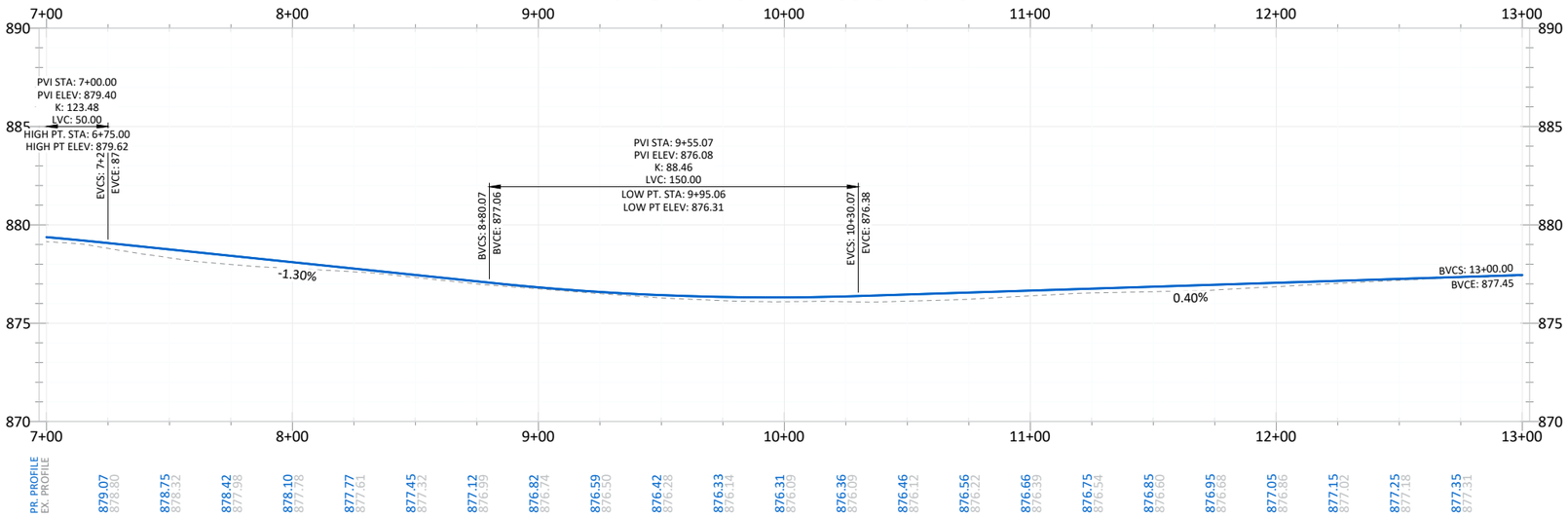
Profile View of POTASSIUM ST CL



DATE	REVISION

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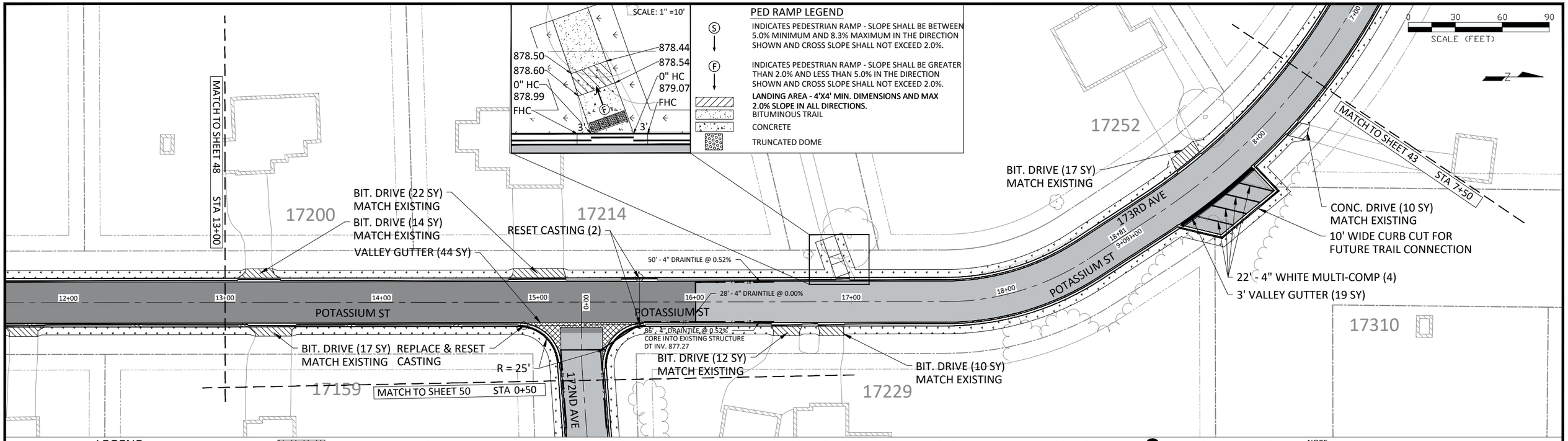
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 48 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
- NEW DRIVEWAY - CONC SPECIAL
- NEW DRIVEWAY - BITUMINOUS
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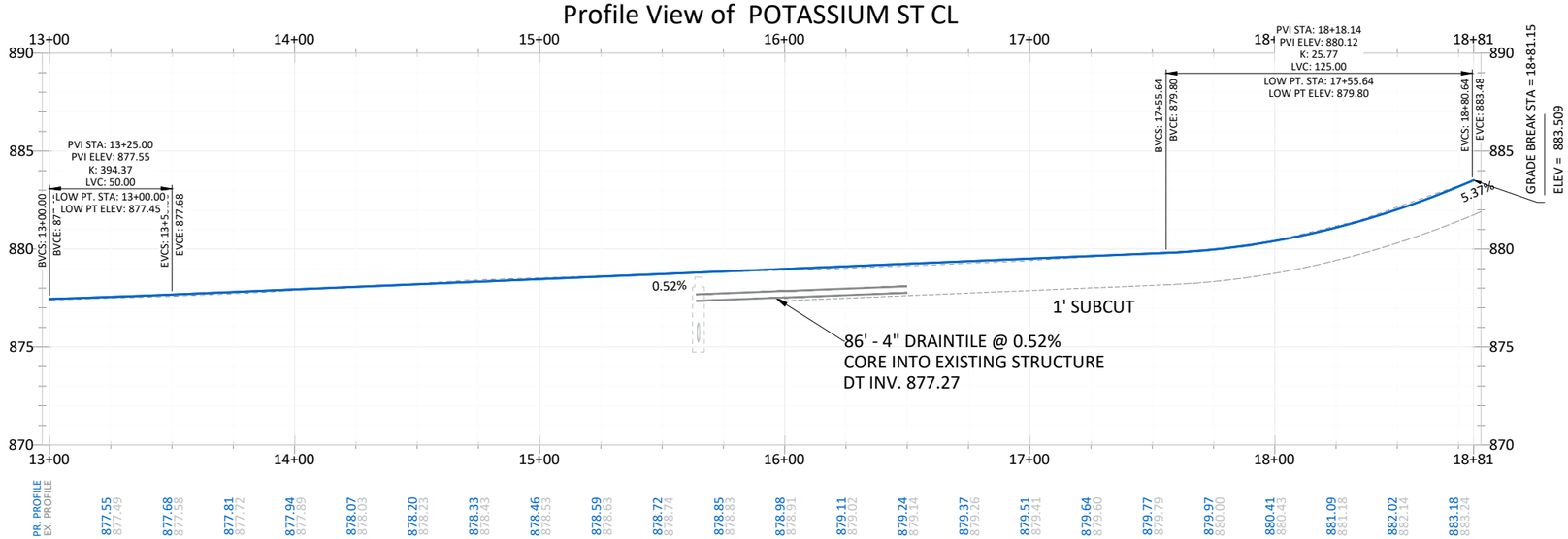
Profile View of POTASSIUM ST CL



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EX. PROFILE	877.49	877.56	877.72	877.89	878.03	878.23	878.43	878.55	878.63	878.74	878.83	878.91	879.02	879.14	879.26	879.41	879.60	879.79	880.00	880.43	881.18	882.14	883.24

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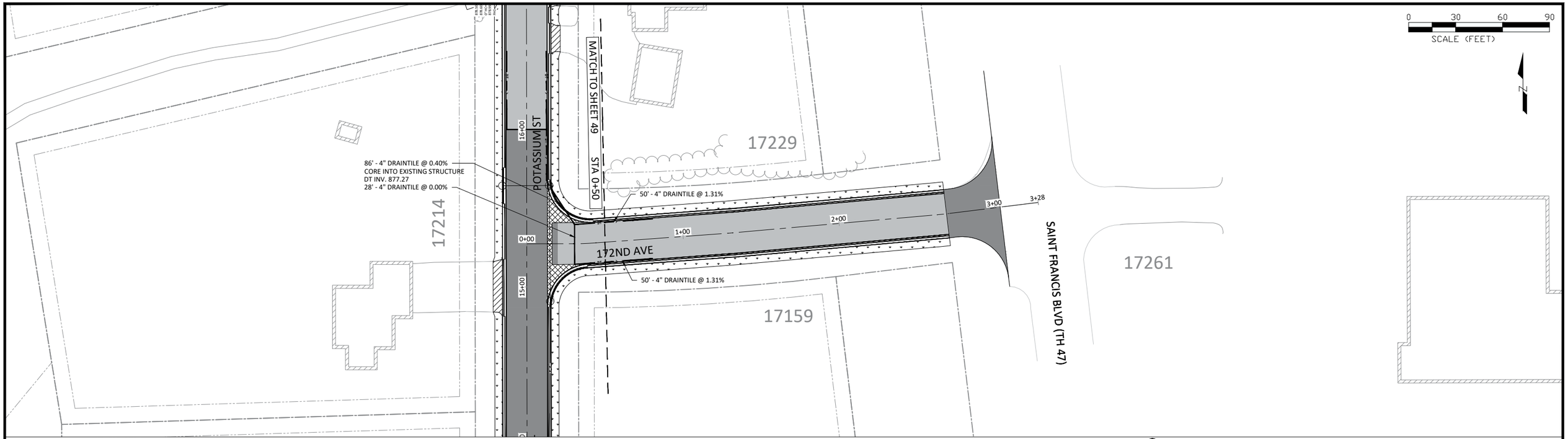
STREET CONSTRUCTION

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 49 OF 77 SHEETS



LEGEND

- BIT PAVEMENT
- BIT PAVEMENT - SOIL CORRECTION AREA
- SEEDING AREA
- NEW DRIVEWAY - CONCRETE
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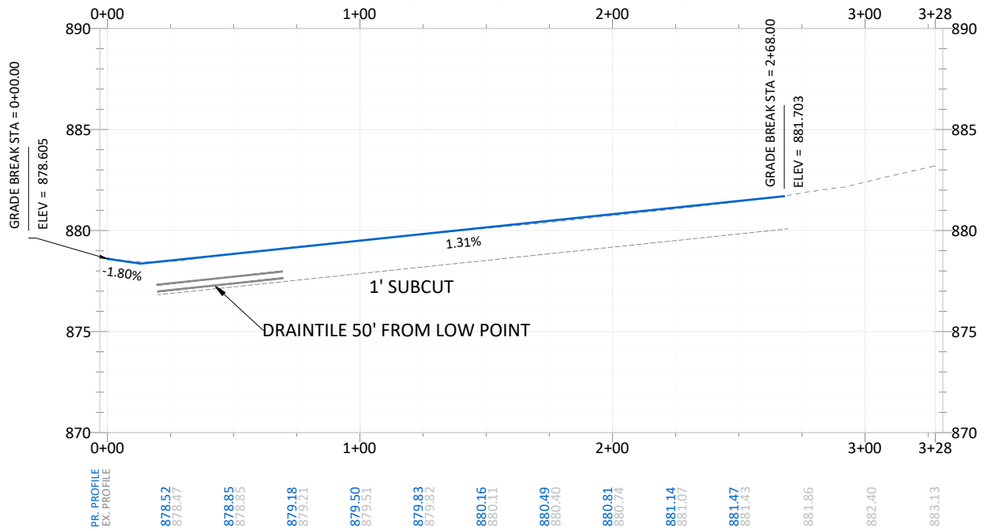
Profile View of 172ND AVE CL



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STREET CONSTRUCTION

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CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 50 OF 77 SHEETS

0 100 200 300
SCALE (FEET)

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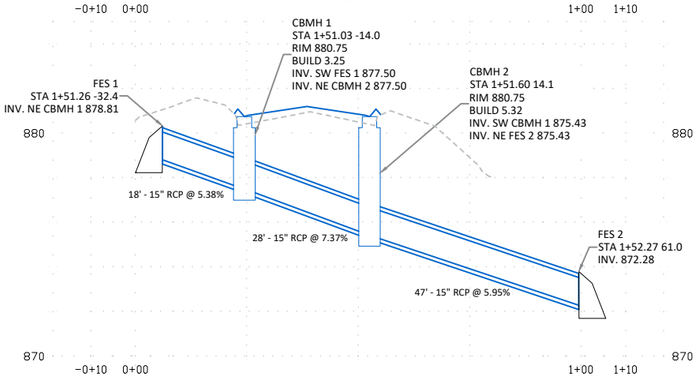
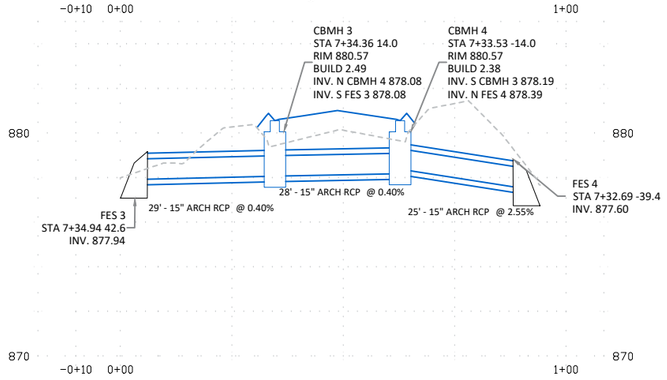
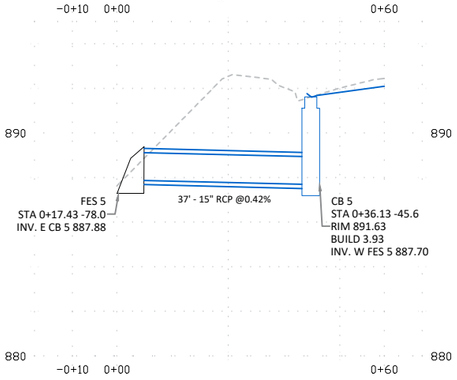
Profile View of Alignment - FES 1 - FES 2



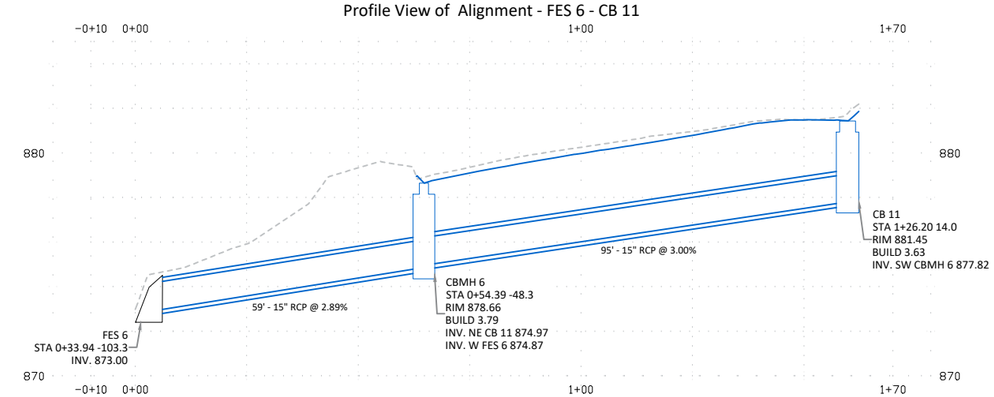
Profile View of Alignment - FES 3 - FES 4



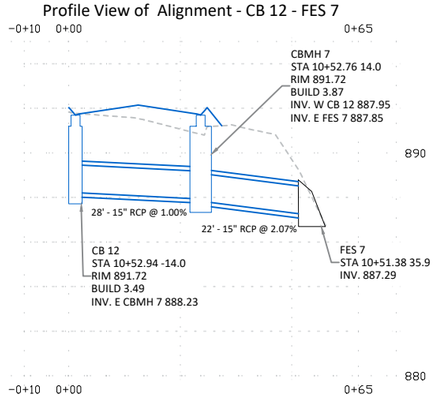
Profile View of Alignment - FES 5 - CB 5



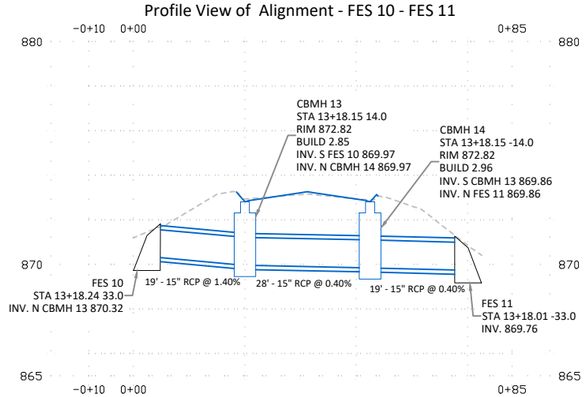
Profile View of Alignment - FES 6 - CB 11



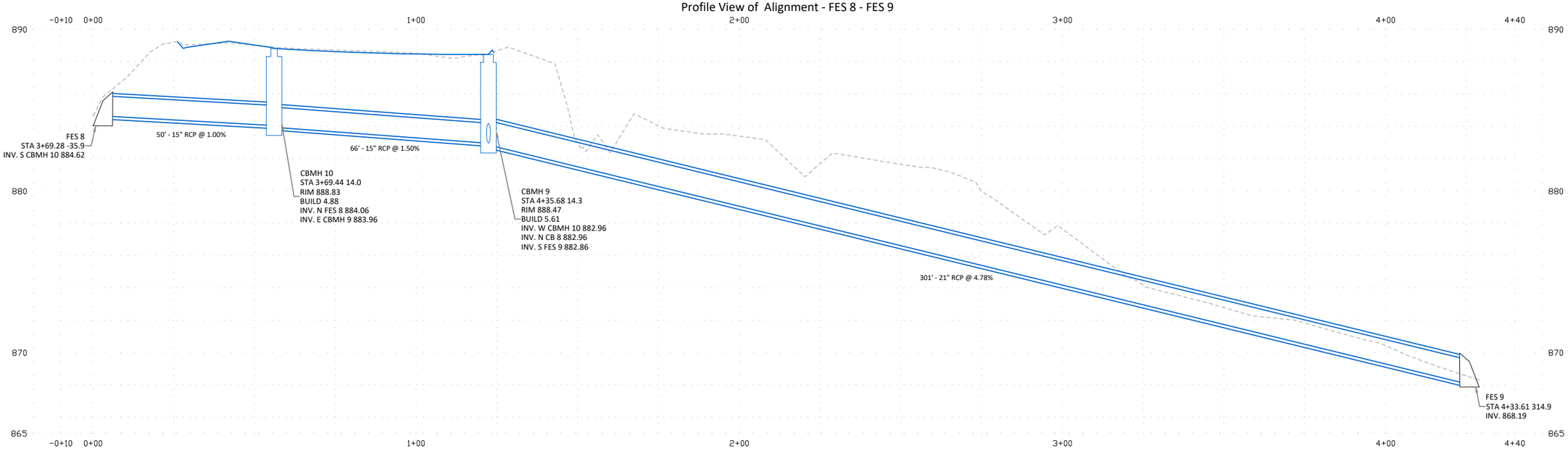
Profile View of Alignment - CB 12 - FES 7



Profile View of Alignment - FES 10 - FES 11



Profile View of Alignment - FES 8 - FES 9



DATE	REVISION

Nov 15, 2024 - 10:16am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Support Drawings\24-13 Corridors.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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

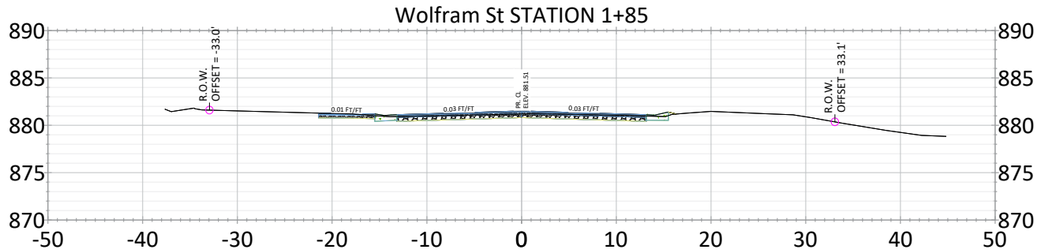
City of RAMSEY

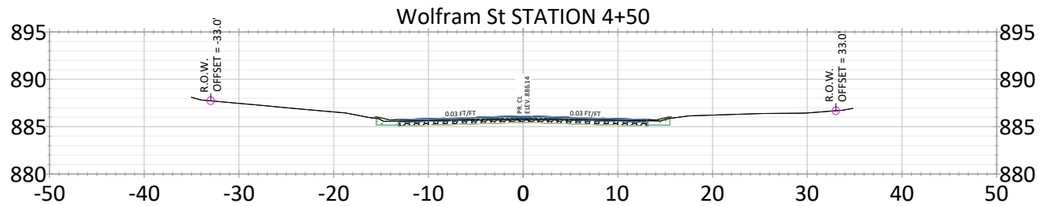
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

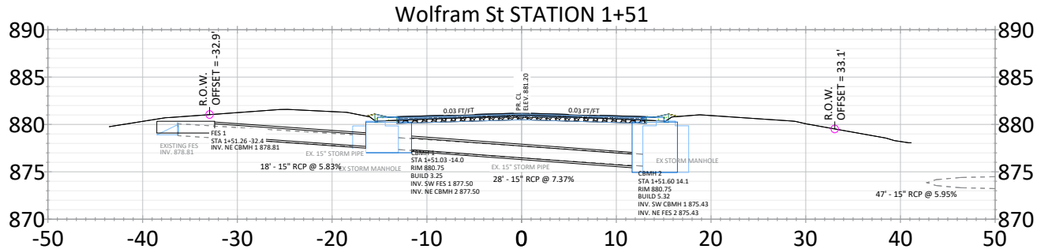
STORM SEWER PROFILES

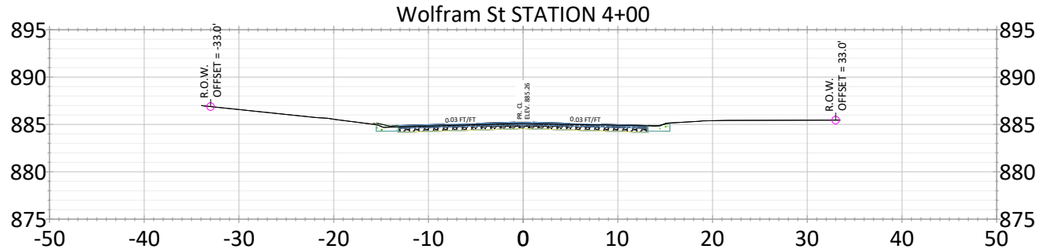
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

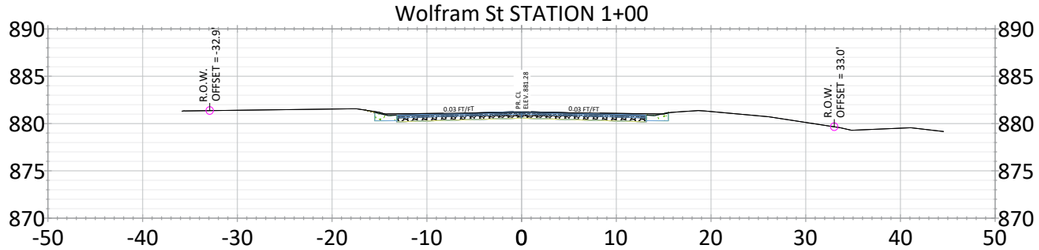
SHEET 51 OF 77 SHEETS

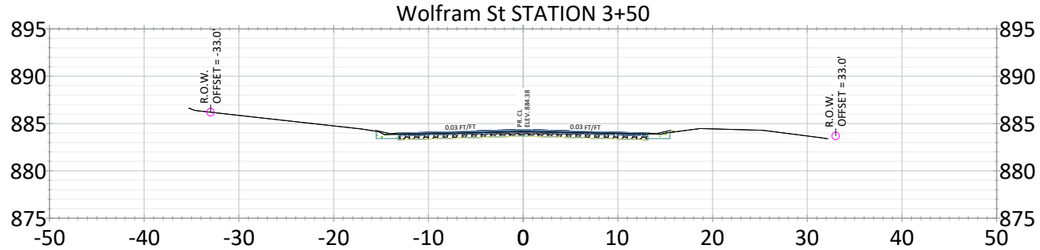


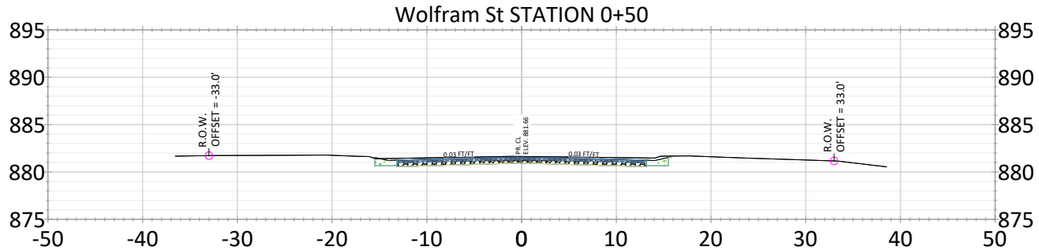


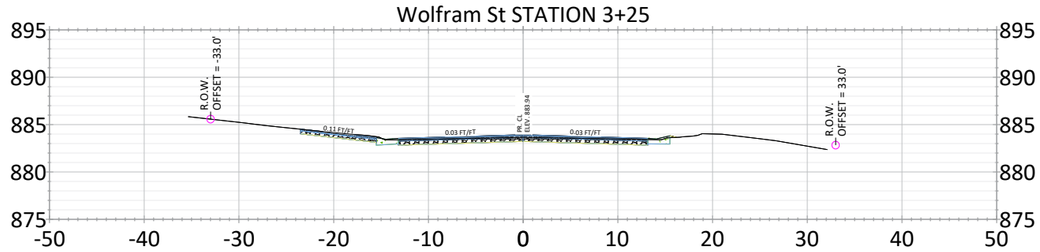


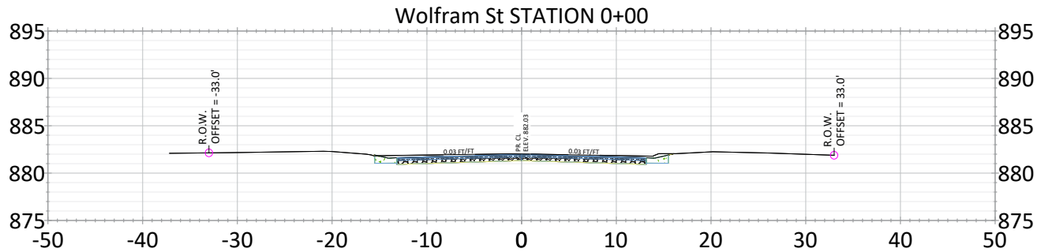


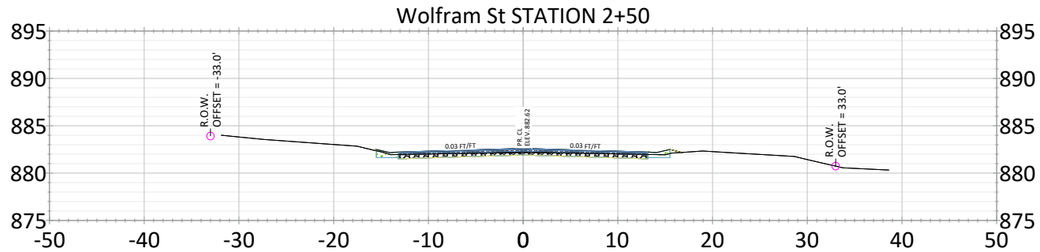












DATE	REVISION

Nov 15, 2024 - 10:33am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

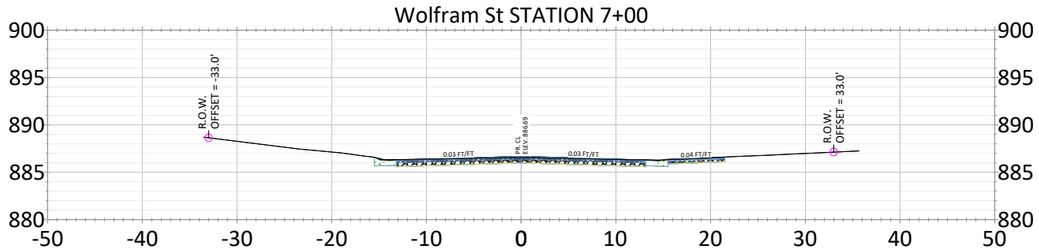
City of RAMSEY

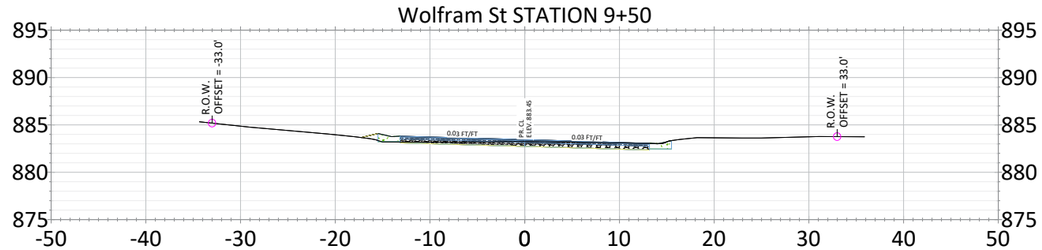
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

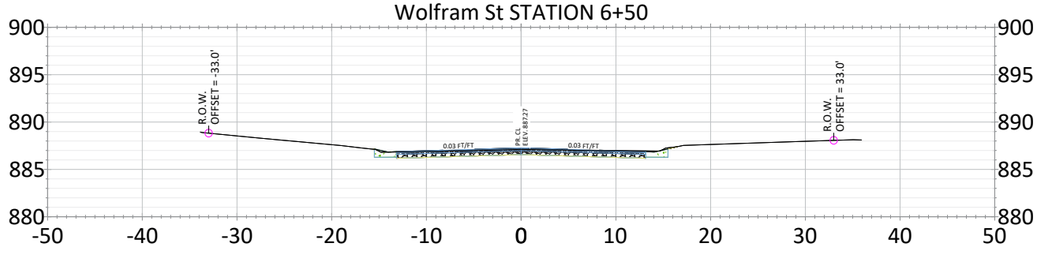
CROSS SECTIONS - WOLFRAM ST 0+00 - 4+50

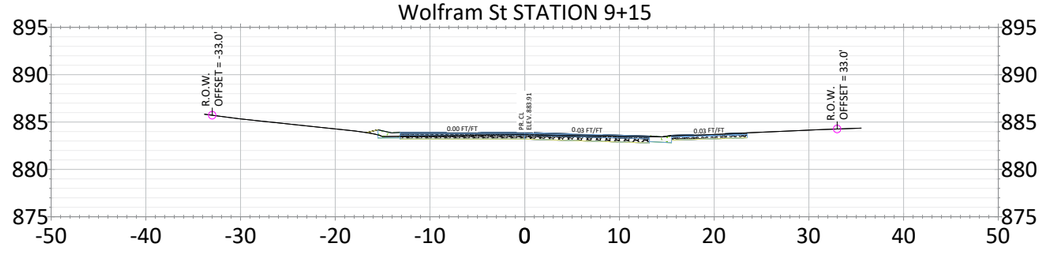
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

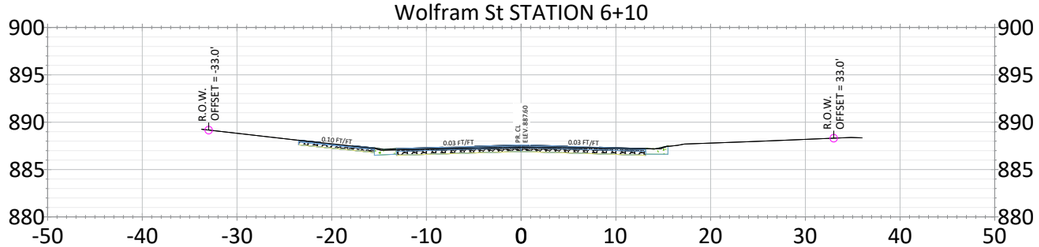
SHEET 52 OF 77 SHEETS

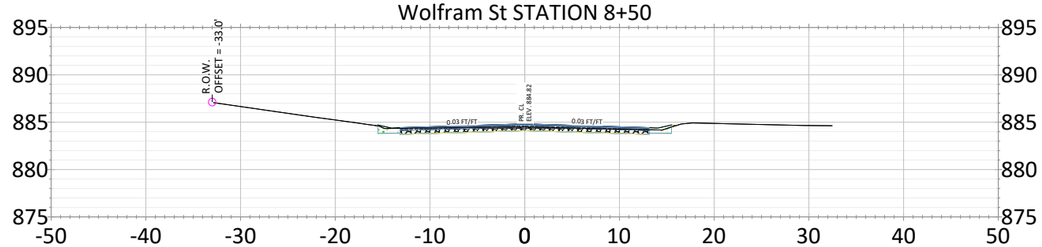


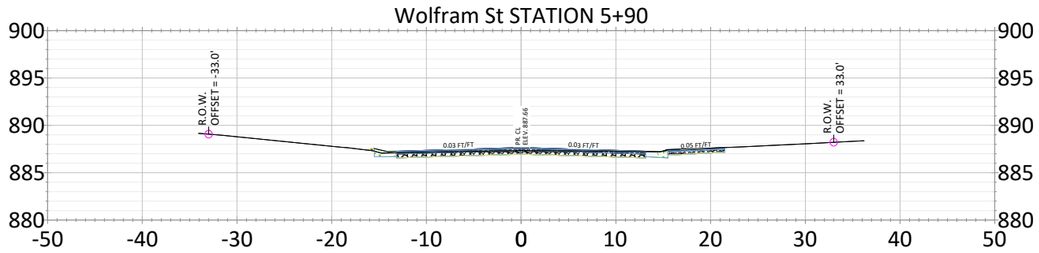


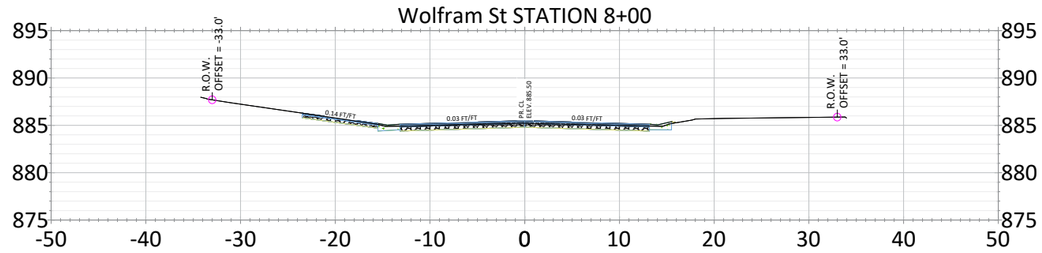


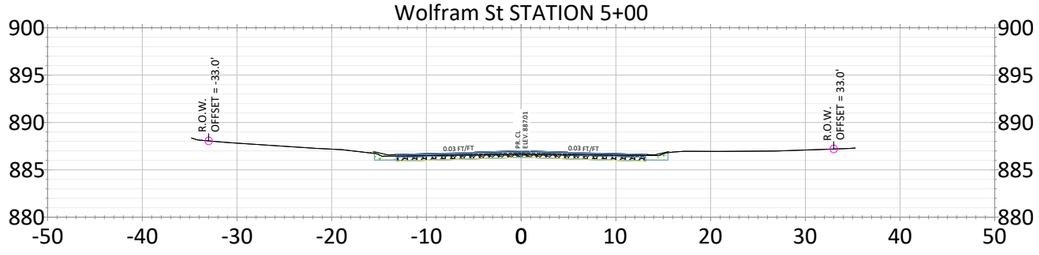


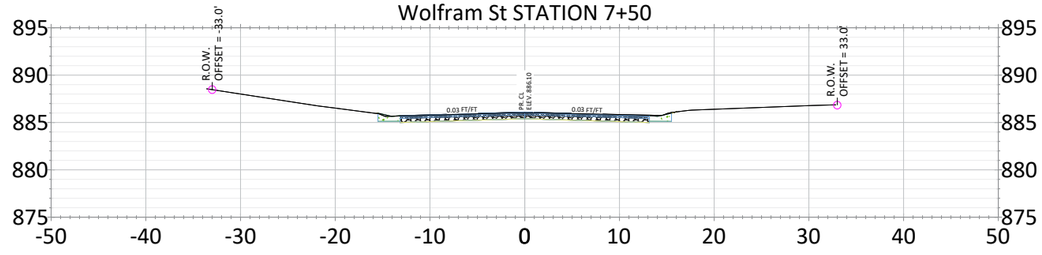












DATE	REVISION

Nov 15, 2024 - 10:20am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

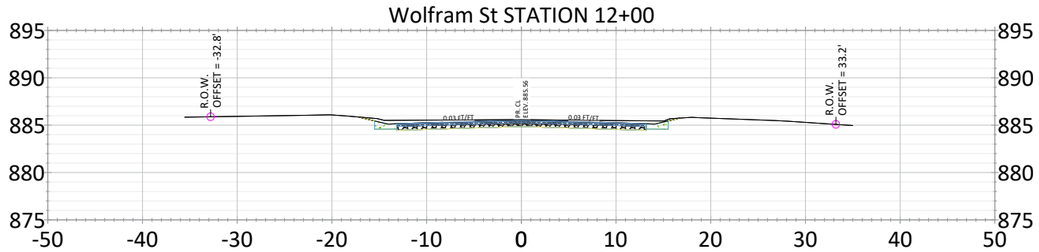
DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

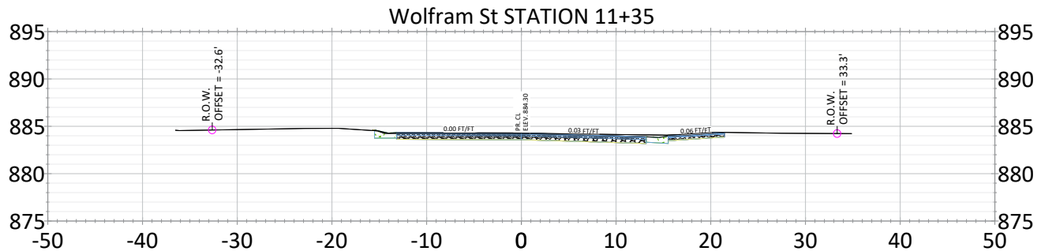
City of RAMSEY

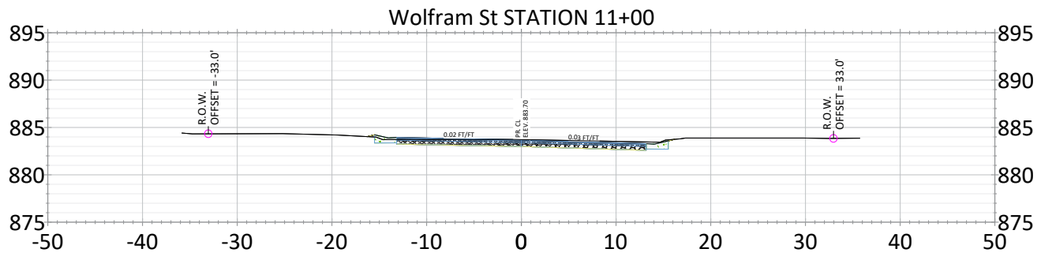
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

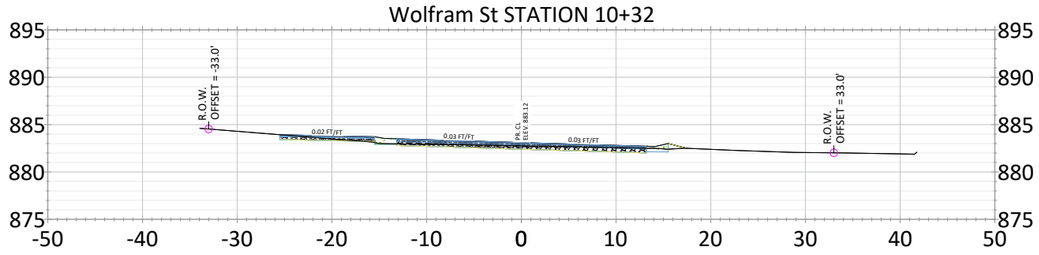
CROSS SECTIONS - WOLFRAM ST 5+00 - 9+50

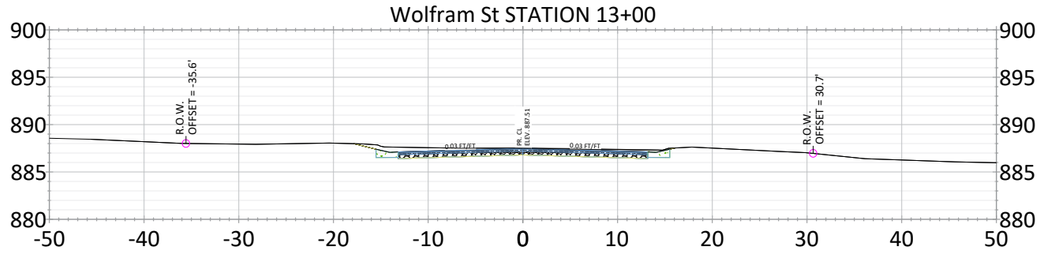
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

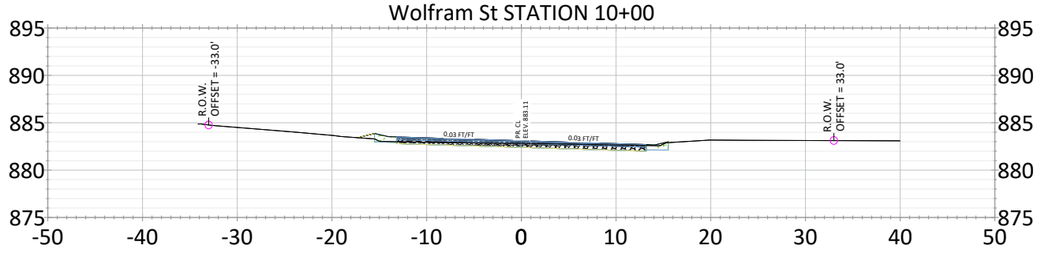


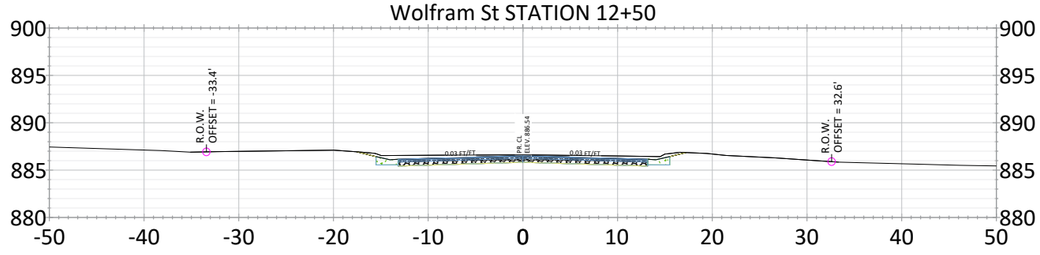












DATE	REVISION

Nov 15, 2024 - 10:20am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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City of RAMSEY

CITY OF RAMSEY
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RAMSEY, MN 55303
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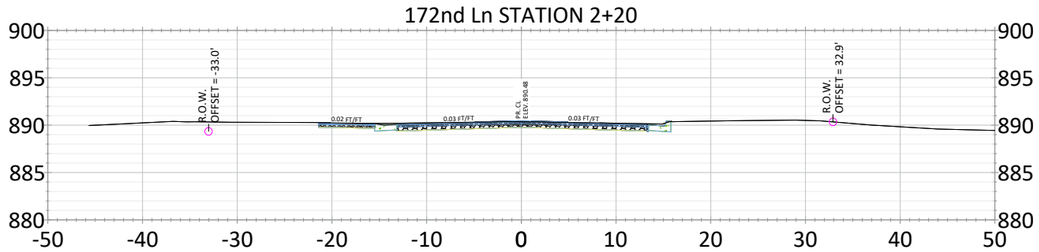
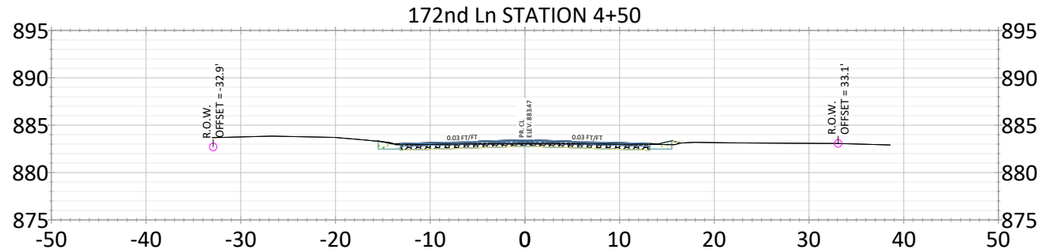
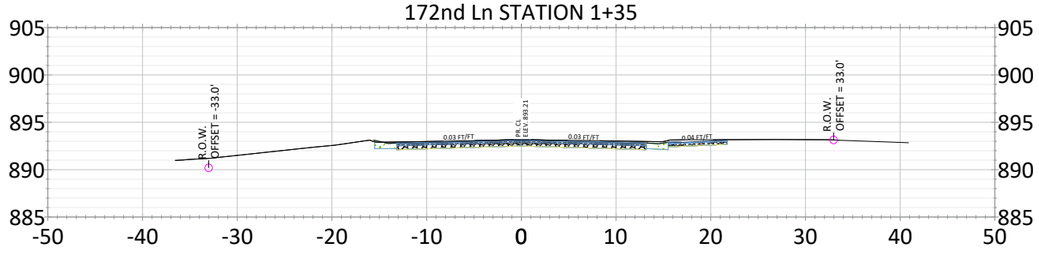
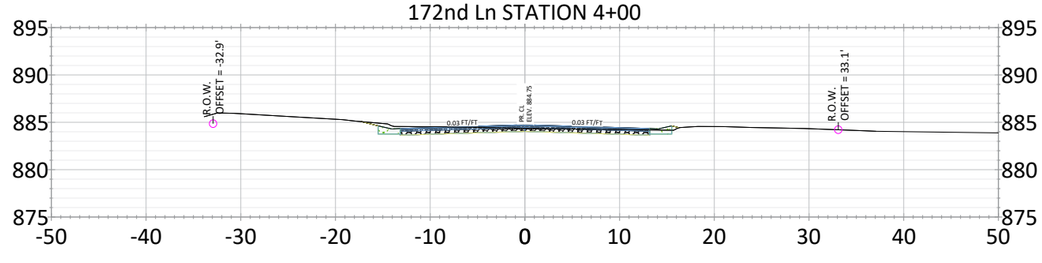
CROSS SECTIONS - WOLFRAM ST 10+00 - 13+00

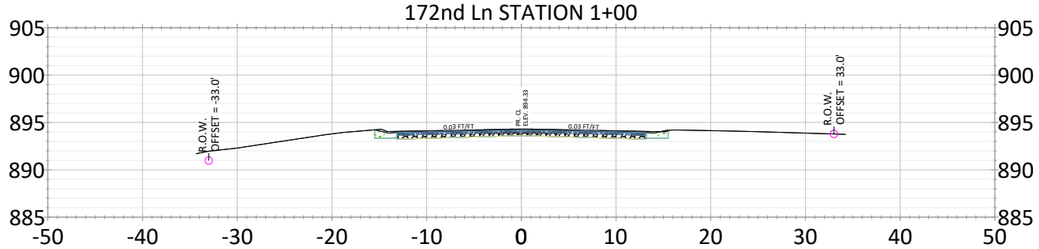
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

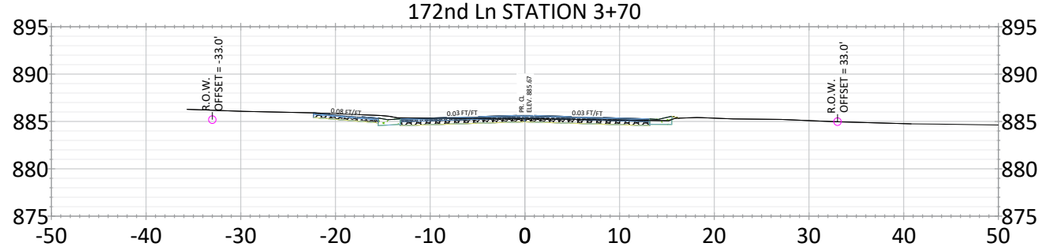


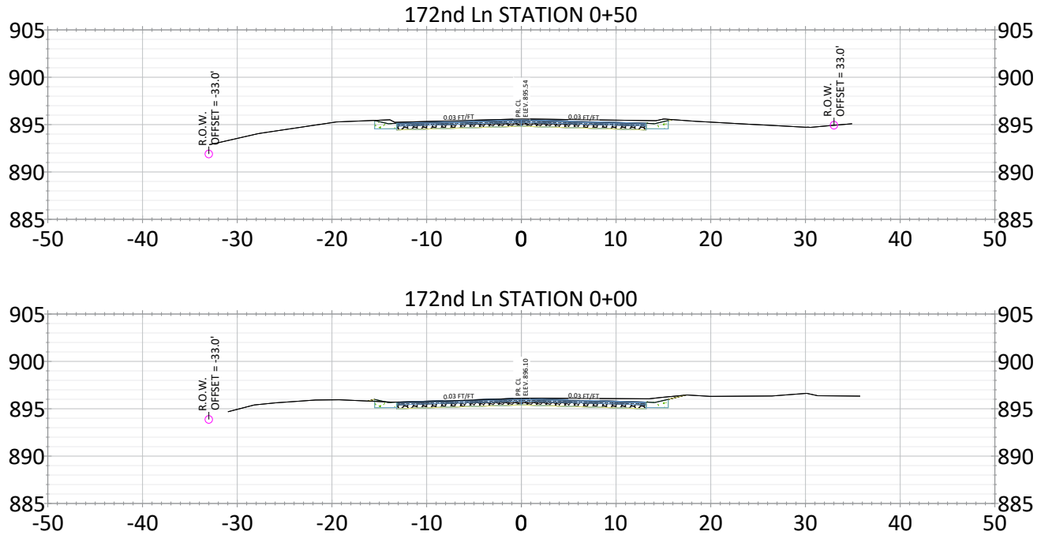


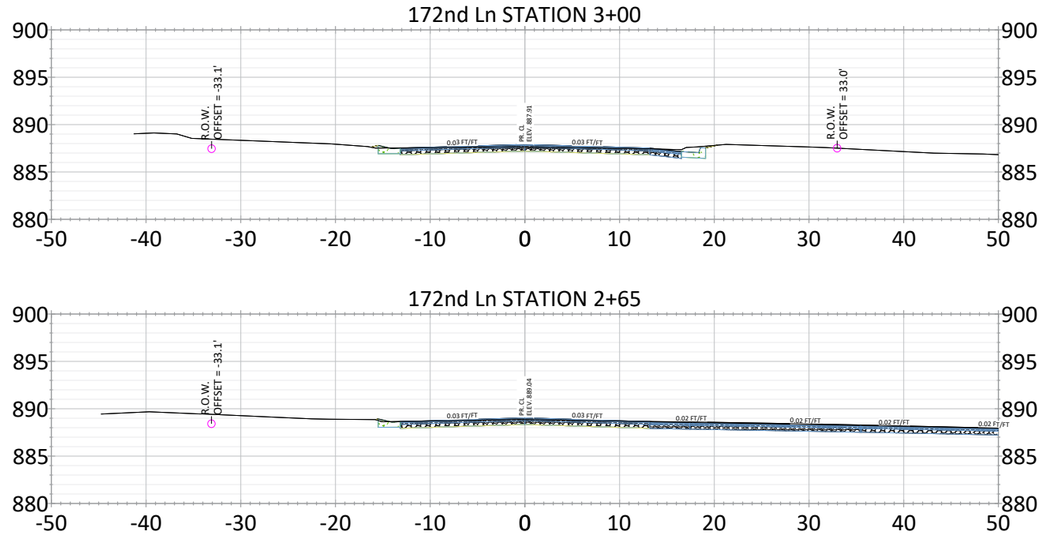












DATE	REVISION

Nov 15, 2024 - 10:21am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

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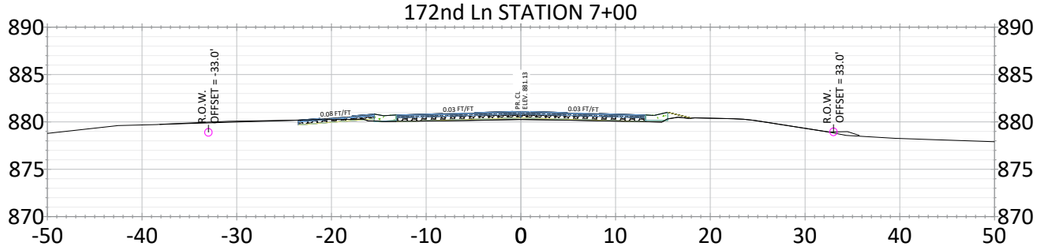
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

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

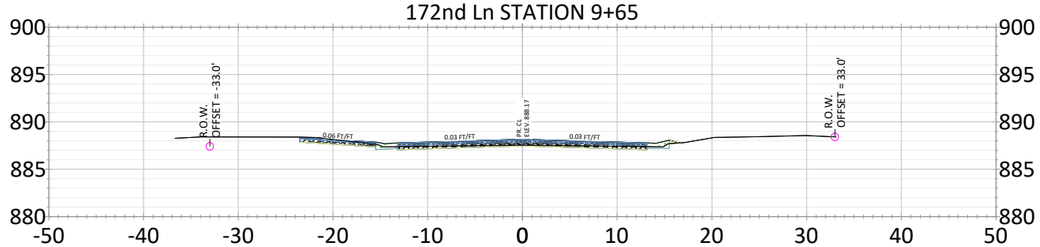
CROSS SECTIONS - 172ND LN 0+00 - 4+50

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

172nd Ln STATION 7+00



172nd Ln STATION 9+65



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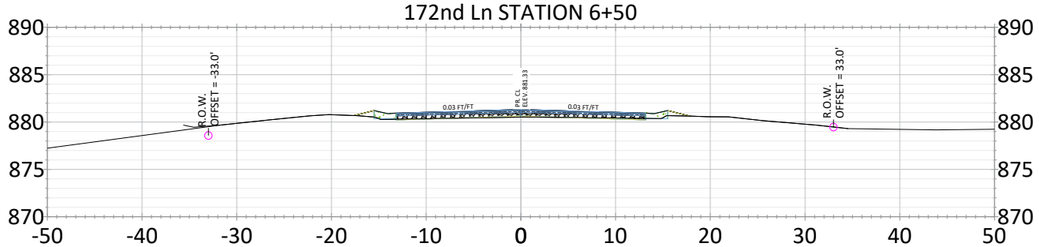

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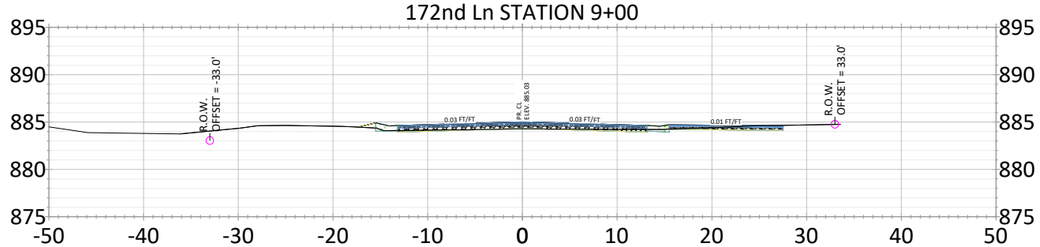

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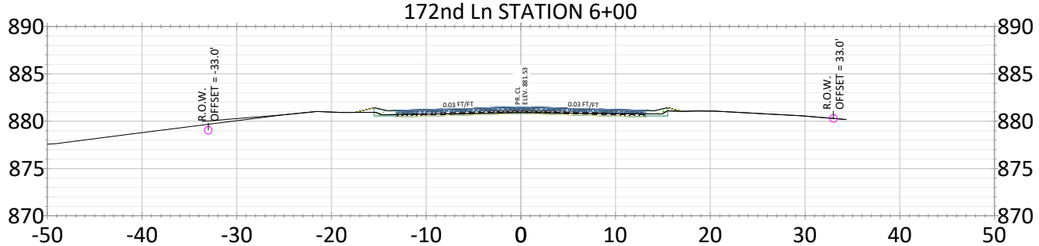

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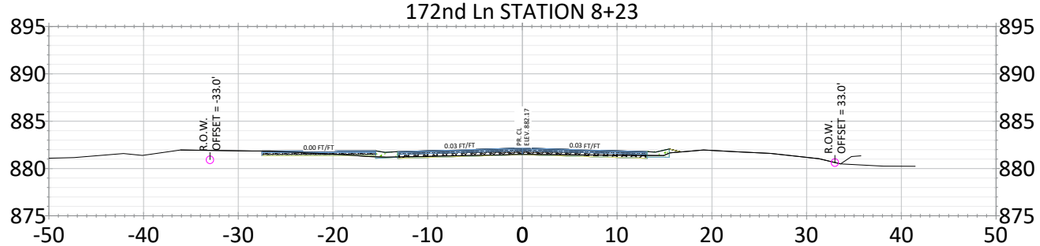

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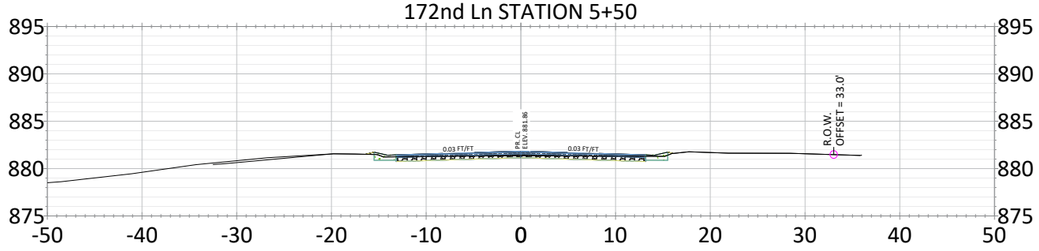

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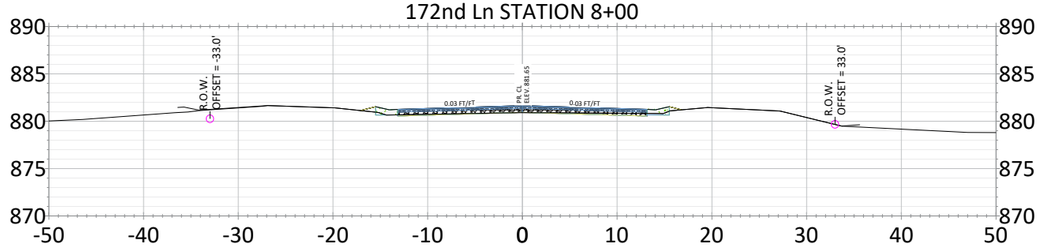

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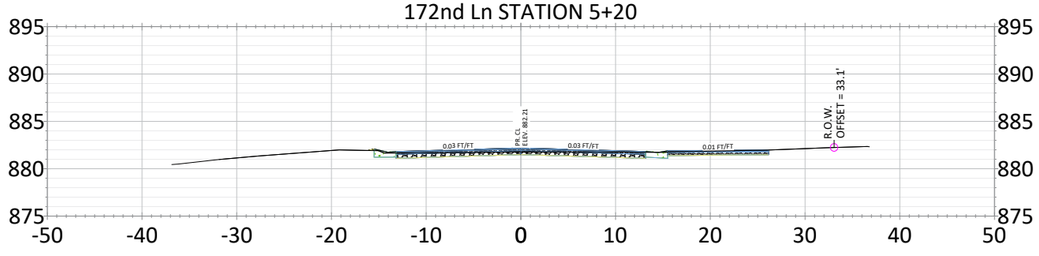

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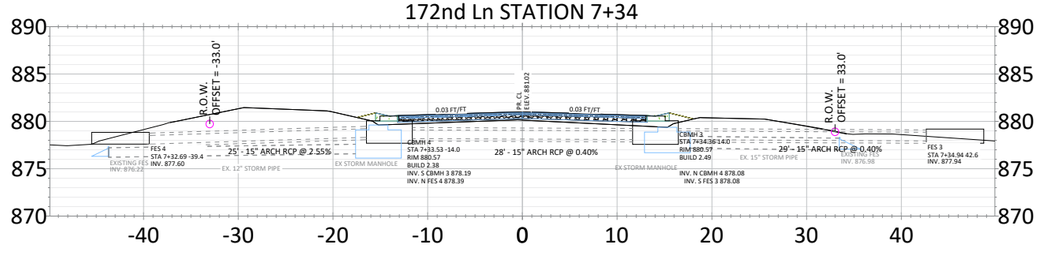

DATE	REVISION

Nov 21, 2024 - 10:21am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

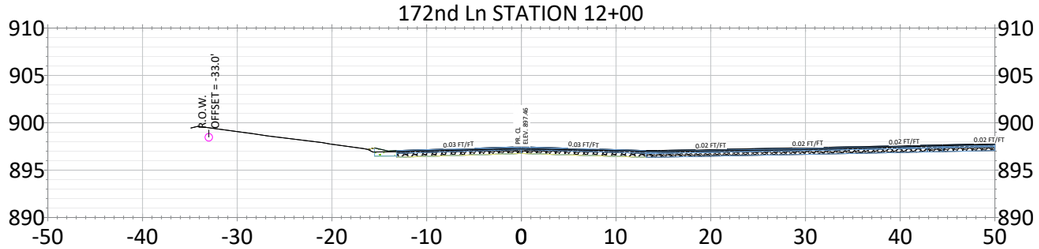
City of RAMSEY

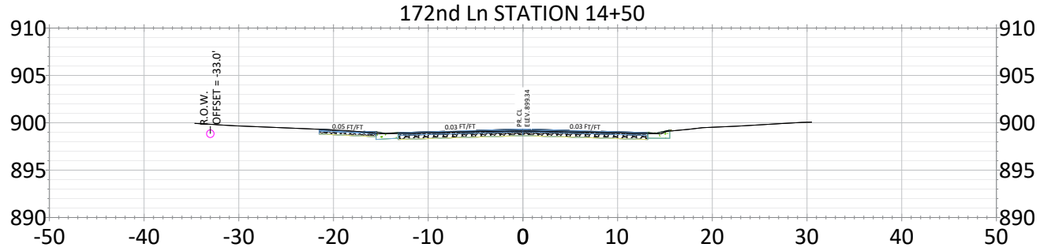
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

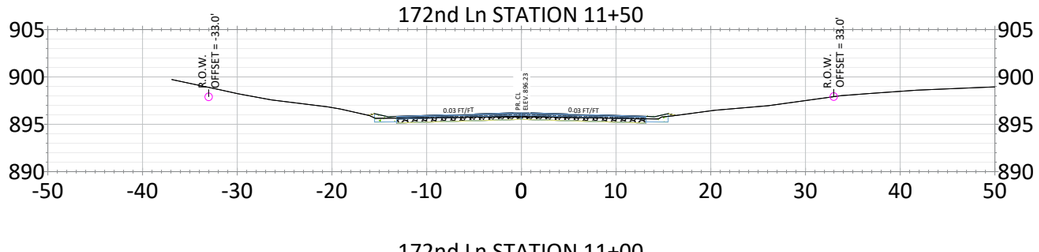
CROSS SECTIONS - 172ND LN 5+20 - 9+65

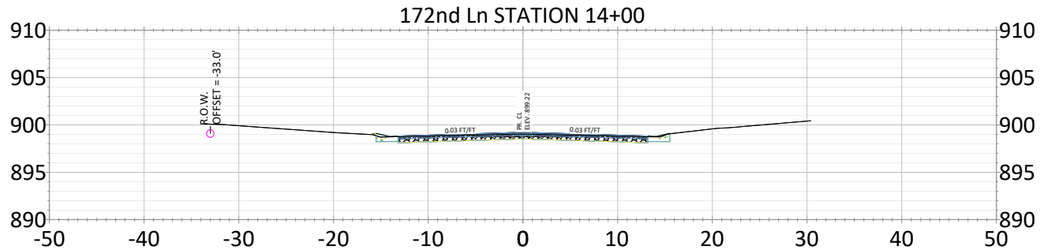
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

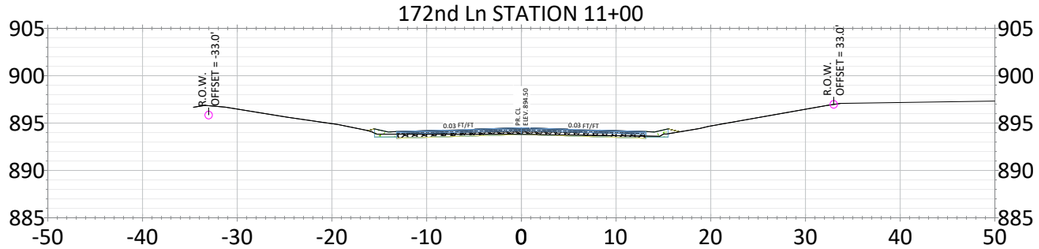
SHEET 56 OF 77 SHEETS

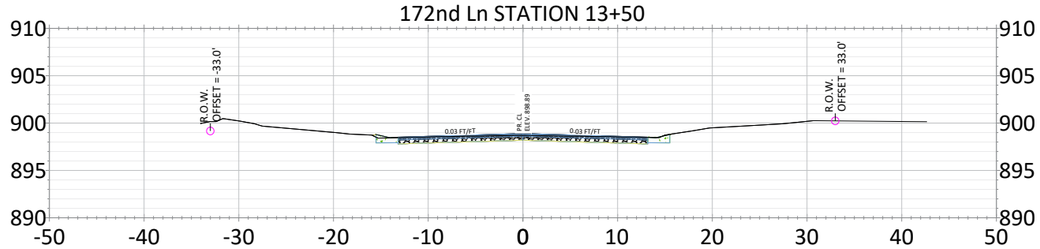


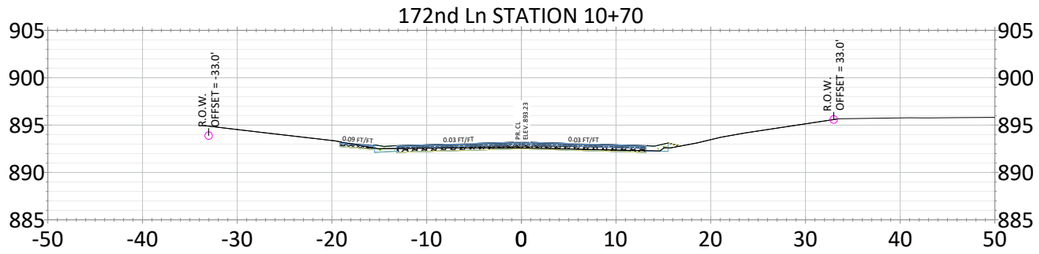


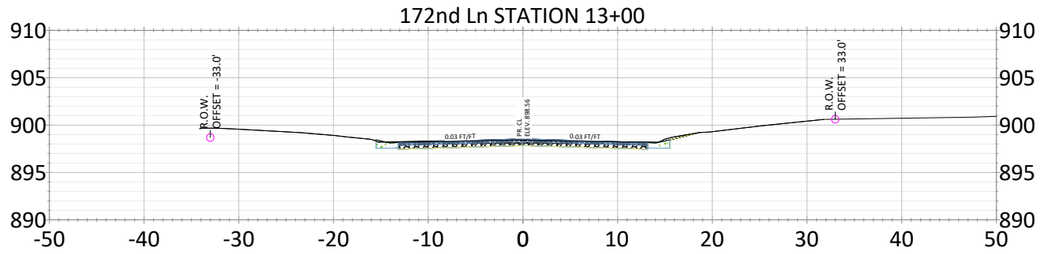


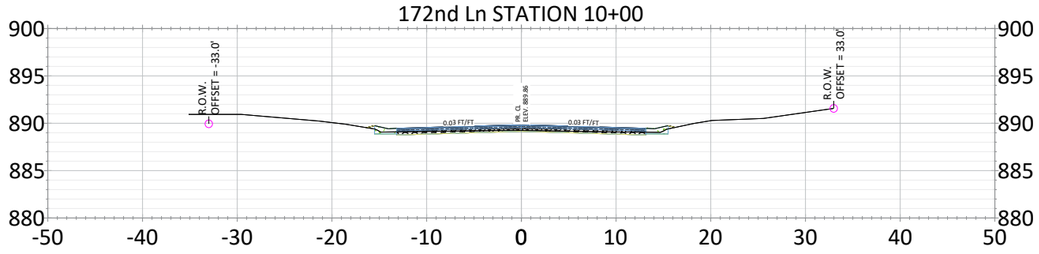


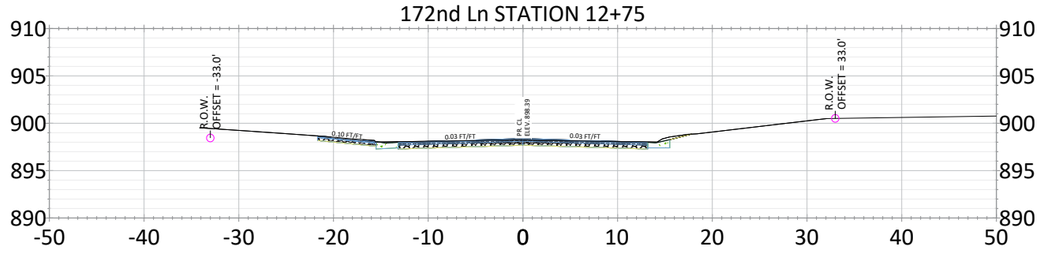












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CHECKED BY:	JJF	FILE:	24-13

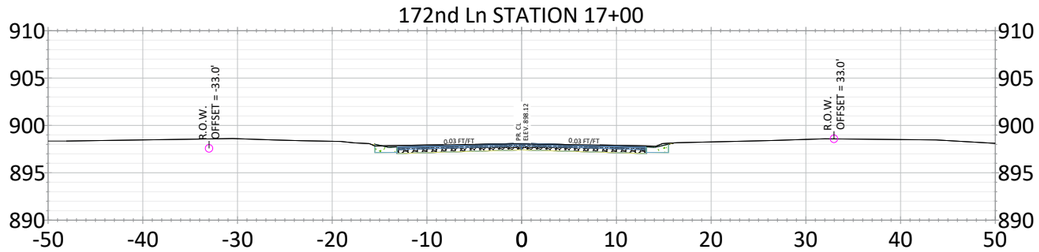
City of RAMSEY

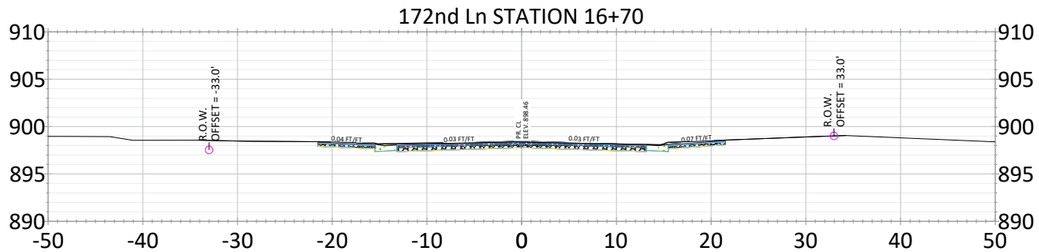
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

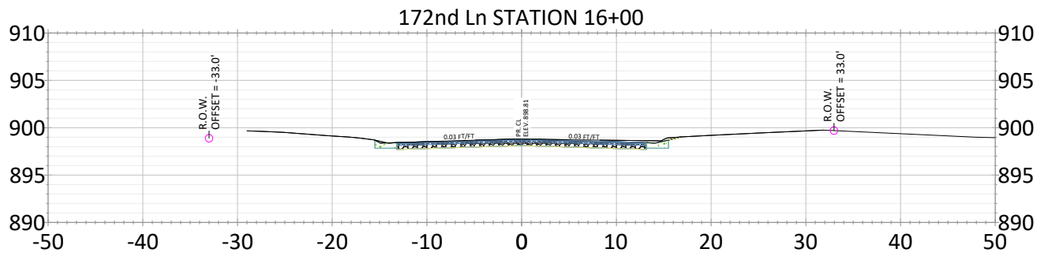
CROSS SECTIONS - 172ND LN 10+00 - 14+50

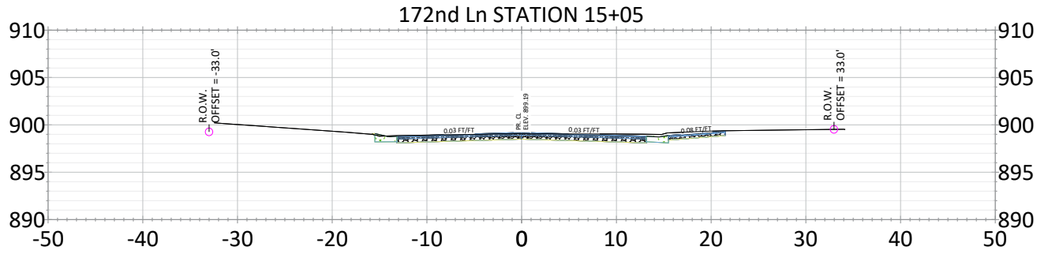
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

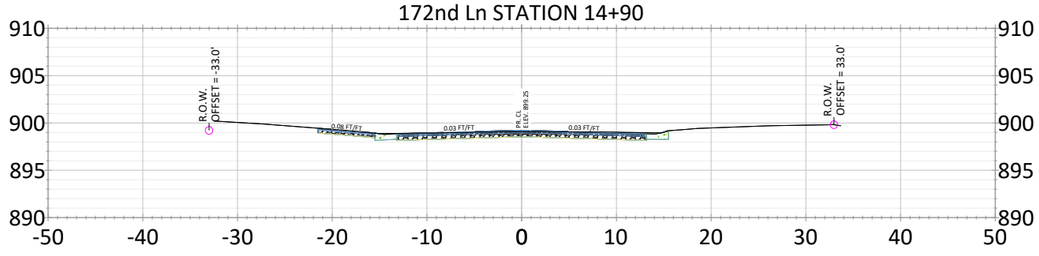
SHEET 57 OF 77 SHEETS











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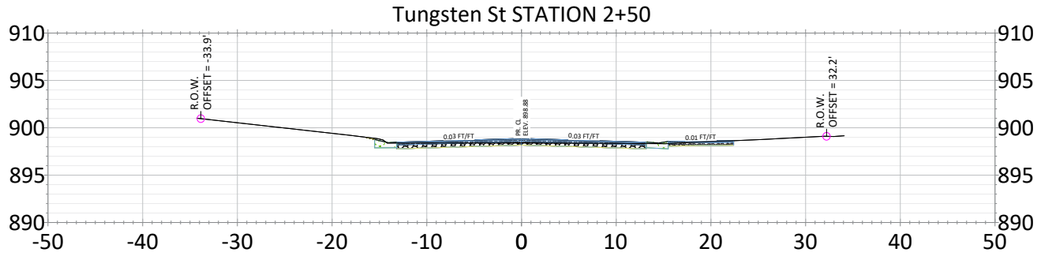
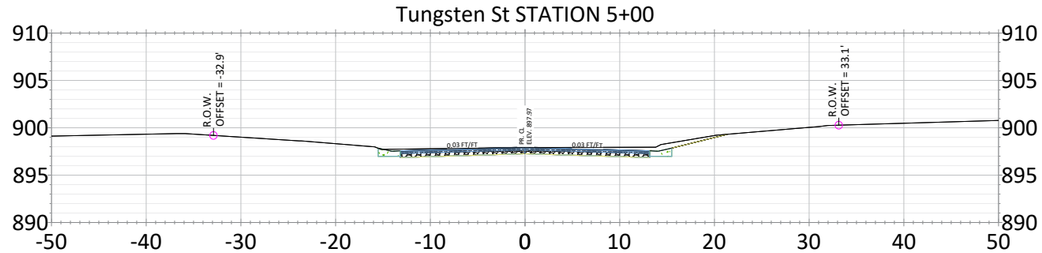
City of RAMSEY

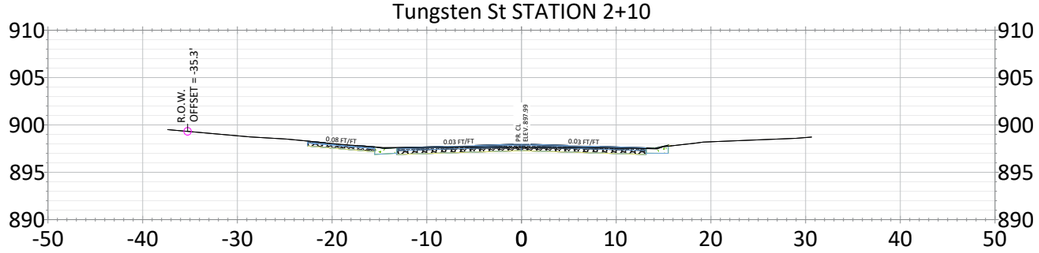
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

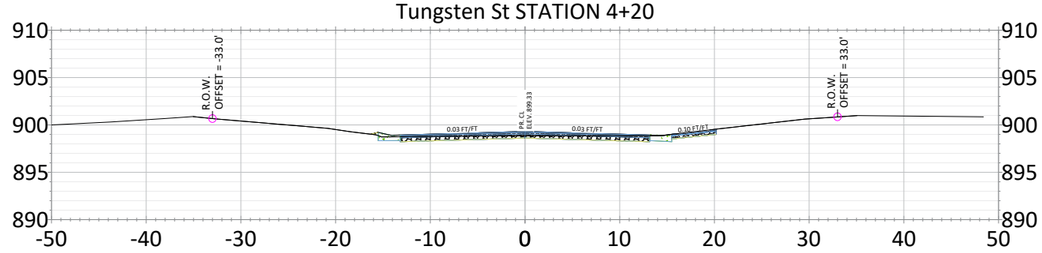
CROSS SECTIONS - 172ND LN 14+90 - 17+00

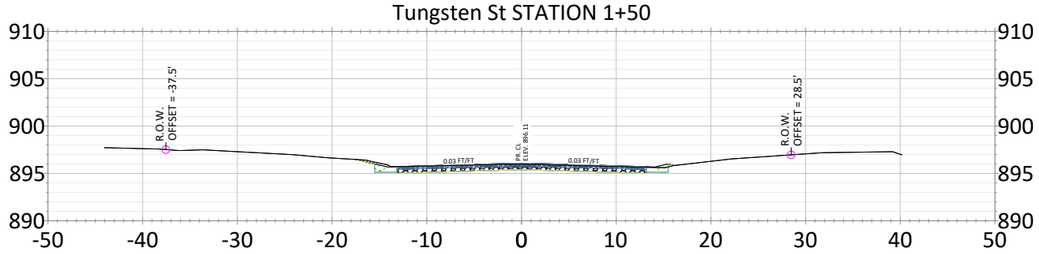
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

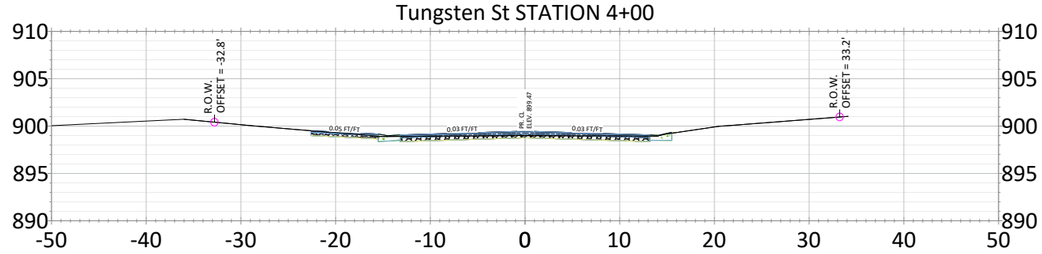


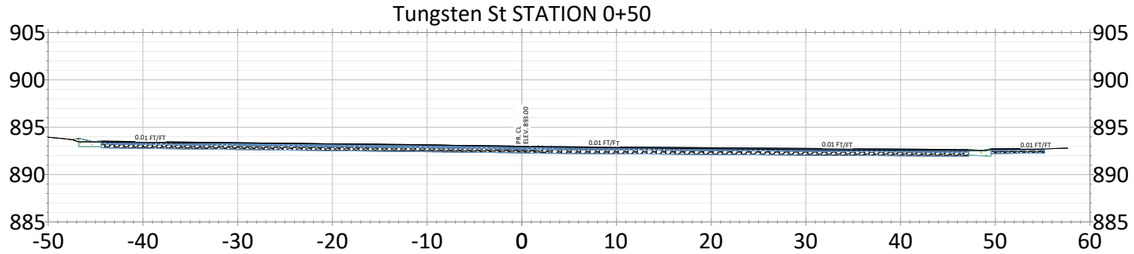


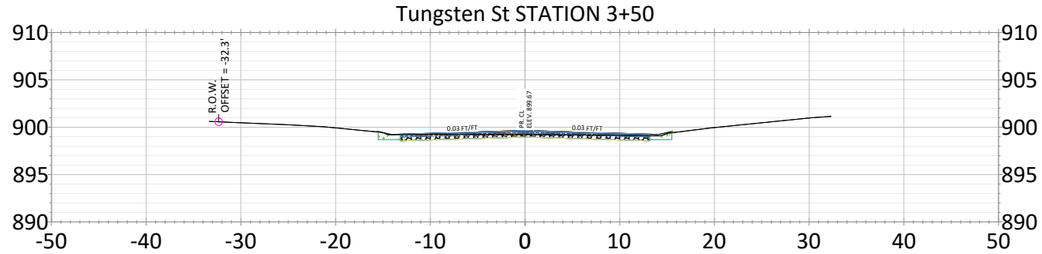


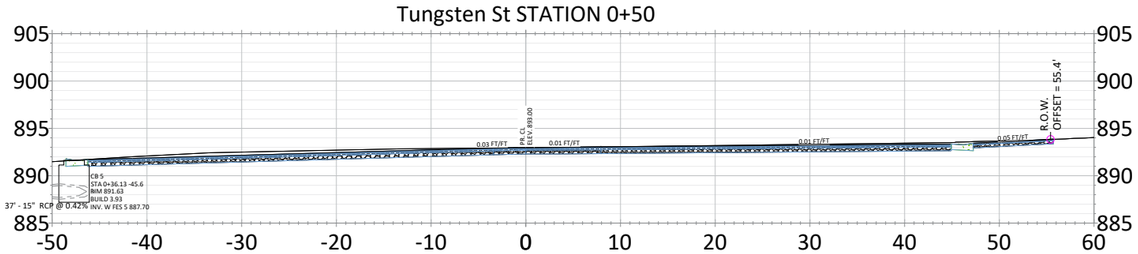


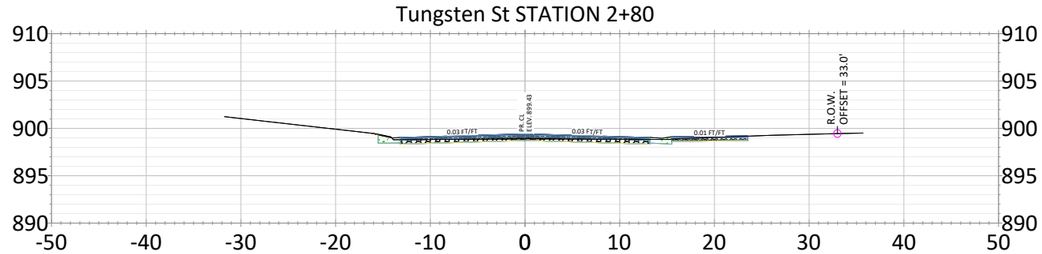












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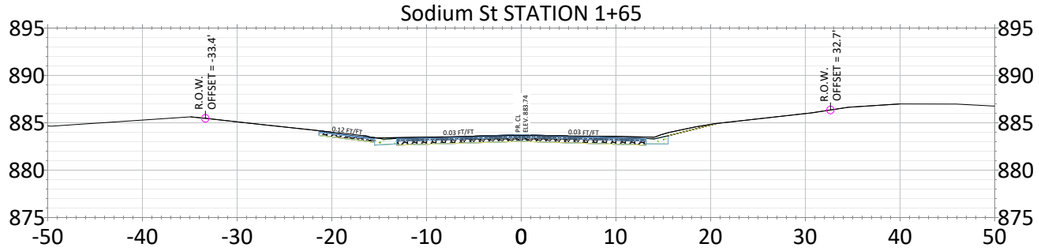
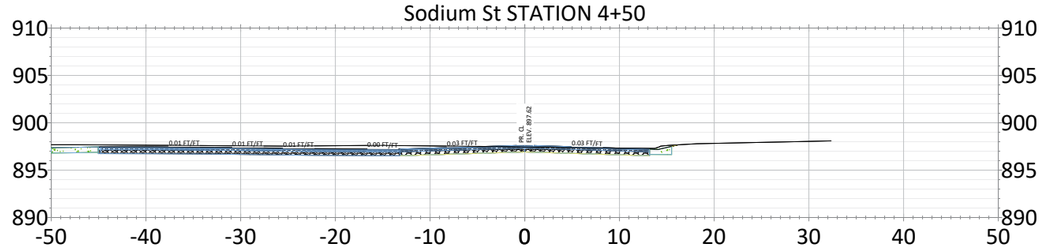
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

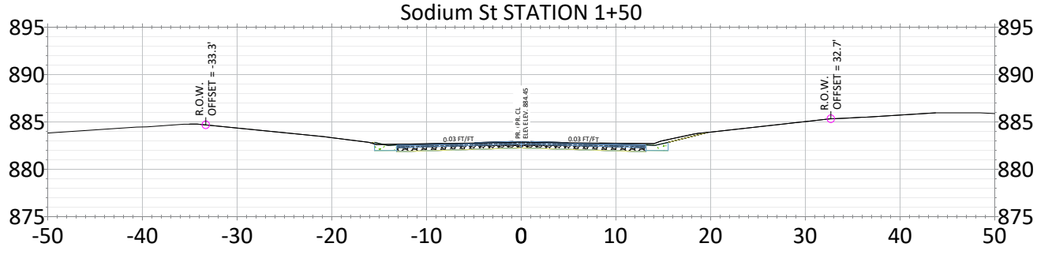
CROSS SECTIONS - TUNGSTEN ST 0+50 - 5+00

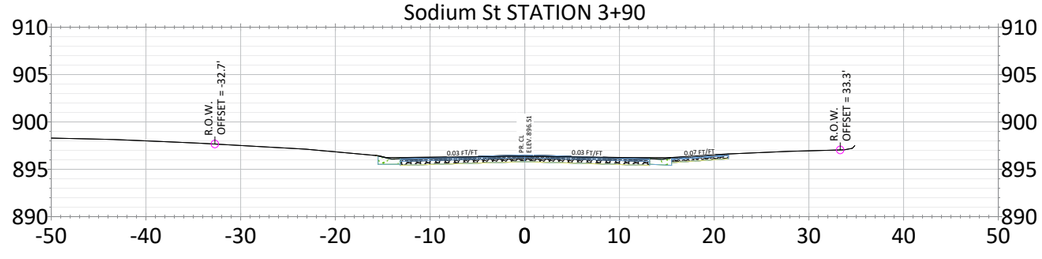
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

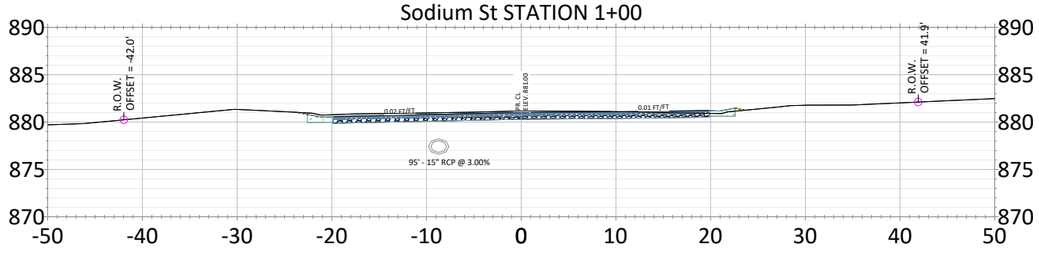
SHEET 59 OF 77 SHEETS

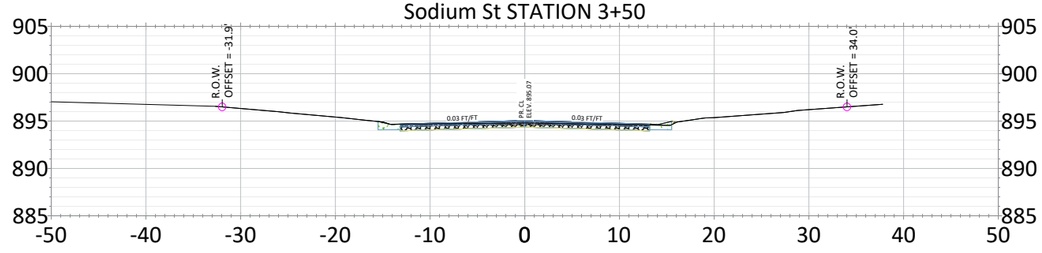


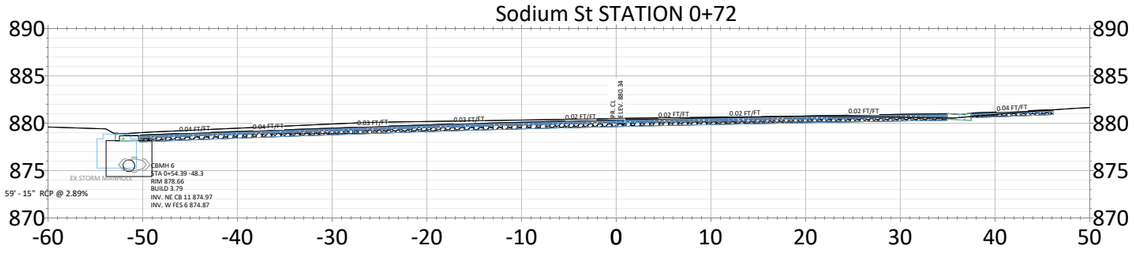


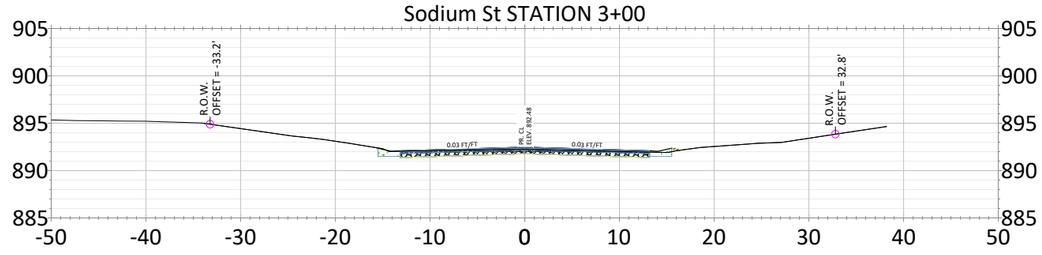


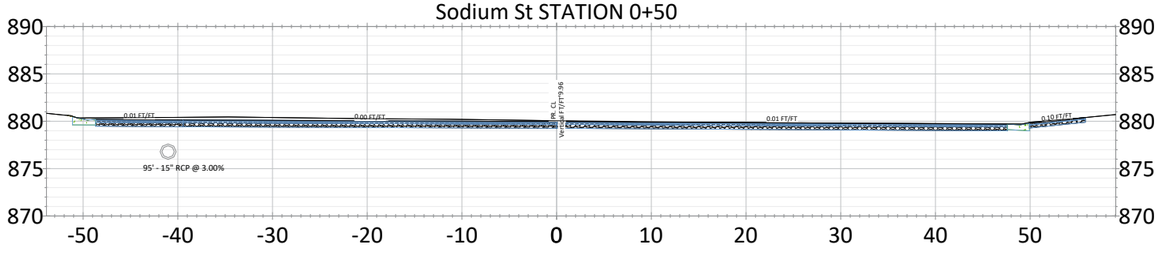


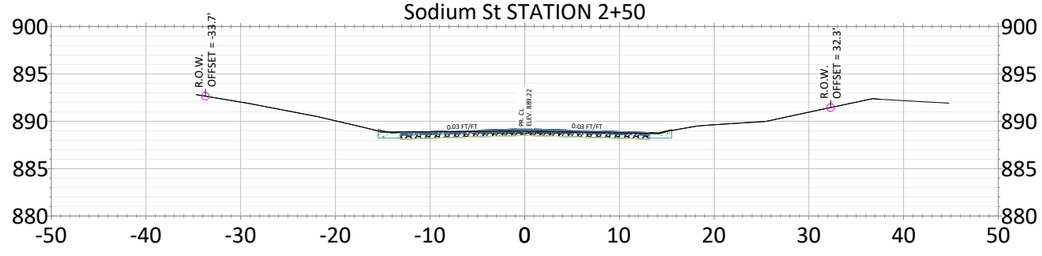












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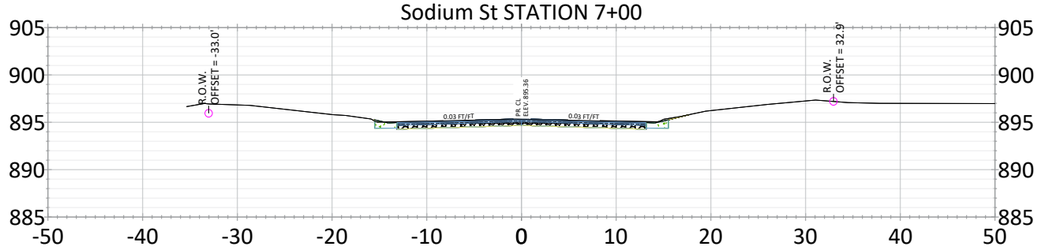
City of RAMSEY

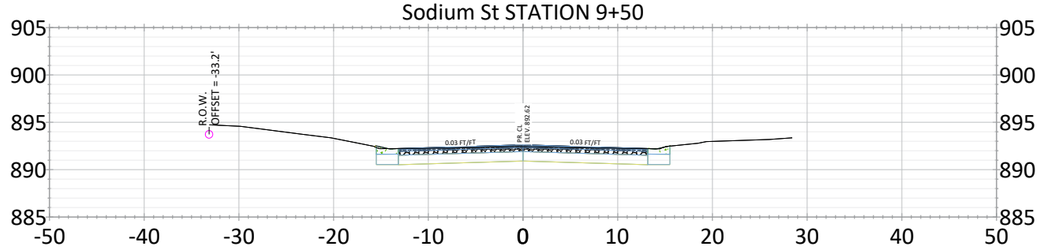
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

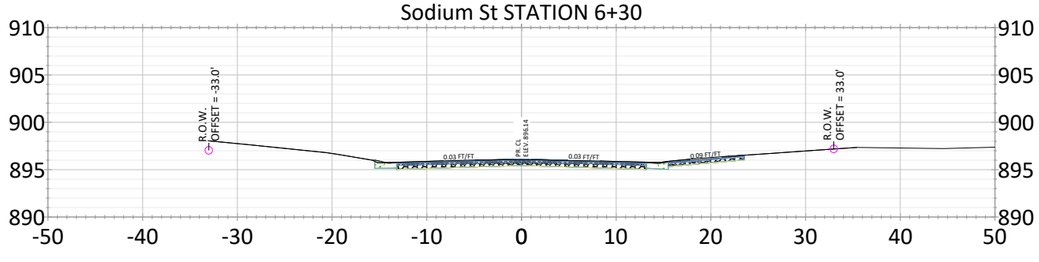
CROSS SECTIONS - SODIUM ST 0+50 - 4+50

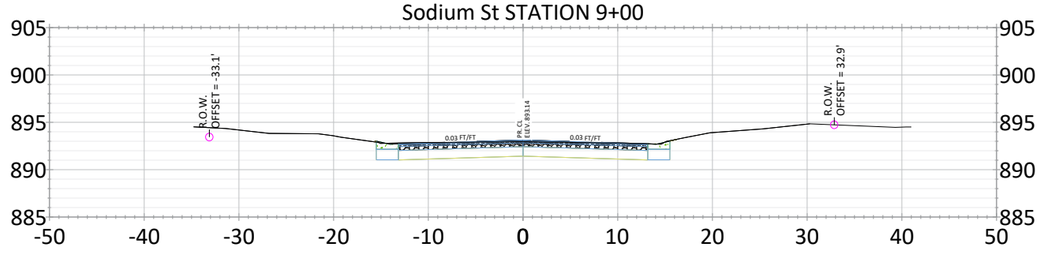
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

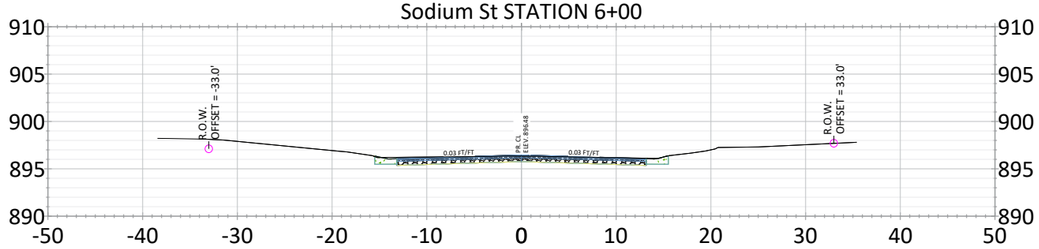
SHEET 60 OF 77 SHEETS

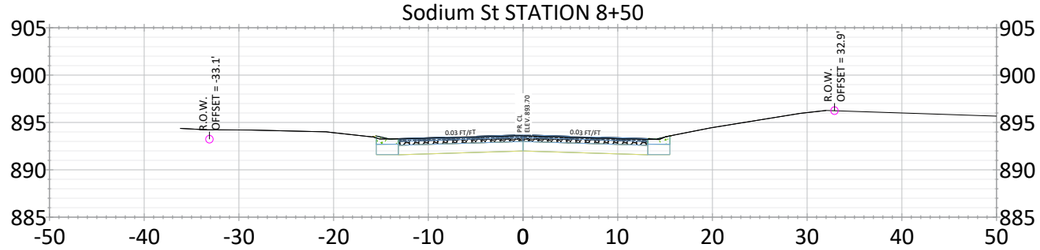


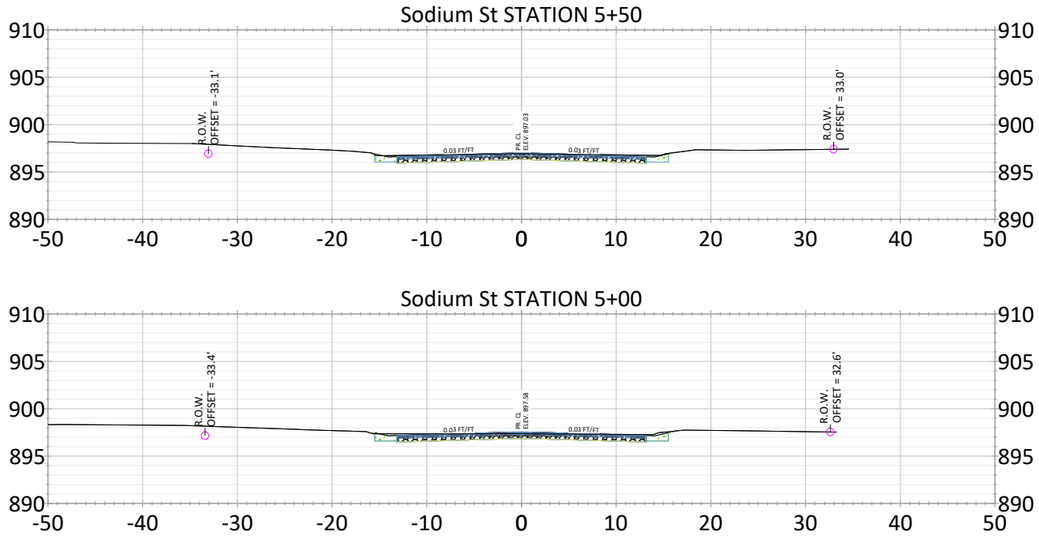


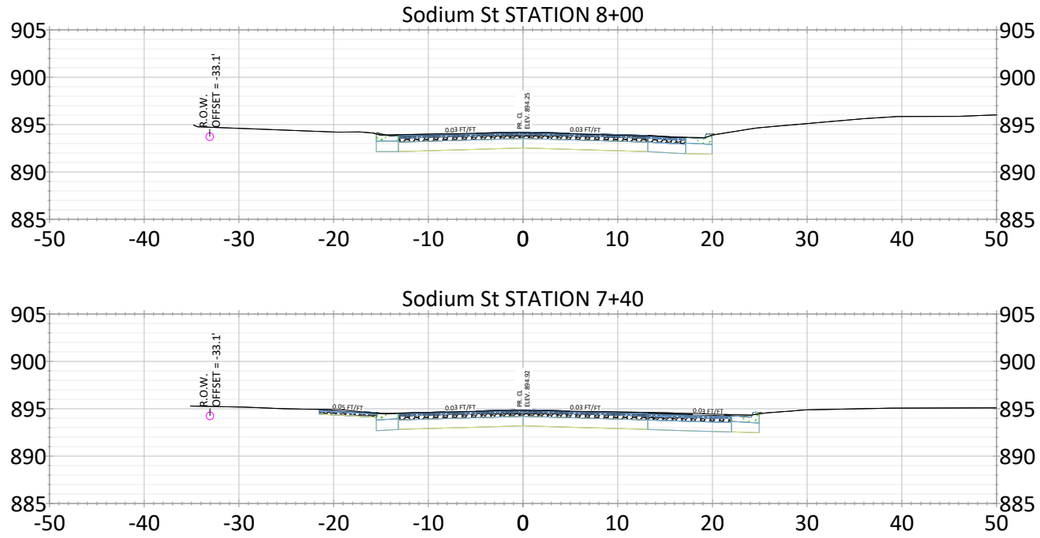












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CROSS SECTIONS - SODIUM ST 5+00 - 9+50

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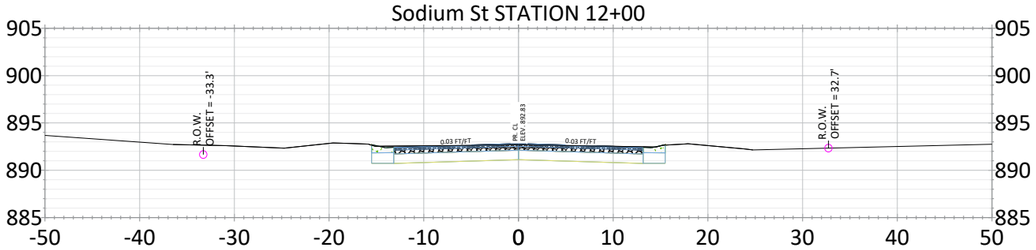
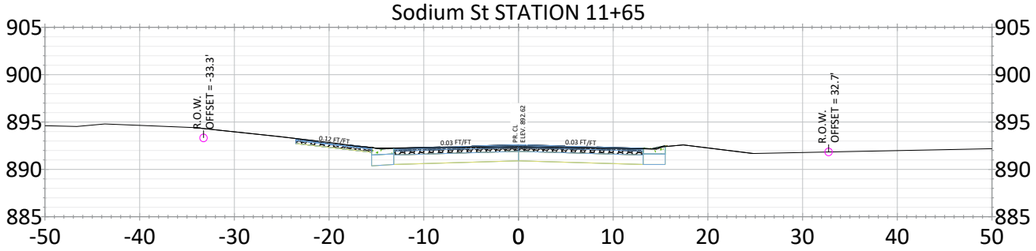
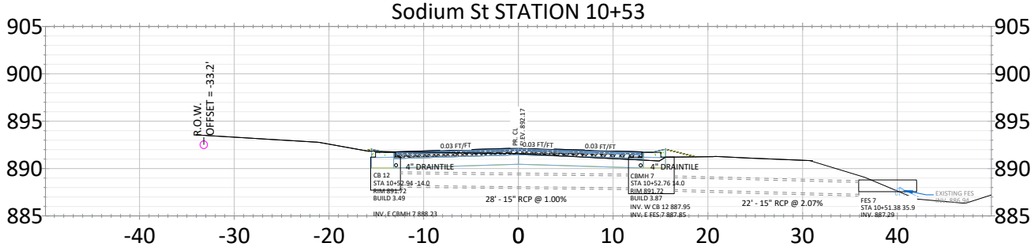
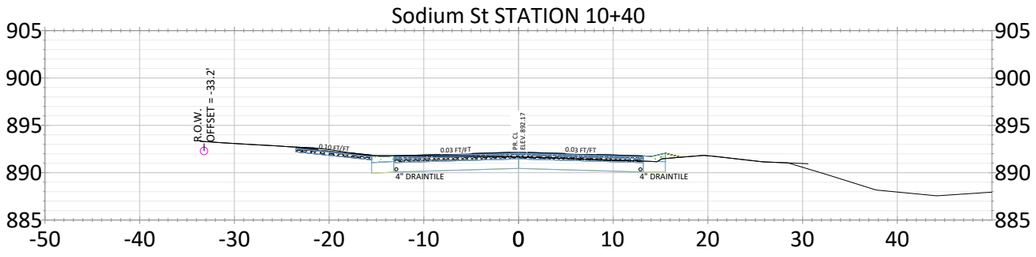
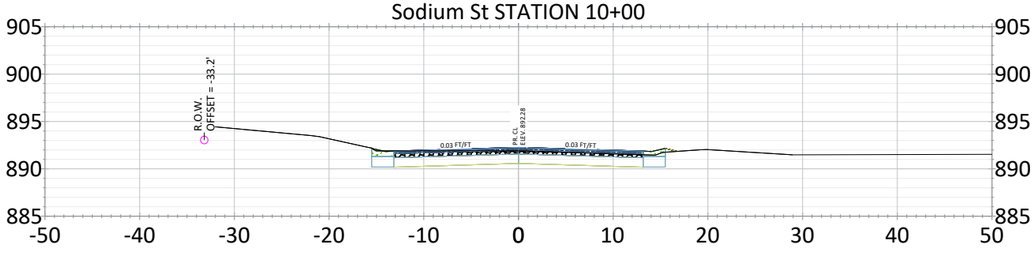
CITY OF RAMSEY, MINNESOTA











DATE	REVISION

Nov 21, 2024 - 10:24am
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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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

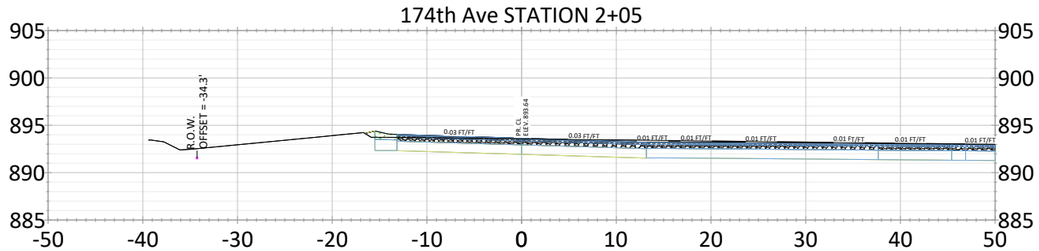
City of RAMSEY

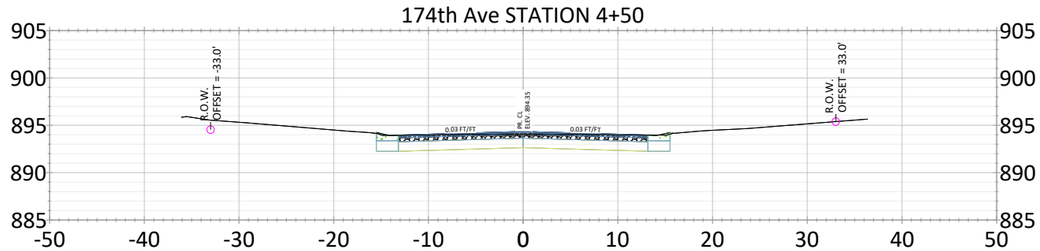
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

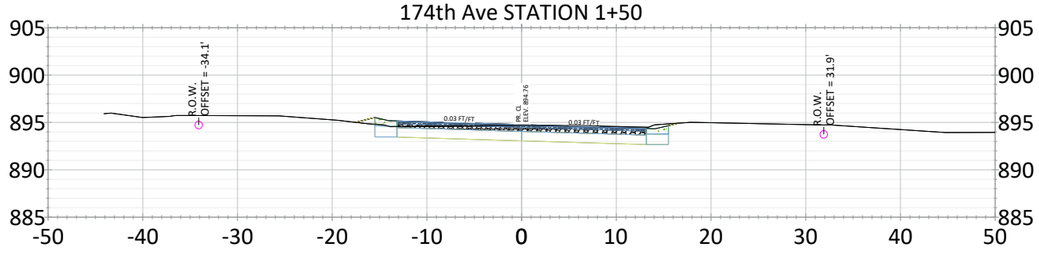
CROSS SECTIONS - SODIUM ST 10+00 - 12+00

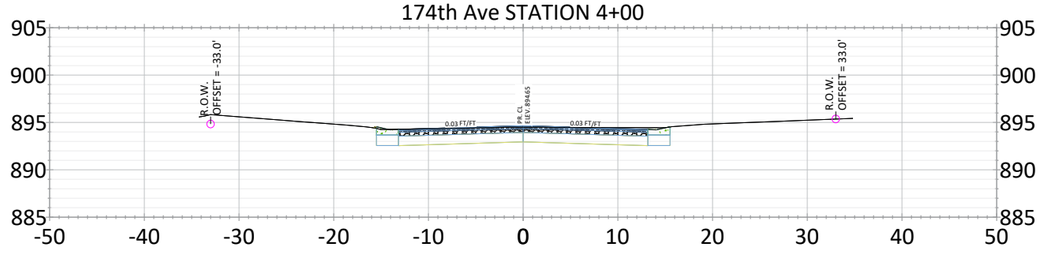
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

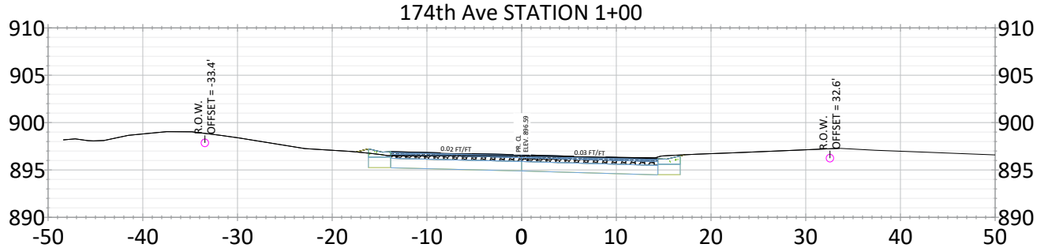
SHEET 62 OF 77 SHEETS

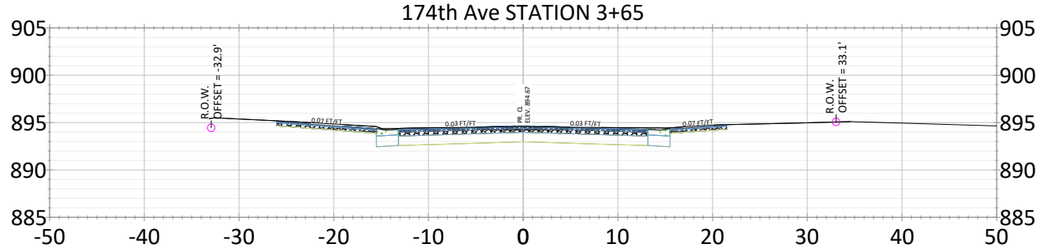


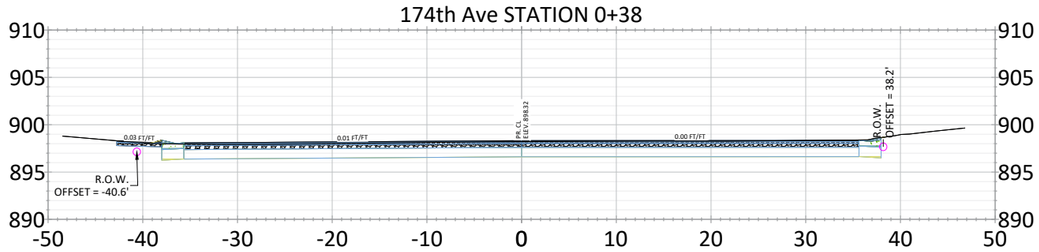


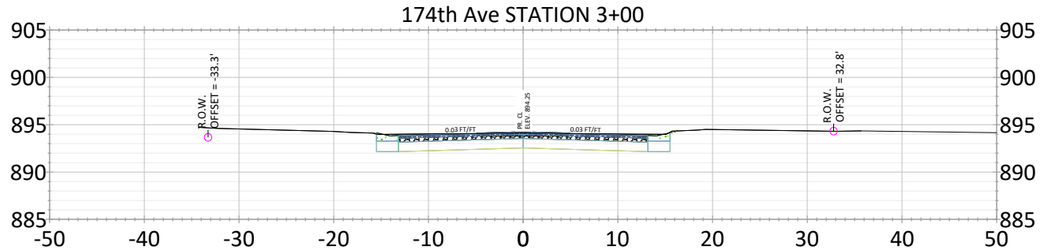


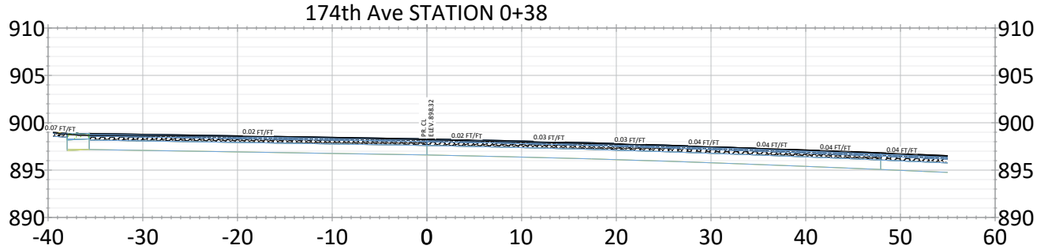


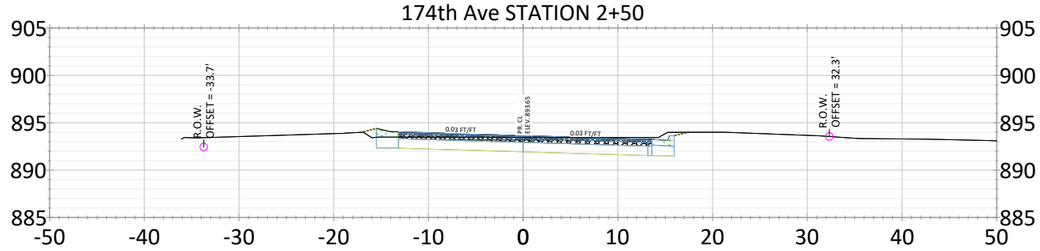












DATE	REVISION

Nov 15, 2024 - 10:24am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

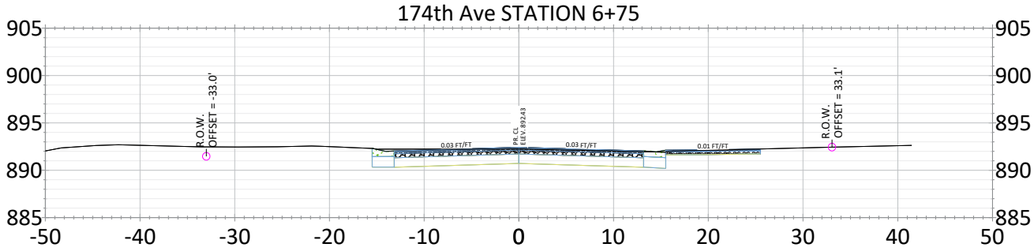
City of RAMSEY

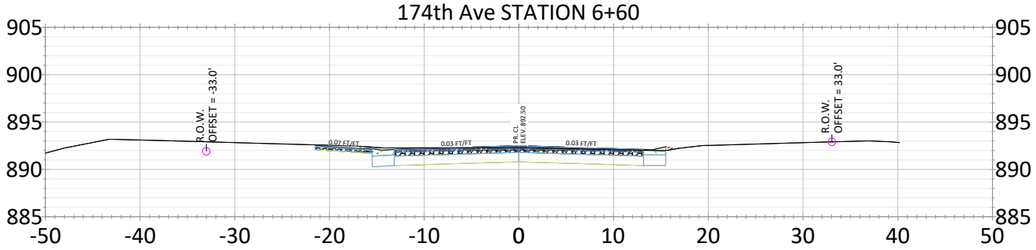
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

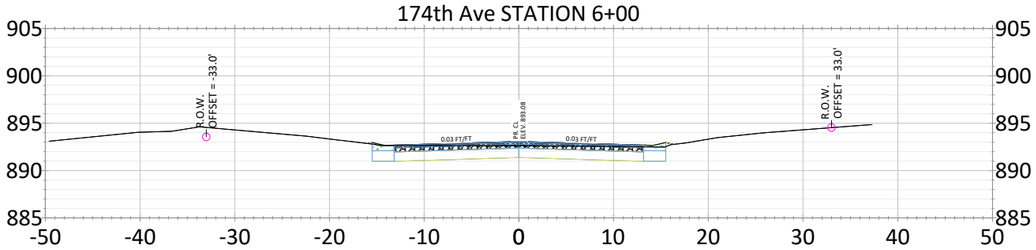
CROSS SECTIONS - 174TH AVE - 0+38 - 4+50

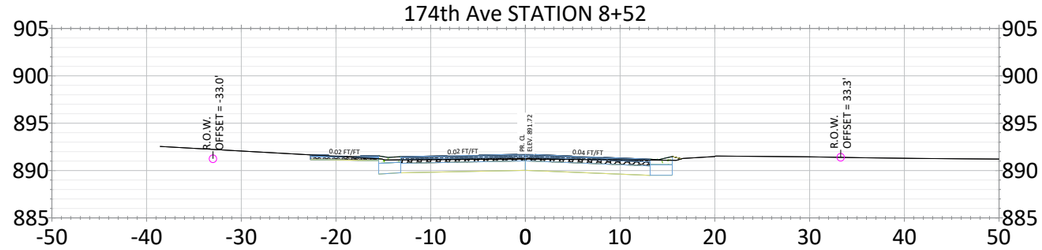
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

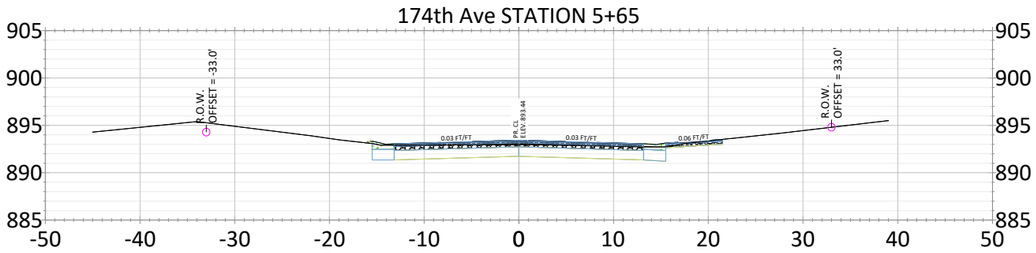
SHEET 63 OF 77 SHEETS

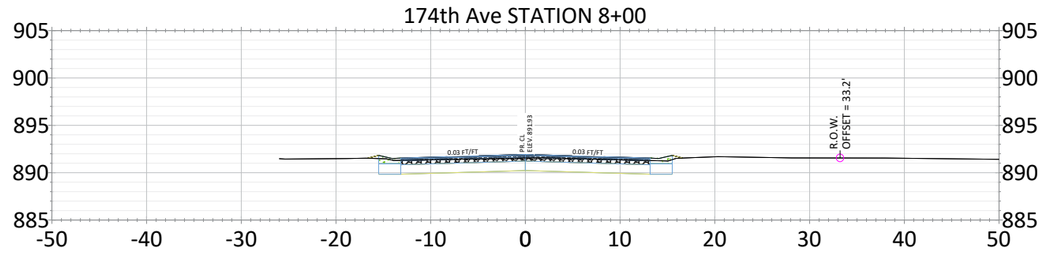


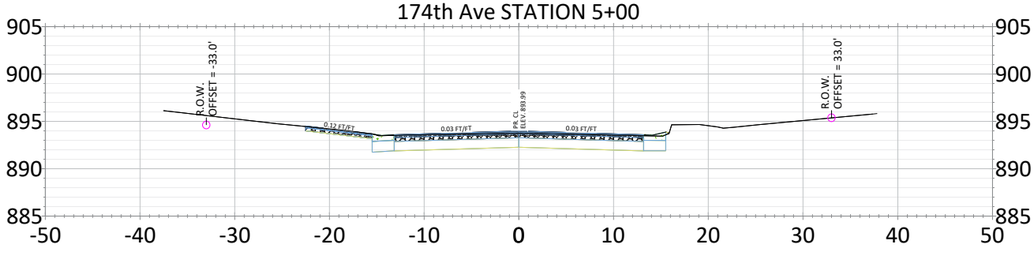


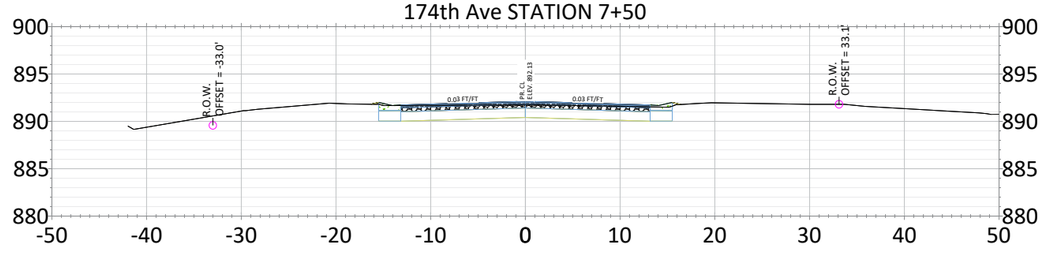












DATE	REVISION

Nov 15, 2024 - 10:25am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

City of RAMSEY

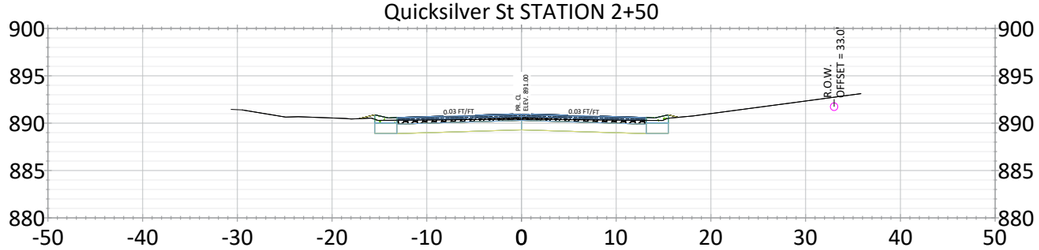
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

CROSS SECTIONS - 174TH AVE 5+00 - 8+52

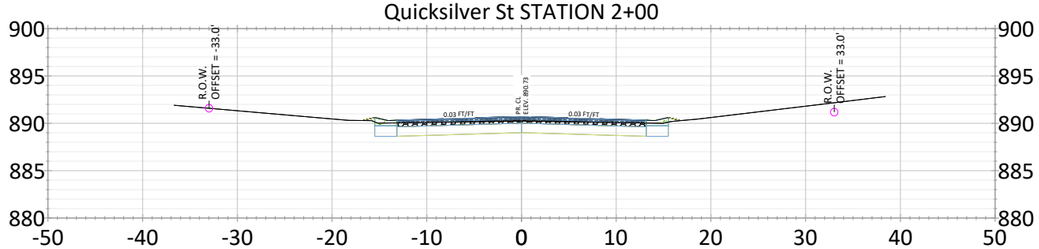
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 64 OF 77 SHEETS

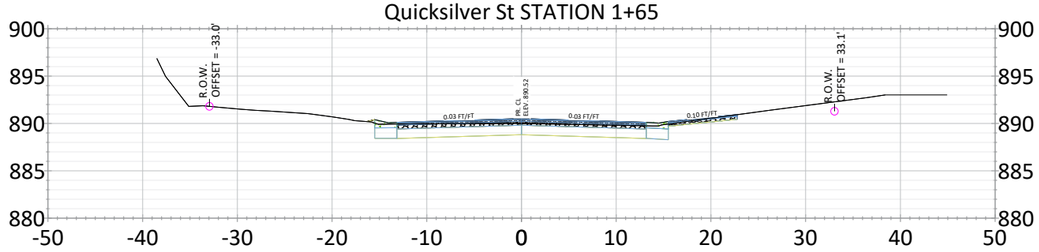
Quicksilver St STATION 2+50



Quicksilver St STATION 2+00



Quicksilver St STATION 1+65



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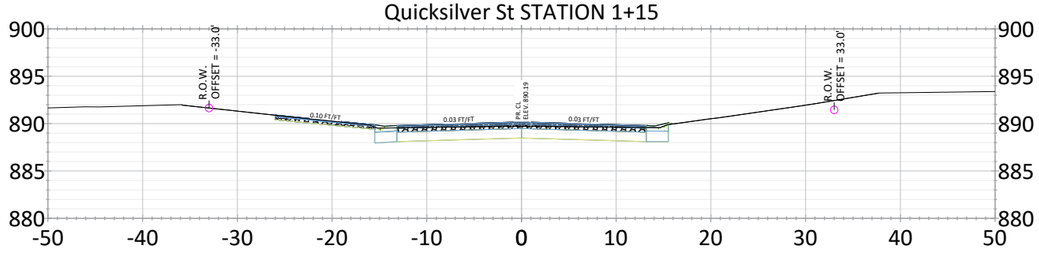

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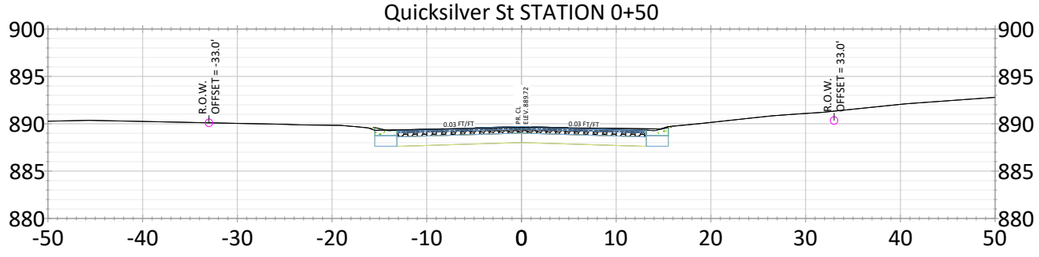
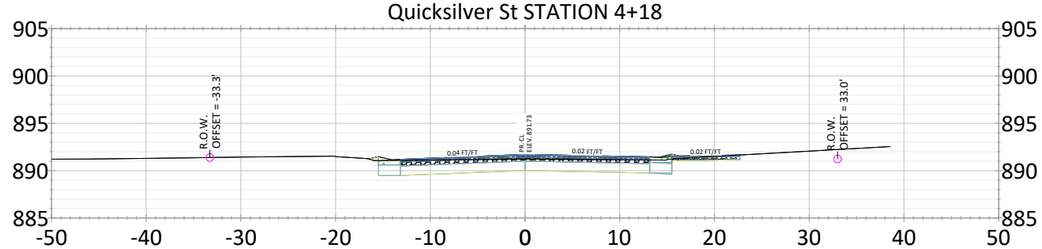


Quicksilver St STATION 4+18



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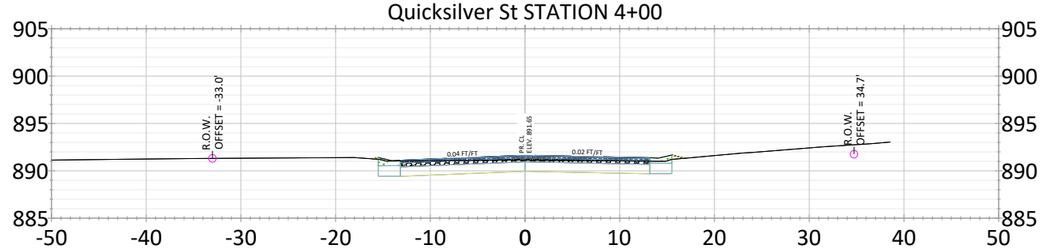
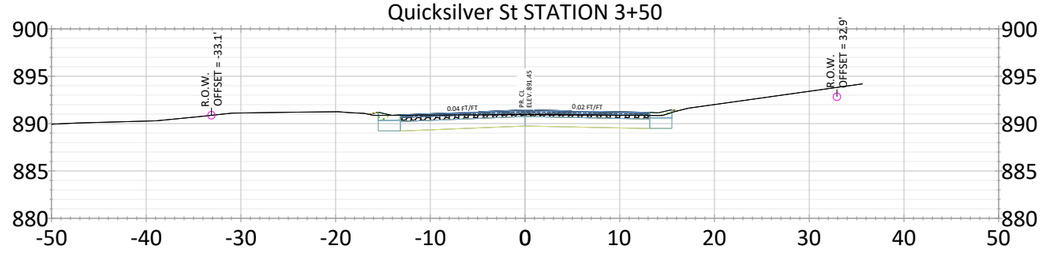
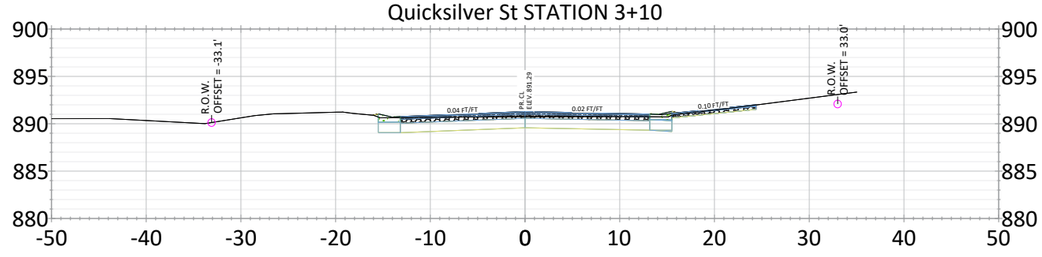


Quicksilver St STATION 3+50



Quicksilver St STATION 3+10



DATE	REVISION

Nov 15, 2024 - 10:23am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

City of RAMSEY

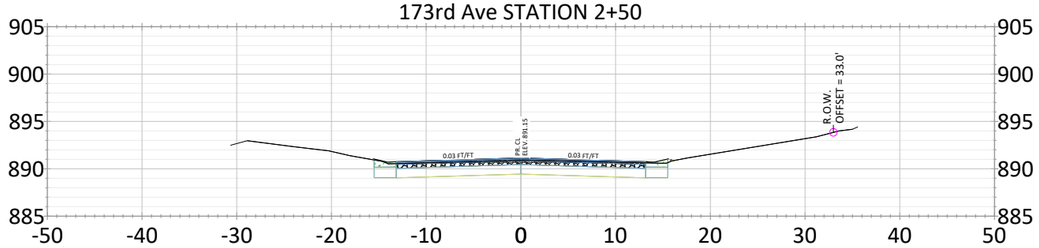
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

CROSS SECTIONS - QUICKSILVER ST 0+50 - 4+18

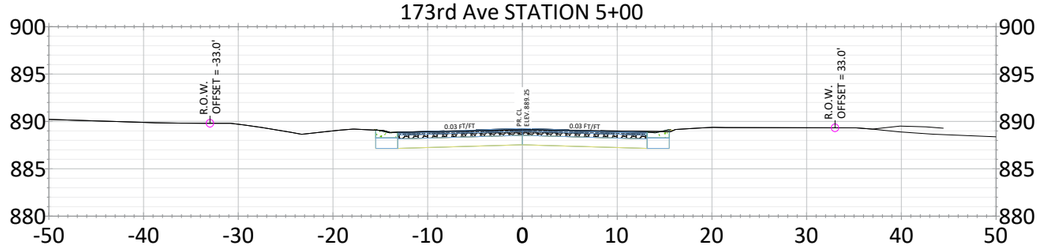
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 65 OF 77 SHEETS

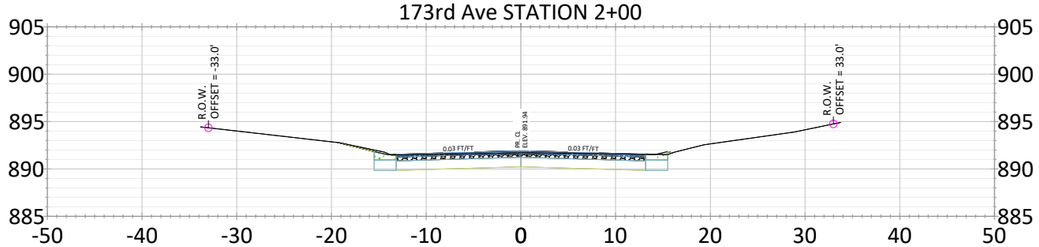
173rd Ave STATION 2+50



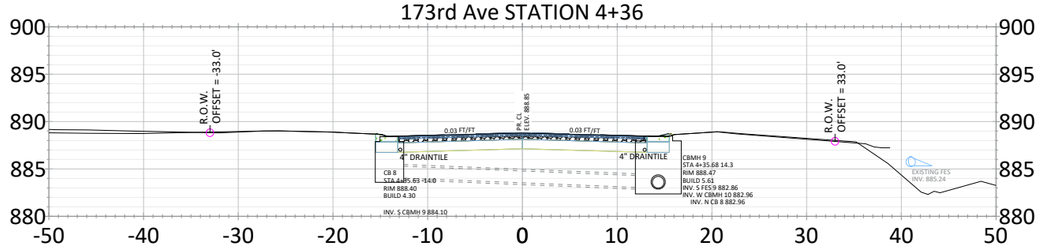
173rd Ave STATION 5+00



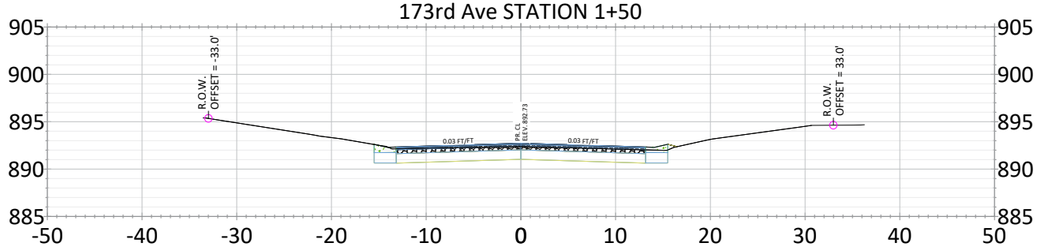
173rd Ave STATION 2+00



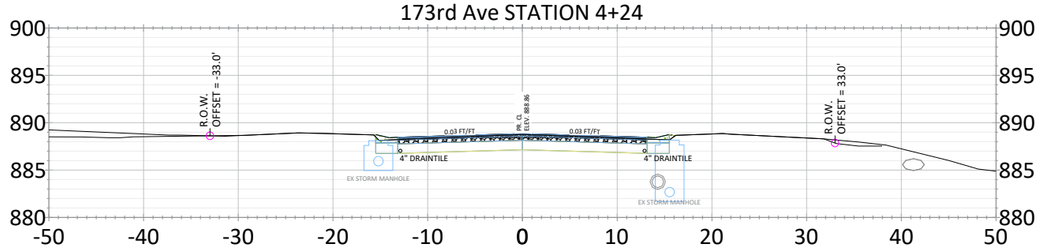
173rd Ave STATION 4+36



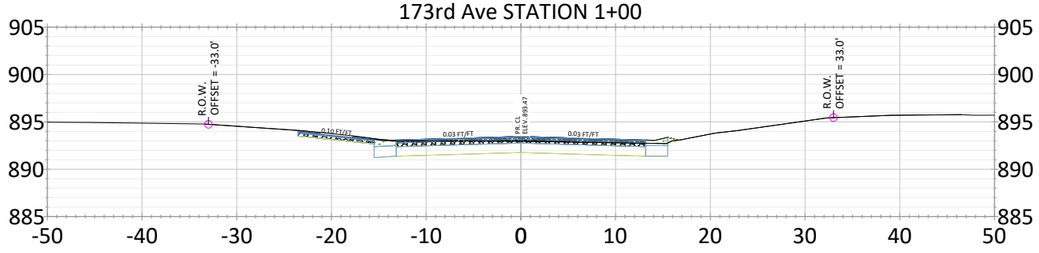
173rd Ave STATION 1+50



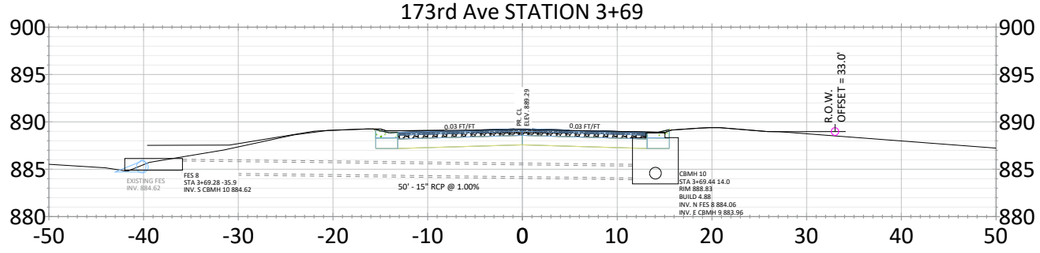
173rd Ave STATION 4+24



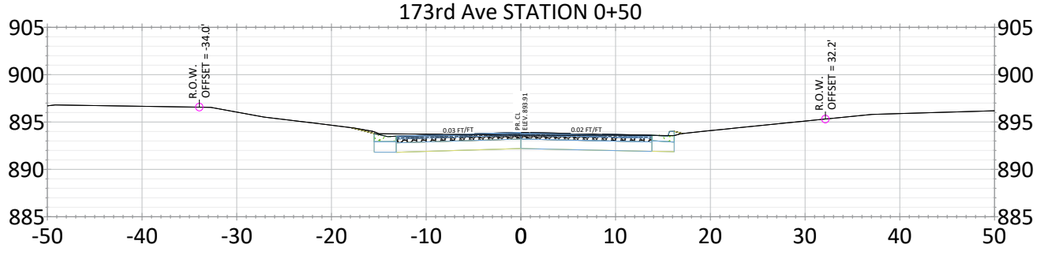
173rd Ave STATION 1+00



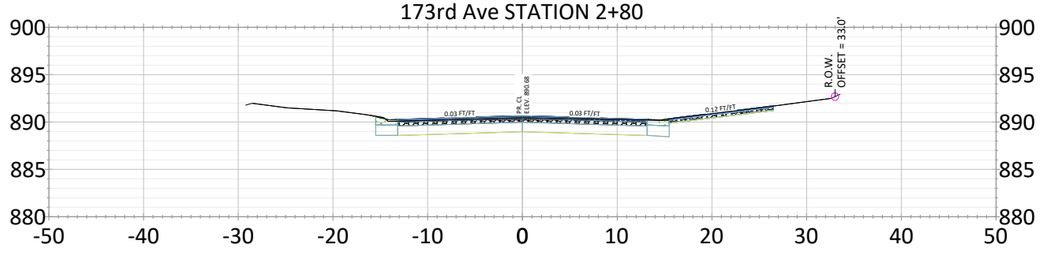
173rd Ave STATION 3+69



173rd Ave STATION 0+50



173rd Ave STATION 2+80



DATE	REVISION

Nov 10, 2024 - 10:26am
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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

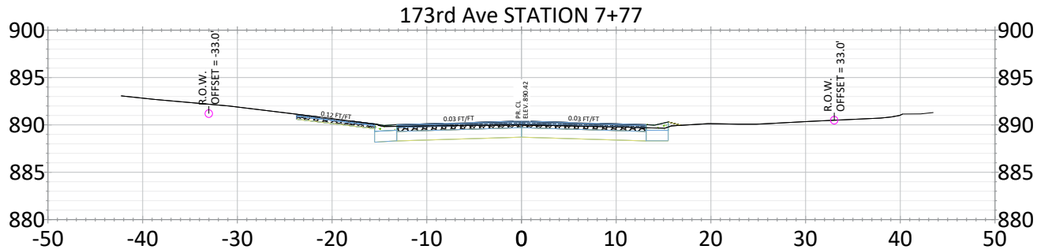
City of RAMSEY

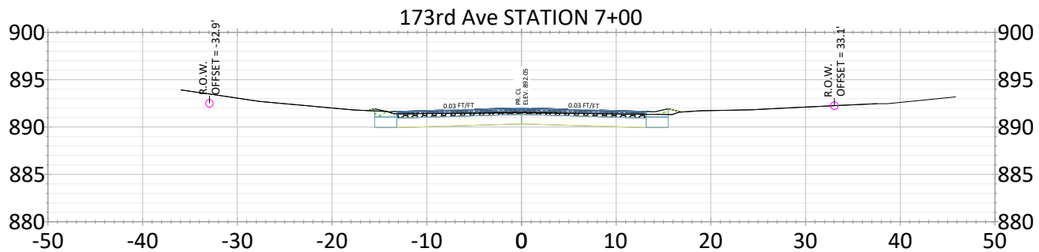
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

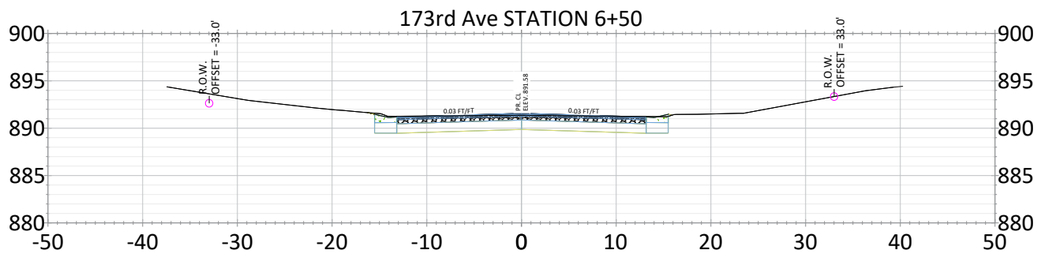
CROSS SECTIONS - 173RD AVE 0+50 - 5+00

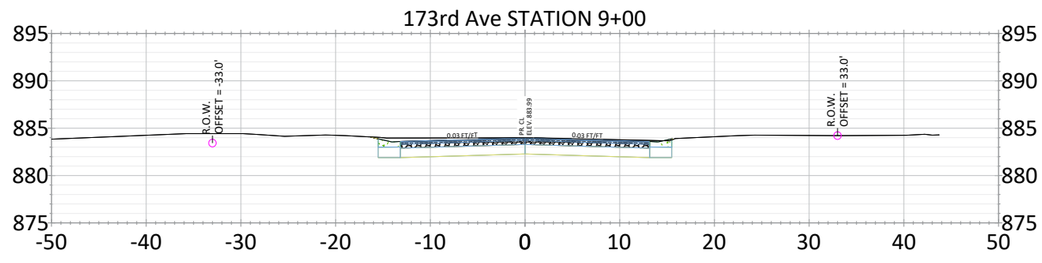
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

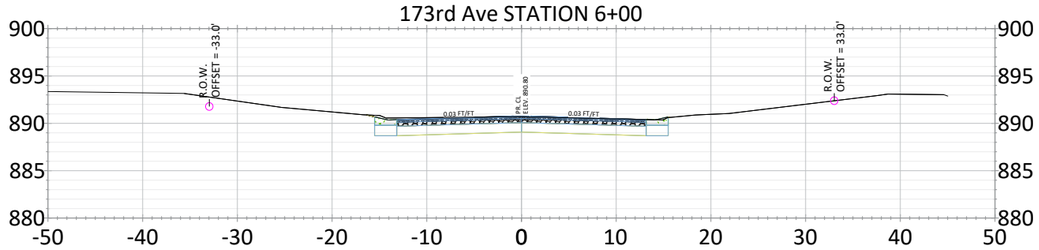
SHEET 66 OF 77 SHEETS

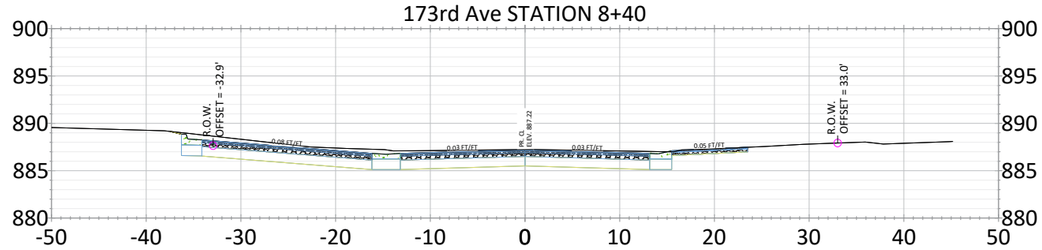


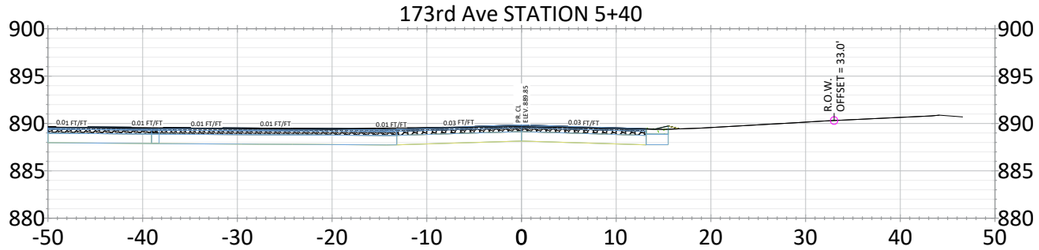


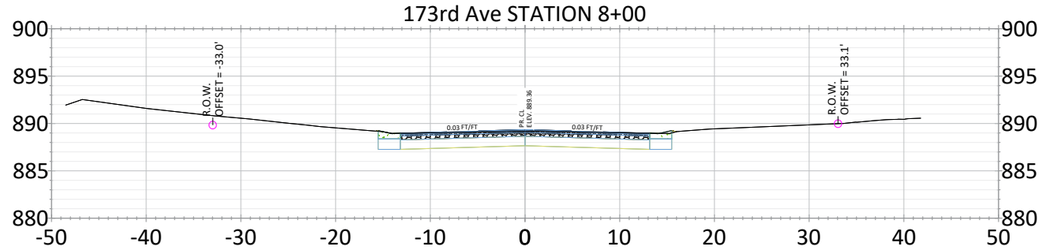












DATE	REVISION

Nov 15, 2024 - 10:26am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

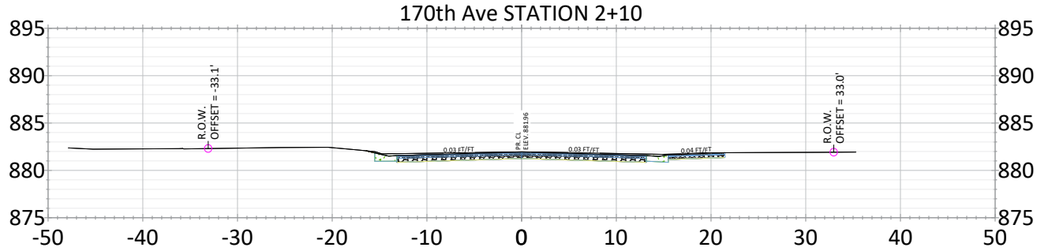
City of RAMSEY

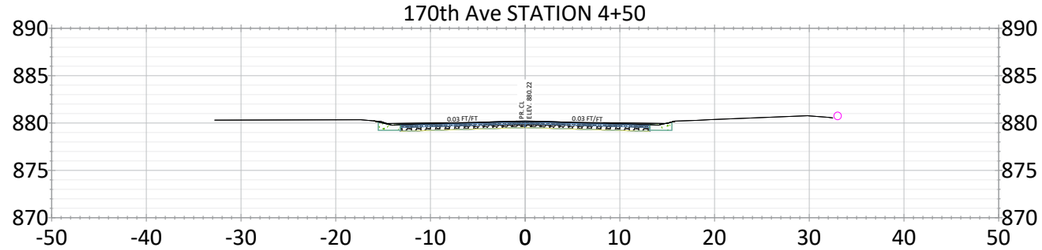
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

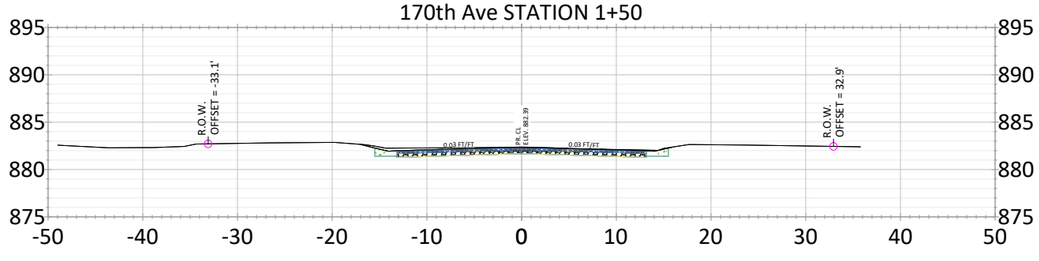
CROSS SECTIONS - 173RD AVE 5+40 - 9+00

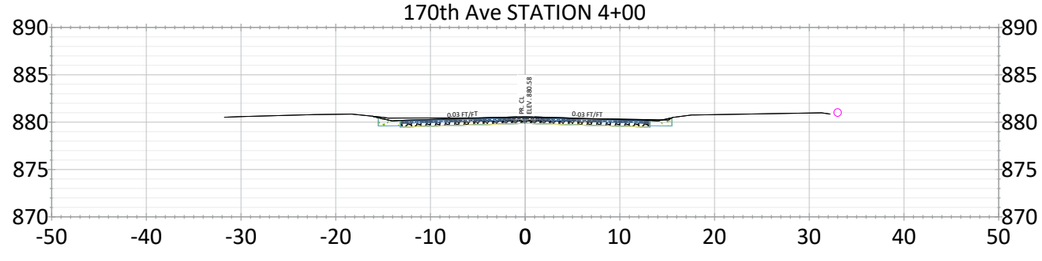
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

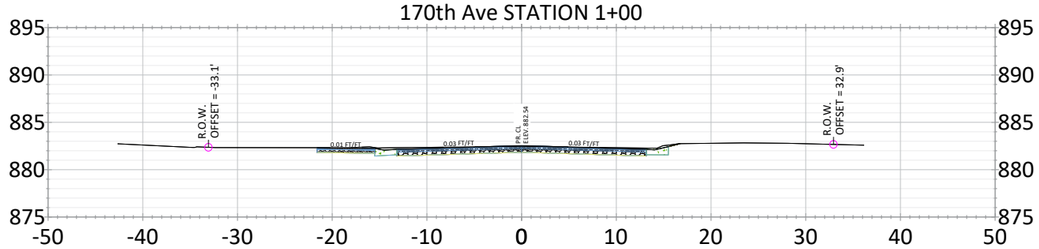
SHEET 67 OF 77 SHEETS

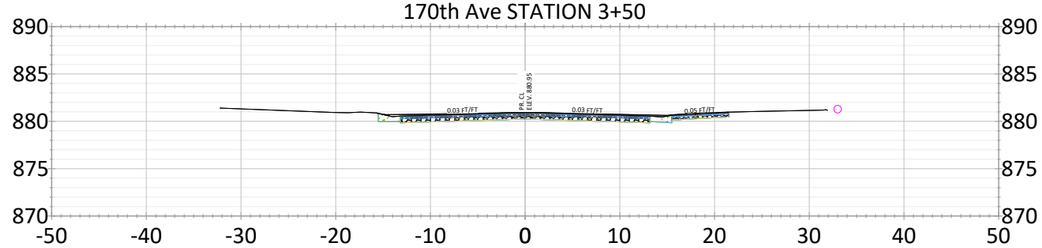


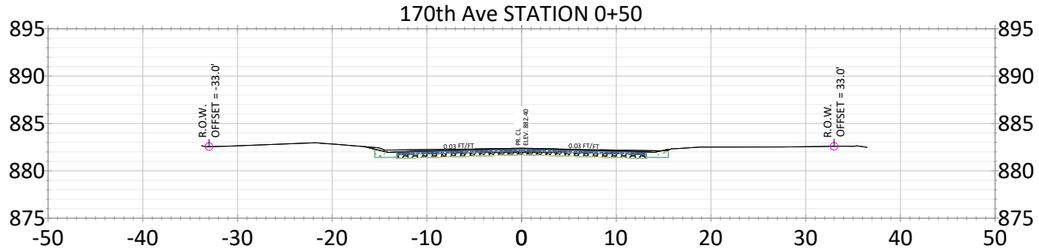


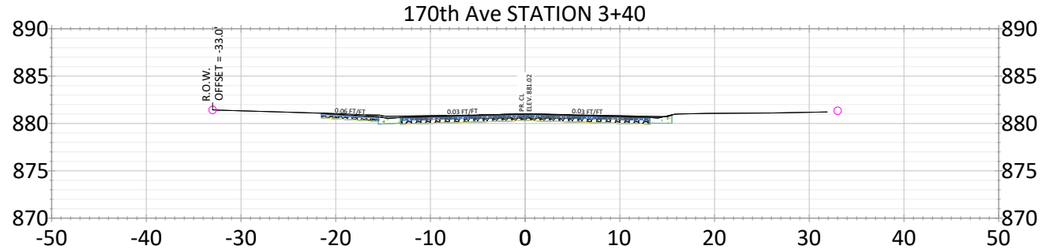


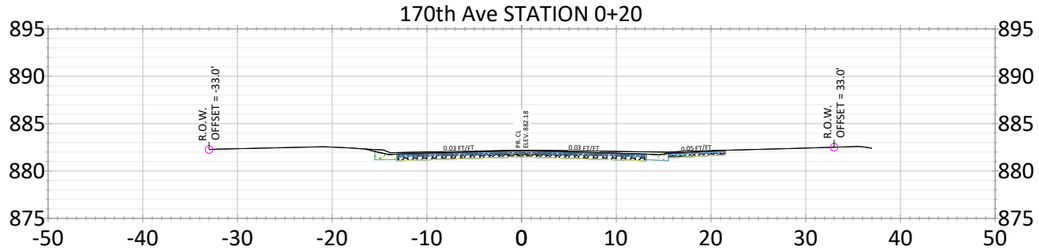


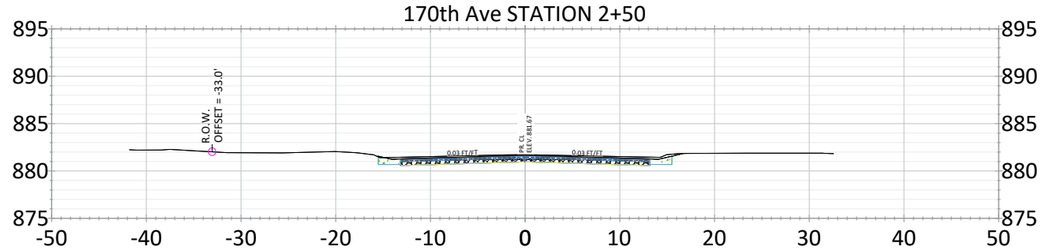












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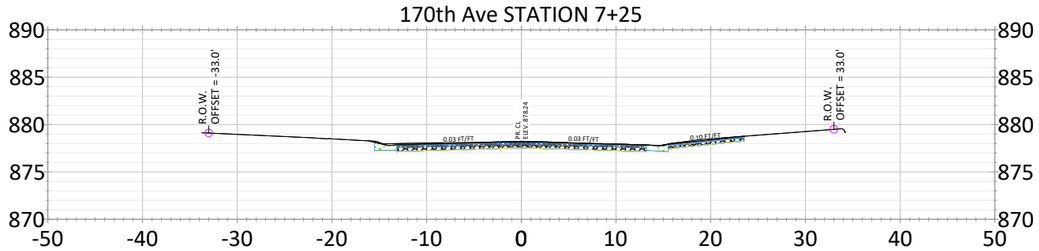
CHECKED BY:	JJF	FILE:	24-13

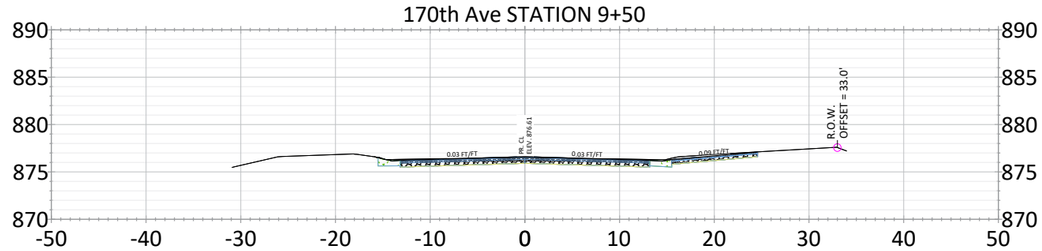
City of RAMSEY

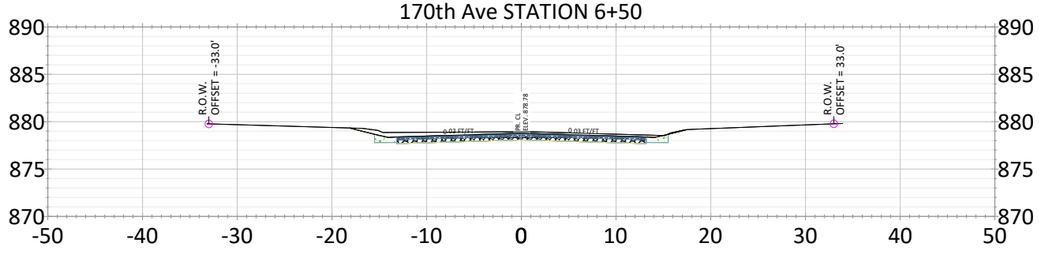
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

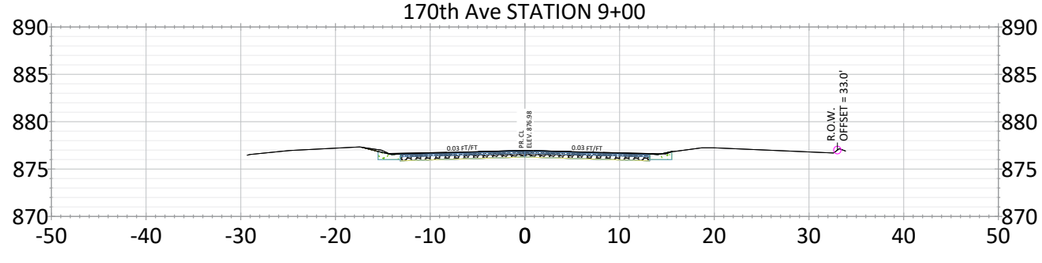
CROSS SECTIONS - 170TH AVE 0+20 - 4+50

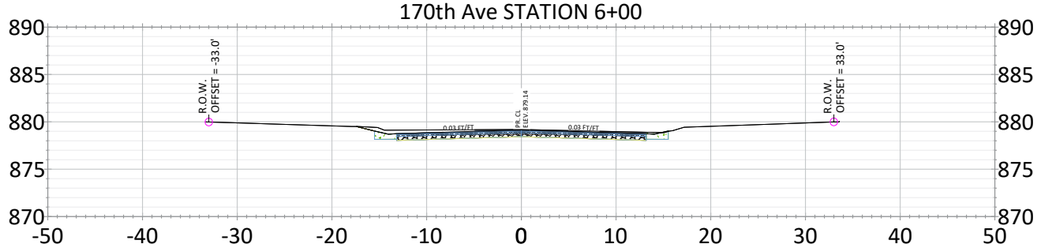
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

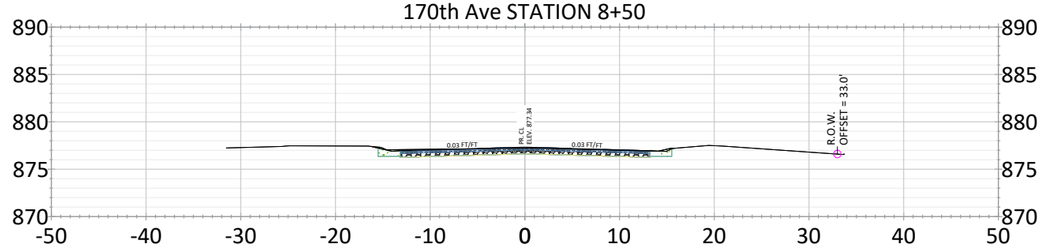


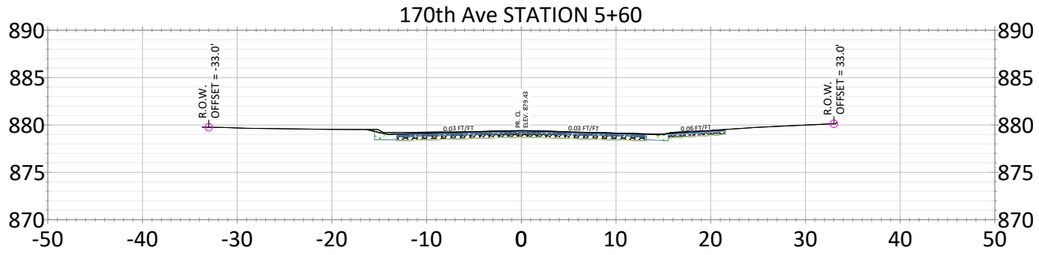


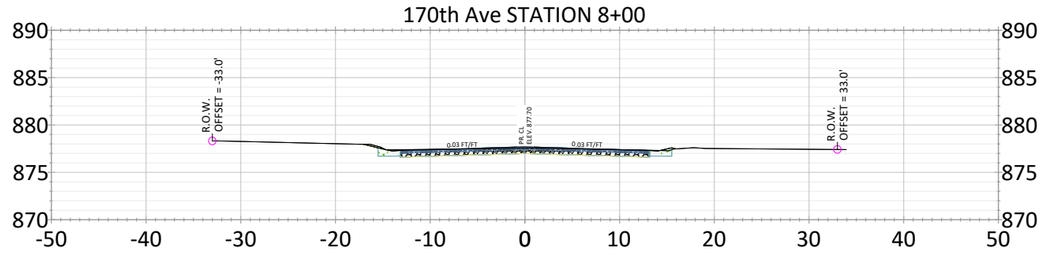


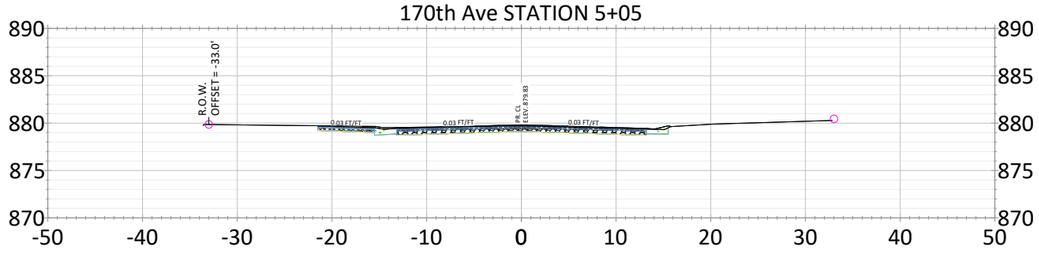


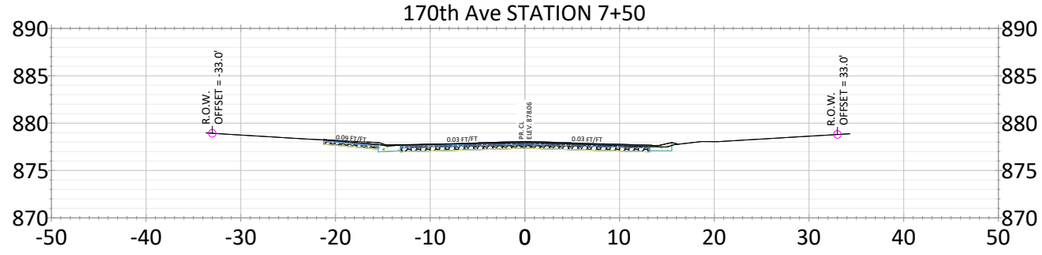












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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

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DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

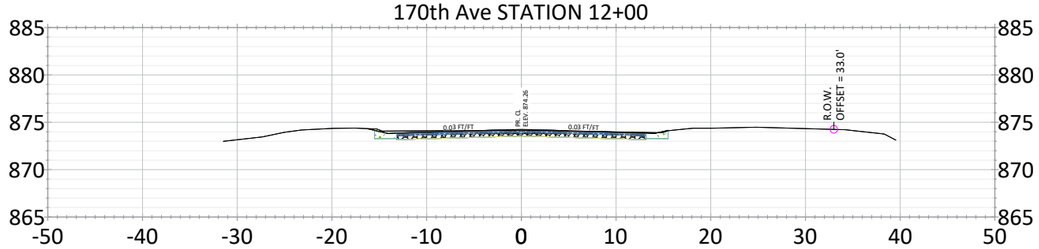
City of RAMSEY

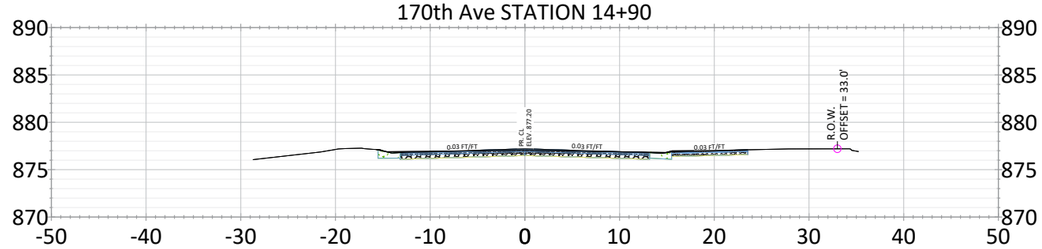
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

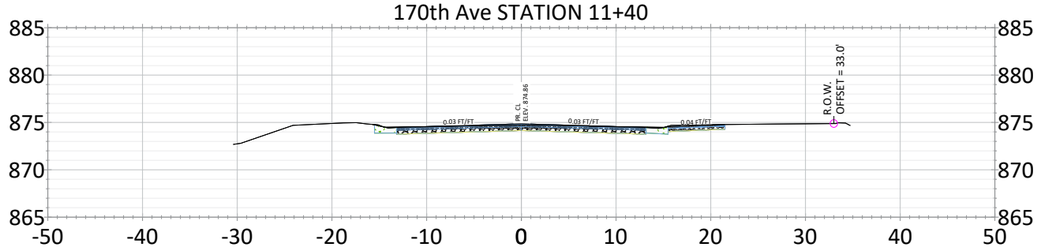
CROSS SECTIONS - 170TH AVE 5+05 - 9+50

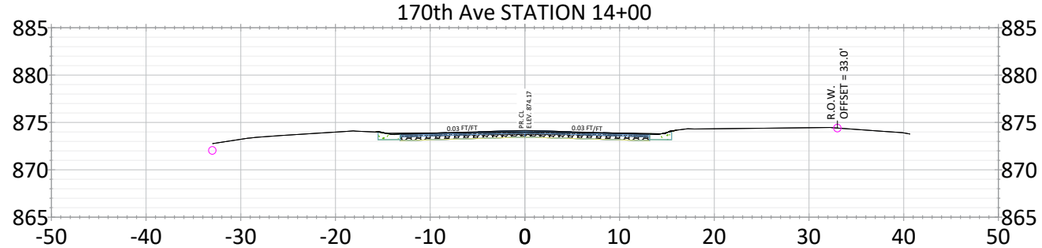
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

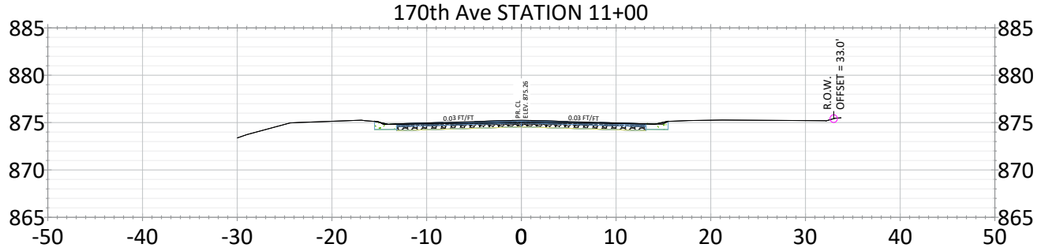
SHEET 69 OF 77 SHEETS

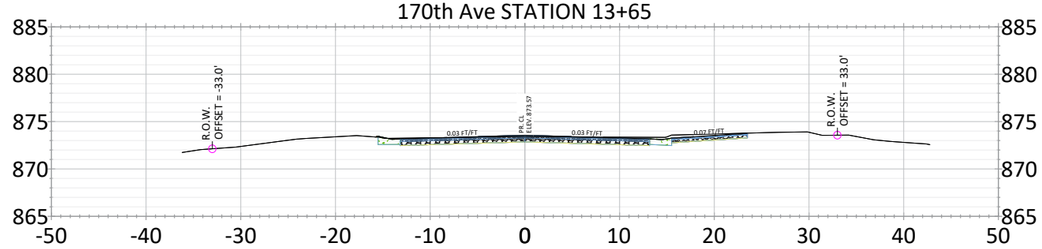


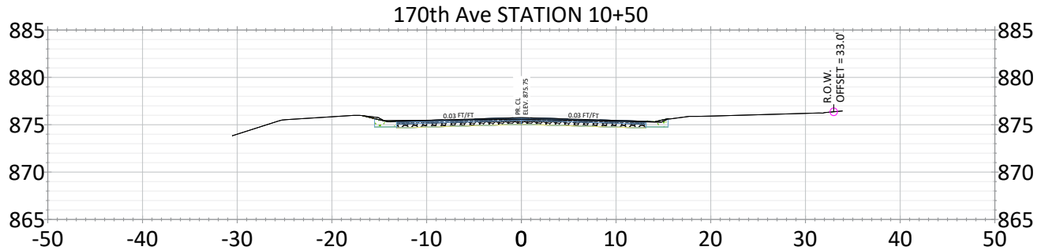


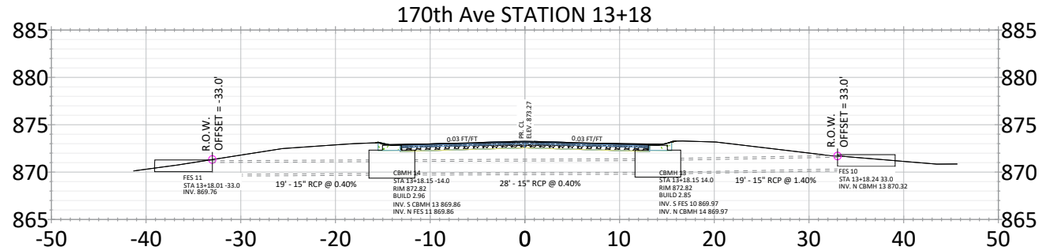


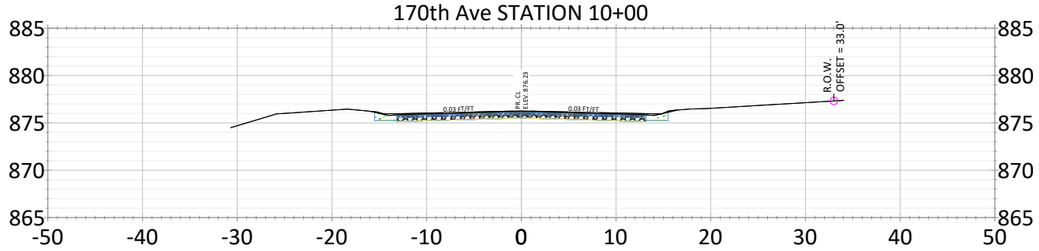


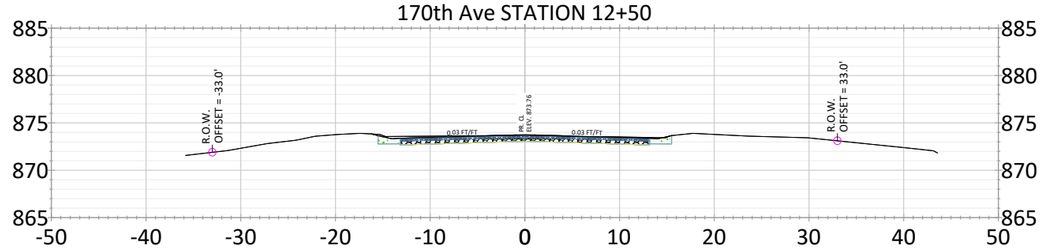












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City of RAMSEY

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
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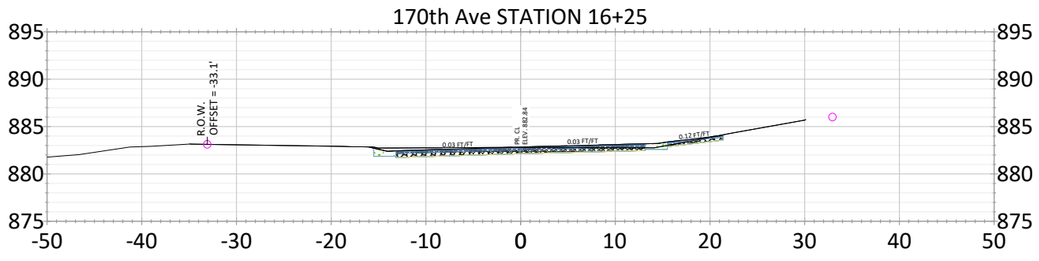
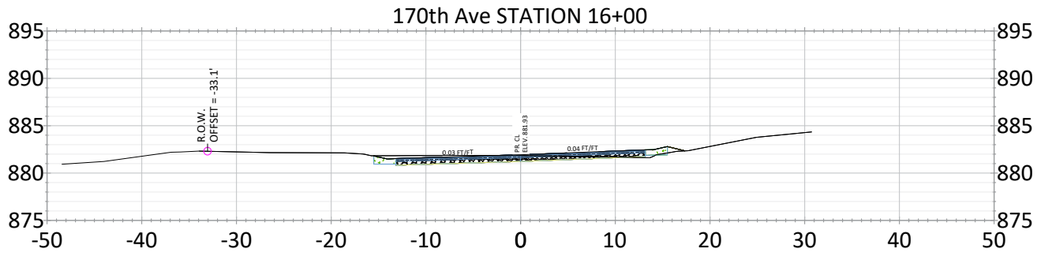
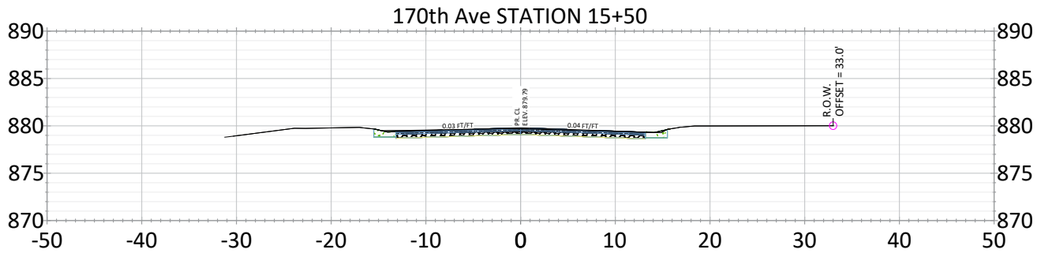
CROSS SECTIONS - 170TH AVE 10+00 - 14+90

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 70 OF 77 SHEETS







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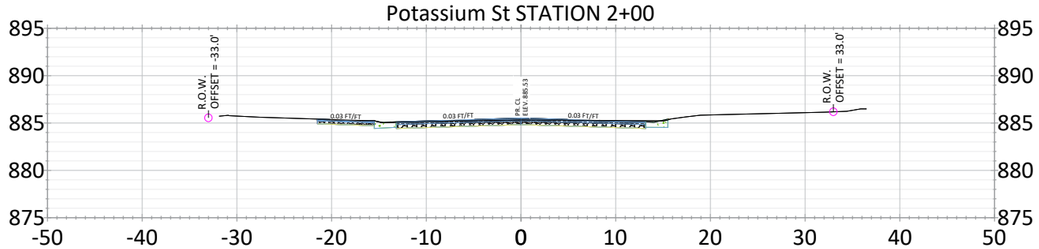
City of RAMSEY

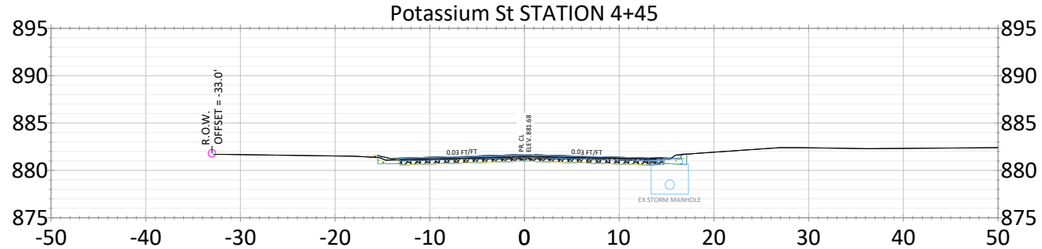
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

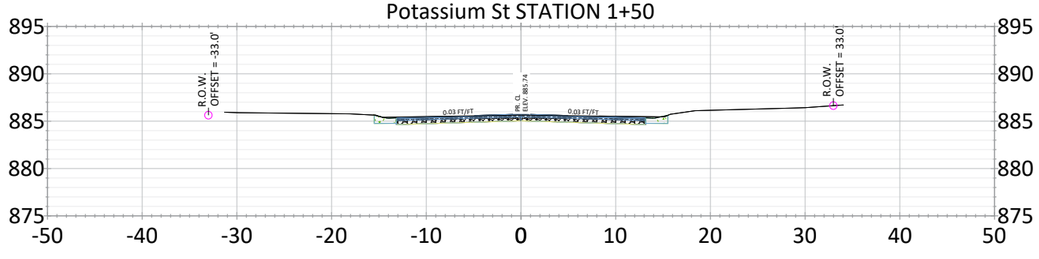
CROSS SECTIONS - 170TH AVE 15+50 - 16+25

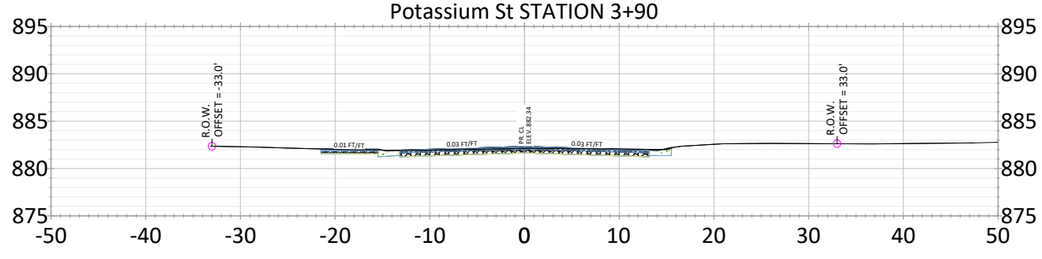
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

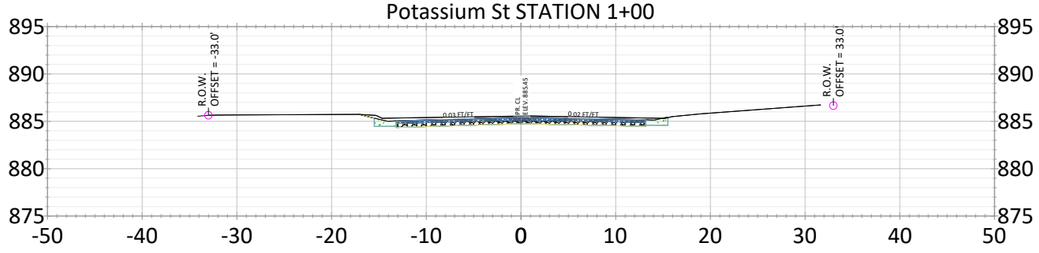
SHEET 71 OF 77 SHEETS

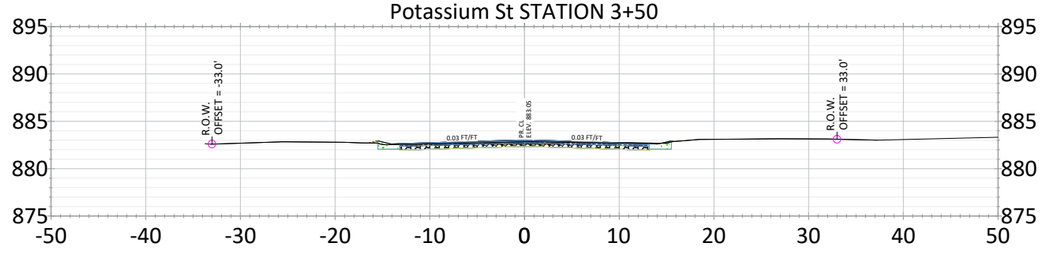


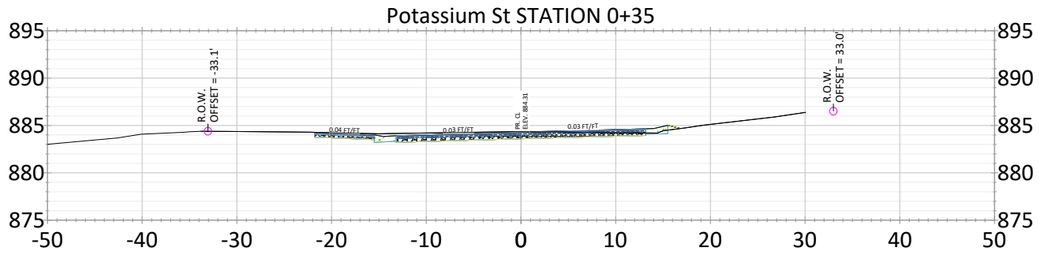


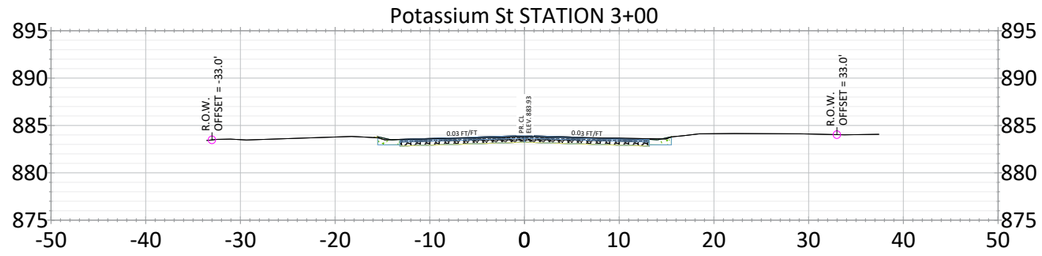


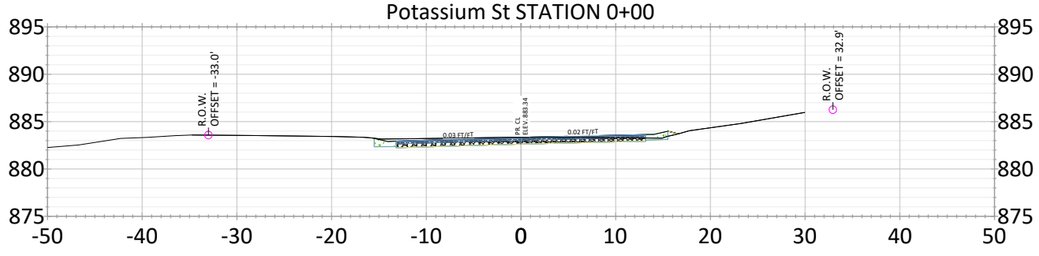


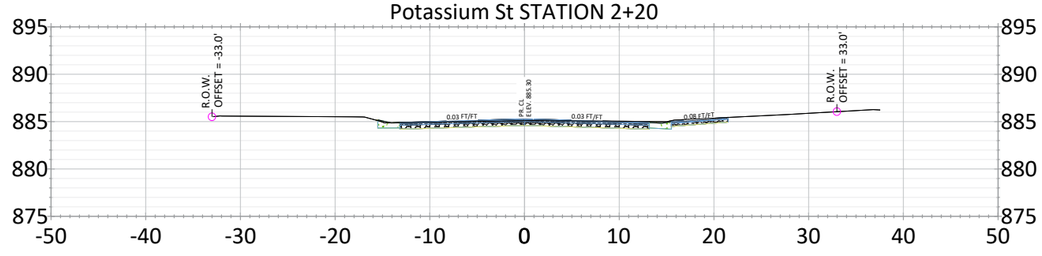












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CROSS SECTIONS - POTASSIUM ST 0+00 - 4+45

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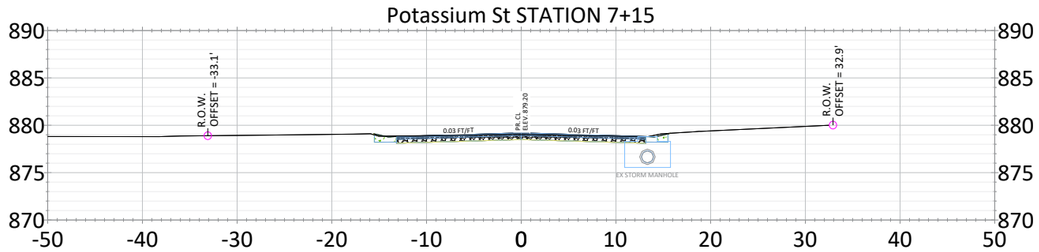
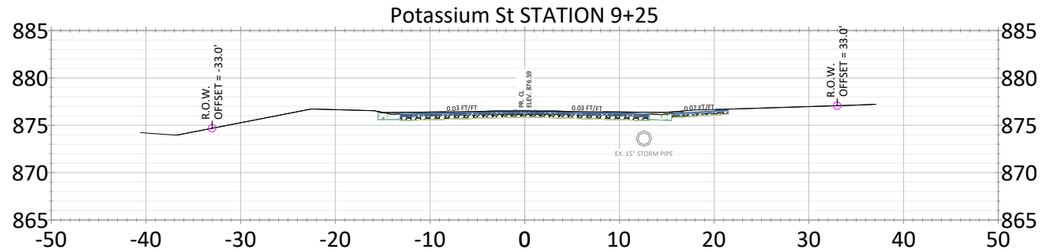
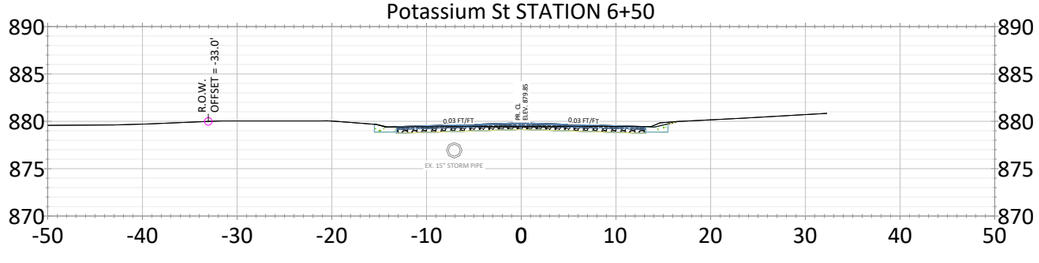
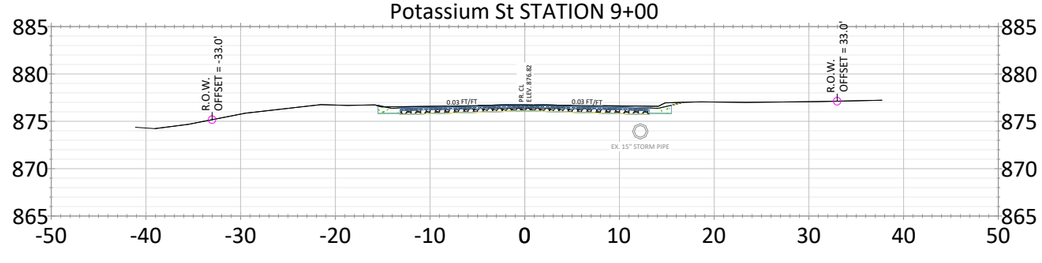
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

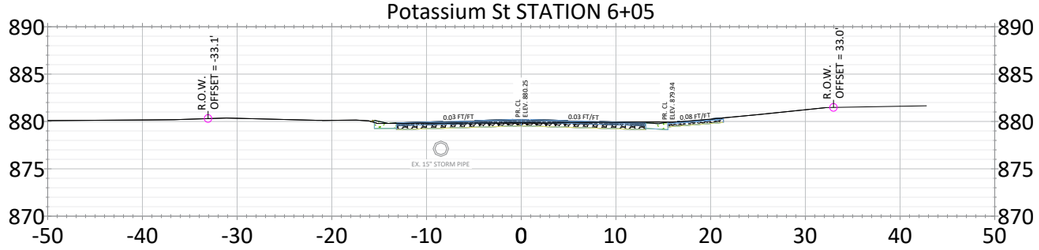
SHEET 72 OF 77 SHEETS

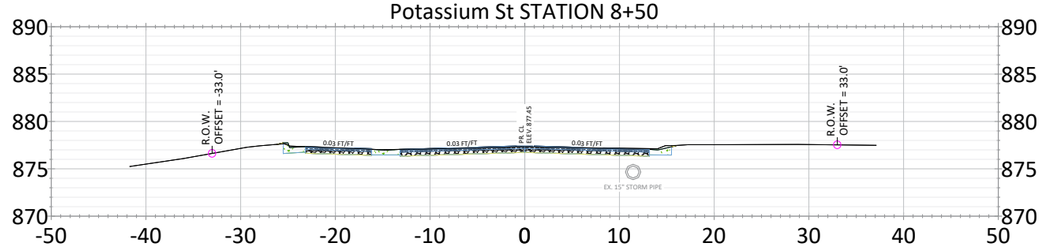


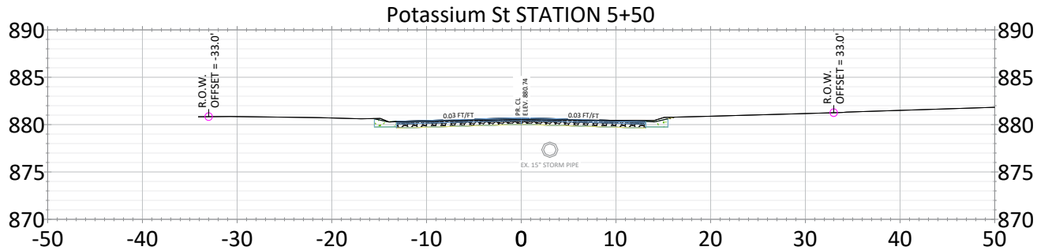


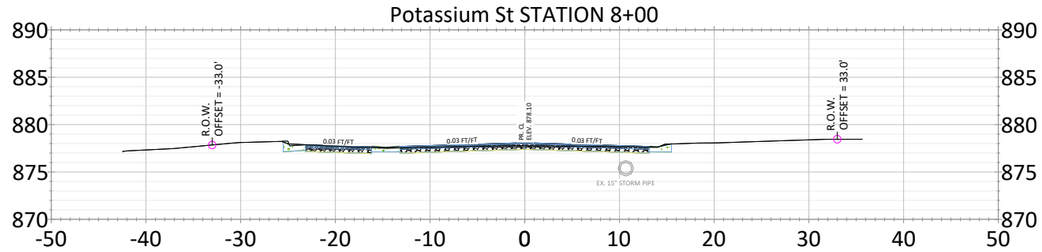


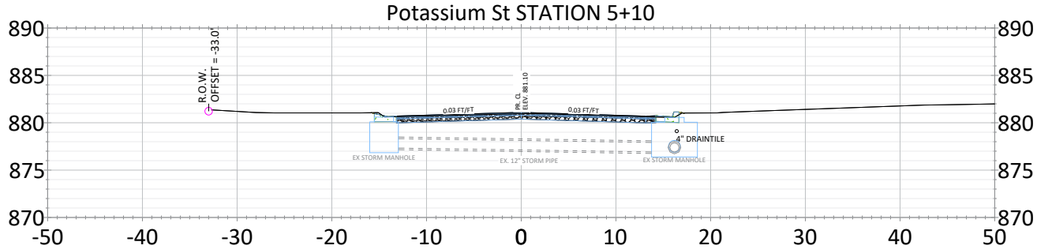


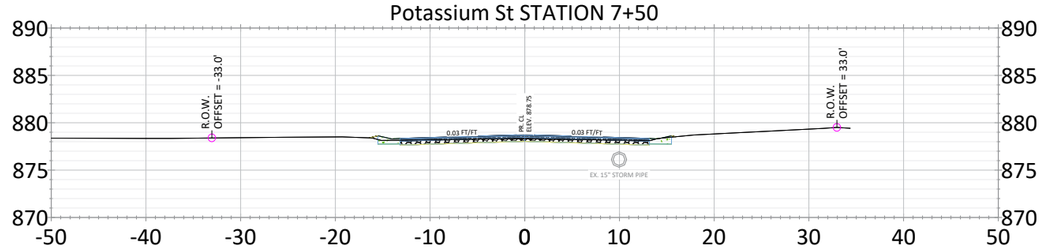












DATE	REVISION

Nov 15, 2024 - 10:29am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

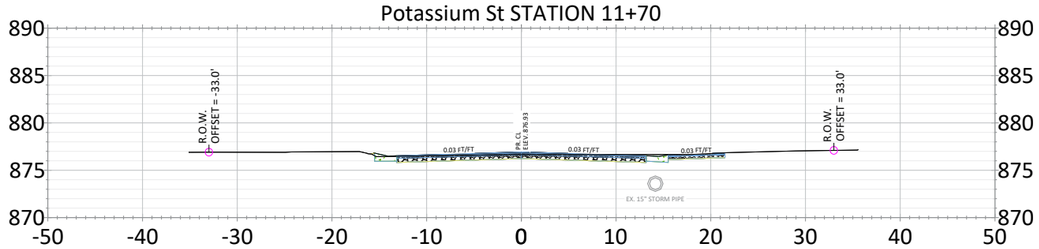
City of RAMSEY

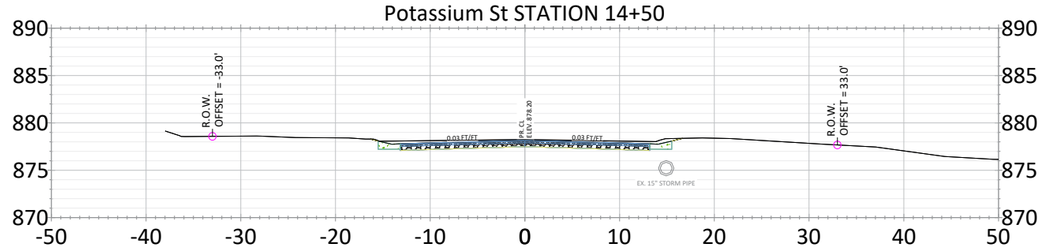
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

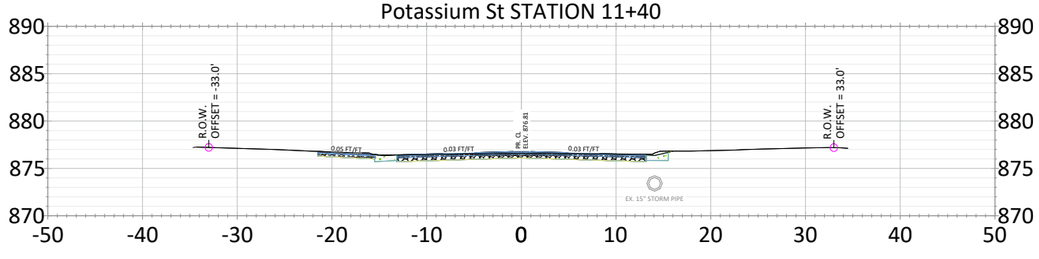
CROSS SECTIONS - POTASSIUM ST 5+10 - 9+25

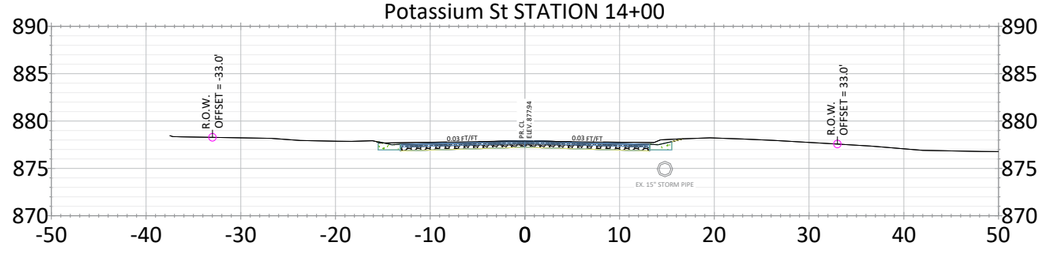
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

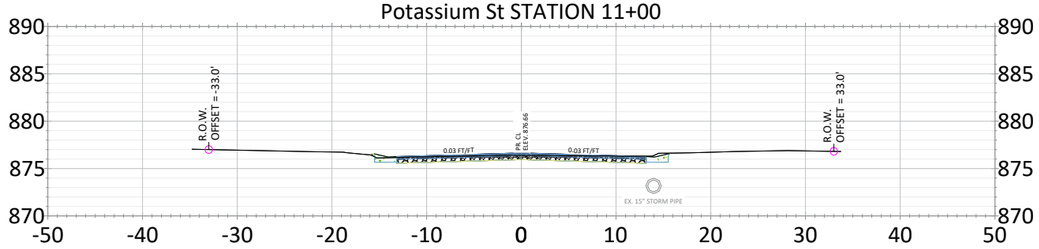
SHEET 73 OF 77 SHEETS

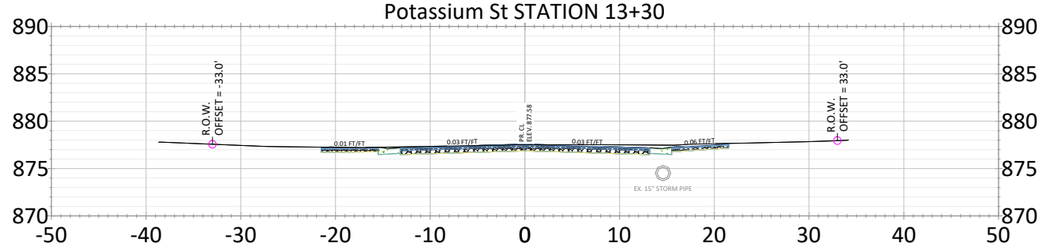


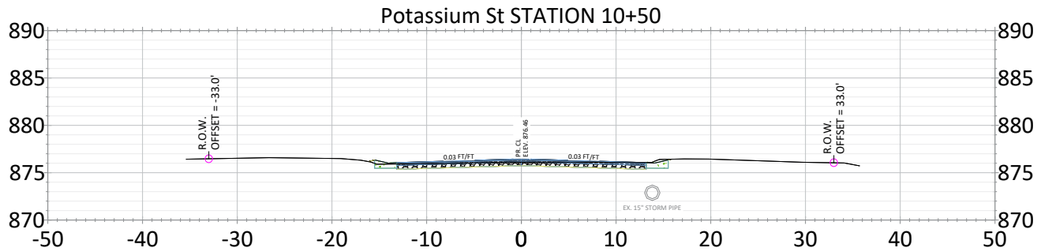


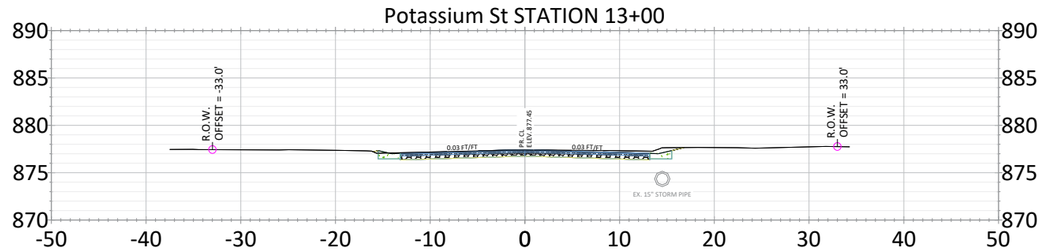


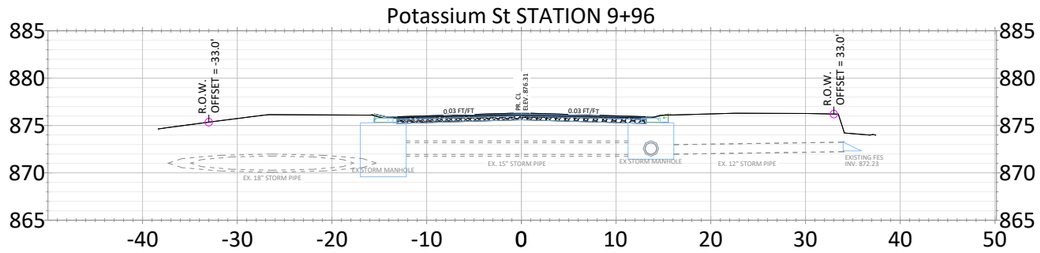


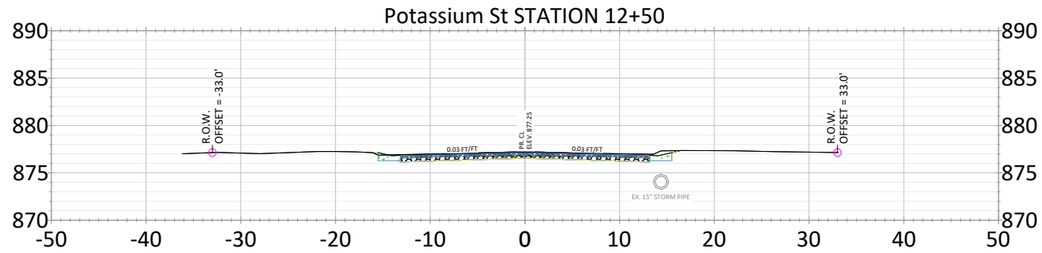












DATE	REVISION

Nov 21, 2024 - 10:30am
G:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.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 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

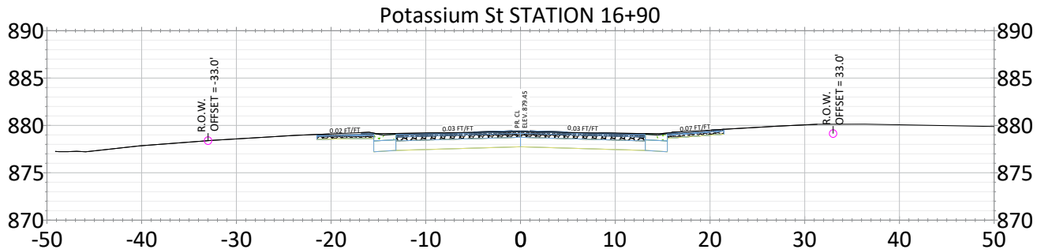
City of RAMSEY

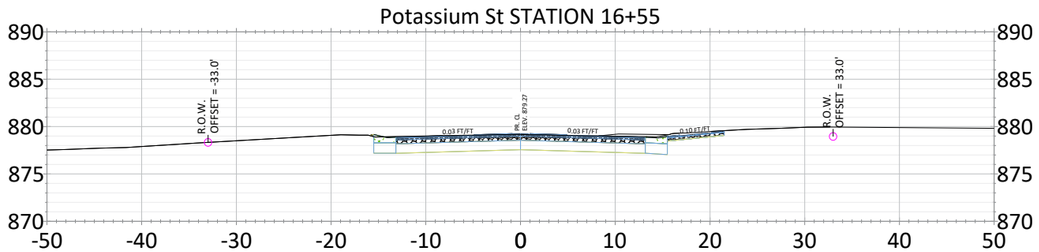
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

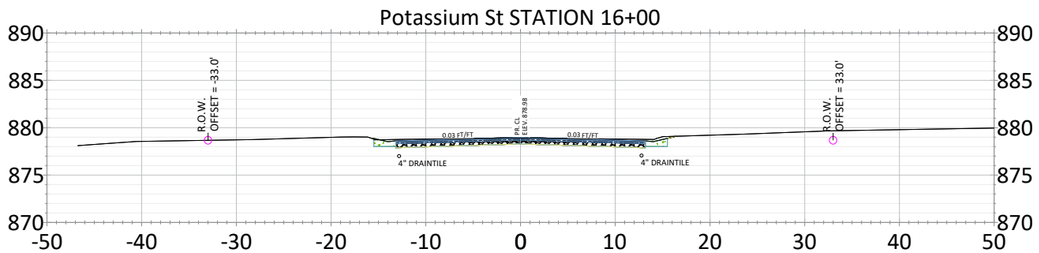
CROSS SECTIONS - POTASSIUM ST 9+96 - 14+50

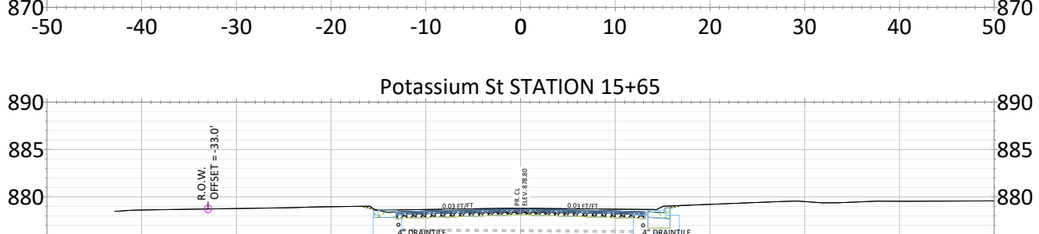
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

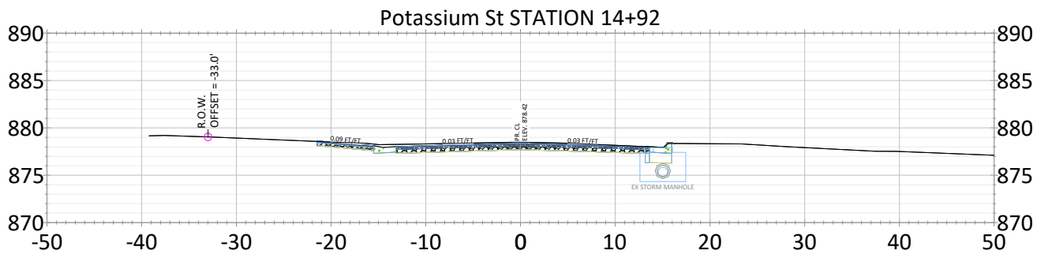
SHEET 74 OF 77 SHEETS

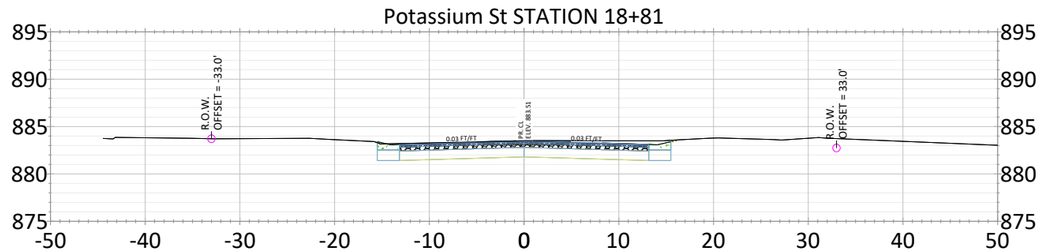


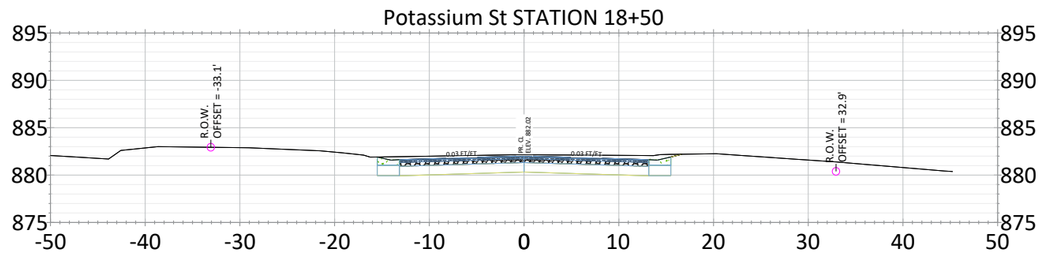


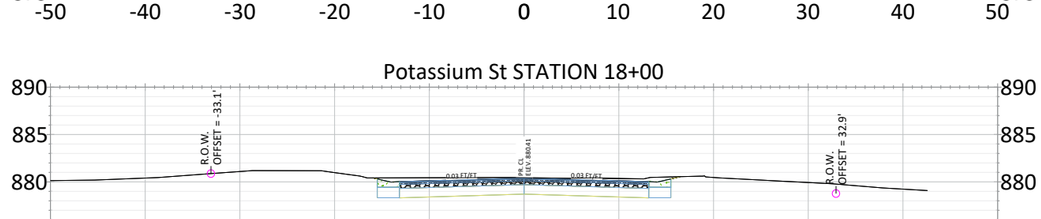


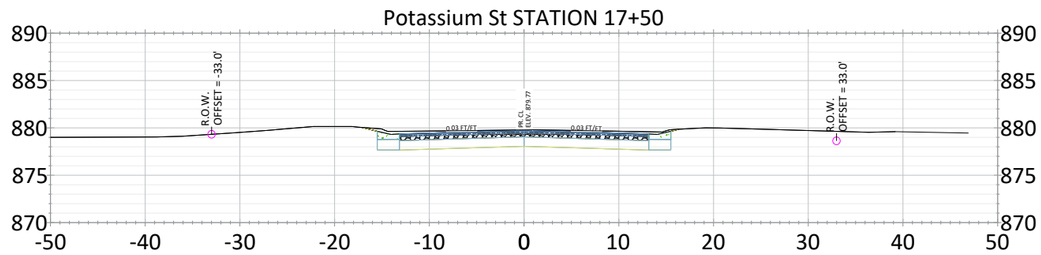












DATE	REVISION

Nov 15, 2024 - 10:30am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC		
DRAWN BY:	LWC	DATE:	11/18/24
CHECKED BY:	JJF	FILE:	24-13

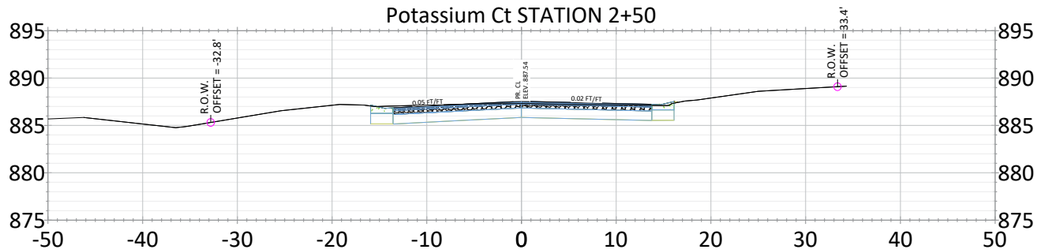
City of RAMSEY

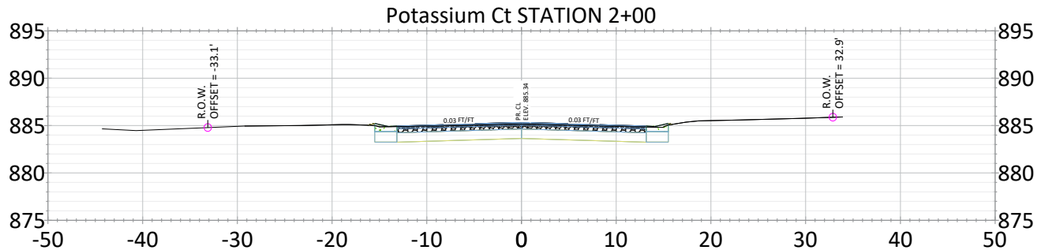
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

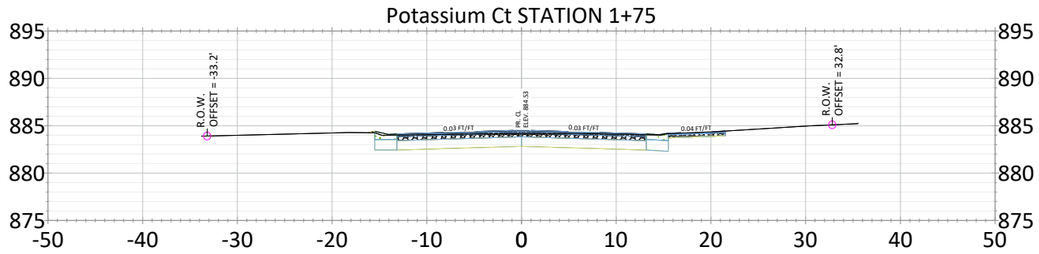
CROSS SECTIONS - POTASSIUM ST 14+92 - 18+81

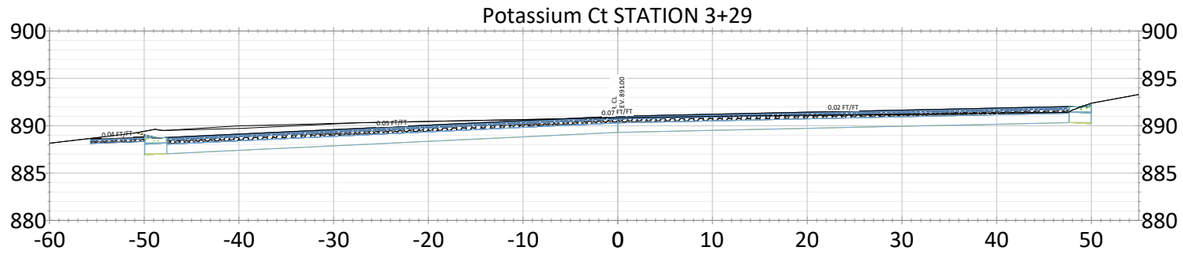
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

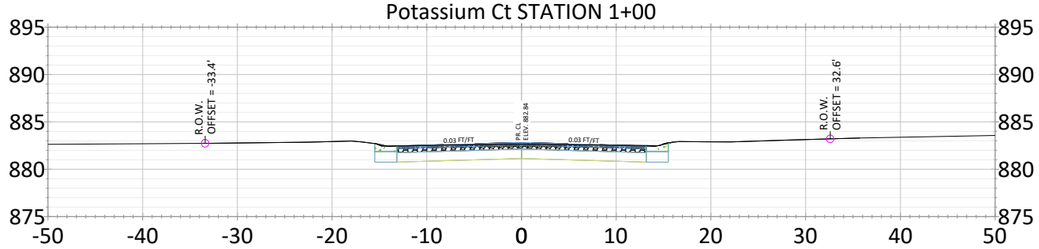
SHEET 75 OF 77 SHEETS

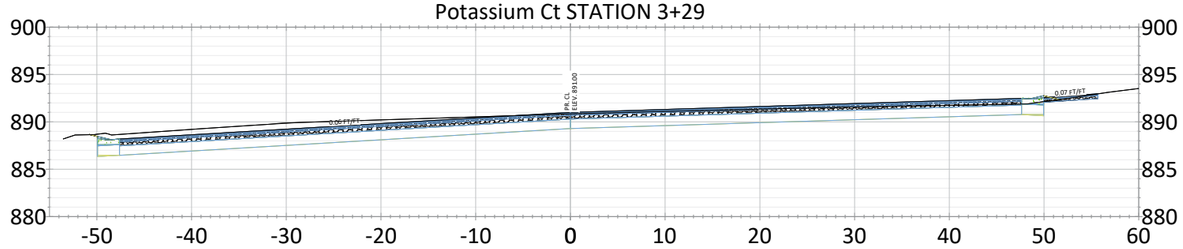


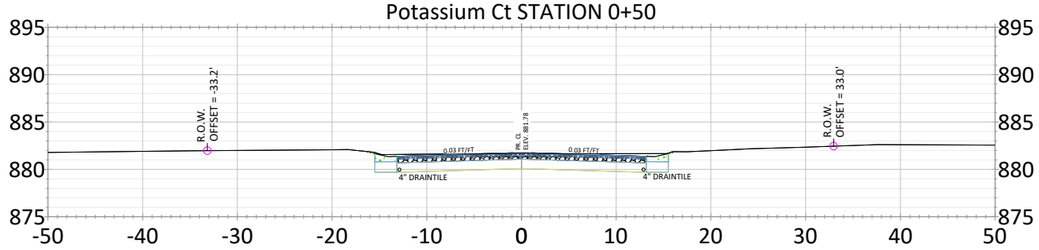


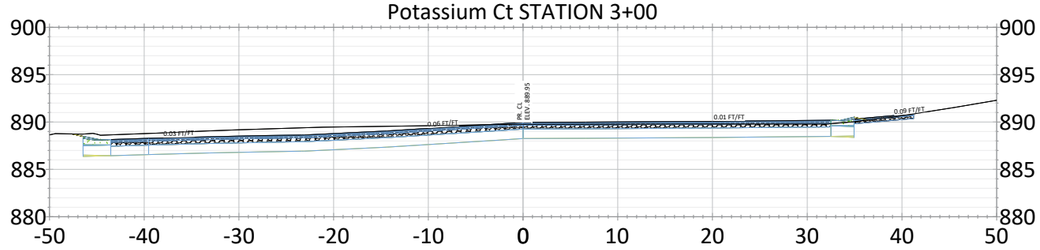












DATE	REVISION

Nov 15, 2024 - 10:31am
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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

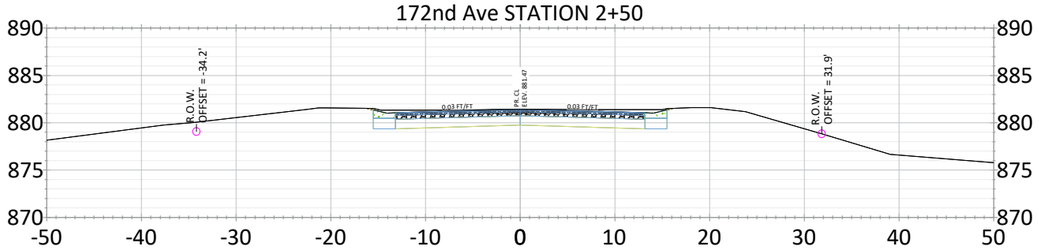
City of RAMSEY

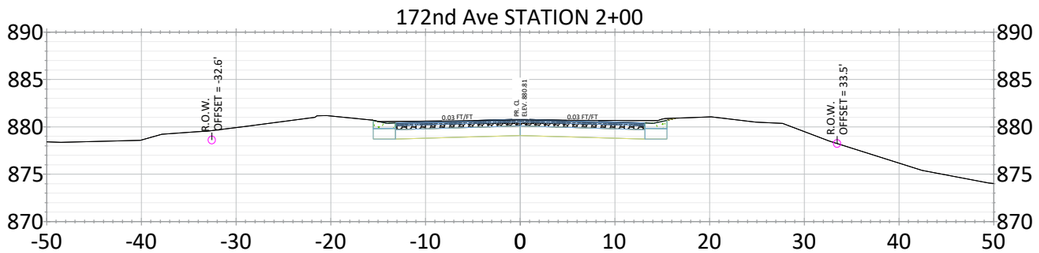
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
(763) 427-1410 FAX (763) 433-9898

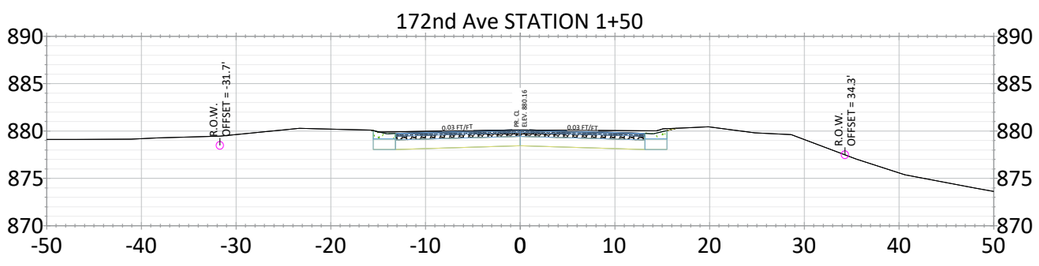
CROSS SECTIONS - POTASSIUM CT 0+50 - 3+29

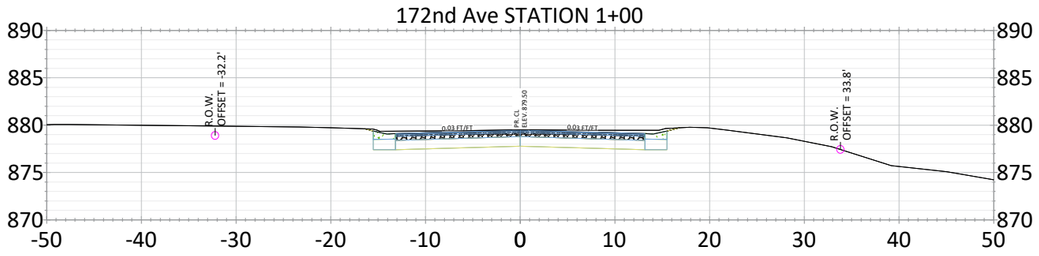
FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

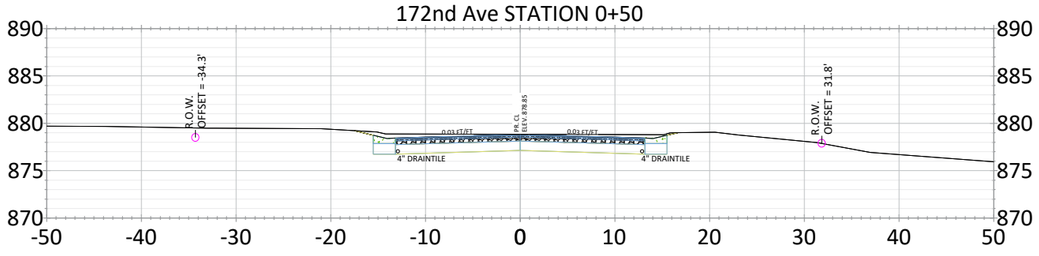
SHEET 76 OF 77 SHEETS











DATE	REVISION

Nov 15, 2024 - 10:47am
C:\Engineering\AutoCad Dwgs\Projects A-M\Fox Ridge Estates 1st & 2nd Recon 24-13\Plan Drawings\Cross Sections.dwg

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JOE FERIANCEK
Date 11/18/24 Lic. No. 57095

DESIGNED BY:	LWC	
DRAWN BY:	LWC	DATE: 11/18/24
CHECKED BY:	JJF	FILE: 24-13

City of RAMSEY

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

CROSS SECTIONS - 172ND AVE 0+50 - 2+50

FOX RIDGE ESTATES 1ST & 2ND STREET RECONSTRUCTION
CITY PROJECT NO. 24-13
CITY OF RAMSEY, MINNESOTA

SHEET 77 OF 77 SHEETS

IP 24-13 Fox Ridge Estates 1st & 2nd Street Reconstruction
Street Segment Summary

Subdivision	Street	Segment Description	Length (feet)	Section (Urban / Rural)	2023 PASER	Year Built	Maint. 1	Maint. 2	Maint. 3	Avg HMA (inches)	Avg Agg. Base (inches)	Avg Section (inches)
Fox Ridge Estates 1st & 2nd	170th Avenue	Potassium Street / 172nd Lane	1645	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.6	3.5	6.1
	172nd Lane	Sodium Street / Tungsten Street	562	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.8	3.3	6.1
	172nd Lane	TH 47 / Potassium Street	317	Urban	2	1991	SC 1996	SC 2008	Patch 2024	2.6	3.7	6.3
	172nd Lane	Tungsten Street / Wolfram Street	939	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.8	3.3	6.1
	172nd Lane	Wolfram Street / West Edge of Plat	263	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.8	3.3	6.1
	173rd Avenue	Quicksilver Street / Sodium Street	533	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.8	0*	n/a*
	174th Avenue	Sodium Street / 173rd Avenue	648	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.7	4.2	6.9
	174th Avenue	Sodium Street / West Edge of Plat	226	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.7	4.2	6.9
	Potassium Court	Potassium Street / 172nd Lane	377	Urban	2	1991	SC 1996	SC 2008	Patch 2024	2.6	3.7	6.3
	Potassium Street	170th Avenue / Potassium Court	452	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.6	3.7	6.3
	Potassium Street	172nd Lane / Potassium Court	1064	Urban	2	1991	SC 1996	SC 2008	Patch 2024	2.6	3.7	6.3
	Potassium Street	172nd Lane / Quicksilver Street	738	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.6	3.7	6.3
	Sodium Street	173rd Avenue / Cul-de-sac	1295	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.6	3.7	6.3
	Quicksilver Street	174th Avenue / 173rd Avenue	407	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.7	4.0	6.7
	Tungsten Street	172nd Lane / Cul-de-sac	564	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.9	3.5	6.4
	Wolfram Street	172nd Lane / 170th Avenue	1372	Urban	2	1991	SC 1996	SC 2007	Patch 2024	2.5	0*	n/a*
	Fox Ridge Estates 1st & 2nd Street Reconstruction Total Length		*11402*	*2.16 mi.*	**GPR data incomplete, depth unknown*							

BOLTON & MENK
Real People. Real Solutions.

7533 Sunwood Drive NW
Suite 206
Ramsey, MN 55303-5119

Ph: (763) 433-2851
Fax: (763) 427-0833
Bolton-Menk.com

January 10, 2025

Joe Feriancek, P.E.
Assistant City Engineer
7550 Sunwood Drive NW
Ramsey, MN 55303

RE: Proposal for Construction Staking Services, City of Ramsey – Fox Ridge Estates 1st and 2nd Streets Reconstructions (City Project No. 24-13)

Dear Mr. Feriancek:

We appreciate the opportunity to assist the City of Ramsey with construction staking for the above-referenced project.

SCOPE OF WORK

Bolton & Menk will complete the construction staking and as-built survey for this project, which generally includes:

- 0.34 acres of clearing and grubbing,
- 12,900 SY of subsoil corrections,
- 114 RDST of subgrade preparation,
- 11 Flared End sections,
- 14 Storm Sewer Inlet Structures,
    - An additional 7 existing structures will be included for the As-Built survey
- 930 LF storm sewer,
- 638 LF drain tile,
- 22,460 LF of concrete curb and gutter,
- 3,610 LF of silt fence,
- 2 pedestrian ramps,
- Salvaging 79 mail box supports, and
- Miscellaneous other items.

We will also complete the As-Built Survey for Record Drawing creation.

ASSUMPTIONS

We have made the following assumptions in preparing this proposal:

- No allowance is included for staking of right-of-way.
- Replacing damaged or removed stakes is not included in our base fee.
- No additional fees for stakes, mileage, equipment, etc. will be invoiced to the City, but are included in our hourly rates.

- Additional services, if required, will be performed at the rates presented in the Proposed Fees section of this proposal.

PROPOSED FEES

Bolton & Menk proposes to perform the staking based on a not-to-exceed amount, based on the rates presented in the following table:

Task and Personnel	Hours	Rate/Hour	Total
Task 1: Construction Staking			
Licensed Surveyor	18.0	$197.00	$ 3,546.00
Survey Technician	18.0	$160.00	$ 2,880.00
Survey Crew	210.0	$195.00	$ 40,950.00
Subtotals	246.0	-	$ 47,376.00
Task 2: Asbuilt Survey			
Licensed Surveyor	4.0	$197.00	$ 788.00
Survey Technician	0.0	$160.00	$ 0.00
Survey Crew	24.0	$195.00	$ 4,680.00
Subtotals	28.0	-	$ 5,468.00
Grand Totals	**274.0**	**-**	**$ 52,844.00**

SCHEDULE

Due to our proximity to the site, we expect to be able to respond quickly to all construction staking requests however 48-hour notice is required to allow us to efficiently schedule survey crews.

If there are any questions, please call me at (651) 968-7760.

Sincerely,

BOLTON & MENK, INC.

Kevin P. Kielb, P.E.
Principal Engineer

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Address infrastructure needs.

Title:

Consider Recommendation for Design Alternative for High Point Street Reconstruction, Improvement Project #25-05

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending a preferred design alternative for the Zirconium Street cul-de-sac as part of the High Point Street Reconstruction, Improvement Project #25-05.

Background:

The proposed 2025 – 2034 Capital Improvement Plan (CIP) identifies the streets within the High Point and Section 22 Unplatted subdivision for street reconstruction in 2025. A street segment summary for the project is attached to this case.

Project History

- May 28, 2024, the Ramsey City Council adopted Resolution #24-138, accepting and awarding a proposal to Hakanson Anderson for topographic survey of the project area.
- August 12, 2024, the Ramsey City Council adopted Resolution #24-220, accepting and awarding a proposal to Independent Testing Technologies, Inc. for a geotechnical report of the project area.
- November 19, 2024, the Ramsey Public Works Committee recommended City Council order plans and specifications for said improvements.
- November 26, 2024, the Ramsey City Council adopted Resolution #24-340, ordering the City Engineer to prepare plans and specifications for said improvements.

Project Scope

This project proposes to reconstruct the streets within the High Point and Section 22 Unplatted subdivision, generally located between Ramsey Boulevard and Zirconium Street, between 155th and 157th Avenues. The street within Section 22 Unplatted (156th Avenue) is 26-foot urban with bituminous curbing and rural with drainage swales at the low point. The streets within High Point are 31-foot urban section with bituminous curbing and cross street valley gutters with drainage flumes at low points. The streets total approximately 1.67 miles in total length, traffic counts have not been taken within the project area.

Staff is proposing to replace the bituminous curbing with surmountable concrete curb and gutter. Where feasible storm sewer inlets and storm sewer piping will replace bituminous flumes and cross gutters for drainage.

During initial project review, staff identified the Zirconium Street cul-de-sac is in need of further discussion. The current City design standards require cul-de-sacs be built to a 100-foot diameter within a 120-foot right of way. The Zirconium Street cul-de-sac was built to a 165-foot diameter within a 200-foot diameter right of way. Placing the cul-de-sac back to this oversized diameter is not desirable due to the additional time and costs required to maintain it, and staff has explored several replacement options.

Option 1: Replace the cul-de-sac back to existing dimension

- Build back the 165’ diameter cul-de-sac (replace bit curb with surmountable concrete curb and gutter)
    - Minimizes impacts to adjacent properties
        - Tie-into existing driveways, boulevard restoration behind new concrete curb and gutter

generally within 6 feet of the existing back of curb.
- Highest construction costs ($64,000)
- Highest long-term maintenance costs ($77,500)
  - Based on 2024 dollars and typical maintenance cycle thru 60-year life
  - Pavement Area 2,390 SY

Option 2: Construct standard cul-de-sac

- Construct standard 100' diameter cul-de-sac
  - Highest impacts to adjacent properties
    - Extend driveways and yards approximately 30 feet
    - Additional option to adjust right of way (not required)
  - Lowest construction costs ($47,500)
  - Lowest long-term maintenance costs ($32,000)
    - Pavement Area 951 SY

Option 3: Construct loop with depressed center green space

- Construct 28' to 31' wide loop street
  - Low impact to adjacent properties; high change in cul-de-sac character
    - Tie into existing driveways, boulevard restoration behind new concrete curb and gutter generally within 6 feet of the existing back of curb.
  - Center island could be depressed to allow infiltration
  - Middle construction costs ($58,500)
    - Requires the most curb and gutter
  - Middle long-term maintenance costs ($43,500)
    - Time savings for plowing negated by mowing requirements in center median
    - Pavement Area 1,202 SY (28' wide street)
    - Green Space Area 1,095 SY

Staff is looking for a recommendation of the preferred option for reconstructing the cul-de-sac. Additionally, staff is requesting guidance for resident input, if a formal survey should be presented to residents on Zirconium Street.

Notification:

Based on the committee recommendation, staff will update the residents on the project.

Time Frame/Observations/Alternatives:

Timeframe:

Staff anticipates up to 15 minutes will be required to present and discuss this case.

Observations:

Staff has set a public open house meeting date for the is project for Thursday, February 13, 2025. The mailing for this open house has not yet been sent, and could include specific feedback request if desired.

Alternatives:

Alternative #1 – Motion to recommend Option 1; reconstructing the Zirconium Street cul-de-sac to the existing dimensions.

Alternative #2 – Motion to recommend Option 2; reconstructing the Zirconium Street cul-de-sac to the standard 100-foot diameter.

Alternative #3 – Motion to recommend Option 3; reconstructing the Zirconium Street cul-de-sac as a loop with center green space area.

Alternative #4 – Motion of other.

Funding Source:

Funding for this improvement is proposed to come from Pavement Management Funds and Storm Water Utility Funds.

Recommendation:

Staff recommends Alternative #2, reconstruct the Zirconium Street cul-de-sac to the standard 100-foot diameter.

Outcome/Action:

Motion to recommend Alternative #1, Alternative #2, Alternative #3 or Alternative #4.

Attachments

25-05 Street Summary

Zirconium Cul-de-Sac Options

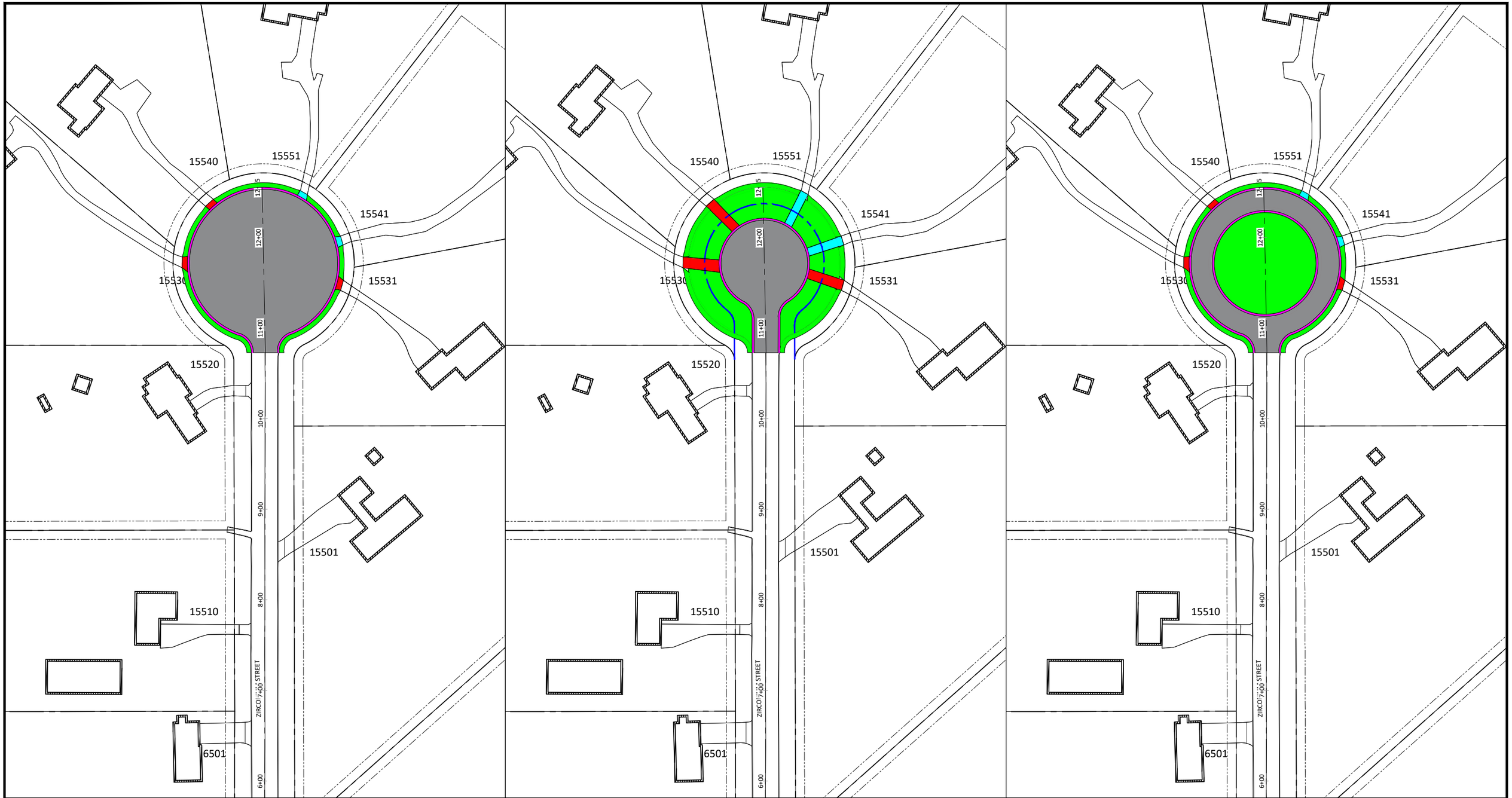
Zirconium CDS Scope

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/15/2025 07:10 PM
Brian Hagen	Brian Hagen	01/16/2025 04:05 PM
Form Started By: Joe Feriancek		Started On: 01/13/2025 08:19 AM
Final Approval Date: 01/16/2025		

IP 25-05 High Point Street Reconstructions
Street Segment Summary

Subdivision	Street	Segment Description	Length (feet)	Section (Urban / Rural)	2024 PASER	Year Built	Maint. 1	Maint. 2	Maint. 3	Maint. 4	Maint. 5	Avg HMA (inches)	Avg Agg. Base (inches)	Avg Section (inches)
Section 22 Unplatted	156th Avenue	CR 56 / West Edge of Plat High Point	2587	Urban (Bit. Curb)	5	1989	SC 1996	OL 2001	SC 2007	SC 2014		2.5	4.8	7.2
Section 22 Unplatted Total Length			*2587*	*0.49 mi.*										
High Point	155th Avenue	NW PC Dolomite Street / Zirconium Street	1607	Urban (Bit. Curb)	3	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	4.3	4.2	8.5
	156th Avenue	Coquina Street / NW PC Basalt Street & 156th Avenue	411	Urban (Bit. Curb)	4	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	3.5	n/a*	n/a*
	156th Avenue	West Edge of Plat / Dolomite Street	211	Urban (Bit. Curb)	4	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	2.5	4.8	7.3
	157th Avenue	Dolomite Street / NW PC Coquina Street & 157th Avenue	440	Urban (Bit. Curb)	4	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	4.1	4.4	8.5
	Basalt Street	155th Avenue / NW PC 156th Avenue & Basalt Street	681	Urban (Bit. Curb)	4	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	3.7	2.5	6.2
	Coquina Street	155th Avenue / NW PC 157th Avenue & Coquina Street	844	Urban (Bit. Curb)	3	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	3.6	3.7	7.3
	Dolomite Street	NW PC 155th Avenue & Dolomite Street / North Edge of Plat	1079	Urban (Bit. Curb)	4	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	3.9	3.9	7.8
	Zirconium Street	155th Avenue / Cul-de-sac	763	Urban (Bit. Curb)	4	1979	SC 1985	SC 1993	OL 2001	SC 2007	SC 2014	3.4	n/a*	n/a*
	Zirconium Street	South Edge of Plat / 155th Avenue	211	Urban (Bit. Curb)	3	1979	SC 1985	SC 1993	OL 2001	SC 2012		3.4	n/a*	n/a*
High Point Total Length			*6247*	*1.183 mi.*	** GPR Base not visible, value could not be determined*									
High Point & Section 22 Unplatted Total Length			8834	1.673 mi.										



LEGEND

- BIT PAVEMENT
- SEEDING AREA
- CONCRETE CURB & GUTTER
- DRIVEWAY - BITUMINOUS
- DRIVEWAY - GRAVEL
- RIGHT OF WAY
- DRAINAGE & UTILITY EASEMENT
- NEW RIGHT OF WAY

0 50 100 150
SCALE (FEET)

CUL-DE-SAC DESIGN OPTIONS

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

IP 25-05 HIGH POINT STREET RECONSTRUCTION

15530
15540
15551
165.0'
15520
15541
ZIRCONIUM ST NW
15510
15531
15501

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Address infrastructure needs.

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2025 Crack Seal Improvements, Improvement Project #25-09

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for 2025 Crack Seal Improvements, Improvement Project #25-09.

Background:

The City's current pavement maintenance schedule calls for public streets to receive the following maintenance following construction, overlay, or reconstruction:

- Year 2 – Pavement Rejuvenator
- Year 3 – Crack Seal
- Year 5 – Refresh Pavement Markings (If Applicable)
- Year 7 – Crack Seal
- Year 10 – Refresh Pavement Markings (If Applicable)
- Year 14 – Crack Seal
- Year 15 – Refresh Pavement Markings (If Applicable)
- Year 20 – Overlay or Reconstruction

The above schedule is the typical maintenance schedule based off assumed ideal conditions. Staff reviews the condition of all streets annually and adjusts the schedule of maintenance operations based on actual pavement conditions.

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.

A total of 19.16 miles of public streets are proposed to receive crack seal improvements in 2025. These street segments were selected based on age, pavement maintenance history, and Pavement and Surface Evaluation Rating (PASER) values. Selected streets generally have PASER values between 7 and 10.

Plans and specifications for the 2025 Crack Seal Improvements were prepared in-house as part of Staff's normal duties. A copy of the plans is attached to this case.

<u>Preliminary Schedule Remaining</u>

- January 28, 2025 City Council approve plans, authorize bidding
- March 3, 2025 Bids are publicly opened
- March 11, 2025 City Council award contract to the lowest responsible bidder

- May 2025 Contractor begins improvements
- June 21, 2025 Contractor completes improvements

The proposed improvements are designated as City Improvement Project #25-09, 2025 Crack Seal Improvements.

Notification:

Staff does not mail letters to property owners for crack seal improvements, since the work occurs quickly and has little to no impact to the traveling public or abutting properties. Engineering Staff will create and maintain a project webpage, which will be updated as new information is made available throughout the project.

Time Frame/Observations/Alternatives:

Timeframe:

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

Observations:

IP 25-09 and IP 25-10 engineer's estimates are based off of final plans and anticipated 2025 construction costs. IP 25-11 estimate is a CIP level estimate based off of costs per mile.

Alternatives:

Alternative #1 - Motion to recommend City Council approve plans and specifications and authorize advertisement for bids for 2025 Crack Seal Improvements, Improvement Project #25-09.

Alternative #2 – Motion of other.

Funding Source:

The City budgeted $600,000 in 2025 for contracted street maintenance services including; crack sealing, pavement rejuvenation, and refreshing pavement markings.

The estimated costs for pavement maintenance improvements is:

- **IP 25-09 Crack Seal $232,800**
- IP 25-10 Pavement Rejuvenation $249,200
- IP 25-11 MSA Pavement Markings $19,380

- *Total Pavement Maintenance Costs $501,380*
  - *Staff recommends remaining budgeted funds be guided for pavement patching services as needed.*

City Staff proposes to administer and inspect construction in-house, as part of their normal duties.

Recommendation:

Staff recommends Alternative #1.

Outcome/Action:

Motion to recommend City Council approve plans and specifications and authorize advertisement for bids for 2025 Crack Seal Improvements, Improvement Project #25-09.

Attachments

25-09 Final Plans

25-09 Street Summary

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/15/2025 07:16 PM
Brian Hagen	Brian Hagen	01/16/2025 04:05 PM
Form Started By: Joe Feriancek		Started On: 01/13/2025 08:21 AM
Final Approval Date: 01/16/2025		

0 1/4 1/2 3/4
SCALE (MILE)

N

AREA B

AREA C

AREA A

AREA D

2025 CRACK SEAL SUMMARY

PROJECT AREA	LENGTH (MILES)	CS MATERIAL (POUNDS)
A	4.69	33504
B	5.26	21343
C	3.08	17547
D	6.14	40226
PROJECT TOTAL	19.16	112619

DATE	REVISION

Jan 14, 2025 - 9:13pm
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DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 1/14/25
CHECKED BY:	JJF	FILE: 25-09

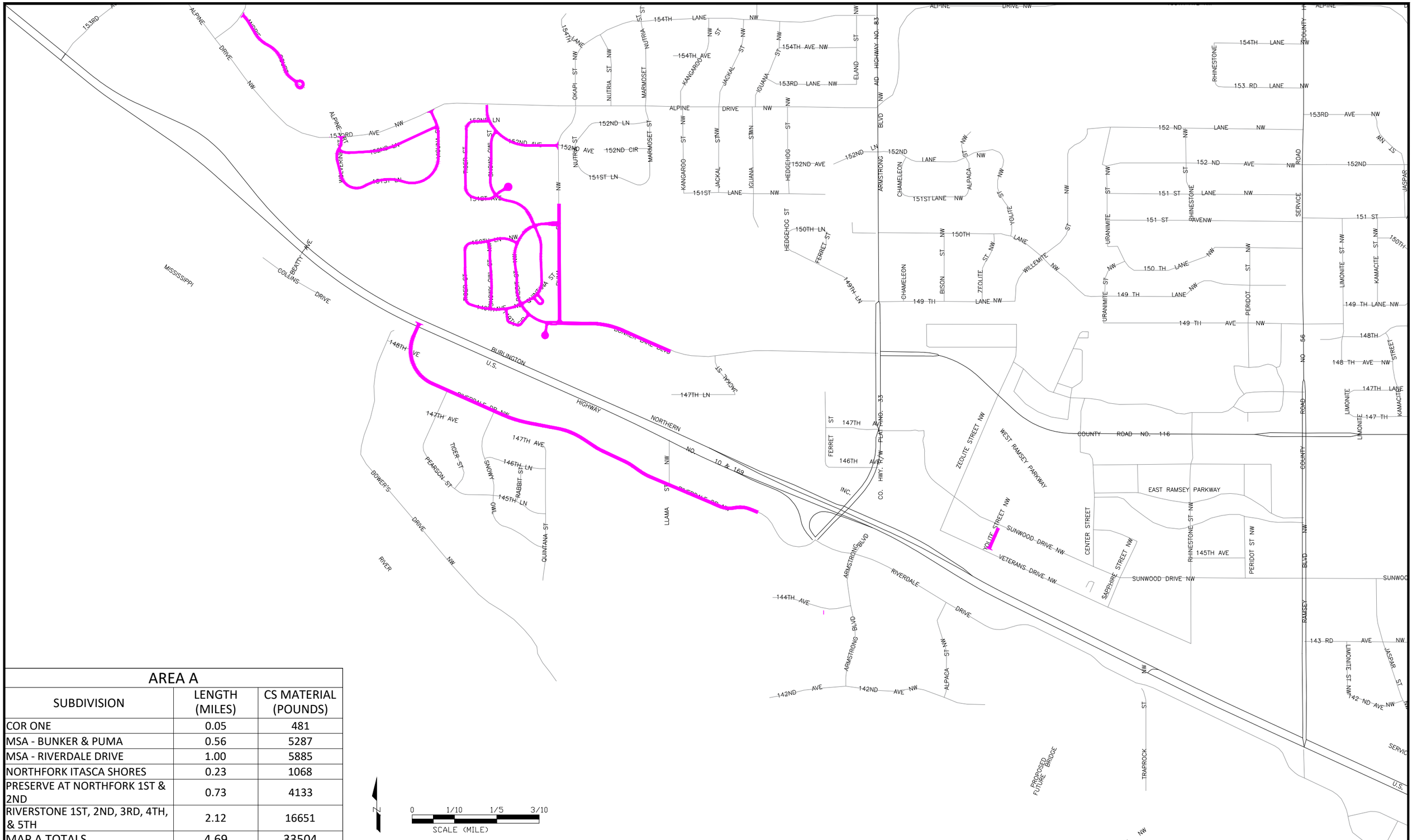
City of RAMSEY

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

OVERALL

2025 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 25-09
CITY OF RAMSEY, MINNESOTA

SHEET 1 OF 5 SHEETS



AREA A		
SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
COR ONE	0.05	481
MSA - BUNKER & PUMA	0.56	5287
MSA - RIVERDALE DRIVE	1.00	5885
NORTHFORK ITASCA SHORES	0.23	1068
PRESERVE AT NORTHFORK 1ST & 2ND	0.73	4133
RIVERSTONE 1ST, 2ND, 3RD, 4TH, & 5TH	2.12	16651
MAP A TOTALS	4.69	33504

DATE	REVISION

Jan 14, 2025 - 6:17pm
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DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 01/14/25
CHECKED BY:	JJF	FILE: 25-09

City of RAMSEY

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

AREA A

2025 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 25-09
CITY OF RAMSEY, MINNESOTA

SHEET 2 OF 5 SHEETS

AREA B		
SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
AUTUMN HEIGHTS	1.58	3738
NORTHFORK	0.35	1831
NORTHFORK HIGHLANDS 2ND	0.16	1180
NORTHFORK OAKS	0.18	864
NORTHFORK THIRD	0.52	2189
RUM RIVER PRAIRIE	0.58	1928
THE NORTH FORTY 2ND	0.33	1414
THE NORTH FORTY 3RD	1.03	5106
TIGER MEADOWS	0.51	3093
MAP B TOTALS	5.26	21343

DATE	REVISION

Jan 14, 2025 - 6:18pm
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DESIGNED BY:	JJF		
DRAWN BY:	JJF	DATE:	01/14/25
CHECKED BY:	JJF	FILE:	25-09

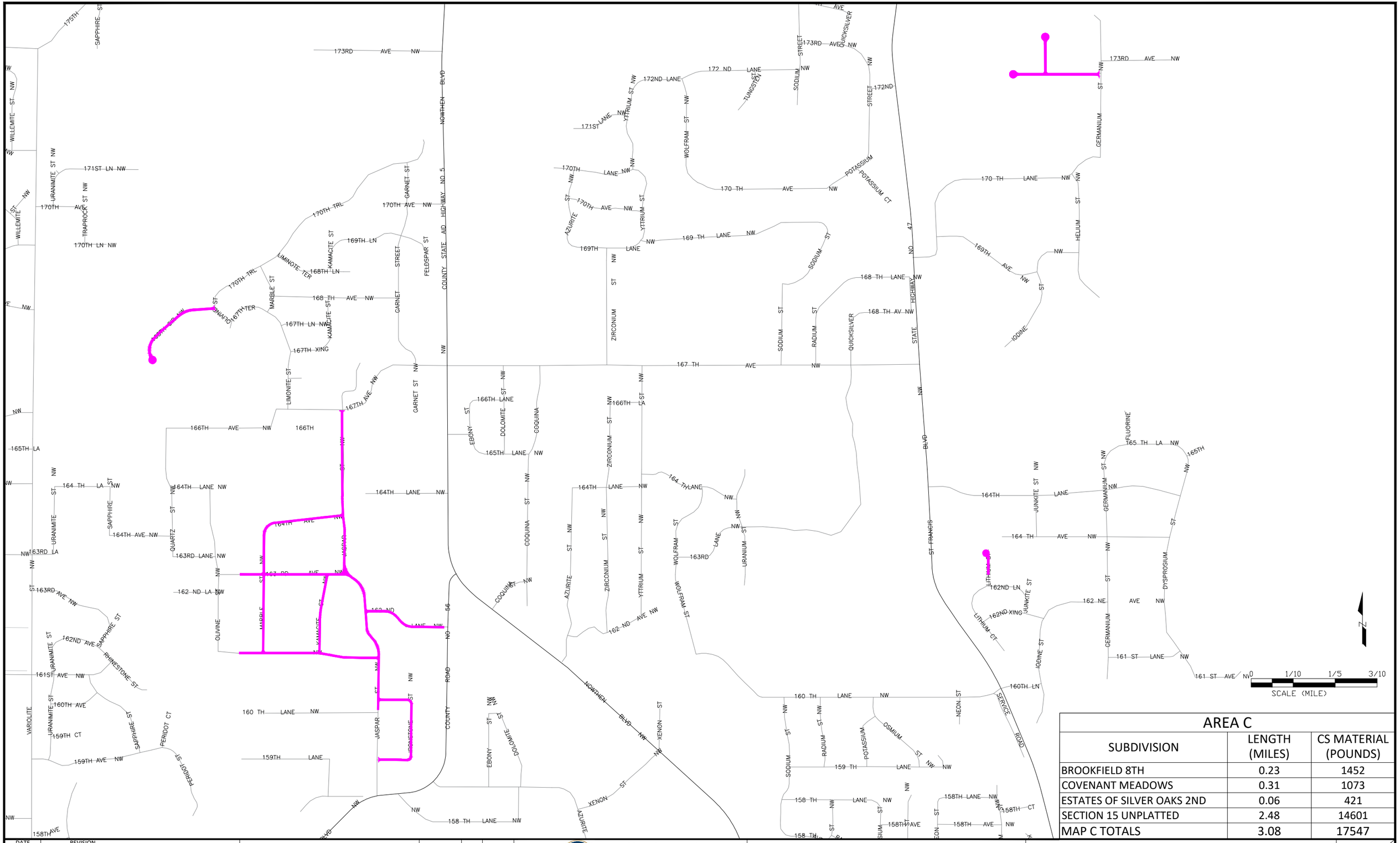
City of RAMSEY

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

AREA B

2025 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 25-09
CITY OF RAMSEY, MINNESOTA

SHEET 3 OF 5 SHEETS



AREA C

SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
BROOKFIELD 8TH	0.23	1452
COVENANT MEADOWS	0.31	1073
ESTATES OF SILVER OAKS 2ND	0.06	421
SECTION 15 UNPLATTED	2.48	14601
MAP C TOTALS	3.08	17547

DATE	REVISION

Jan 14, 2025 - 9:21pm
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DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 01/14/25
CHECKED BY:	JJF	FILE: 25-09

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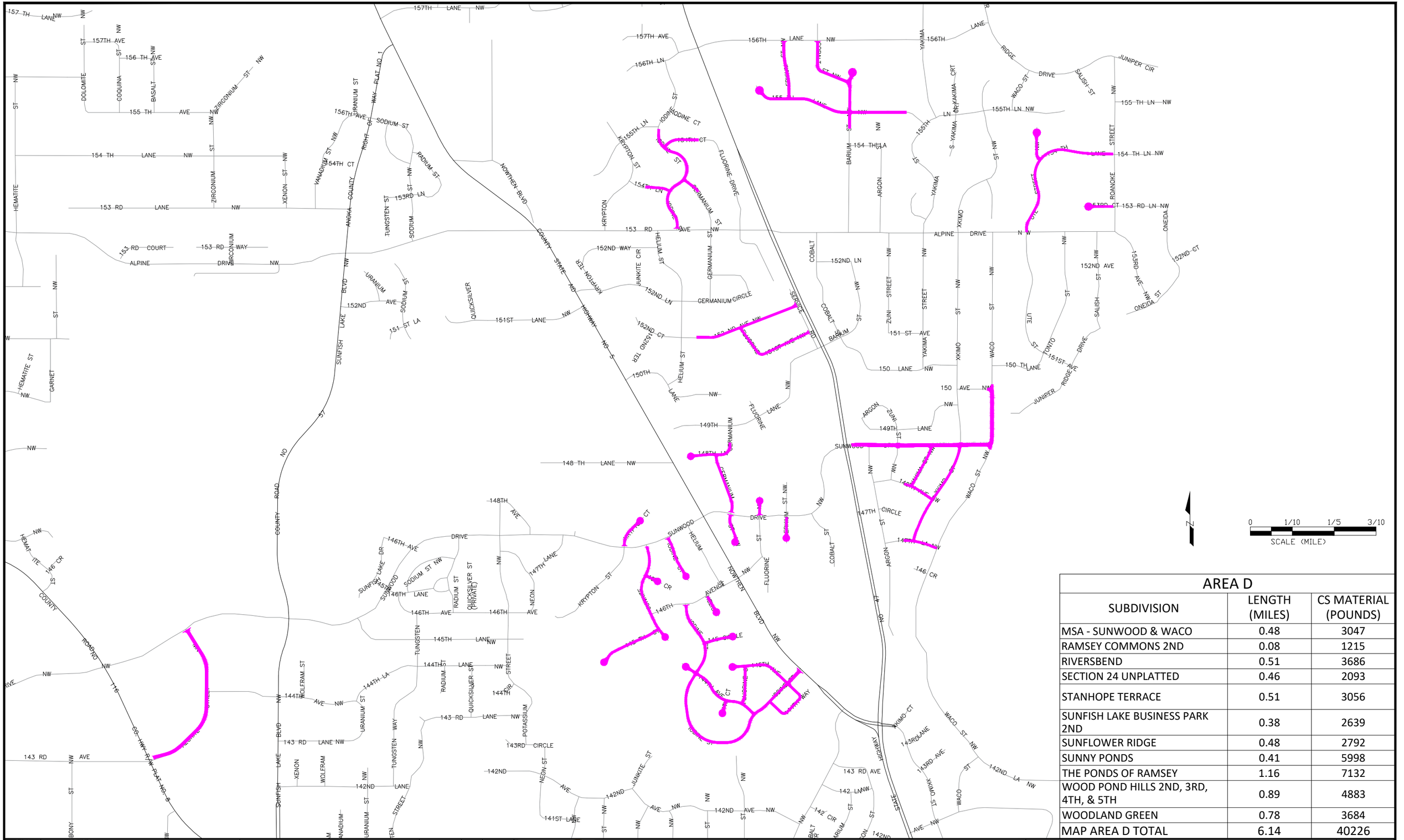
(763) 427-1410 FAX (763) 433-9898

AREA C

2025 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 25-09
CITY OF RAMSEY, MINNESOTA

SHEET 4 OF 5 SHEETS



AREA D

SUBDIVISION	LENGTH (MILES)	CS MATERIAL (POUNDS)
MSA - SUNWOOD & WACO	0.48	3047
RAMSEY COMMONS 2ND	0.08	1215
RIVERSBEND	0.51	3686
SECTION 24 UNPLATTED	0.46	2093
STANHOPE TERRACE	0.51	3056
SUNFISH LAKE BUSINESS PARK 2ND	0.38	2639
SUNFLOWER RIDGE	0.48	2792
SUNNY PONDS	0.41	5998
THE PONDS OF RAMSEY	1.16	7132
WOOD POND HILLS 2ND, 3RD, 4TH, & 5TH	0.89	4883
WOODLAND GREEN	0.78	3684
MAP AREA D TOTAL	6.14	40226

DATE	REVISION

Jan 14, 2025 - 8:22pm
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DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 01/14/25
CHECKED BY:	JJF	FILE: 25-09

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

AREA D

2025 CRACK SEAL IMPROVEMENTS
CITY PROJECT NO. 25-09
CITY OF RAMSEY, MINNESOTA

SHEET 5 OF 5 SHEETS

25-09 2025 CRACK SEAL STREET SUMMARY		
MAP AREA	**Length (miles)**	**CS MATERIAL (LBS)**
MAP AREA A	4.69	33,504
MAP AREA B	5.26	21,343
MAP AREA C	3.08	17,547
MAP AREA D	6.14	40,226
PROJECT TOTAL	**19.16**	**112,619**

MAP AREA A					
SUBDIVISION	**STREET**	**SEGMENT**	**CONCRETE CURB (YES/NO)**	**LENGTH (MILES)**	**CS MATERIAL (LBS)**
COR ONE	YOLITE STREET	SUNWOOD DR / VETERANS DR	YES	0.05	481.1
		COR ONE SUBDIVISION TOTAL		0.05	481
MSA - BUNKER LAKE BOULEVARD & PUMA STREET	BUNKER LAKE BOULEVARD	PUMA ST / JACKAL ST	YES	0.28	2,654.9
	PUMA STREET	BUNKER LAKE BLVD / RABBIT ST	YES	0.23	2,192.4
	PUMA STREET	RABBIT ST / LIFT STATION 8	YES	0.05	440.0
		MSA BUNKER & PUMA TOTAL		0.56	5,287
MSA - RIVERDALE DRIVE	RIVERDALE DRIVE	ARMSTRONG INTERCHANGE / LLAMA ST	YES	0.22	1,300.2
	RIVERDALE DRIVE	U.S. HIGHWAY 10 / LLAM ST	YES	0.78	4,584.3
		MSA - RIVERDALE DRIVE TOTAL		1.00	5,885
NORTHFORK ITASCA SHORES	ANDRIE COURT	ANDRIE ST / CDS	NO	0.23	1,067.6
		NORTHFORK ITASCA SHORES SUBDIVISION TOTAL		0.23	1,068
PRESERVE AT NORTHFORK 1ST & 2ND	151ST LANE	VICUNA ST / WOLVERINE ST	YES	0.22	1,243.9
	152ND LANE	VICUNA ST / WOLVERINE ST	YES	0.24	1,363.0
	VICUNA STREET	151ST LN / 152ND LN	YES	0.10	538.6
	VICUNA STREET	152ND LN / ALPINE DR	YES	0.04	239.6
	WOLVERINE STREET	151ST LN / 152ND LN	YES	0.10	553.4
	WOLVERINE STREET	ALPINE DR / 152ND LN	YES	0.03	194.1
		PRESERVE AT NORTHFORK 1ST & 2ND SUBDIVISION TOTAL		0.73	4,133
RIVERSTONE	149TH AVENUE	RABBIT ST / 150TH AVE	YES	0.09	690.3
	150TH AVENUE	RABBIT ST / E EOP	YES	0.08	603.2
	150TH AVENUE	RABBIT ST / W EOP	YES	0.04	330.1
	150TH LANE	RABBIT ST / W EOP	YES	0.04	273.2
	QUNITANA CIRCLE	150TH AVE / 150TH AVE	YES	0.05	387.6
	QUNITANA COURT	RABBIT ST / CDS	YES	0.04	392.9
	RABBIT STREET	150TH AVE / N EOP	YES	0.15	1,122.9
	RABBIT STREET	PUMA ST / 150TH AVE	YES	0.10	807.3
	RABBIT STREET	S EOP / PUMA ST	YES	0.11	943.7
RIVERSTONE 2ND	149TH AVENUE	E EOP / W EOP	YES	0.07	555.2
	150TH LANE	E EOP / W EOP	YES	0.10	761.9
	SNOWY OWL STREET	149TH AVE / 150TH LN	YES	0.16	1,210.2
RIVERSTONE 3RD	TIGER STREET	149TH AVE / 150TH LN	YES	0.14	1,060.7
RIVERSTONE 4TH	151ST AVENUE	QUINTANA ST / CDS	YES	0.04	447.8
	152ND AVENUE	PUMA ST / W EOP	YES	0.07	531.8
	QUINTANA STREET	149TH CRT / RABBIT ST	YES	0.13	996.6
	QUINTANA STREET	RABBIT ST / 151ST AVE	YES	0.12	969.7
	SNOWY OWL STREET	151ST AVE / N EOP	YES	0.09	681.9
RIVERSTONE 5TH	151ST AVENUE	SNOWY OWL ST / RABBIT ST	YES	0.07	552.6
	152ND AVENUE	ALPINE DR / E EOP	YES	0.15	1,171.0
	152ND LANE	152ND AVE / TIGER ST	YES	0.05	375.0
	SNOWY OWL STREET	152ND AVE / S EOP	YES	0.07	512.7
	TIGER STREET	151ST AVE / 152ND LN	YES	0.17	1,272.3
		RIVERSTONE 1ST, 2ND, 3RD, 4TH & 5TH SUBDIVISION TOTAL		2.12	16,651
		MAP AREA A TOTAL		**4.69**	**33,504**

MAP AREA B					
SUBDIVISION	**STREET**	**SEGMENT**	**CONCRETE CURB (YES/NO)**	**LENGTH (MILES)**	**CS MATERIAL (LBS)**
AUTUMN HEIGHTS	167TH LANE	ARMSTRONG BLVD / 168TH LN	NO	0.27	577.6
	167TH LANE	PUMA ST / ARMSTRONG BLVD	NO	0.17	396.4
	167TH LANE	W EOP / PUMA ST	NO	0.23	490.7
	168TH AVENUE	PUMA ST / CDS	NO	0.06	212.3
	168TH AVENUE	RABBIT ST / CDS	NO	0.07	244.2
	168TH AVENUE	RABBIT ST / PUMA ST	NO	0.09	182.6
	168TH LANE	167TH LN / N EOP	NO	0.26	591.1
	168TH LANE	NUTRIA ST / 167TH LN	NO	0.07	145.5
	169TH AVENUE	W EOP / RABBIT ST	NO	0.12	281.8
	NUTRIA STREET	168TH LN / CDS	NO	0.08	231.2
	NUTRIA STREET	N EOP / 168TH LN	NO	0.04	90.0
	PUMA STREET	167TH LN / 168TH AVE	NO	0.04	94.0
	RABBIT STREET	168TH AVE / ARMSTRONG BLVD	NO	0.09	200.5
		AUTUMN HEIGHTS SUBDIVISION TOTAL		1.58	3,738
NORTHFORK	164TH LANE	E EOP / ANDRIE ST	NO	0.10	434.5
	DRISCOLL CIRCLE	164TH LN / CDS	NO	0.09	491.3
	FORTMANN CIRCLE	164TH LN / CDS	NO	0.09	477.6
	HALAS CIRCLE	164TH LN / CDS	NO	0.07	427.9
		NORTHFORK SUBDIVISION TOTAL		0.35	1,831
NORTHFORK HIGHLANDS 2ND	INVERNESS LANE	JARVIS ST / E EOP	NO	0.16	1,179.9
		NORTHFORK HIGHLANDS 2ND SUBDIVISION TOTAL		0.16	1,180
NORTHFORK OAKS	160TH COURT	ROYAL RD / CDS	NO	0.08	433.5
	ROYAL ROAD	160TH CRT / E EOP	NO	0.10	430.5
		NORTHFORK OAKS SUBDIVISION TOTAL		0.18	864
NORTHFORK THIRD	162ND LANE	ANDRIE ST / WOLVERINE ST	NO	0.18	765.0
	162ND LANE	WOLVERINE ST / E EOP	NO	0.14	599.3
	164TH LANE	WOLVERINE ST / W EOP	NO	0.08	320.0
	WOLVERINE STREET	162ND LN / 164TH LN	NO	0.12	504.6
		NORTHFORK THIRD SUBDIVISION TOTAL		0.52	2,188.8
RUM RIVER PRAIRIE	169TH LANE	BAUGH ST / TIGER ST	NO	0.48	1,360.2
	170TH COURT	TIGER ST / CDS	NO	0.10	568.1
		RUM RIVER PRARIE SUBDIVISION TOTAL		0.58	1,928
THE NORTH FORTY 2ND	158TH LANE	NE PC OKAPI ST & 158TH LN / E EOP	NO	0.10	438.3
	OKAPI STREET	S EOP / NE PC 158TH LN & OKAPI ST	NO	0.23	975.3
		THE NORTH FORTY 2ND SUBDIVISION TOTAL		0.33	1,414
THE NORTH FORTY 3RD	155TH LANE	W EOP / ARMSTRONG BLVD	NO	0.50	2,106.7
	156TH LANE	W EOP / HEDGEHOG ST	NO	0.27	1,139.9
	HEDGEHOG STREET	S EOP / N EOP	NO	0.20	1,617.6
	IGUANA STREET	S EOP / N EOP	NO	0.06	241.8
		THE NORTH FORTY 3RD SUBDIVISION TOTAL		1.03	5,106
TIGER MEADOWS	RABBIT STREET	170TH AVE / NUTRIA ST	YES	0.21	1,235.2
	RABBIT STREET	170TH AVE / N EOP	YES	0.07	509.7
	170TH AVENUE	TIGER ST / RABBIT ST	YES	0.23	1,348.5
		TIGER MEADOWS SUBDIVISION TOTAL		0.51	3,093
		MAP AREA B TOTAL		**5.26**	**21,343**

MAP AREA C					
SUBDIVISION	**STREET**	**SEGMENT**	**CONCRETE CURB (YES/NO)**	**LENGTH (MILES)**	**CS MATERIAL (LBS)**
BROOKFIELD 8TH	168TH CIRCLE	OLIVINE ST / CDS	YES	0.23	1,451.8
		BROOKFIELD 8TH SUBDIVISION TOTAL		0.23	1,452
COVENANT MEADOWS	172ND LANE	GERMANIUM ST / CDS	NO	0.21	704.8
	IODINE STREET	172ND LN / CDS	NO	0.10	367.7
		COVENANT MEADOWS SUBDIVISION TOTAL		0.31	1,073
ESTATES OF SILVER OAKS 2ND	LITHIUM STREET	S EOP / CDS	YES	0.06	421.4
		ESTATES OF SILVER OAKS 2ND SUBDIVISION TOTAL		0.06	421
SECTION 15 UNPLATTED	159TH LANE	JASPAR ST / IRONSTONE ST	NO	0.08	450.5
	160TH LANE	JASPAR ST / IRONSTONE ST	NO	0.08	443.9
	161ST LANE	W SEC LINE / JASPAR ST	NO	0.33	1,930.6
	162ND LANE	JASPAR ST / RAMSEY BLVD	NO	0.20	1,153.9
	163RD AVENUE	W SEC LINE / JASPAR ST	NO	0.26	1,610.1
	164TH AVENUE	NE PC MARBLE ST / JASPAR ST	NO	0.18	1,066.5
	IRONSTONE STREET	159TH LN / 160TH LN	NO	0.14	814.6
	JASPAR STREET	160TH LN / 161ST LN	NO	0.12	715.9
	JASPAR STREET	161ST LN / 166TH AVE	NO	0.62	3,584.9
	KAMACITE STREET	163RD AVE / 161ST LN	NO	0.18	1,088.5
	MARBLE STREET	161ST LN / NE PC 164TH AVE	NO	0.30	1,741.8
		SECTION 15 UNPLATTED SUBDIVISION TOTAL		2.48	14,601
		MAP AREA C TOTAL		**3.08**	**17,547**

MAP AREA D					
SUBDIVISION	**STREET**	**SEGMENT**	**CONCRETE CURB (YES/NO)**	**LENGTH (MILES)**	**CS MATERIAL (LBS)**
MSA - SUNWOOD DRIVE & WACO STREET	SUNWOOD DRIVE	TH 47 / WACO STREET	YES	0.33	2,073.8
	WACO STREET	SUNWOOD DRIVE / 150TH AVE	YES	0.15	973.2
		MSA - SUNWOOD DRIVE & WACO STREET TOTAL		0.48	3,047
RAMSEY COMMONS 2ND	148TH LANE	E EOP / CDS	YES	0.08	1,214.5
		RAMSEY COMMONS 2ND SUBDIVISION TOTAL		0.08	1,215
RIVERSBEND	147TH LANE	W EOP / XKIMO ST	YES	0.02	182.5
	147TH LANE	XKIMO ST / WACO ST	YES	0.06	453.5
	148TH AVENUE	W EOP / XKIMO ST	YES	0.07	585.1
	XKIMO STREET	149TH AVE / 147TH LN	YES	0.25	1,993.3
	YAKIMA STREET	149TH AVE / 148TH AVE	YES	0.10	471.8
		RIVERSBEND SUBDIVISION TOTAL		0.51	3,686
SECTION 24 UNPLATTED	151ST AVENUE	NW PC FLUORINE ST / SERVICE RD	NO	0.13	484.9
	152ND AVENUE	SERVICE RD / TERMINI	NO	0.25	1,305.3
	FLUROINE STREET	152ND AVE / 151ST AVE	NO	0.08	303.1
		SECTION 24 UNPLATTED SUBDIVISION TOTAL		0.46	2,093
STANHOPE TERRACE	153RD COURT	ROANOKE ST / CDS	YES	0.07	471.4
	154TH AVENUE	UTE ST / ROANOKE ST	YES	0.18	1,023.5
	UTE STREET	153RD AVE / N EOP	YES	0.26	1,561.5
		STANHOPE TERRACE SUBDIVISION TOTAL		0.51	3,056
SUNFISH LAKE BUSINESS PARK 2ND	AZURITE STREET	BUNKER LAKE BLVD / SUNWOOD DR	YES	0.38	2,638.6
		SUNFISH LAKE BUSINESS PARK 2ND SUBDIVISION TOTAL		0.38	2,639
SUNFLOWER RIDGE	154TH AVENUE	IODINE ST / W EOP	YES	0.09	504.5
	154TH LANE	IODINE ST / E EOP	YES	0.06	327.7
	GERMANIUM STREET	IODINE ST / E EOP	YES	0.04	252.6
	IODINE STREET	ALPINE DR / 155TH LN	YES	0.29	1,707.4
		SUNFLOWER RIDGE SUBDIVISION TOTAL		0.48	2,792
SUNNY PONDS	148TH LANE	GERMANIUM ST / W EOP	YES	0.05	628.3
	ERKIUM STREET	SUNWOOD DR / S END CDS	YES	0.06	964.0
	FLUORINE STREET	SUNWOOD / N END CDS	YES	0.04	591.1
	GERMANIUM STREET	SUNWOOD DR / 148TH LN	YES	0.14	1,959.2
	GERMANIUM STREET	SUNWOOD DR / S END CDS	YES	0.08	1,227.3
	GERMANIUM STREET	148TH LN / N EOP	YES	0.05	628.3
		SUNNY PONDS SUBDIVISION TOTAL		0.41	5,998
THE PONDS OF RAMSEY	144TH AVENUE	IODINE ST / CDS	YES	0.03	283.5
	144TH AVENUE	IODINE ST / FLUORINE ST	YES	0.13	793.5
	144TH AVENUE	IODINE ST E. / FLUORINE ST	YES	0.04	217.4
	144TH COURT	144TH AVE / CDS	YES	0.04	297.6
	144TH WAY	IODINE ST N / IODINE ST S	YES	0.14	825.8
	145TH AVENUE	FLUORINE ST / CDS	YES	0.04	301.3
	145TH AVENUE	IODINE ST / FLUORINE ST	YES	0.11	665.6
	FLUORINE STREET	145TH AVE / 144TH AVE	YES	0.09	514.7
	IODINE STREET	144TH AVE E. / 144TH AVE W.	YES	0.33	1,962.9
	IODINE STREET	144TH AVE W / W EOP	YES	0.06	328.0
	IODINE STREET	144TH WAY S. / 144TH WAY E.	YES	0.05	283.3
	IODINE STREET	145TH AVE / 144TH WAY	YES	0.06	356.7
	IODINE STREET	NOWTHEN BLVD / 145TH AVE	YES	0.04	301.9
		THE PONDS OF RAMSEY SUBDIVISION TOTAL		1.16	7,132
WOOD POND HILLS 2ND, 3RD, 4TH, & 5TH	145TH CIRCLE	IODINE ST / CDS	YES	0.08	451.3
	145TH COURT	JUNKITE ST / W EOP	YES	0.16	876.8
	146TH CIRCLE	JUNKITE ST / CDS	YES	0.04	256.2
	HELIUM COURT	146TH CIR / S EOP	YES	0.05	322.7
	IODINE STREET	145TH CIR / S EOP	YES	0.02	107.6
	IODINE STREET	146TH AVE / 145TH CIR	YES	0.10	523.9
	IODINE STREET	SUNWOOD DR / CDS	YES	0.11	605.9
	JUNKITE STREET	145TH CRT / 146TH AVE	YES	0.04	195.5
	JUNKITE STREET	145TH CRT / CDS	YES	0.03	229.0
	JUNKITE STREET	146TH CIR / 146TH AVE	YES	0.10	491.8
	JUNKITE STREET	SUNWOOD DR / 146TH AVE	YES	0.07	350.3
	KRYPTON COURT	SUNWOOD DR / CDS	YES	0.08	472.2
		WOOD POND HILLS 2ND, 3RD, 4TH, & 5TH SUBDIVISION TOTAL		0.89	4,883
WOODLAND GREEN	155TH LANE	CDS / E EOP	NO	0.37	1,690.8
	BARIUM STREET	S EOP / CDS	NO	0.14	795.4
	COBALT STREET	BARIUM ST / 156TH LN	NO	0.14	600.4
	ERKIUM STREET	155TH LN / 156TH LN	NO	0.13	597.6
		WOODLAND GREEN SUBDIVISION TOTAL		0.78	3,684.2
		MAP AREA D TOTAL		**6.14**	**40,226**

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Address infrastructure needs.

Title:

Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for 2025 Pavement Rejuvenation Improvements, Improvement Project #25-10

Purpose/Background:

Purpose:

The purpose of this case is to consider recommending City Council approving plans and specifications and authorizing advertisement for bids for 2025 Pavement Rejuvenation Improvements, Improvement Project #25-10.

Background:

The City's current pavement maintenance schedule calls for public streets to receive the following maintenance following construction, overlay, or reconstruction:

- Year 2 – Pavement Rejuvenator
- Year 3 – Crack Seal
- Year 5 – Refresh Pavement Markings (If Applicable)
- Year 7 – Crack Seal
- Year 10 – Refresh Pavement Markings (If Applicable)
- Year 14 – Crack Seal
- Year 15 – Refresh Pavement Markings (If Applicable)
- Year 20 – Overlay or Reconstruction

The above schedule is the typical maintenance schedule based off assumed ideal conditions. Staff reviews the condition of all streets annually and adjusts the schedule of maintenance operations based on actual pavement conditions.

Rejuvenator Use History

In 2019, the City Council indefinitely suspended seal coat improvements due to observed issues of pavement striping under seal coat, which causes approximately the top inch of pavement to strip away from underlying pavement. These areas of striping originally show as small spots in the surface of the pavement, but quickly migrate across the pavement into larger sections.

In alignment with many other metro cities confronted with these same pavement issues, Staff feels pavement rejuvenators provide the greatest overall benefit at the lowest cost. Staff proposes to continue to use Reclamite, a maltene-based petroleum product with the ability to penetrate into asphalt pavement and restore reactive components (maltenes) which have been lost due to the natural process of oxidation.

Reclamation has been used nationally for over 5 decades and is proven to add 5 to 7 years of service life to pavements. The application is intended to be performed on pavements 5 years old or less, though several cities are completing pilot project applications on pavement sections older than 5 years. Additionally, staff is aware an ongoing study for considering a 2nd Reclamite treatment to further extend the useful service life of pavements. Staff will continue to monitor such applications and adjust future projects within the City of Ramsey based on observed results.

Future Considerations

Regional contractors have taken note of metro Cities moving away from seal coating and toward pavement rejuvenators, and as a result serval newer products are becoming available in our region. The Minnesota Local Road Research Board (LRRB), with the assistance of MnROAD's, is two years into an evaluation of proprietary rejuvenators, including the most commonly used product in the metro area, Reclamite. Early results indicate Reclamite is performing well in Minnesota. Ideally, once the evaluation is complete, additional reliable products will result in a competitive bidding market. Because of its proven track record, and the potential risks associated with using new products, staff recommends continuing to use Reclamite on all street segments proposed to receive pavement rejuvenator.

2025 Proposed Rejuvenation Improvements

Plans for the 2025 Pavement Rejuvenation Improvements are attached to this case. A total of 9.70 miles of public street segments and 2 parking lots are proposed to receive pavement rejuvenation. Over the last 2 seasons, the City has been playing "catch-up" on streets which did not receive a pavement rejuvenator on schedule. In 2025, nearly all proposed streets are receiving the treatment the 2nd year after construction, reconstruction, or overlay per the proposed street maintenance schedule. Final plans and specifications were prepared in-house as part of staff's normal duties.

Preliminary Schedule Remaining

- January 28, 2025 City Council approve plans, authorize bidding
- March 3, 2025 Bid opening, City Council award contracts
- March 11, 2025 City Council awards contract to the lowest responsible bidder
- July 1, 2025 Contractor may begin improvements
- August 30, 2025 Contractor completes improvements

The proposed improvements are designated as 2025 Pavement Rejuvenation Improvements, Improvement Project #25-10.

Notification:

Letters will not be mailed out to affected property owners until Council awards the contract for the project.

Time Frame/Observations/Alternatives:

Timeframe:

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

Observations:

IP 25-10 and IP 25-09 engineer's estimates are based off of final plans and anticipated 2025 construction costs. IP 25-11 estimate is a CIP level estimate based off of costs per mile.

Alternatives:

Alternative #1 – Motion to recommend City Council approve plans and specifications and authorize advertisement for bids for 2025 Pavement Rejuvenation Improvements, Improvement Project #25-10.

Alternative #2 – Motion of other.

Funding Source:

The City budgeted $600,000 in 2025 for contracted street maintenance services including; crack sealing, pavement rejuvenation, and refreshing pavement markings.

The preliminary estimated costs for pavement maintenance improvements is:

- IP 25-09 Crack Seal $232,800
- **IP 25-10 Pavement Rejuvenation $249,200**
- IP 25-11 MSA Pavement Markings $19,380

- *Total Pavement Maintenance Costs $501,380*
    - *Staff recommends remaining budgeted funds be guided for pavement patching services as needed.*

City Staff proposes to administer and inspect construction in-house, as part of their normal duties.

Recommendation:

Staff recommends Alternative #1.

Outcome/Action:

Motion to recommend City Council approve plans and specifications and authorize advertisement for bids for 2025 Pavement Rejuvenation Improvements, Improvement Project #25-10.

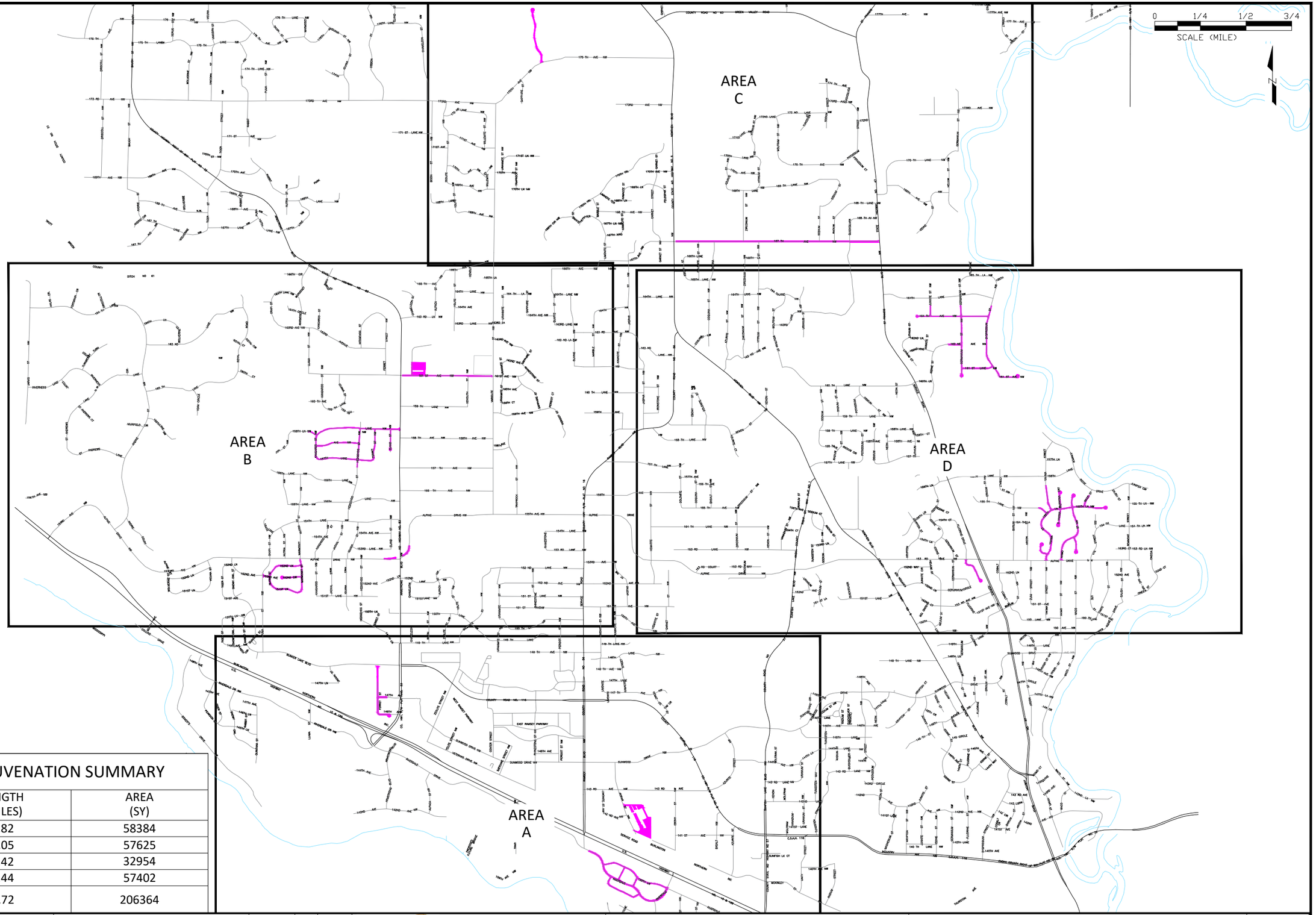
Attachments

25-10 Final Plans

25-10 Street Summary

Form Review

Inbox	Reviewed By	Date
Bruce Westby	Bruce Westby	01/15/2025 07:17 PM
Brian Hagen	Brian Hagen	01/16/2025 04:05 PM
Form Started By: Joe Feriancek		Started On: 01/13/2025 08:22 AM
Final Approval Date: 01/16/2025		



2025 PAVEMENT REJUVENATION SUMMARY

PROJECT AREA	LENGTH (MILES)	AREA (SY)
A	1.82	58384
B	3.05	57625
C	1.42	32954
D	3.44	57402
PROJECT TOTAL	9.72	206364

DATE	REVISION

Jan 15, 2025 - 12:43pm
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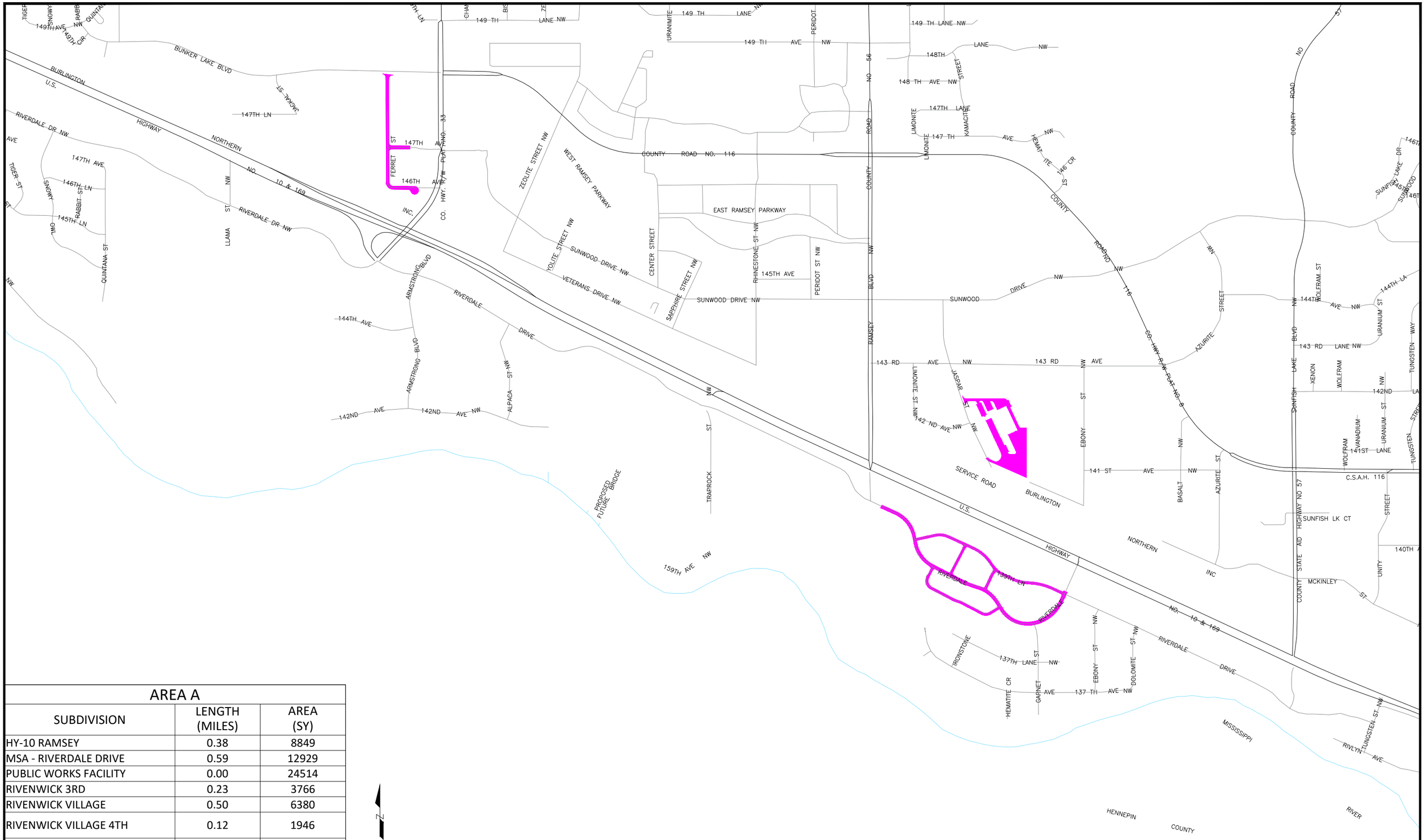
DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 1/15/25
CHECKED BY:	JJF	FILE: 25-10

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

OVERALL

2025 PAVEMENT REJUVENATION IMPROVEMENTS
CITY PROJECT NO. 25-10
CITY OF RAMSEY, MINNESOTA

SHEET 1 OF 5 SHEETS



AREA A		
SUBDIVISION	LENGTH (MILES)	AREA (SY)
HY-10 RAMSEY	0.38	8849
MSA - RIVERDALE DRIVE	0.59	12929
PUBLIC WORKS FACILITY	0.00	24514
RIVENWICK 3RD	0.23	3766
RIVENWICK VILLAGE	0.50	6380
RIVENWICK VILLAGE 4TH	0.12	1946
MAP A TOTALS	1.82	58384

DATE	REVISION

Jan 15, 2025 - 12:44pm
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0 1/10 1/5 3/10
SCALE (MILE)

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 1/15/25
CHECKED BY:	JJF	FILE: 25-10

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7550 SUNWOOD DRIVE
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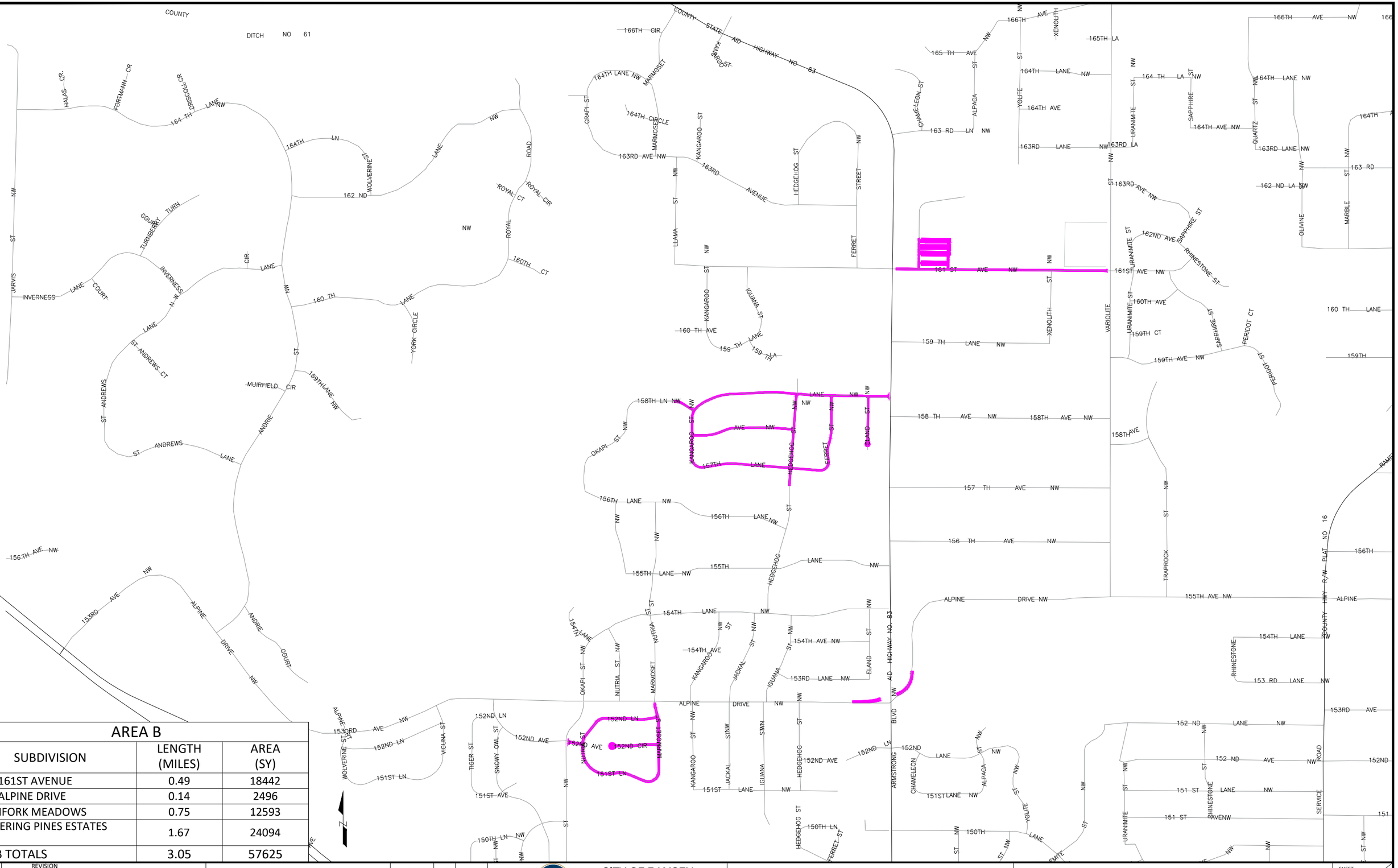
AREA A

2025 PAVEMENT REJUVENATION IMPROVEMENTS
CITY PROJECT NO. 25-10
CITY OF RAMSEY, MINNESOTA

SHEET 2 OF 5 SHEETS



AREA B		
SUBDIVISION	LENGTH (MILES)	AREA (SY)
MSA - 161ST AVENUE	0.49	18442
MSA - ALPINE DRIVE	0.14	2496
NORTHFORK MEADOWS	0.75	12593
WHISPERING PINES ESTATES PLAT 3	1.67	24094
MAP B TOTALS	3.05	57625

DATE	REVISION

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0 1/10 1/5 3/10
SCALE (MILE)

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 01/15/25
CHECKED BY:	JJF	FILE: 25-10

City of RAMSEY

CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
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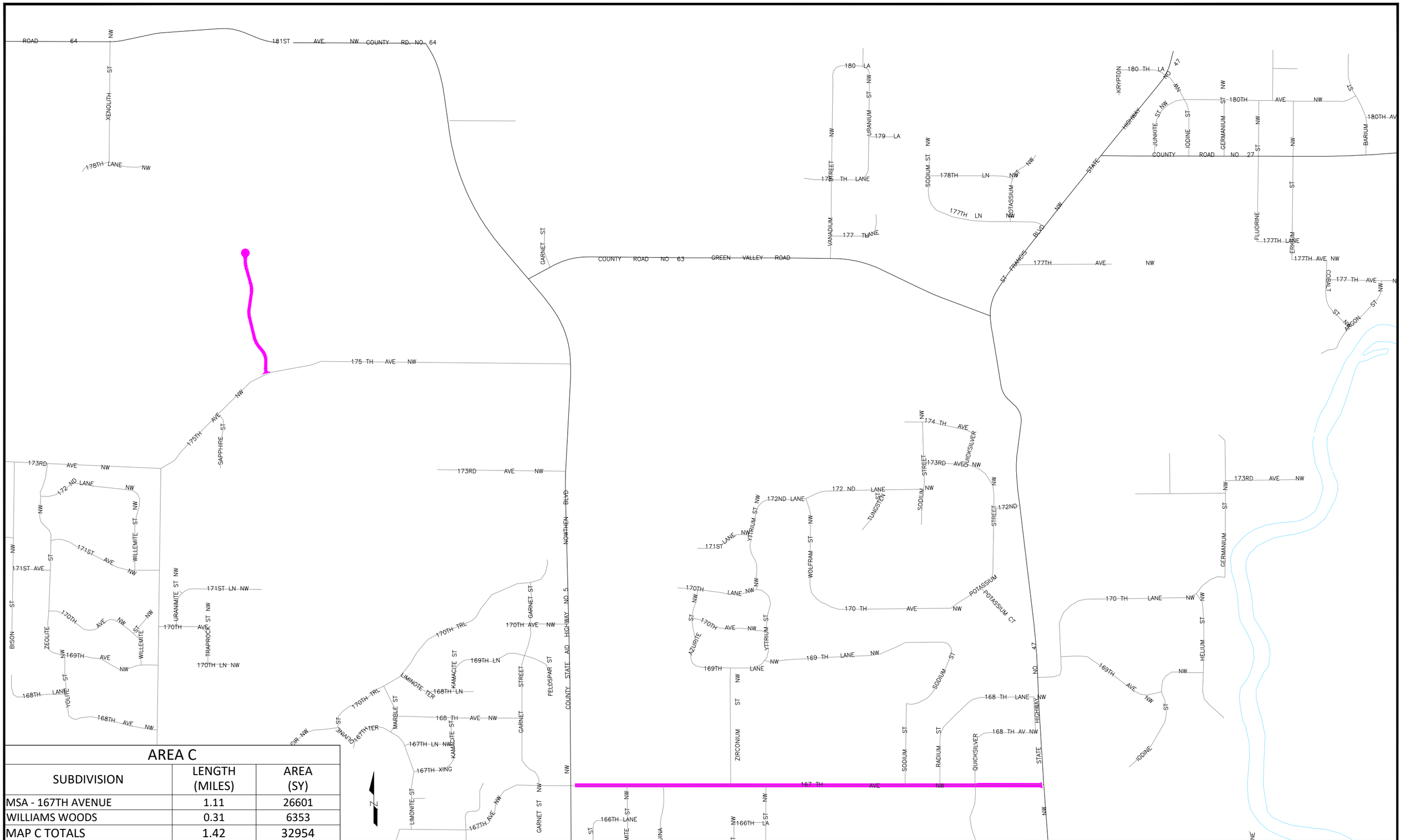
AREA B

2025 PAVEMENT REJUVENATION IMPROVEMENTS
CITY PROJECT NO. 25-10
CITY OF RAMSEY, MINNESOTA

SHEET 3 OF 5 SHEETS



AREA C		
SUBDIVISION	LENGTH (MILES)	AREA (SY)
MSA - 167TH AVENUE	1.11	26601
WILLIAMS WOODS	0.31	6353
MAP C TOTALS	1.42	32954

DATE	REVISION

Jan 15, 2025 - 12:46pm
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0 1/10 1/5 3/10
SCALE (MILE)

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 01/15/25
CHECKED BY:	JJF	FILE: 25-10

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

AREA C

2025 PAVEMENT REJUVENATION IMPROVEMENTS
CITY PROJECT NO. 25-10
CITY OF RAMSEY, MINNESOTA

SHEET 4 OF 5 SHEETS

AREA D		
SUBDIVISION	LENGTH (MILES)	AREA (SY)
ALPINE MEADOWS	0.16	3023
BARTHEL'S RUM RIVER ACRES 2ND	1.60	24078
HIGHLANDS AT RIVER PARK	0.69	11701
HIGHLANDS AT RIVER PARK 2ND	0.60	10816
HIGHLANDS AT RIVER PARK 3RD	0.30	5878
HIGHLANDS AT RIVER PARK 4TH	0.09	1906
MAP D TOTALS	3.44	57402

DATE	REVISION

0 1/10 1/5 3/10
SCALE (MILE)

DESIGNED BY:	JJF	
DRAWN BY:	JJF	DATE: 01/15/25
CHECKED BY:	JJF	FILE: 25-10

City of RAMSEY
CITY OF RAMSEY
7550 SUNWOOD DRIVE
RAMSEY, MN 55303
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AREA D

2025 PAVEMENT REJUVENATION IMPROVEMENTS
CITY PROJECT NO. 25-10
CITY OF RAMSEY, MINNESOTA

SHEET 5 OF 5 SHEETS

MATERIALS ESTIMATE
CITY OF RAMSEY
IP 25-10 2025 PAVEMENT REJUVENATOR IMPROVEMENTS
UPDATED 1/15/2025

MAP SHEET	SUBDIVISION	STREET	SEGMENT DESCRIPTION	CONC. C&G (YES/NO)	LENGTH (MILES)	LENGTH (FEET)	AREA (SF)	AREA (SY)	CUL-DE-SAC AREA (SF)	CUL-DE-SAC AREA (SY)	TOTAL AREA (SY)	CONSTR. YEAR	OVERLAY YEAR	RECON. YEAR
D	ALPINE MEADOWS	FLUORINE STREET	ALPINE DR / S EOP	YES	0.16	847	19636	2181.8	7570	841.1	3022.9		2023	
			SUBDIVISION TOTAL		0.16	847	19,636	2,182	7,570	841	3,023			
D	BARTHEL'S RUM RIVER ACRES 2ND	161ST AVENUE	DYSPROSIUM ST / E. CDS	NO	0.11	579	10910	1212.2	8194	910.4	2122.7			2023
		161ST LANE	GERMANIUM ST / DYSPROSIUM ST	NO	0.17	897	22354	2483.8	0	0.0	2483.8			2023
		162ND LANE	W EOP / GERMANIUM ST	NO	0.07	368	9415	1046.1	0	0.0	1046.1			2023
		164TH AVENUE	W EOP / DYSPROSIUM ST	NO	0.40	2092	48544	5393.8	4106	456.2	5850.0			2023
		DYSPROSIUM STREET	161ST AVE / N EOP	NO	0.41	2178	52213	5801.4	0	0.0	5801.4			2023
		GERMANIUM STREET	S EOP / N EOP	NO	0.39	2048	47331	5259.0	6068	674.2	5933.2			2023
		JUNKITE STREET	164TH AVE / N EOP	NO	0.06	299	7570	841.1	0	0.0	841.1			2023
			SUBDIVISION TOTAL		1.60	8,461	198,337	22,037	18,368	2,041	24,078			
D	HIGHLANDS AT RIVER PARK	155TH LANE	W EOP / YAKIMA COURT	YES	0.14	731	20035	2226.1	0	0.0	2226.1		2023	
		155TH LANE	YAKIMA COURT / E EOP	YES	0.02	124	3471	385.7	0	0.0	385.7		2023	
		YAKIMA COURT (SOUTH)	155TH LN / CDS	YES	0.10	504	10278	1142.0	8452	939.1	2081.1		2023	
		YAKIMA STREET	155TH LN / N EOP	YES	0.14	732	20208	2245.3	0	0.0	2245.3		2023	
		YAKIMA STREET	ALPINE DR / 155TH LN	YES	0.29	1549	42863	4762.6	0	0.0	4762.6		2023	
			SUBDIVISION TOTAL		0.69	3,640	96,855	10,762	8,452	939	11,701			
D	HIGHLANDS AT RIVER PARK 2ND	155TH LANE	E EOP / W EOP	YES	0.08	408	11209	1245.4	0	0.0	1245.4		2023	
		WACO COURT	XKIMO ST / CDS	YES	0.09	479	9848	1094.2	8131	903.4	1997.7		2023	
		XKIMO STREET	ALPINE DR / WACO CRT	YES	0.16	847	23668	2629.8	0	0.0	2629.8		2023	
		XKIMO STREET	WACO CRT / 155TH LN	YES	0.17	923	25426	2825.1	0	0.0	2825.1		2023	
		YAKIMA COURT	155TH LN / N EOP	YES	0.10	519	10736	1192.9	8322	924.7	2117.6		2023	
			SUBDIVISION TOTAL		0.60	3,176	80,887	8,987	16,453	1,828	10,816			
D	HIGHLANDS AT RIVER PARK 3RD	155TH LANE	WACO ST / CDS	YES	0.16	834	19499	2166.6	8095	899.4	3066.0		2023	
		WACO STREET	155TH LN / N EOP	YES	0.07	352	9860	1095.6	0	0.0	1095.6		2023	
		XKIMO COURT	155TH LN / CDS	YES	0.07	388	7140	793.3	8304	922.7	1716.0		2023	
			SUBDIVISION TOTAL		0.30	1,574	36,499	4,055	16,399	1,822	5,878			
D	HIGHLANDS AT RIVER PARK 4TH	ZUNI COURT	YAKIMA ST / CDS	YES	0.09	459	8826	980.7	8332	925.8	1906.4		2023	
			SUBDIVISION TOTAL		0.09	459	8,826	981	8,332	926	1,906			
A	HY-10 RAMSEY	146TH AVENUE	FERRET ST / CDS	YES	0.07	377	8615	957.2	9260	1028.9	1986.1			2023
		147TH AVENUE	FERRET ST / ARMSTRONG BLVD (CSAH 83)	YES	0.05	257	9882	1098.0	0	0.0	1098.0			2023
		FERRET STREET	146TH AVE / 147TH AVE	YES	0.09	486	17836	1981.8	0	0.0	1981.8			2023
		FERRET STREET	147TH AVE / N EOP	YES	0.12	612	22450	2494.4	0	0.0	2494.4			2023
		FERRET STREET	S EOP / BUNKER LAKE BLVD	YES	0.05	290	11595	1288.3	0	0.0	1288.3	2023		
			SUBDIVISION TOTAL		0.38	2,022	70,378	7,820	9,260	1,029	8,849			
B	MSA - 161ST AVENUE	161ST AVENUE	ARMSTRONG BLVD (CSAH 83) / VARIOLITE ST	YES	0.49	2589	64113	7123.7	0	0.0	7123.7			2023
		CENTRAL PARK	SOUTH PARKING LOTS	YES	0.00		101866	11318.4	0	0.0	11318.4			2023
			SUBDIVISION TOTAL		0.49	2,589	165,979	18,442	0	0	18,442			
C	MSA - 167TH AVENUE	167TH AVENUE	NOWTHEN BLVD (CSAH 5) / QUICKSILVER ST	NO	0.95	5033	201393	22377.0	0	0.0	22377.0			2023
		167TH AVENUE	QUICKSILVER ST / SAINT FRANCIS BLVD (TH 47)	YES	0.16	831	38016	4224.0	0	0.0	4224.0			2023
			SUBDIVISION TOTAL		1.11	5,864	239,409	26,601	0	0	26,601			

MAP SHEET	SUBDIVISION	STREET	SEGMENT DESCRIPTION	CONC. C&G (YES/NO)	LENGTH (MILES)	LENGTH (FEET)	AREA (SF)	AREA (SY)	CUL-DE-SAC AREA (SF)	CUL-DE-SAC AREA (SY)	TOTAL AREA (SY)	CONSTR. YEAR	OVERLAY YEAR	RECON. YEAR
B	MSA - ALPINE DRIVE	ALPINE DRIVE	ARMSTRONG BLVD (CSAH 83) / PT 400' WEST OF CSAH 83	YES	0.07	349	11020	1224.4	0	0.0	1224.4			2023
		ALPINE DRIVE	ARMSTRONG BLVD (CSAH 83) / PT 250' EAST OF CSAH 83	YES	0.07	371	11445	1271.7	0	0.0	1271.7			2023
			SUBDIVISION TOTAL		0.14	720	22,465	2,496	0	0	2,496			
A	MSA - RIVERDALE DRIVE	RIVERDALE DRIVE	RAMSEY BLVD / GARNET ST	YES	0.48	2535	93222	10358.0	0	0.0	10358.0		2023	
		RIVERDALE DRIVE	GARNET ST / 139TH LN	YES	0.11	569	23137	2570.8	0	0.0	2570.8		2023	
			SUBDIVISION TOTAL		0.59	3,104	116,359	12,929	0	0	12,929			
B	NORTHFORK MEADOWS	151ST LANE	MARMOSET ST / NUTRIA ST	YES	0.15	817	22321	2480.1	0	0.0	2480.1	2022		
		152ND AVENUE	NUTRIA ST / PUMA ST	YES	0.03	172	5469	607.7	0	0.0	607.7	2021		
		152ND CIRCLE	MARMOSET ST / CDS	YES	0.11	603	13529	1503.2	6920	768.9	2272.1	2022		
		152ND LANE	MARMOSET ST / NUTRIA ST	YES	0.13	699	19340	2148.9	0	0.0	2148.9	2021		
		MARMOSET STREET	151ST LN / 152ND CIR	YES	0.09	452	12346	1371.8	0	0.0	1371.8	2022		
		MARMOSET STREET	152ND CIR / ALPINE DR	YES	0.10	516	14111	1567.9	0	0.0	1567.9	2021		
		NUTRIA STREET	151ST LN / 152ND AVE	YES	0.06	326	8927	991.9	0	0.0	991.9	2022		
		NUTRIA STREET	152ND AVE / 152ND LN	YES	0.07	379	10375	1152.8	0	0.0	1152.8	2021		
			SUBDIVISION TOTAL		0.75	3,964	106,418	11,824	6,920	769	12,593			
A	PUBLIC WORKS FACILITY	14999 JASPAR STREET		YES			220627	24514.1	0	0.0	24514.1	2021		
			SUBDIVISION TOTAL		0.00	0	220,627	24,514	0	0	24,514			
A	RIVENWICK 3RD	139TH AVENUE	RIVERDALE DR / RIVERDALE DR	YES	0.23	1220	33893	3765.9	0	0.0	3765.9		2023	
			SUBDIVISION TOTAL		0.23	1,220	33,893	3,766	0	0	3,766			
A	RIVENWICK VILLAGE	139TH AVENUE	HEMATITE ST / JASPAR ST	YES	0.10	503	13834	1537.1	0	0.0	1537.1		2023	
		139TH AVENUE	RIVERDALE DR / HEMATITE ST	YES	0.17	894	24880	2764.4	0	0.0	2764.4		2023	
		HEMATITE STREET	RIVERDALE DR / 139TH AVE	YES	0.16	829	7594	843.8	0	0.0	843.8		2023	
		JASPAR STREET	RIVERDALE DR / 139TH AVE	YES	0.07	391	11110	1234.4	0	0.0	1234.4		2023	
			SUBDIVISION TOTAL		0.50	2,617	57,418	6,380	0	0	6,380			
A	RIVENWICK VILLAGE 4TH	139TH LANE	RIVERDALE DR / JASPAR ST	YES	0.12	629	17518	1946.4	0	0.0	1946.4	2023		
			SUBDIVISION TOTAL		0.12	629	17,518	1,946	0	0	1,946			
B	WHISPERING PINES ESTATES PLAT 3	157TH LANE	SW PC KANGAROO ST & 157TH LN / SE PC FERRET ST & 157TH LN	NO	0.31	1630	39108	4345.3	0	0.0	4345.3			2023
		158TH AVENUE	KANGAROO ST / HEDGEHOG ST	NO	0.23	1237	30044	3338.2	0	0.0	3338.2			2023
		158TH LANE	ARMSTRONG BLVD (CSAH 83) / W EOP	NO	0.52	2724	66868	7429.8	0	0.0	7429.8			2023
		ELAND STREET	158TH LN / S EOP	NO	0.12	610	12689	1409.9	4099	455.4	1865.3			2023
		FERRET STREET	NE PC FERRET ST & 157TH LN / 158TH LN	NO	0.17	889	21499	2388.8	0	0.0	2388.8			2023
		HEDGEHOG STREET	S EOP / N EOP	NO	0.21	1091	26800	2977.8	0	0.0	2977.8			2023
		KANGAROO STREET	NW PC KANGAROO ST & 157TH LN / 158TH LN	NO	0.12	656	15736	1748.4	0	0.0	1748.4			2023
			SUBDIVISION TOTAL		1.67	8,837	212,744	23,638	4,099	455	24,094			
C	WILLIAMS WOODS	RHINSTONE STREET	175TH AVE / CDS	NO	0.31	1621	48290	5365.6	8885	987.2	6352.8	2022		
			SUBDIVISION TOTAL		0.31	1,621	48,290	5,366	8,885	987	6,353			

	LENGTH (MILES)	LENGTH (FEET)	AREA (SF)	AREA (SY)	CUL-DE-SAC AREA (SF)	CUL-DE-SAC AREA (SY)	TOTAL AREA (SY)
PROJECT TOTALS	**9.72**	**51,344**	**1,752,538**	**194,726**	**104,738**	**11,638**	**206,364**
AREA A TOTAL	1.82	9592	295566	32841	9260	1029	58384
AREA B TOTAL	3.05	16110	507606	56401	11019	1224	57625
AREA C TOTAL	1.42	7485	287699	31967	8885	987	32954
AREA D TOTAL	3.44	18157	441040	49004	75574	8397	57402

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Address infrastructure needs.

Title:

Review Updated Project Costs for Gravel Road Elimination Program and Consider Policy Development

Purpose/Background:

Purpose:

Review updated project costs for Gravel Road Elimination Program (GREP), and discuss project prioritizations and funding sources.

Background:

In 2025, the City of Ramsey will need to maintain approximately 2.2 miles of public gravel surfaced roads. Maintaining gravel roads requires the use of a road grader. In non-winter months, the grader is used to grade the surface to remove potholes and "washboards" and to restore the crown on the roads so they drain properly. During winter months the grader is primarily used to plow snow from gravel roads, though grading the surface may also be required during the winter.

The City currently owns a 1999 John Deere grader, which is not identified for replacement in the Capital Improvement Program (CIP). If this grader were to be out of service for any length of time, the city would need to rent a replacement temporarily to help maintain our gravel roads.

On July 19, 2011, the Public Works Committee discussed adopting a Gravel Road Elimination Policy but a final draft policy was never developed. However, when the City adopted a Special Assessment Policy in 2014, a statement was included in this policy that requires benefiting property owners to pay for 50-percent of the costs to convert a gravel road to a paved street. Attached is a copy of the July 19, 2011, Public Works Committee case with meeting minutes, as well as the Special Assessment Policy.

On February 20, 2024, the Public Works Committee directed staff to obtain a geotechnical report with soil borings for all remaining public gravel surfaced roads and to explore stormwater management needs as required to convert the gravel roads to bituminous pavement sections. Attached is a copy of the Geotechnical Exploration Report obtained from ITT including a summary and map of all existing gravel roads, with the exception of the 0.31-mile cul-de-sac segment of 173rd Avenue west of Nowthen Boulevard/CSAH 5 that is gravel surfaced but is proposed to be paved with the Trott Brook Crossing residential development within the next several years

Staff is requesting direction from the Public Works Committee on whether a Gravel Road Elimination Policy should be prepared for eventual City Council adoption. If so, Staff will calculate more detailed project cost estimates for each gravel road segment, develop a project prioritization schedule, identify recommended funding sources, and present the draft policy to the Public Works Committee upon completion.

Notification:

Notification is not required for this case.

Time Frame/Observations/Alternatives:

Timeframe:
Staff anticipates up to 30 minutes will be required to present and discuss this case and respond to questions.

Observations:
In 2004, when the Gravel Road Elimination Policy was first discussed, Ramsey had about 12 miles of gravel surfaced roads. Roughly 10.1 miles of gravel roads have been paved since, or are proposed to be paved with private developments.

In 2024, the 0.07-mile gravel surfaced segment of Basalt Street was paved as part of Improvement Project #24-07. In addition, the 0.13-mile segment of Limonite Street that was gravel surfaced was paved as part of the Jam Hops development. For the purpose of tonight's discussion, the focus should be on paving the remaining 1.9 miles of gravel roads.

Until a Gravel Road Elimination Policy is developed, Staff will continue to explore and promote the elimination of gravel roads as part of City improvement projects and as additional private developments occur.

Alternatives:
Alternative #1:
Motion to direct staff to prepare a draft Gravel Road Elimination Policy that explores estimated project costs for each gravel road segment in more detail, includes a project prioritization schedule, and identifies recommended funding sources.

Alternative #2:
Motion of other.

Funding Source:
Preliminary estimated project costs to convert the six public gravel surfaced roads to bituminous paved streets meeting current city design standards previously ranged from $1.5M to over $3M, depending on required subgrade corrections and stormwater management needs.

Attached is the geotechnical report dated October 7, 2024, prepared by Independent Testing Technologies (ITT) that provides design recommendations for each gravel road segment based on the results of 24 soil borings completed on September 11th and 12th, 2024. This report, which was used by Staff to refine estimated project costs for the 6 public gravel road segments totaling 1.9 miles in length, recommended no subgrade corrections or stormwater improvements.

Current estimated project costs total $2,260,000. Copies of the preliminary cost estimates for all 6 segments are attached.

Potential funding sources for Gravel Road Elimination Program projects include;
- Public Improvement Revolving (PIR) funds
- Sanitary Sewer Funds
- Water Funds
- Stormwater Funds
- Municipal State Aid (MSA)
- Bonds
- Assessments

Per the attached Special Assessment Policy, property owners are to be assessed 50-percent of project costs to convert the street they directly access from gravel surfacing to bituminous pavement.

Pavement Management (PM) Funds are not an option as these funds are strictly dedicated to funding pavement overlay and street reconstruction projects and are not applicable to gravel road conversion projects. Attached is a copy of the cash flow projections for these funds copied from the 2025 to 2034 Capital Improvement Plan.

Recommendation:

Staff recommends approving Alternative Action #1 since the Capital Improvement Program does not address replacing the 1999 road grader.

Outcome/Action:

Based on discussion.

Attachments

GREP Geotechnical Report

071911 PWC Case wMinutes

Special Assessment Policy

Prelim Cost Estimates

2025-2034 CIP Cashflow Projs

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	01/16/2025 04:01 PM
Form Started By: Bruce Westby		Started On: 01/13/2025 01:56 PM
Final Approval Date: 01/16/2025		

INDEPENDENT TESTING TECHNOLOGIES
337 31st Avenue South • Waite Park, MN 56387 • (320) 253-4338 • www.independenttestingtech.com

OCTOBER 7, 2024

PROJECT 24-327
REPORT OF GEOTECHNICAL EXPLORATION

For

CITY PROJECT #25-07
VARIOUS GRAVEL ROADS
RAMSEY, MINNESOTA

Prepared For:

CITY OF RAMSEY

INDEPENDENT TESTING TECHNOLOGIES
337 31st Avenue South • Waite Park, MN 56387 • (320) 253-4338 • www.independenttestingtech.com

October 7, 2024

Mr. Joe Feriancek
City of Ramsey
7550 Sunwood Drive NW
Ramsey, MN 55303

RE: 24-327 Report of Geotechnical Exploration
City Project #25-07
Various Gravel Roads
Ramsey, Minnesota

Dear Mr. Feriancek:

Independent Testing Technologies, Inc. is pleased to submit the results of our subsurface investigation program for this project in Ramsey, Minnesota. This report represents our work on this project as authorized by you. It includes our recommendations regarding earthwork, fill and compaction, subgrade preparation, and pavement design. An electronic copy is enclosed.

The soils encountered were mostly fine grained sandy fill (SM, SP-SM) over native, sandy (SP, SP-SM) outwash soils. Some of the fill near the surface was dark but is not believed to be overly organic. Organic silt (OL) and peat (PT) was encountered in borings SB-1 through SB-3 on Xenolith Street to depths of 7.5 to 10.0 feet. No peat (PT) or other highly organic soils were encountered in any of the other borings. Some fine silty clayey sands (SC-SM) and clayey sand (SC) were encountered in borings SB-5and SB-6 on Carolyn Lane NW and in boring SB-9 in Garnet Street NW. Groundwater was observed in some of the borings at varying depths.

Mr. Feriancek, it has been our pleasure to work with you on this project. Independent Testing appreciated the opportunity to perform this geotechnical evaluation and look forward to continuing our participation during the construction phase of this project. Please contact Patrick Johnson if you have any questions regarding this report. Please contact Tyler Burkes if you would like a proposal for the materials testing services that will be needed.

Sincerely,

Patrick A. Johnson, P.E.
Minnesota License #22037

Kevin T. Reller
President

CERTIFICATION

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

Patrick A. Johnson

Date: October 7, 2024 License No.: 22037

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GEOTECHNICAL EXPLORATION
CITY OF RAMSEY
IMPROVEMENTS PROJECT 25-07
VARIOUS GRAVEL ROADS
RAMSEY, MINNESOTA
ITT PROJECT 24-327

A. Introduction

This report is being prepared for use by our client on this specific project. We intend to present this report and our findings in the same logical manner that led us to arrive at our recommendations. This report is based on some general assumptions regarding the anticipated construction based on experience with similar projects. These assumptions and the entire report should be reviewed immediately upon receipt.

Purpose:

The purpose of our investigation was to evaluate the existing soil and water conditions on numerous gravel roads throughout the City of Ramsey for the purpose of paving the existing roadways. The project has six different areas of roadways. Area A on the north side of the city includes Xenolith Street NW and Carolyn Lane NW. Area B on the north side of the city includes Garnet Street NW. Area C near the center of the city includes 157th Avenue NW. Area D on the east side of the city includes Potassium Street NW. Area E on the east side of the city includes 148th Lane NW. Area F on the southwest side of the city includes Beatty Avenue NW And Collins Drive NW. In accordance with your written authorization, we have conducted a subsurface exploration program for the proposed project.

Scope of Services:

Our authorized scope of services included the following:

1. To investigate the subsurface soil and water conditions encountered at twenty-four (24) split-spoon soil boring locations. The borings were planned in the roadway surface to depths of ten (10) feet at each location.
2. To provide a report of our findings including a summary of our findings with aggregate thickness at each boring location as well as recommendations regarding earthwork, fill and compaction, subgrade preparation, and pavement design with an estimated design R-value.

General Site Conditions:

The projects are located throughout the city of Ramsey. All the streets are in older residential areas. The sites are all relatively flat and level, with slopes of 2-6 percent.

Available Subsurface Information:

According to the Geologic Map of Minnesota, Quaternary Geology, prepared by Howard C. Hobbs and Joseph E. Goebel (1982, Minnesota Geological Survey), most of the sites lie within an outwash unit not associated with a particular moraine. It is associated with the Des Moines glaciation of Pleistocene, Late Wisconsinan age. The drift is derived from parent material in North Dakota and Manitoba. The northernmost site lies within an end moraine of the Pine City Moraine Association. This is also associated with the Des Moines Lobe glaciation. The grey, calcareous drift is derived from parent material from Manitoba and eastern North Dakota.

According to the Soil Survey of Anoka County prepared by the Soil Conservation Service, most of the sites lie within the Hubbard- Nymore Soil Associations. These consist of nearly level to gently sloping, excessively drained soils that are sandy throughout. The individual soils mapped on these sites are sandy and have few limitations for development of local roads and streets. However, the middle portion of Potassium Street in Area D is mapped as mucky peat with severe limitations for local street construction.

The northernmost site lies within the Heyder- Kingsley- Hayden Soil Association, which consist of gently undulating to steep, well drained soils formed in loamy glacial till. They are generally fairly well suited for construction of local streets. However, the north half of Xenolith Street NW is mapped as mucky peat with severe limitations for local street construction.

B. Exploration Program

Twenty- four (24) split-spoon soil borings were conducted on this project. The borings were advanced to depths of 10 feet using a 3 ¼ inch I.D. hollow stem auger. Samples were obtained every 2 ½ feet using a 2-inch O.D. split-spoon sampler in accordance with the American Society for Testing and Materials (ASTM D1586). Standard penetration values (N-values) were obtained at each sample interval by driving the sampler into the soil using a 140-pound hammer falling 30 inches. After an

initial set of 6 inches, the number of blows required to drive the sampler 12 inches is known as the standard penetration resistance or N-value. Where the sampler cannot be driven at least 6 inches by 50 blows of the hammer, the total number of blows as well as the distance driven is reported on the boring logs.

Groundwater levels were noted during drilling and immediately after completion. The holes were backfilled with the auger cuttings. Some settlement of the bore holes may be expected. All the borings were conducted with a truck mounted rig.

Exploration Results:

All of the borings were conducted in existing gravel surfaced streets and encountered 5 to 12 inches of aggregate at the surface. The following table shows the depth of aggregate at each boring:

Boring	Street	Aggregate	Boring	Street	Aggregate
Area A			SB-13	157th Avenue	5.0 inches
SB-1	Xenolith Street	7.0 inches	SB-14	157th Avenue	3.0 inches
SB-2	Xenolith Street	12.0 inches	Area D		
SB-3	Xenolith Street	16.0 inches	SB-15	Potassium Street	12.0 inches
SB-4	Xenolith Street	11.0 inches	SB-16	Potassium Street	20.0 inches
SB-5	Xenolith Street	6.0 inches	SB-17	Potassium Street	6.0 inches
SB-6	Carolyn Lane	4.5 inches	Area E		
SB-7	Carolyn Lane	7.0 inches	SB-18	148th Lane	5.0 inches
Area B			SB-19	148th Lane	5.0 inches
SB-8	Garnet Street	4.5 inches	SB-20	148th Lane	6.0 inches
SB-9	Garnet Street	6.0 inches	Area F		
Area C			SB-21	Beatty Avenue	6.0 inches
SB-10	157th Avenue	7.0 inches	SB-22	Collins Drive	7.0 inches
SB-11	157th Avenue	4.0 inches	SB-23	Collins Drive	5.5 inches
SB-12	157th Avenue	3.0 inches	SB-24	Collins Drive	9.0 inches

Below the aggregate, boring SB-1 encountered fine grained, poorly graded sand with silt (SP-SM) fill to 5.0 feet, followed by organic silt (OL) to 7.5 feet, native, fine grained, clayey sand (SC) to 10.0 feet and then silty clayey sand (SC-SM) to termination at 11.5 feet. Below the aggregate, boring SB-2 encountered fine grained, poorly graded sand (SP) fill to 5.0 feet, followed by peat (PT) to 10.0 feet, and then native, clayey sand (SC) to termination at 11.5 feet. Below the aggregate, boring SB-3 encountered fine grained, poorly graded sand (SP) fill to 5.0 feet, followed by organic silt (OL) to 7.5 feet, native, clayey sand (SC) to 10.0 feet and then silty clayey sand (SC-SM) to termination at 11.5 feet.

Below the aggregate, boring SB-4 encountered fine grained, silty sand (SM) to 10.0 feet, followed by clayey sand (SC) to termination at 11.5 feet. Below the aggregate, boring SB-5 encountered fine grained, poorly graded sand with silt (SP-SM) to 5.0 feet, followed by silty clayey sand (SC-SM) to 7.5 feet, silty sand (SM) to 10.0 feet and then clayey sand (SC) to termination at 11.5 feet. Below the aggregate, boring SB-6 encountered fine grained, poorly graded sand with silt (SP-SM) to 5.0 feet, followed by clayey sand (SC) to 9.5 feet and then poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-7 encountered fine grained, silty sand (SM) to 4.0 feet, followed by poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, boring SB-8 encountered fine grained, silty sand (SM) to 10.0 feet, followed by poorly graded sand with silt (SP-SM) to termination at 11.5 feet. Below the aggregate, boring SB-9 encountered fine grained, silty clayey sand (SC-SM) to termination at 11.5 feet.

Below the aggregate, boring SB-10 encountered fine grained, poorly graded sand (SP) fill to 4.0 feet, followed by native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, borings SB-11, SB-12, SB-13, and SB-14 all encountered native, fine grained, poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, borings SB-15, SB-16 and SB-17 all encountered fine grained, poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, borings SB-18 and SB-19 both encountered native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-20 encountered fine grained, poorly graded sand with silt (SP-SM) fill to 4.0 feet, followed by native, silty sand (SM) to 7.0 feet and then poorly graded sand (SP) to termination at 11.5 feet.

Below the aggregate, boring SB-21 encountered native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-22 encountered fine grained, silty sand (SM) fill to 4.0 feet, followed by native, poorly graded sand (SP) to 10.0 feet and then fine silty sand (SM) to termination at 11.5 feet. Below the aggregate, boring SB-23 encountered native, poorly graded sand (SP) to termination at 11.5 feet. Below the aggregate, boring SB-24 encountered fine grained, poorly graded sand (SP) fill to 5.0 feet, followed by native, poorly graded sand with silt (SP-SM) to 9.0 feet and then poorly graded sand (SP) to termination at 11.5 feet.

Penetration Test Results:

The blow counts in the sandy soils (SM, SP-SM, SM, SC-SM, SC) ranged from 0 to 25, which are very low to moderate, indicating they are in a very loose to medium dense condition. The blow counts in the organic silt (OL) and peat (PT) on Xenolith Street ranged from 1 to 3, which are very low, indicating they are in a very soft condition. Refusal of the spoon or auger did not occur in any of the borings. Drilling was relatively easy.

Water Level Observations:

Observations of the subsurface water conditions were made during drilling operations. Groundwater was encountered in a few of the borings at the time of drilling. Groundwater was only encountered in three of the borings at the time of drilling. The following table shows the depth to water at each boring:

Boring	Water	Boring	Water	Boring	Water	Boring	Water
SB-1	None	SB-7	11’ 0”	SB-13	None	SB-19	9’ 0”
SB-2	None	SB-8	None	SB-14	None	SB-20	9’ 0”

SB-3	None	SB-9	None	SB-15	10’ 0”	SB-21	None
SB-4	None	SB-10	None	SB-16	4’ 0”	SB-22	None
SB-5	None	SB-11	None	SB-17	None	SB-23	None
SB-6	11’ 0”	SB-12	None	SB-18	None	SB-24	None

The water levels were observed over a short period of time. However, we feel they are an accurate representation of the true groundwater conditions on most of the sites due to the high permeability of the native sandy soils. However, in area A, the organic soils (OL, PT) and fine clayey sands (SC, SC-SM) likely did not allow the water to infiltrate into the holes. The water levels in that site are likely to match the level of the adjacent wetlands along the street.

It should be noted that fluctuations in the level of the groundwater can occur due to variations in rainfall, temperature, spring thaw and other factors not evident at the time of our investigation.

Mottled soils were observed. Mottled native soils are a historical indication of a temporarily or seasonally saturated soil condition. Grey soils were also observed. Grey native soils are an indication of a permanently saturated soil condition.

Laboratory Testing

Moisture Content Tests- Moisture content tests were performed on every split spoon sample in accordance with ASTM method D2216; *Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass*. Individual test results are shown on the boring logs adjacent to the sample that was tested.

Organic Content Tests- Organic content tests were performed on selected split spoon samples in accordance with ASTM method D2974; *Standard Test Method for Moisture, Ash and Organic matter of Peat and Other Organic of Soils*. Individual test results are shown on the boring logs adjacent to the sample that was tested.

C. Engineering Review

Discussion:

We understand the streets will be paved with a bituminous surface. We assume there will be little line or grade adjustments to the streets. We assume there will only be slight grading of the existing aggregate, and adding some aggregate needed to prepare the surface for paving.

The peat (PT) and organic silt (OL) encountered on Xenolith Street NW in Area A are not suitable for pavement subgrade and pavement support. They are very susceptible to settlement and movement. To reduce the amount of settlement and differential movement, we recommend using a geogrid under the aggregate to provide additional support for the pavement.

Based on our observation, it appears the roadway embankment through the wetland area on Xenolith Street NW was stable. Unless there is going to be a change in grade of more than 1 foot during construction, or if it is known that there is some issue in the embankment in this area, it is our opinion that the embankment should remain in place.

The sandy soils encountered near the surface on the rest of the sites are predominantly fine grained, silty sands (SM), poorly graded sands with silt (SP-SM) and poorly graded sands (SP). They appear to mostly be outwash materials. The native sands (SM, SP-SM, SP) are considered excellent material for use as roadway subgrade material and for bituminous pavement support.

D. Recommendations

The following recommendations are based on our understanding of the proposed project. If our understanding of the project is not accurate or if changes are made to the project scope, please inform us so that our recommendations can be amended, if necessary. We have included recommendations regarding earthwork and construction that may help in cost estimates and aid in design. We should be allowed to review the proposed construction plans to provide further detailed recommendations, if necessary. Without the opportunity to review the final construction plans, the recommendations made in this report may no longer be valid.

Embankment/ Road Fill:

The on-site soils consisting of fine grained, poorly graded sand (SP), poorly graded sand with silt

(SP-SM) and silty sands (SM) are considered excellent material for use as roadway subgrade material. These soils are fairly easy to compact using vibratory compaction equipment near their optimum moisture contents.

We recommend that any imported fill and utility trench backfill material consist of mineral soils meeting the requirements specified below. No organic soils, roots, stumps, logs, brush, etc. should be used as structural fill below any utility structure or pavement section. We recommend that all fill and utility trench backfill material be free of soft, wet, or frozen soils, highly expansive soils, rubble, debris, and rocks in excess of 6 inches in diameter. The fill material should be as uniform as possible both in composition and moisture content.

No organic soils with organic content in excess of 3.0% by weight should be used as roadway embankment fill or as subgrade material. Some of the fill was dark brown to black. However, it is our opinion that most of the dark silty sand fill will be suitable for re-use.

The organic soils encountered on Xenolith Street in Area A were covered with at least 5 feet of granular, inorganic fill. That means it is below the depth that would be affected by traffic wheel loading. It is still likely to be affected by frost heave and some differential settlement. We see no need to remove this material unless it is exposed during construction.

We recommend that all embankment fill material be placed in 12-inch loose lifts and compacted to a minimum of 95% of standard proctor maximum density (ASTM D698). Any fill placed in the top 3 feet of the road subgrade should be compacted to at least 100% of standard proctor maximum density. All fill material should be compacted at a moisture content within plus or minus 2% of the optimum moisture as determined by a standard proctor. We recommend compaction tests be taken at a minimum rate of one test per two feet of fill per 200 linear feet of roadway subgrade, and aggregate base material.

E. Pavement Recommendations

Areas A & B:

For the portion of Xenolith Street NW that runs through the wetland area, we recommend using a geogrid in the aggregate base to provide support for the pavement. We recommend placing a multi-axial geogrid withing the aggregate base layer. We recommend 6 inches of aggregate be placed above the geogrid and at least 2 inches of aggregate remain under the geo rid. The existing aggregate could be salvaged from the roadway to be re-used above the geogrid. With the geogrid reinforced aggregate base and granular material over the organic silt and peat, we recommend 3.5 inches of bituminous be placed over the aggregate.

The clayey sands (SC), silty clayey sands (SC-SM) and silty sands (SM) encountered on sites A and B are classified as A-2-4 and A-2-6 soils in accordance with the American Association of State Highway Transportation Officials (AASHTO) classification system. A-2-4 and A-2-6 soils are rated as fair material for use as roadway subgrade material. Without benefit of a laboratory R-value determination and based on Mn/Dot guidelines, we recommend an R-value of 30 be assumed for the onsite soils.

Based on an assumed R-value of 30, we recommend the following bituminous pavement section for low volume, 9-ton, residential streets:

Thickness	Course/Description	G.E.
3.5”	MnDOT Superpave Bituminous	7.9”
8.0”	MnDOT 3138 Class 5 Aggregate Base	8.0”
11.5”	TOTAL	15.9”

In using the assumed R-value for bituminous pavement or concrete design, it is essential that the subgrade be constructed of uniform soils at a moisture content and density in accordance with MnDOT specification 2105 and capable of passing a test roll in accordance with MnDOT specification 2111. The native, undisturbed soils may need preparation (drying and compacting) to pass a proof roll. If the subgrade is not compacted, uniform and capable of passing a test roll, then we recommend the subgrade be scarified and recompacted or subcut and replaced with

geotextile fabric and select granular material meeting MnDOT specification 3149. The top of the subgrade should be compacted to a minimum of 100% of standard proctor maximum density. The subgrade should be sloped towards the edges to provide drainage.

Areas C through F:

The silty sand (SM), poorly graded sand with silt (SP-SM) and poorly graded sand (SP) outwash soils on site this site are classified as A-1-b and A-3 soils in accordance with the American Association of State Highway Transportation Officials (AASHTO) classification system. A-1-b and A-3 soils are rated as excellent material for use as roadway subgrade material. Without benefit of a laboratory R-value determination and based on Mn/Dot guidelines, we recommend an R-value of 70 be assumed for the onsite soils.

Based on an assumed R-value of 70, we recommend the following bituminous pavement section for low volume, 9-ton, residential streets:

Thickness	Course/Description	G.E.
3.5”	MnDOT Superpave Bituminous	7.9”
6.0”	MnDOT 3138 Class 5 Aggregate Base	6.0”
9.5”	TOTAL	13.9”

In using the above R-value for bituminous pavement design, it is essential that the subgrade be constructed of uniform soils at a moisture content and density in accordance with Mn Dot specification 2105 and capable of passing a test roll in accordance with Mn Dot specification 2111. The native, undisturbed soils may need preparation (drying and compacting) to pass a proof roll. If the subgrade is not compacted, uniform and capable of passing a test roll, then we recommend the subgrade be scarified and recompacted or subcut and geotextile fabric placed along with select granular material meeting Mn Dot specification 3149. The top of subgrade should be compacted to a minimum of 100% of standard proctor maximum density. The subgrade should be sloped towards the edges to provide drainage.

F. Closing

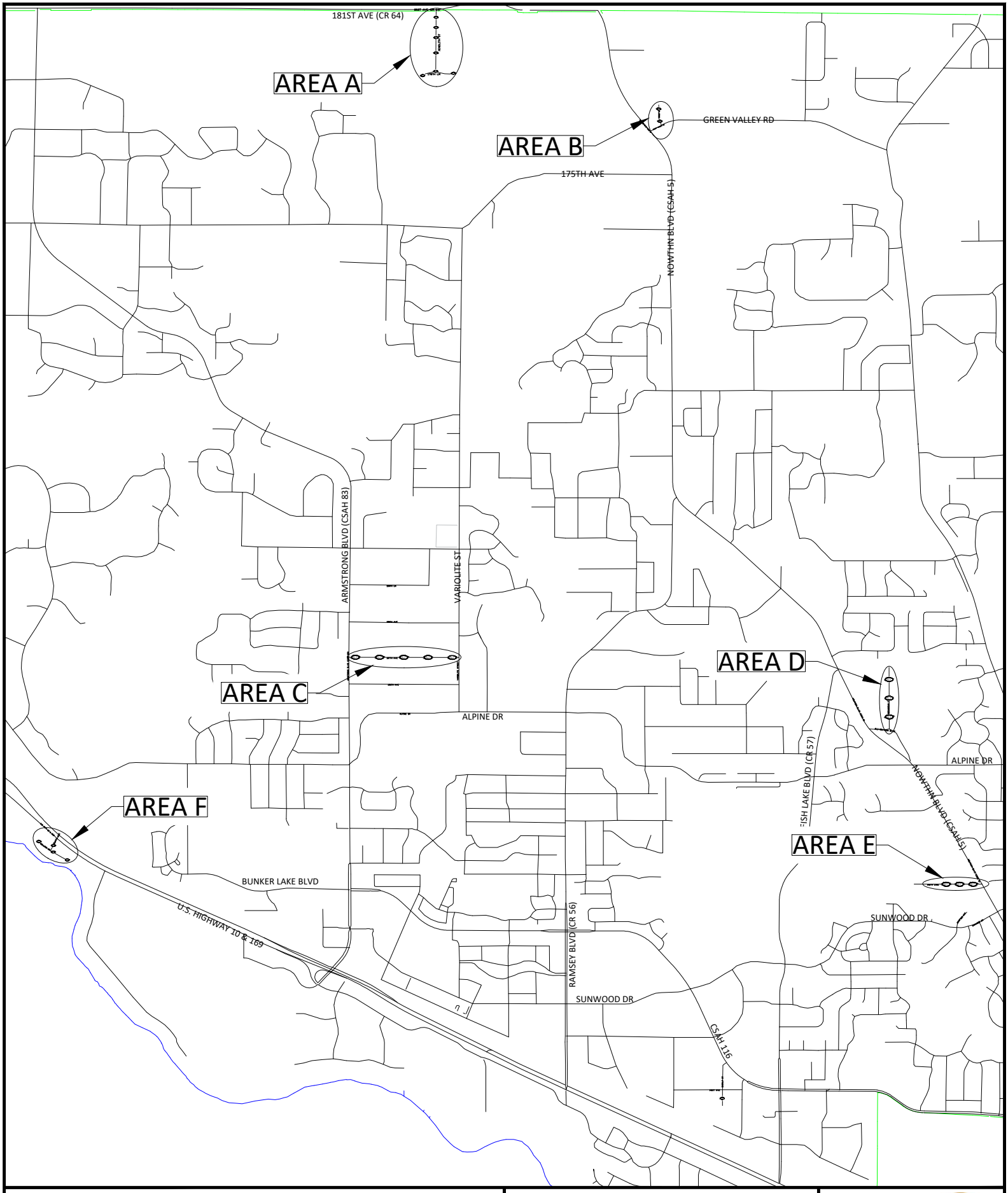
Our work was performed for geotechnical purposes only and not to document the presence or extent of any contamination on the site. We can note that our crew did not detect any obvious contamination by sight or smell during drilling operations. However, human senses are limited in terms of contamination detection and, therefore, the lack of detection through human sensing does not preclude the possibility of the presence of contamination of the site.

This report represents the result of our subsurface investigation and is based on information gathered at specific locations. Subsurface conditions can change a great deal over short horizontal distances. Also, the actual interface between strata will likely be a gradual transition rather than an abrupt change as represented on the boring logs.

Geotechnical engineering is based extensively on opinion. Therefore, the data contained in this report should be used as a guide, and we recommend that construction monitoring be performed by a qualified geotechnical engineer or technician. We recommend ITT be retained to perform construction observation and materials testing on this project due to our familiarity with the soils. Any changes in the subsurface conditions from those found during this geotechnical exploration should be brought to the attention of a soils engineer.

APPENDIX 1

BORING LOCATION PLAN



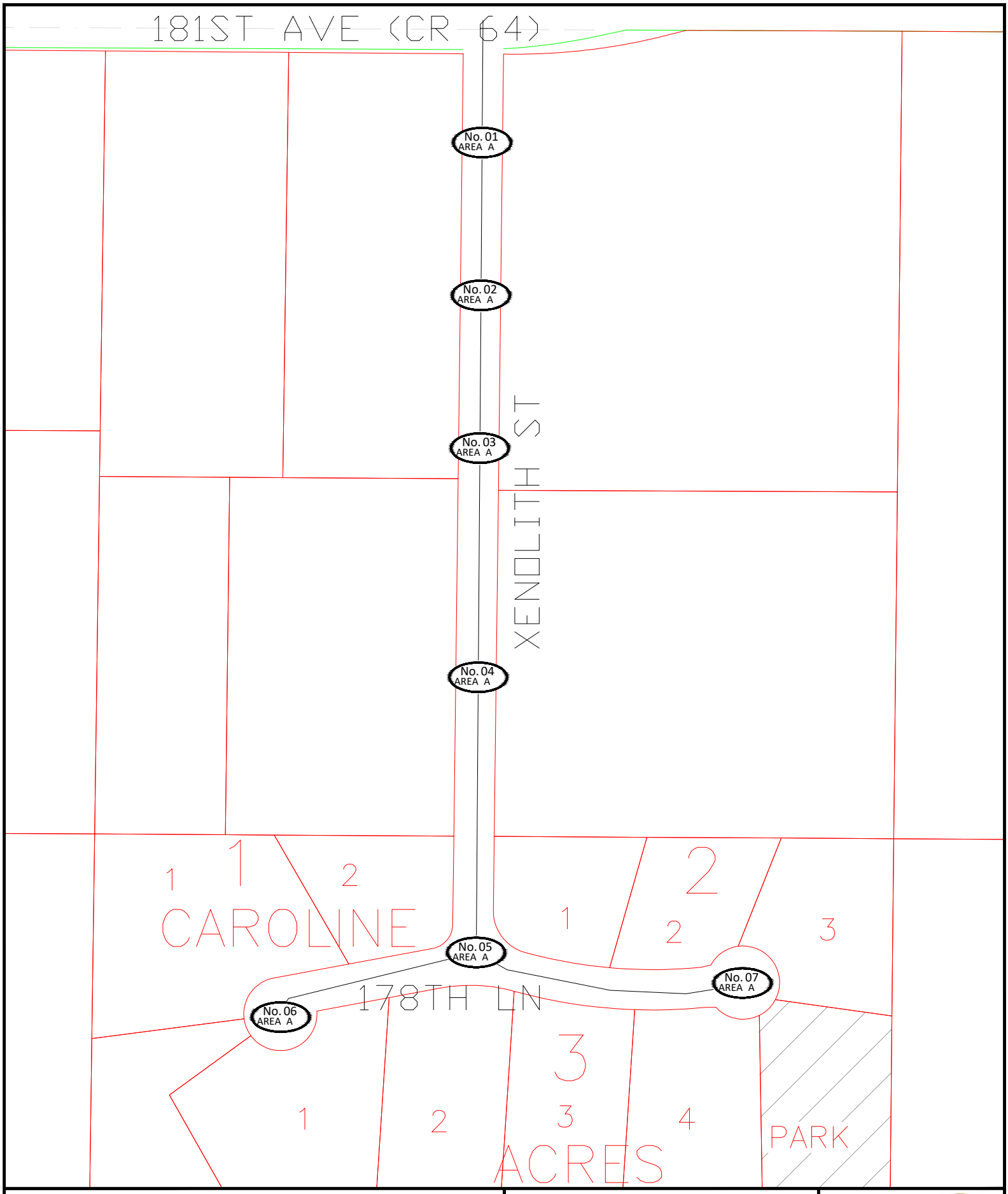
2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
OVERALL AREA MAP

0 3000 6000 9000

SCALE (FEET)

N

City of RAMSEY



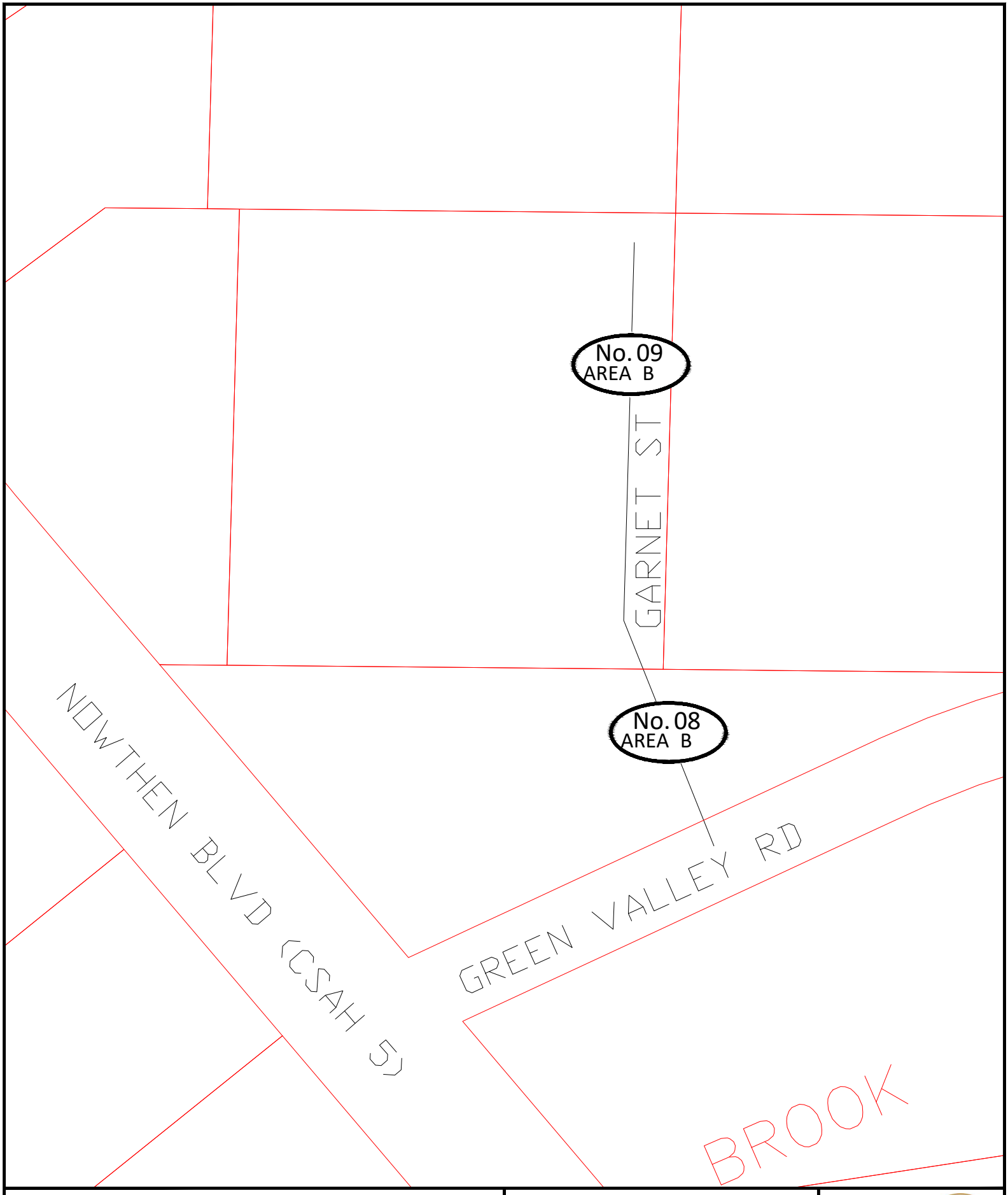
2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA A

0 250 500 750

SCALE (FEET)

N

City of RAMSEY

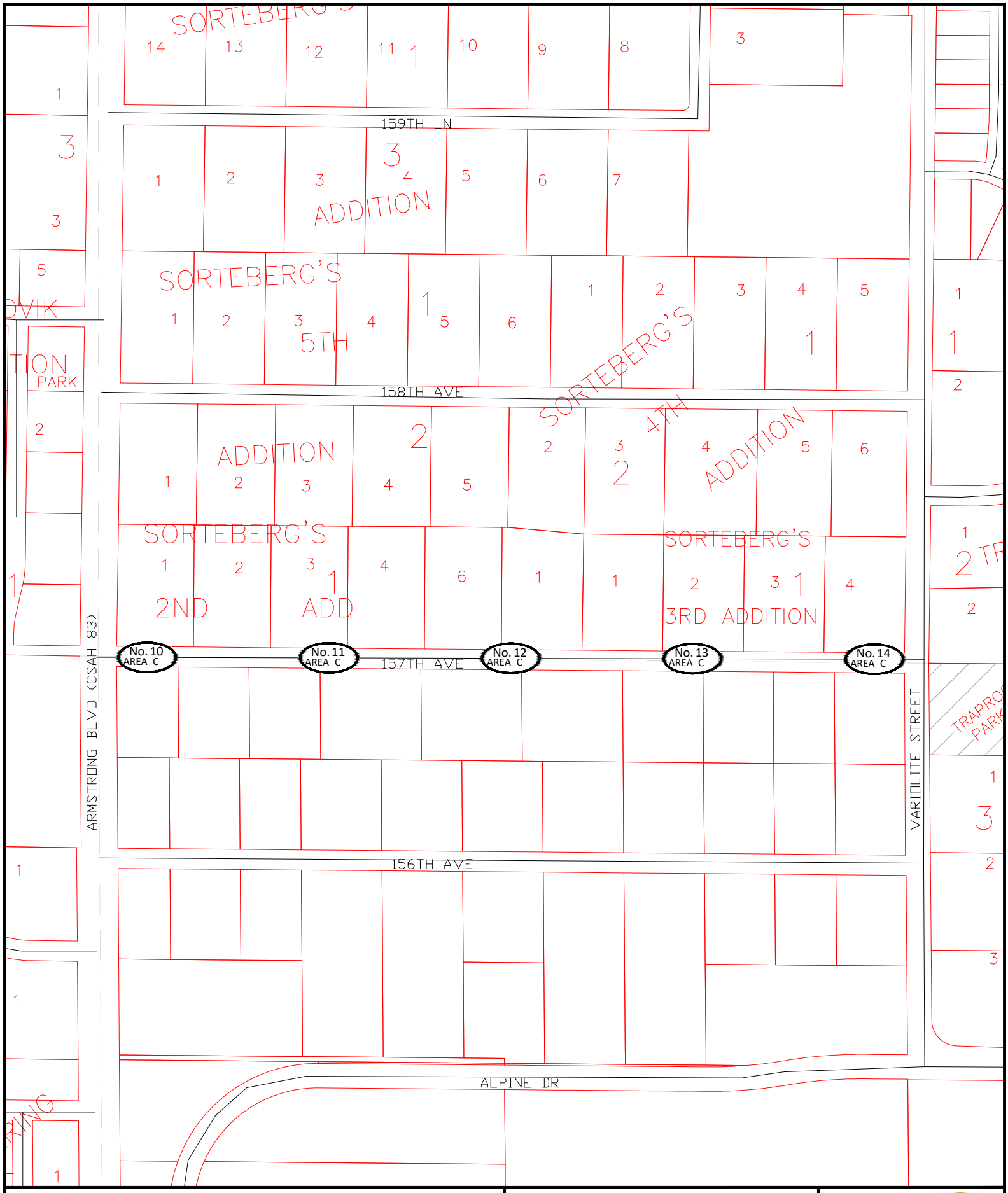


2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA B

0 100 200 300
SCALE (FEET)

N

City of RAMSEY

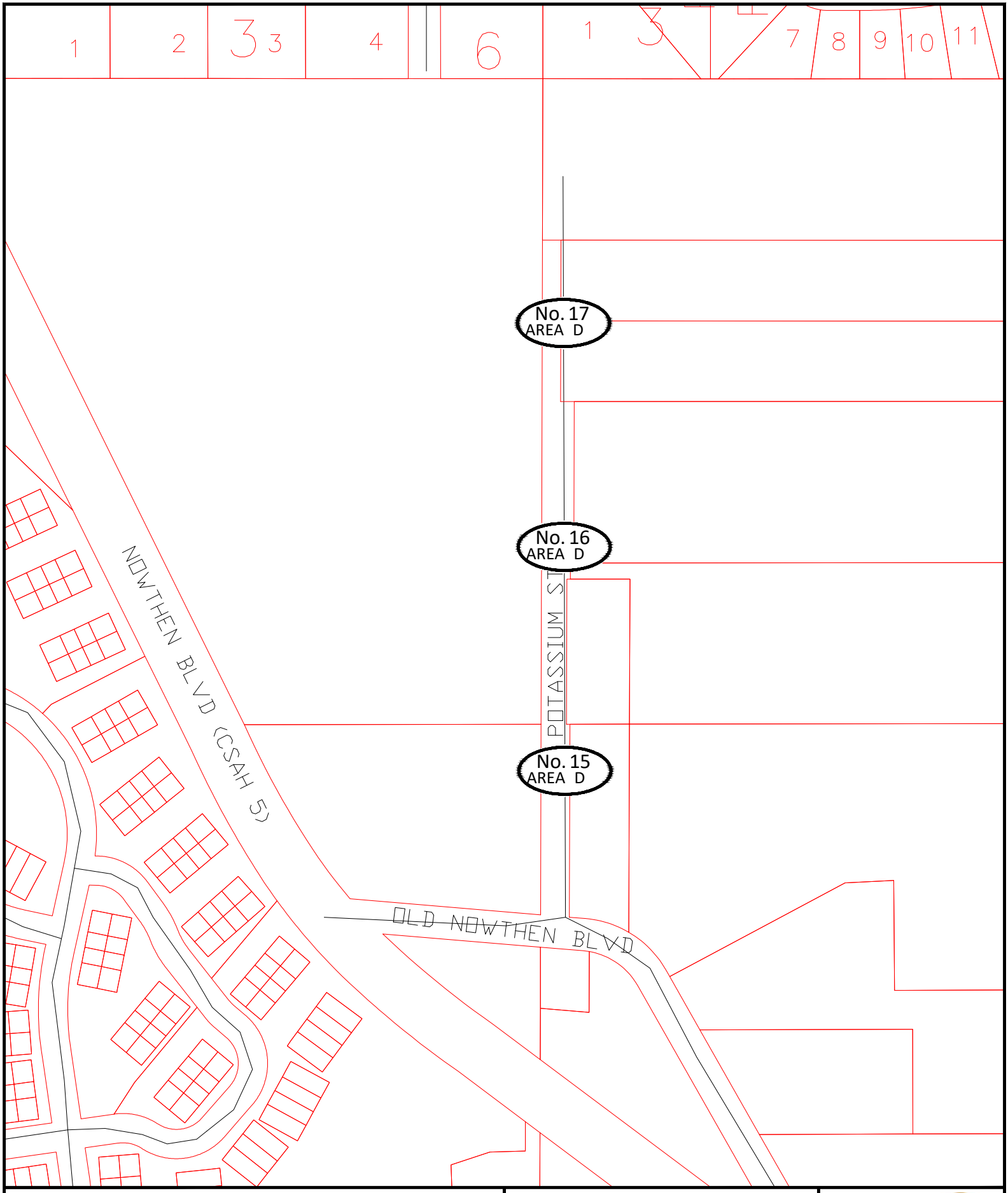


2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA C

0 400 800 12000
SCALE (FEET)

N

City of RAMSEY



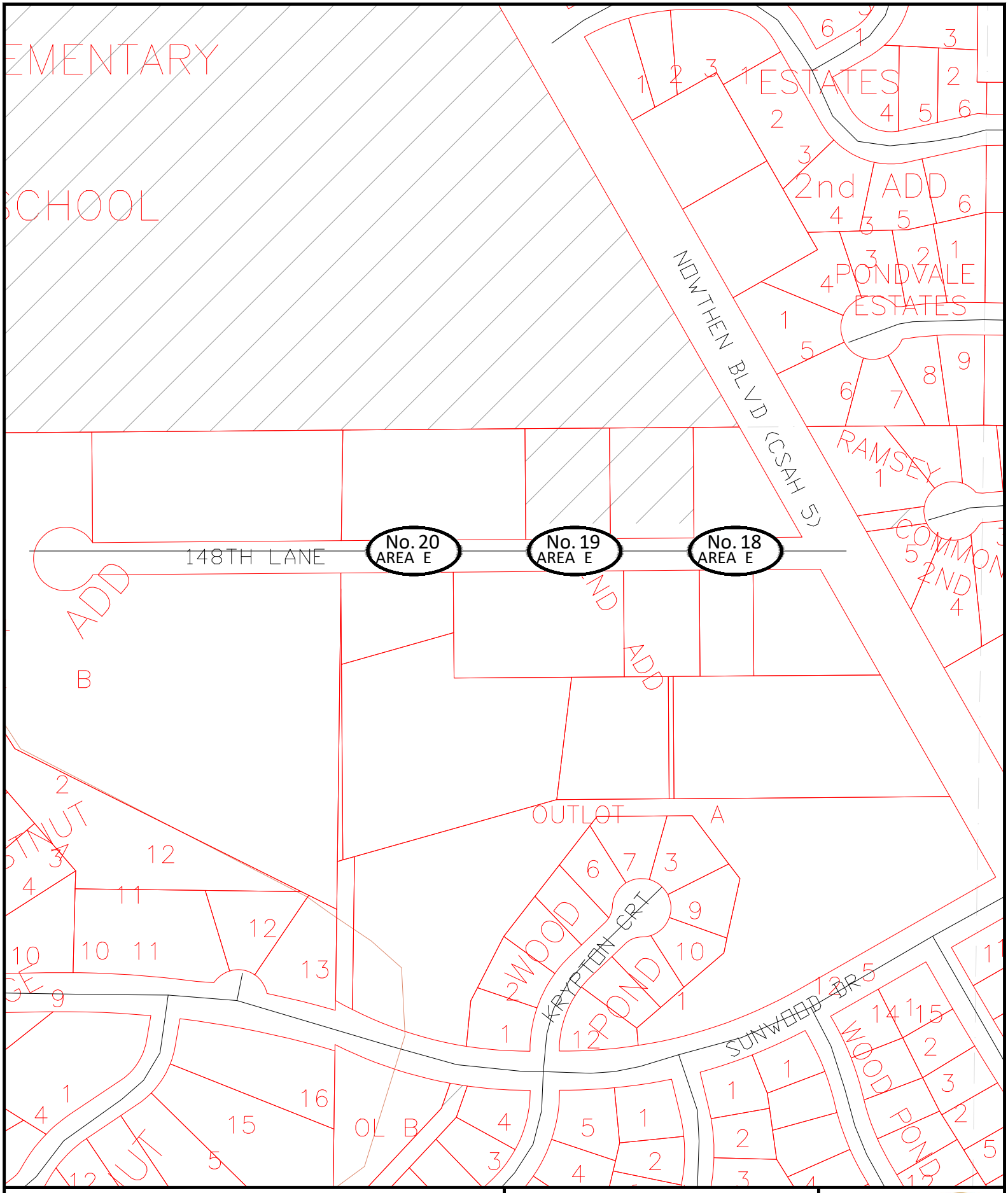
2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA D

0 250 500 750

SCALE (FEET)

N

City of RAMSEY

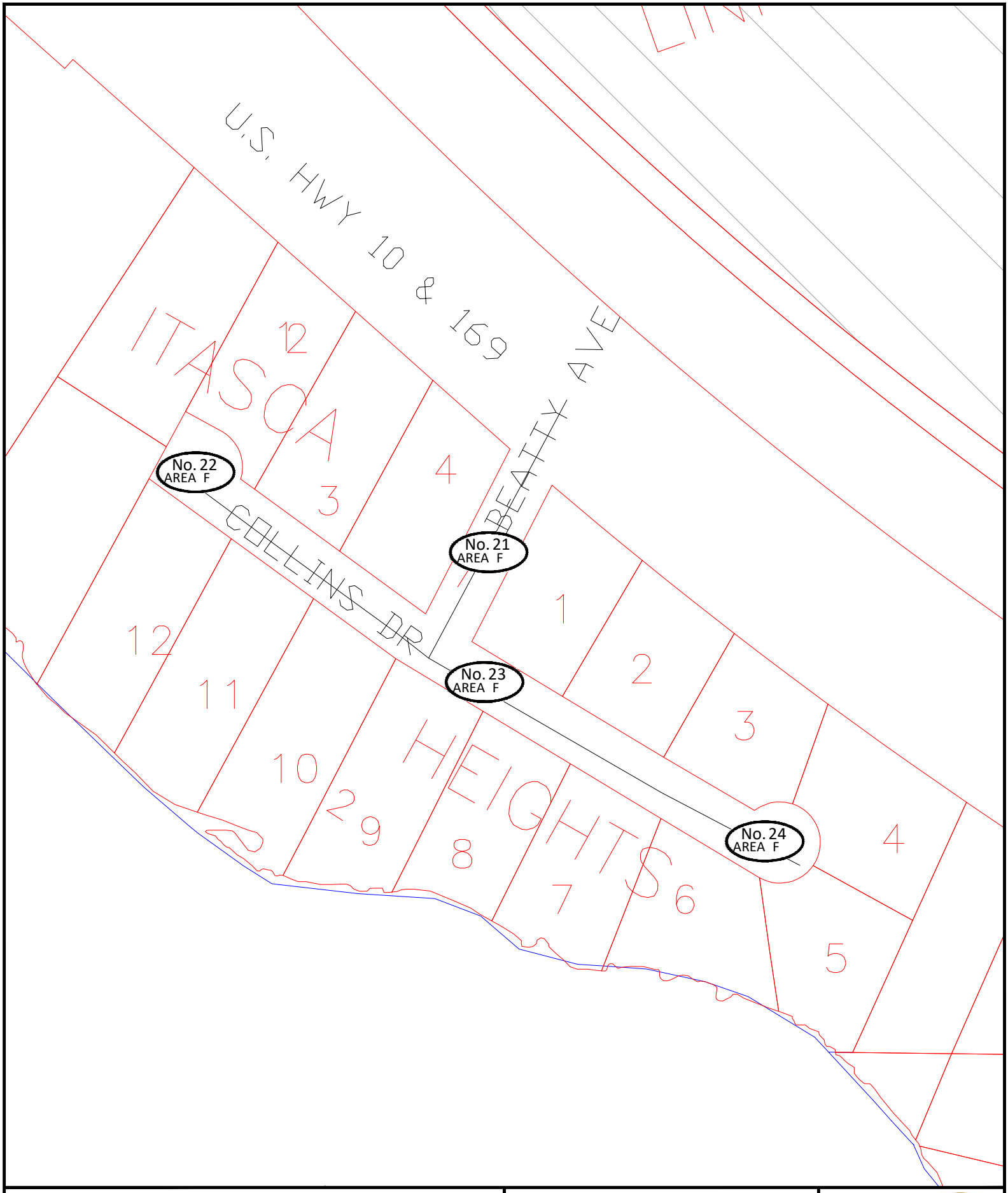


2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA E

0 250 500 750
SCALE (FEET)

N

City of RAMSEY



2024 GRAVEL ROADS
SOIL BORING LOCATION MAP
AREA F

0 150 300 450
SCALE (FEET)

N

City of RAMSEY

APPENDIX 2

SOIL BORING LOGS

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-1**
START TIME: **10:00** *END TIME:* **10:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
7.0"		**7.0 inches Aggregate**				
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, dark brown.**				
		FILL	**1**	**6**	4.4	
5.0						
	OL	**ORGANIC SILT, black.**	**2**	**3**	28.3	**Organic Content= 4.1%**
7.5						
	SC	**CLAYEY SAND, fine grained, grey.**	**3**	**2**	14.1	
10.0						
	SC-SM	**SILTY CLAYEY SAND, fine grained, w/ a trace of GRAVEL, grey.**	**4**	**14**	14.8	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-2**
START TIME: **10:15** *END TIME:* **10:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
12.0"		**12.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
		FILL	**1**	**5**	5.0	
5.0						
	PT	**PEAT, black.**	**2**	**2**	205.1	
		sand in tip, blue, green	**3**	**1**	231.8	
10.0						
	SC	**CLAYEY SAND, fine to medium grained, grey, blue.**	**4**	**6**	15.4	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-3**
START TIME: **10:30** *END TIME:* **10:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
16.0"		**16.0 inches Aggregate**				
5.0	**SP**	**POORLY GRADED SAND, fine grained, brown.** **FILL**	**1**	**5**	4.6	
7.5	**OL**	**ORGANIC SILT, black.**	**2**	**3**	24.7	
10.0	**SC**	**CLAYEY SAND, fine grained, blue, green, dark grey.**	**3**	**w/h***	20.0	***Weight of Hammer**
11.5	**SC-SM**	**SILTY CLAYEY SAND w/ SILT, fine grained, grey.**	**4**	**5**	17.4	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 8' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-4**
START TIME: **10:45** *END TIME:* **11:00**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
11.0"		**11.0 inches Aggregate**				
	SM	**SILTY SAND, fine grained, dark brown.**				
			1	**5**	14.6	
5.0		**brown.**				
			2	**4**	12.8	
			3	**6**	11.5	
10.0						
	SC	**CLAYEY SAND, fine grained, grey, mottled.**	**4**	**5**	21.4	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-5**
START TIME: **11:00** *END TIME:* **11:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Xenolith Street- NW See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
6.0"		**6.0 inches Aggregate**				
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, brown.**				
			1	**6**	6.1	
5.0						
	SC-SM	**SILTY CLAYEY SAND, fine grained, dark brown.**	**2**	**3**	15.1	
7.5						
	SM	**SILTY SAND, fine grained, brown.**	**3**	**7**	7.4	
10.0						
	SC	**CLAYEY SAND, fine, grained, grey, brown, mottled.**	**4**	**5**	16.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-6**
START TIME: **11:15** *END TIME:* **11:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Carolyn Lane NW- See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
4.5"		4.5 inches Aggregate				
	SP-SM	POORLY GRADED SAND w/ SILT, fine grained, dark brown.	1	4	6.9	
5.0						
	SC	CLAYEY SAND, fine grained, reddish brown, mottled.	2	5	16.2	
			3	16	9.7	
9.5						
10.0	SP	POORLY GRADED SAND, fine to medium grained, brown.				
			4	8	11.0	V Water enountered at 11' 0" during drilling.
11.5						
		Boring complete to 11.5 feet. Water encountered at 11' 0" during drilling. No water measured to cave-in at 7' 6 " after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-7**
START TIME: **11:30** *END TIME:* **11:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Carolyn Lane NW- See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
7.0"		7.0 inches Aggregate				
	SM	SILTY SAND, fine grained, dark brown.				
4.0			1	12	5.6	
5.0	SP	POORLY GRADED SAND, fine to medium grained, w/ a trace of GRAVEL, brown.	2	13	5.7	
		fine to medium grained, brown.	3	9	5.9	
10.0						
11.5			4	7	21.4	V Water enountered at 11' 0" during drilling.
		Boring complete to 11.5 feet. Water encountered at 11' 0" during drilling. No water measured to cave-in at 7' after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-8**
START TIME: **12:15** *END TIME:* **12:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Garnet Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
4.5"		**4.5 inches Aggregate**				
	SM	**SILTY SAND, fine grained, w/ a trace of GRAVEL, brown.**				
		brown.	**1**	**7**	11.0	
5.0			**2**	**7**	12.9	
		reddish brown.	**3**	**20**	13.0	
10.0						
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, w/ a trace of GRAVEL, reddish brown.**	**4**	**20**	8.1	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-9**
START TIME: **12:30** *END TIME:* **12:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Garnet Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
6.0"		**6.0 inches Aggregate**				
	SC-SM	**SILTY CLAYEY SAND, fine grained, brown, mottled.**				
			1	**5**	11.9	
5.0						
			2	**10**	13.7	
		w/ a trace of GRAVEL, reddish brown.	**3**	**8**	14.9	
10.0						
			4	**14**	11.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-10**
START TIME: **3:00** *END TIME:* **3:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
7.0"		**7.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, black.** **FILL**				
4.0			**1**	**7**	6.3	
5.0	**SP**	**POORLY GRADED SAND, fine grained, brown.**				
			2	**6**	3.0	
			3	**6**	3.7	
10.0		**fine to medium grained.**				
11.5			**4**	**5**	3.9	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 2" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-11**
START TIME: **3:15** *END TIME:* **3:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
4.0"		**4.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine to medium grained, dark brown.**				
			1	**4**	5.4	
5.0		**fine grained, brown.**				
			2	**4**	4.1	
		dark brown				
			3	**4**	4.7	
10.0		**fine to medium grained, brown.**				
			4	**4**	4.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-12**
START TIME: **3:30** *END TIME:* **3:45**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
3.0"		**3.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown to black.**				
			1	**7**	7.6	
5.0		**fine grained, brown.**				
			2	**11**	5.3	
			3	**6**	3.7	
10.0		**light brown.**				
			4	**5**	2.8	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-13**
START TIME: **3:45** *END TIME:* **4:00**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **157th Avenue- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
5.0"		**5.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown,**				
			1	**5**	3.5	
5.0		**brown.**				
			2	**7**	3.9	
			3	**10**	4.3	
10.0						
11.5			**4**	**20**	7.8	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-14**
START TIME: **4:00** *END TIME:* **4:15**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **157th Avenue- See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
3.0"		**3.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown**				
			1	**6**	7.8	
		brown.				
5.0						
			2	**10**	2.9	
			3	**11**	3.6	
10.0		**w/ GRAVEL.**				
			4	**15**	5.4	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/11/24** *BORING #:* **SB-15**
START TIME: **4:15** *END TIME:* **4:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Potassium Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
12.0"		**12.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
			1	**4**	4.7	
5.0		**fine to medium grained, w/ a trace of GRAVEL.**				
			2	**4**	5.0	
		fine grained.				
			3	**4**	8.2	
					16.8	**V Water encountered at 10.0 feet during drilling.**
11.5		**medium to coarse grained.**	**4**	**4**		
		Boring complete to 11.5 feet. **Water encountered 10.0 feet during drilling.** **No water measured to cave-in at 6' 9" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-16**
START TIME: **7:45** *END TIME:* **8:00**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Potassium Street NW- See Boring Location Plan** *ELEVATION:* **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
		20.0 inches Aggregate				
20.0"						
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
			1	**6**	9.0	
						V Water measured at 4' 0" after completion.
5.0		**grey.**				
			2	**8**	23.3	
			3	**8**	29.8	
10.0						
		fine to medium grained.	**4**	**6**	25.6	
11.5						
		Boring complete to 11.5 feet. **Water encountered at 5' during drilling.** **Water measured at 4' 0" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-17**
START TIME: **8:15** *END TIME:* **8:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Potassium Street NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	W_n	*Notes*
6.0"		**6.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
			1	**4**	5.2	
5.0						
			2	**4**	7.2	
		fine to medium grained.				
			3	**8**	5.6	
10.0		**fine grained, light brown.**				
			4	**12**	9.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 7' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-18**
START TIME: **8:50** *END TIME:* **9:05**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **148th Lane NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
5.0"		**5.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, brown.**				
			1	**7**	3.4	
5.0		**fine to medium grained, light brown.**				
			2	**11**	3.2	
			3	**15**	3.7	
10.0						
			4	**13**	3.7	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured to cave-in at 6' 9" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-19**
START TIME: **9:05** *END TIME:* **9:20**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **148th Lane NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
5.0"		**5.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
			1	**6**	1.9	
5.0		**fine to medium grained, brown.**				
			2	**3**	3.1	
			3	**5**	12.4	**V Water enountered at 9' 0" during drilling.**
10.0						
			4	**5**	20.5	
11.5						
		Boring complete to 11.5 feet. **Water encountered at 9' 0" during drilling.** **No water measured to cave-in at 6' 6" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-20**
START TIME: **9:20** *END TIME:* **9:30**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **148th Lane NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
6.0"		**6.0 inches Aggregate**				
	SP-SM	**POORLY GRADED SAND w/ SILT, fine grained, dark brown.**				
		FILL				
			1	**5**	5.7	
4.0						
5.0	**SM**	**SILTY SAND, fine grained, dark brown.**				
			2	**5**	9.2	
7.0						
	SP	**POORLY GRADED SAND, fine grained, greyish brown.**				
			3	**15**	18.4	**V Water enountered at 9' 0" during drilling.**
10.0						
		grey.				
			4	**4**	24.3	
11.5						
		Boring complete to 11.5 feet. **Water encountered at 9' 0" during drilling.** **No water measured at cave-in at 6' 9" after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-21**
START TIME: **1:20** *END TIME:* **1:35**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Beatty Avenue NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
6.0"		**6.0 inches Aggregate**				
	SP	**POORLY GRADED SAND, fine grained, dark brown.**				
			1	**5**	5.2	
5.0		**fine to medium grained, brown.**				
			2	**4**	7.0	
		fine grained.				
			3	**16**	3.3	
10.0		**fine to medium grained, w/ GRAVEL.**				
			4	**25**	4.2	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured at cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-22**
START TIME: **1:35** *END TIME:* **1:50**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
LOCATION: **Collins Drive NW- See Boring Location Plan**
ELEVATION: **N/G**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
7.0"		7.0 inches Aggregate				
	SM	SILTY SAND, fine grained, dark brown to black. FILL	1	6	12.6	
4.0						
5.0	SP	POORLY GRADED SAND, fine grained, brown.	2	17	3.2	
			3	24	3.7	
10.0						
	SM	SILTY SAND, fine grained, brown.	4	23	8.2	
11.5						
		Boring complete to 11.5 feet. No water encountered during drilling. No water measured at cave-in at 6' 6" after completion.				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-23**
START TIME: **1:50** *END TIME:* **2:05**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Collins Drive NW- See Boring Location Plan**

Depth (Feet)	*ASTM Symbol*	*Soil Description*	*Sample #*	*N Value*	*W_n*	*Notes*
5.5"		**5.5 inches Aggregate**				
	SP	**POORY GRADED SAND, fine grained, dark brown, black.**				
			1	**6**	4.5	
5.0		**brown.**				
			2	**10**	3.3	
			3	**7**	3.1	
10.0						
			4	**8**	3.6	
11.5						
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured at cave-in at 7' after completion.**				

INDEPENDENT TESTING TECHNOLOGIES, INC. LOG OF SOIL BORING

PROJECT: **24-327** **CITY OF RAMSEY**
2024 GRAVEL ROADS
IP 25-07
RAMSEY, MINNESOTA

DATE: **9/12/24** *BORING #:* **SB-24**
START TIME: **2:05** *END TIME:* **2:20**
METHOD: **3 ¼" I.D. Hollow Stem Auger**
CREW: **CD/RS**
ELEVATION: **N/G**

LOCATION: **Collins Drive NW- See Boring Location Plan**

Depth (Feet)	ASTM Symbol	Soil Description	Sample #	N Value	W_n	Notes
9.0"		**9.0 inches Aggregate**				
5.0	**SP**	**POORLY GRADED SAND, fine grained, dark brown.** **FILL**	**1**	**4**	5.3	
9.0	**SP-SM**	**POORLY GRADED SAND w/ SILT, fine grained, brown.**	**2**	**5**	3.6	
			3	**5**	4.8	
10.0	**SP**	**POORLY GRADED SAND, fine to medium grained, brown.**				
11.5			**4**	**5**	3.3	
		Boring complete to 11.5 feet. **No water encountered during drilling.** **No water measured at cave-in at 7' after completion.**				

Unified Soil Classification (USC) System (from ASTM D 2487)

Major Divisions			Group Symbol	Typical Names
Course-Grained Soils More than 50% retained on the 0.075 mm (No. 200) sieve	**Gravels** 50% or more of course fraction retained on the 4.75 mm (No. 4) sieve	Clean Gravels	GW	Well-graded gravels and gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels and gravel-sand mixtures, little or no fines
		Gravels with Fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	Sands 50% or more of course fraction passes the 4.75 (No. 4) sieve	Clean Sands	SW	Well-graded sands and gravelly sands, little or no fines
			SP	Poorly graded sands and gravelly sands, little or no fines
		Sands with Fines	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils More than 50% passes the 0.075 mm (No. 200) sieve	**Silts and Clays** Liquid Limit 50% or less		ML	Inorganic silts, very fine sands, rock four, silty or clayey fine sands
			CL	Inorganic clays of low to medium plasticity, gravelly/sandy/silty/lean clays
			OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays Liquid Limit greater than 50%		MH	Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts
			CH	Inorganic clays or high plasticity, fat clays
			OH	Organic clays of medium to high plasticity
Highly Organic Soils			PT	Peat, muck, and other highly organic soils

Prefix: G = Gravel, S = Sand, M = Silt, C = Clay, O = Organic
Suffix: W = Well Graded, P = Poorly Graded, M = Silty, L = Clay, LL < 50%, H = Clay, LL > 50%

Public Works Committee **5. 4.**

Meeting Date: 07/19/2011

By: Grant Riemer, Engineering/Public Works

Title:

Review Dirt Road Elimination Policy

Background:

In 2004, when the program was first talked about, we had 12 miles of road with dirt /gravel surface. The 2010-2011 construction seasons will include the paving 1.52 miles of roadway in our system. Paving/improvement projects completed in 2010 included Ute St., 151st Ave, 152nd Ave, Fluorine St. and will finish up this year with the paving of Puma St and Chameleon St. With the completion of these projects we will have approximately 2.64 miles of dirt/gravel roads left in our system.

Notification:

Observations:

Of the remaining segments some may never be petitioned for improvement. Traprock St, south of Hwy 10 will be addressed when the Anoka County develops the park. 173rd Ave currently has 3 residents, so assessment costs even at 50% share with the city would be prohibitive. Potassium St, north of County Rd 5 was scheduled to paved with redevelopment in that area. There are two small segments in our industrial parks, Basalt St and Limonite St which will be paved when development in those areas increases. This group of road segments total 1.04 miles.

Of the remaining segments Carolina Acres and Itasca Heights are the most maintenance prone. Improvements to these developments would provide the most payback, if the city were to contribute 50% of the improvement cost. Drainage is poor in both areas and requests for grading are increased because of that factor. Carolina Acres is on the far north end of the city and requires almost 20 minutes travel time just to get to the site. Itasca Heights is south of Hwy 10 near the weigh station and would need considerable drainage work. The Itasca Heights location near the Mississippi river would add challenges and cost for storm water design. Of the remaining roads Garnet St, north of CR 27, would be next in line, because of the travel time involved. Summer grading is not the only cost associated with these dirt roads. Early winter and late spring snowfalls require the motor grader to plow these areas because of soft road conditions. A complete "round" of grading or snowplowing, including travel time, is 3 1/2 hours. The cost associated with grading our dirt roads just, using fuel and labor costs at today's prices, runs about $170.00 every time we grade. Staff also receives several calls per year for dust control or to add gravel to the road surface.

During the joint City Council meeting with the City of Nowthen there was discussion about the sharing or swapping of services with them. Staff will continue to look for opportunities when they present themselves.

Funding Source:

General Fund -Street maintenance contracted services 0311

Staff Recommendation:

Continue to eliminate dirt roads when development opportunities present themselves and resourses are available to help residents with assesments.

Committee Action:

Based on discussion

Form Review

City Administrator Ulrich added for the transition policy is to stop the service first and tell people they are responsible for shoveling their sidewalk if they want to but we will not enforce it. Stopping that service will create some neighborhood pure pressure to shovel those walks, then phase in heavy handed implementation and maybe two to three years down the line see how it works.

Consensus of the Committee is for townhome developments to maintain their own sidewalks.

Case #5.3: RFP for Parking Ramp and Parking Lot Snow Removal at the Municipal Center

Street Supervisor Remer is asking for going out for RFP's for snow removal of the parking ramp and the three parking lots at the municipal center. City maintenance staff would still do the sidewalks around the municipal center.

Street Supervisor Riemer also wanted the Committee to know that as part of the contract the parking ramp would need to be done by 5am for the bus service.

Motion by Councilmember Elvig, second by Chairperson McGlone to recommend RFP for contracted snow removal services for municipal parking ramp and parking lot at the municipal center.

Motion carried. Voting Yes: Chairperson McGlone and Councilmembers Backous and Elvig. Voting No: None.

Case #5.4: Review Dirt Road Elimination Policy

Public Works Street Supervisor Riemer reviewed the staff report and stated that we are down to about 1.5 miles of dirt road. Of the two that require the most maintenance is Xenolith Street on the north end of town and Beatty Avenue on the south end of town, both have bad drainage and gets numerous request for grading and maintenance in these areas. He stated if we were to continue with the policy these would be the two areas he would like to see concentrated on if possible. He also explained it takes about 3.5 hours to do all the dirt roads in our system. Staff is asking for prioritizing the streets if we were to continue with this program

Councilmember Elvig wants clarification that the policy is if they want to petition the City would put 50% in to create incentive and asked if any of these people have come forward.

Councilmember McGlone stated asked if we were going to go ahead and initiate a road project are these already listed in our CIP. If we are talking policy perhaps as part of our policy is to add these to our CIP and may have a different funding in the future.

Councilmember Backous asked does that require a letter to those residents,

Street Supervisor Riemer stated that staff just wanted to make the Committee aware that those roads are out there and is asking if there is any priority.

City Administrator Ulrich summarized from the discussion that the letter referred to would just be a reminder to those residents that the City does have a dirt road policy and we will pay half, this is the existing policy, if there is any urgency or incentive to that then a petition would need to be brought forward.

Chairperson McGlone would like to see these projects put on the CIP.

Street Supervisor Reimer stated right now it is coming out of the street overlay and sealcoat projects.

Public Works Director Olson stated there is so much to discuss in regards to the street reconstruction issue that is whether we contribute anything, whether still require assessments or a portion of, whether we pick up the first paving. If we do that we have to think about other things. He does feel that it would be a good idea to notify people that we are coming to a close on our gravel and dirt roads and this program is currently out there.

Staff is asking to eliminate dirt roads when development opportunities present itself.

Consensus of Committee is to continue in this direction.

Case #5.5: Update on Anoka County Access Spacing Guidelines that Determine Locations for Hard Channelization

Public Works Director Olson reviewed the staff report and opened it up for discussion.

Chairperson McGlone asked if we are currently working with Anoka and other communities to address these things with the County.

Public Works Director Olson responded not over our change spacing guidelines. The last time this was discussed staff was asked to look into two specific areas. One was Bunker Lake Boulevard and Highway 47 and as a result of the joint meeting with the City of Anoka, they agreed to take the lead on this. The other area was Sunfish Lake Boulevard near Highway 10. Staff has met with the property owners and we agreed to contribute to the cost, because there was uncertainty to what the solution was, there was uncertainty that we could contribute to a certain amount. This prompted the property owners to go to Anoka County and the County Engineers have agreed to send a memo defining their stands on the project and staff is still waiting for that memo.

COMMITTEE INPUT

Public Works Director Olson gave an update on the following projects:

Updates on Street Maintenance Program is on tonight's Special City Council Meeting.
Update on Bunker Lake Blvd and 83 signalization continues and they are running sewer on the west side of Armstrong Boulevard.

SPECIAL ASSESSMENTS POLICY AND PROCEDURES FOR PUBLIC IMPROVEMENTS AND MAINTENANCE COSTS

SECTION 1. General Policy Statement.
SECTION 2. Improvements and Maintenance Costs Eligible for Special Assessment.
SECTION 3. Initiation of Public Improvement Projects.
SECTION 4. Public Improvement Procedures.
SECTION 5. Financing of Public Improvements.
SECTION 6. General Assessment Policies.
SECTION 7. Methods of Assessment.
SECTION 8. Standards for Public Improvement Projects.
SECTION 9. Policies of Reassessment.
SECTION 10. Assessment Computations.
SECTION 11. Deferment of Assessments.

SECTION 1. GENERAL POLICY STATEMENT.

The purpose of this policy is to establish a fair and equitable manner of assessing the increase in market value (special benefit) associated with public improvements. The procedures used by the City for levying special assessments are those specified by the City Charter and Minnesota Statutes Chapter 429, which provide that all or a part of the cost of improvements may be assessed against benefiting properties.

Three basic criteria must be satisfied before a particular parcel can be assessed. The criteria are as follows:

1. The land must have received special benefit from the improvement.
2. The amount of the assessment must not exceed the special benefit.
3. The assessment must be uniform in relation to the same class of property within the assessment area.

It is important to recognize that the actual cost of extending an improvement past or through a particular parcel is not the controlling factor in determining the amount to be assessed. However, in many cases the method for assigning the value of the benefit received by the improvement, and therefore the amount to be assessed, will focus on calculating the proportionate cost of providing the improvement, provided the cost does not exceed the increase in property market value resulting from the improvement. The entire project shall be considered as a whole for the purpose of calculating and computing an assessment rate. In the event City staff has doubt as to whether the costs of the project may exceed the special benefits to the property, the City Council may obtain such appraisals as may be necessary to support the proposed assessment.

The assessment policy is intended to serve as a guide for a systematic assessment process in the City. There may be exceptions to the policy or unique circumstances or situations that may require special consideration and discretion by City staff and the City Council.

SECTION 2. IMPROVEMENTS AND MAINTENANCE COSTS ELIGIBLE FOR SPECIAL ASSESSMENT.

Subd. 1. Public improvements, and related acquisition, construction, extension, and maintenance of such improvements, authorized by Minnesota Statutes, Sections 429.021 and 459.14, subd. 7, that are eligible for special assessment within the City include the following:

1. Streets, sidewalks, pavement, curbs and gutters, including the beautification thereof.
2. Parking lots.
3. Water works systems and appurtenances, within and without the corporate limits.
4. Sanitary sewer and storm sewer systems including appurtenances, within and without the corporate limits.
5. Street boulevard trees.
6. Street lights, street lighting systems and special lighting systems.
7. Steam heating mains.
8. Parks, playgrounds, and recreational facilities, including the purchase of equipment, within or without the corporate limits.
9. Abatement of nuisances, including but not limited to, draining and filling swamps, marshes, and ponds on public and private property.
10. Dikes and other flood control works.
11. Retaining walls and area walls.
12. A pedestrian skyway system upon a petition pursuant to section 429.031, subdivision 3.
13. Underground pedestrian concourses.
14. Public malls, plazas or courtyards.
15. District heating systems.
16. Fire protection systems in existing buildings upon a petition pursuant to section 429.031, subdivision 3.
17. Highway sound barriers.
18. Gas and electric distribution facilities.

Subd. 2. The City is also authorized by ordinance adopted pursuant to Minnesota Statutes Section 429.101 to recover, through special assessment, certain costs, including the following:

1. Snow, ice, or rubbish removal from sidewalks.
2. Weed elimination from streets or private property.
3. Removal or elimination of public health or safety hazards from private property excluding any structure included under the provisions of Minnesota Statutes, sections 463.15 to 463.26.
4. Installation or repair of water service lines, street sprinkling, sweeping, or other dust treatment of streets.
5. The trimming and care of trees and the removal of unsound trees from any street.
6. The treatment and removal of insect infested or diseased trees on private property.
7. The repair of sidewalks and alleys.
8. The operation of a street lighting system.
9. The operation and maintenance of a fire protection or a pedestrian skyway system.

SECTION 3. INITIATION OF PUBLIC IMPROVEMENT PROJECTS.

Public improvement projects can be initiated in the following ways.

1. Public improvement projects may be initiated by petition of owners of not less than 50% in frontage of the property abutting the proposed improvement in accordance with the provisions of Section 8.4.2 of the City Charter.

2. Public improvements also may be initiated by the City Council when, in its judgment, such action is required and is in accordance with the provisions of Chapter 8 of the City Charter.

3. A resolution ordering any improvements initiated by the Council requires a four-fifths majority vote of all members of the Council. A resolution ordering any improvements petitioned for by owners of not less than 50% of abutting property owners requires a majority vote of all members of the Council. A resolution ordering any improvements initiated by all owners of abutting property, and assessing the entire cost against their property, may be adopted without a public hearing. The Council may consider the request of a Developer to construct the improvements and assess them.

SECTION 4. PUBLIC IMPROVEMENT PROCEDURE.

The following is the general procedure followed by the City Council for all public improvement projects from initiation of such a project through certification of the assessment roll to the County Auditor. Formats for the various reports and resolutions referenced in this section are made a part of the policies and procedures of the City**. Applicable state law and City Charter provisions take precedence over the following general procedure.**

1. Staff reviews the petition or Developer's request for submission to Council.
2. Council accepts or rejects the petition or request. If based upon a petition, the Council adopts a resolution declaring whether the required percentage of property owners signed the petition. If the petition or request is accepted, Council orders the preparation of a feasibility report.
3. Staff prepares the feasibility report. The report shall preliminarily evaluate whether the proposed improvement is necessary, cost-effective, and feasible and whether it should be made as proposed or in conjunction with another project. The report shall include an estimate of the cost of the improvement as proposed. Council may refer the report to the Planning and Zoning Commission.
4. Council accepts or rejects the feasibility report. If accepted, Council orders a public hearing on the improvements.
5. Staff posts and publishes the hearing notice and mails notices to affected property owners as provided in Minn. Stat. § 429.031(a).
6. Council conducts a public hearing.
7. Within six (6) months of the hearing date, but no sooner than sixty (60) days after per City Charter § 8.4.1, Council adopts or rejects a resolution ordering the improvement to be constructed and advertisement of bids. If adopted, staff prepares final plans, advertises for and opens bids as provided in Minn. Stat. § 429.041, prepares a bid tabulation, makes a recommendation to City Council for award, and prepares a proposed assessment roll. Bonds to finance project costs may be issued at any time after the improvements are ordered.

8. Council reviews the proposed assessment roll and orders an assessment hearing.
9. Staff publishes a hearing notice and mails notice of the hearing date and proposed assessments to the affected property owners as provided in Minn. Stat. § 429.061.
10. Council conducts the assessment hearing and adopts, revises, or rejects the resolution determining the amount of the total expense the City will pay, if any, and establishing the assessment roll. If adopted, Council authorizes certification of the assessment to the County Auditor.
11. Council awards contracts based on the bids received.
12. Staff certifies the assessment roll to the County Auditor.
13. Staff supervises construction and prepares payments.

SECTION 5. FINANCING OF PUBLIC IMPROVEMENTS.

The City encourages public improvement projects when the area benefiting and needing such improvements develop. Examples of this policy can be seen through the subdivision regulations, zoning ordinance, and building codes. Developers are required to provide the needed improvements and services before development occurs, thereby avoiding unexpected hardships on the property owners purchasing such property and the general public. However, it is recognized that certain areas of the City have developed without all needed public improvements (e.g. parks, water, sewer, and street improvements) and that methods must be found to provide these improvements without causing undue hardships on the general public or the individual property owners.

Special assessments are generally accepted as a means by which areas can obtain improvements or services; however, the method of financing assessment is a critical factor to both the City and the property owner. Full project costs spread over a very short term can cause an undue hardship on the property owner and, likewise, city costs and systems costs spread over a long period of time can cause an undue hardship on the City.

It is the policy of the City to not defer assessments except in cases where hardship to senior citizens 65 years of age or older, or persons retired by virtue of a permanent and total disability, would result. Also, the City Council may elect to defer assessments on undeveloped land for a specified length of time or until the lands are developed. Terms and conditions of any such deferral will be established in the resolution adopting the assessments.

SECTION 6. GENERAL ASSESSMENT POLICIES APPLICABLE TO ALL TYPES OF IMPROVEMENTS.

The cost of any improvement shall be assessed based upon benefits received. The following general principles shall be used as a basis of the City's assessment policy:

1. **Project Cost.** The "project cost" of an improvement includes the costs of all necessary construction work required to accomplish the improvement (direct costs), plus engineering, legal, administrative, financing and other contingent costs, including acquisition of right-of-way and other property (indirect costs). The finance charges include all costs of financing the project. These costs include, but are not limited to, financial consultant's fees, bond rating agency fee, bond attorney's fees, and capitalized interest. The interest charged to the project shall be included as financing charges.

2. **City Cost.** The "city cost" of an improvement is the amount of the total improvement expense the City will pay as determined by Council resolution. Where the project cost of an improvement is not entirely attributed to the need for service to the area served by the improvement, or where unusual conditions beyond the control of the owners of the property in the area served by the improvement would result in an inequitable distribution of special assessments, or for any other reason determined by the City, the City, through the use of other funds, may pay such "city cost."
3. **Assessable Cost.** The "assessable cost" of an improvement is equal to the "project cost" minus the "city cost."
4. **Interest.** The City will charge interest on special assessments at a rate specified in the resolution approving the assessment roll. If bonds were sold to finance the improvement project, the interest rate shall be equal to the interest rate of the bonds plus 2% (2% above bond rate), rounded to the nearest quarter of a percent. If no bonds were sold, the interest rate shall be set at the U.S. Treasury rate (10-year for 10 year assessment; 15-Year for 15 year assessment) plus 2 percentage points.
5. **Prepayment.** Property owners may pay their assessments in full, interest free, for a period of 30 days after the assessment hearing. After such period interest shall be computed from the date specified in the assessment resolution. The City will transmit a certified duplicate of the assessment roll with each installment, including interest, to the County Auditor, or in lieu of such certification, annually certify to the County Auditor by November 30 in each year, the total amount of installments of and interest on assessments on each parcel that are to become due in the following year.
6. **Extensions.** Where an improvement is designed for service of an area beyond that receiving the initial benefit, the City may pay for increased project costs due to such provisions for future service extensions. The City will levy assessments to cover this cost when a new improvement is installed as an extension of the existing improvement upon identification of such additional amount in the notice of hearing for the extensions or new improvements. As an alternative, the City may assess these costs to the area of future extension immediately based on the value of benefit received.
7. **Project Assistance.** If the City receives financial assistance from the Federal Government, the State of Minnesota, the County, or from any other source to defray a portion of the costs of a given improvement, such aid will be used first to reduce the "city cost" of the improvement. If the financial assistance received is greater than the "city cost," the remainder of the aid will be placed in the Public Improvement Revolving Fund to be applied towards other City projects.
8. **Assessable Property.** Property owned by the City and other political subdivisions including municipal building sites, parks and playgrounds, but not including public streets, alleys, and right-of-way, shall be regarded as being assessable on the same basis as if such property was privately owned. Private right-of-way shall be assessable.
9. **Individual Benefits.** The City may construct improvements specifically designed for or shown to be of benefit solely to one or more properties. The costs for these improvements will be assessed directly to such properties, and not included in the assessments for the remainder of the project. An example would be utility service lines running from the main lines to the property.
10. **Benefit Appraisals.** In the event that City staff has doubt as to whether the proposed assessments exceed the special benefits to the property(ies) in question, the City Council may order benefit appraisals or benefit appraisal consultations as deemed necessary to support the proposed assessments. As a general rule, benefit appraisals or benefit appraisal consultations may be ordered when the proposed assessment exceeds $5,000 for a standard city street

reconstruction project on a residential lot, or $20,000 per acre for commercial or industrial property.

11. **Condemnation Awards.** A property owner may elect to offset special assessments against condemnation awards. In such case, the property owner must execute an agreement (Net Assessment Agreement) with the City.
12. **Subgrade Corrections.** All costs relative to subgrade soil corrections deemed necessary to construct or reconstruct City streets will be considered a "city cost" and will not be assessed.
13. **Rural to Urban Conversion.** All costs relative to converting an existing rural street section to an urban street section by filling roadside drainage ditches and adding curb and gutter and storm sewer will be considered a "city cost" and will not be assessed.
14. **Oversizing.** All costs relative to oversizing an existing City street by increasing the width of the street and/or the load carrying capacity of the pavement section will be considered a "city cost" and will not be assessed.

SECTION 7. METHODS OF ASSESSMENT.

Subd. 1. General Statement. There are three different methods of assessment: adjusted front footage, area, and per lot. The feasibility report will recommend one or a combination of these methods for each project, based upon which method would best reflect the benefit received for the area to be assessed. The City Council will select the preferred method of calculating the assessments along with other applicable assessment criteria.

Subd. 2. Policy Statement. The following methods of assessment, as described and defined below, are hereby established as the preferred methods of assessment in the City.

A. "Adjusted Front Footage" Method of Assessment.

The "adjusted front footage" method of assessment is based on the quotient of the "assessable cost" divided by the total assessable frontage benefiting from the improvement. This method is typically applied to commercial, industrial, and multi-family residential properties. For the purpose of determining the "assessable frontage," all properties, including those owned by governmental entities, shall have their frontages included in such calculation.

The actual physical dimensions of a parcel abutting an improvement (i.e., street, sewer, water, etc.) shall not be construed as the frontage utilized to calculate the assessment for a particular parcel. Rather, an "adjusted front footage" will be determined. The purpose of this method is to equalize assessment calculations for lots of similar size. Individual parcels by their very nature differ considerably in shape and area. The following procedures will apply when calculating adjusted front footage. The selection of the appropriate procedure will be determined by the specified configuration of the parcel. All measurements will be scaled from available plat and section maps and will be rounded down to the nearest foot dimension with any excess fraction deleted.

1. *Rectangular Interior Lots.* The rectangular lot is defined as having no more than 2 feet of difference between the front and rear lot lines. The adjusted front footage is the actual front footage of the lot. For rectangular lots whose frontage is greater than its depth, the "odd shaped lot" method shall be used.

2. *Odd Shaped Lots.* For odd shaped lots such as exist on cul-de-sacs and curved streets where there is more than 2 feet of difference between the front and rear lot lines, and where the lots frontage is greater than its depth, the "odd shaped lot" method of determining the adjusted front footage shall be used. The adjusted front footage shall be computed by dividing the area of the lot by 12,000 square feet to determine the equivalent number of front footage units in the parcel. The number of units multiplied by 65 feet will give the adjusted front footage.

3. *Corner Lot Adjustment.* For street and trail assessments, the short side will be assessed the actual front footage. The long side will be assessed one-half the actual side footage. Sanitary sewer and watermain will only be assessed on the short side of a corner lot.

4. *Zonal Assessment.* When the street along the long side of a corner lot is improved, the cost shall be assessed equally to all lots within ½ block in each direction of the street improved. This method may be selected rather than the "corner lot adjustment".

5. *Double Fronting Lots.* When a lot has frontage on two streets, the lot is subject to assessments for improvements to both streets, consistent with this policy, regardless of the timing of the improvements.

B. "Area" Method of Assessment.

The "area" method of assessment is based on the number of square feet or acres within the boundaries of the appropriate property lines of the parcels benefiting from the project. This method is most often applied to commercial and industrial lots. The assessment rate (i.e., cost per square foot) shall be calculated by dividing the total assessable cost by the total assessable area. On large lots, the City Engineer may determine that only a portion of the lots receives the benefit and may select a lot depth for the calculations equal to the benefit received.

All properties included in the benefited area, including those owned by governmental entities, churches, etc., shall be assessable. The following items may not be included in area calculations: public right-of-ways, and natural waterways, swamps and lakes and other wetlands designated by the Minnesota Department of Natural Resources or the City. The City Engineer will make a recommendation on the boundaries or parameters of the benefited area in the feasibility report.

C. "Per Lot" Method of Assessment.

The "per lot" method of assessment is based on equal assessment of all lots within the benefited area. This method is typically applied to single-family residential lots with similar sizes and configurations. The "assessment per lot" shall be the quotient of the "assessable cost" divided by the total assessable lots or parcels benefiting from the improvement. For the purpose of determining the "lots" or "parcels" all parcels, including those owned by governmental entities, shall be included in such calculations.

SECTION 8. STANDARDS FOR PUBLIC IMPROVEMENT PROJECTS.

The following standards are hereby established by the City to provide a uniform guide for improvements within the City.

A. Surface Improvements

Surface improvements shall normally include all improvements visible on or above the ground within the right-of-way, and include, but are not limited to, trees, lighting, sidewalks, trails, signing, street and accessory improvements such as drainage ponds and facilities, parking lots, parks and playgrounds. Surface improvements shall also normally include aggregate or granular base materials for bituminous and concrete pavements.

Policy Statement. Prior to construction or completion of surface improvements, all utilities and utility service lines (including sanitary sewers, storm sewers, water lines, gas and electric service) shall be installed to all planned service locations such as residences or buildings.

When practicable, no surface improvements to less than both sides of a full block of street shall be approved except as necessary to complete partially completed improvements initiated previously. Concrete or bituminous curbing, or concrete curb and gutter, shall be installed at the same time as street surfacing.

B. Sub-Surface Improvements

Sub-surface improvements shall normally include such items as water distribution, sanitary sewer and storm sewer lines and appurtenant infrastructure, and electric and gas utilities.

Main lines are the publicly owned and maintained lines or facilities such as trunk lines, interceptors, mains, and laterals. Service lines are those privately owned lines or facilities extending from the main line to the property line.

Policy Statement. Sub-surface improvements shall be made to serve current and projected land use. All installations shall conform to applicable standards established by local, state and/or federal agencies of competent jurisdiction. All installations shall also comply, to the maximum extent feasible, with nationally recognized standards such as those of the American Insurance Association.

Service lines from the lateral or trunk utility to the property line of all planned service locations such as residences or buildings on properties whose owner has requested service shall be installed in conjunction with the construction of the mains.

C. Subgrade Improvements

Subgrade improvements shall normally include such items as subgrade corrections (removing layers/pockets of unsuitable soils and replacing them with aggregate base, select granular material, or other more suitable soils) and installation of geotextile fabrics.

Policy Statement. Prior to construction or completion of subgrade improvements, all utilities and utility service lines (including sanitary sewers, storm sewers, water lines, gas and electric service) shall be installed to all planned service locations such as residences or buildings.

SECTION 9. POLICIES OF REASSESSMENT.

The City shall design public improvements to last for a definite period. The life expectancy or service life shall be as stated in the policy statement of this section, or if different, shall be as stated in the resolution ordering improvement and preparation of plans.

Policy Statement

The following are the "life expectancies" or "service lives" of public improvements except as may be otherwise stated in the resolution ordering improvement and preparation of plans.

1. Sidewalks and Trails – 30 years.
2. Street improvements, including surfacing and curb and gutter – 60 years.
3. Ornamental street lighting – 30 years.
4. Water Mains – 60 years.
5. Sanitary Sewers – 60 years.
6. Storm Sewers – 60 years.

SECTION 10. ASSESSMENT COMPUTATIONS.

The following is the typical city assessment for various specified improvements. The City Council reserves the right to vary from the following computations when conditions warrant. All computations are subject to the criteria set forth in Section 1.

A. Street and Curb and Gutter Improvements

1. ***New Construction.*** New streets are assessed 100% to the abutting benefited properties. Street and curb and gutter improvements will normally be assessed by the adjusted front footage method for commercial, industrial and multi-family residential properties, or by the per lot method for single-family residential properties, however other methods including the area method may be utilized if conditions warrant. Cost of construction of streets shall be assessed based on the minimum design of 7-ton axle load in residential areas and 9-ton axle load in commercial and industrial areas. Oversizing costs that are incurred in excess of the above may be paid by: (1) State funds, (2) larger assessment rates to other benefited properties, (3) general obligation funds, or (4) any other method or combination of methods authorized by the City Council.
2. ***Reconstruction and Overlays.*** Street reconstructions and overlays, including the associated removal and replacement of curb and gutter, are assessed 25% to the abutting benefited properties or as otherwise determined by Council ordered benefit appraisals.
3. ***Gravel Streets.*** Upgrading existing gravel streets by adding pavement, curb and gutter, and storm sewer are assessed 50% to the abutting benefited properties or as otherwise determined by Council ordered benefit appraisals.
4. ***Seal Coats.*** Sealcoats are not assessed.
5. ***Alleys.*** Upgrading existing gravel alleys by adding pavement is assessed 50% to all lots abutting on the alley in the block being improved or as otherwise determined by Council ordered benefit appraisals. Reconstructing existing paved alleys is 25% assessed to all lots abutting on the alley or as otherwise determined by Council ordered benefit appraisals.

B. Sidewalks and Trails

1. ***New Construction.*** New sidewalks and trails are not assessed to the abutting property on which the sidewalk is located, but rather are funded 100% by the City. In new subdivisions, the City will require the developer to finance sidewalk and trail improvements rather than assessing the cost.
2. ***Reconstruction.*** Replacement sidewalks are assessed 25% to the abutting property owner and 75% City funded.

C. Storm Sewer Improvements

Storm sewers are assessed on a project-by-project basis. Storm sewers in new subdivisions are considered an assessable improvement on an area basis.

Oversizing costs due to larger mains and larger appurtenances are paid for by a combination of availability charges, user charges and/or trunk area assessment charges. Trunk area storm sewer charges are levied to all unplatted property at the time of platting, to re-plats that have not been charged trunk area charges when the land was originally platted, and to re-plats that have been charged trunk area charges when the land was originally platted but where the use is increasing (only the cost difference based on current and prior use is charged). The charges will be set in the annual fee schedule approved by the City Council.

Normally, storm sewers are assessed on an area basis (square foot or acres), but in certain situations the per lot method or adjusted front footage method may be utilized at the City Council's discretion.

The replacement of existing storm sewers is paid for entirely through the Stormwater Utility Fund.

D. Sanitary Sewer Assessments

Assessments for sanitary sewer in residential areas are based upon the cost of construction of 8-inch mains, which is the smallest size installed in residential areas of the City. Assessments for sanitary sewers in commercial and industrial areas are based upon a standard size of 12-inch mains. Sanitary sewer assessments must conform to Chapter 8 of the City Charter.

Oversizing costs due to larger mains and larger appurtenances will be paid for by a combination of availability charges, user charges and/or trunk area assessment charges. Trunk area sanitary sewer charges shall be levied on all un-platted property at the time of platting and on re-plats that have not been charged trunk area charges when the land was originally platted. The charges will be set in the annual fee schedule approved by the City Council. Services installed to individual properties are assessed to the benefiting property as allowed under Chapter 8 of the City Charter.

Normally, sanitary sewers are assessed on an area basis (square foot or acres), but in certain situations the per lot method or adjusted front footage method may be utilized at the City Council's discretion.

Lateral benefit from major trunk sewers or interceptors is assessed to the properties benefited by the sewer. Any oversizing cost is assessed as described above.

The replacement of existing sewers is funded entirely by the City through the sewer enterprise funds.

Individual sanitary sewer service lines installed directly to specified properties are fully assessed directly to the benefited properties. Properties that have existing private sanitary services, but do not have mainline sewers adjacent to, across or abutting their property lines pay 0% of the assessment rate for the new mainline sanitary sewer, and 100% of the cost associated with replacing the service lines.

Any existing sanitary sewer service lines found to be defective as part of a project are replaced as part of the project and are assessed to the benefiting property as allowed under Chapter 8 of the City Charter.

Property owners electing to connect to City sewer during street reconstruction projects will receive a credit to offset those costs that would have been incurred by the City to reconstruct the street and boulevard after connecting to City sewer if the street were not being reconstructed. The amount of the credit will be set in the annual fee schedule approved by the City Council. Connecting to City sewer requires a City water connection.

E. Watermain Assessments

Assessments for watermains in residential areas are based upon the cost of construction of 8-inch mains, which is the smallest size installed in residential areas of the City. Assessments for watermains in commercial and industrial areas are based upon the standard size of 12-inch mains. Watermain assessments must conform to Chapter 8 of the City Charter.

Oversizing costs due to larger mains and larger appurtenances are paid for by a combination of availability charges, user charges and/or trunk area assessment charges. Trunk area water charges shall be levied on all un-platted property at the time of platting and on re-plats that have not been charged trunk area charges when the land was originally platted. The charges will be set in the annual fee schedule approved by the City Council. Services installed to individual properties shall be fully assessed to the benefiting property.

Normally, watermains are assessed on a per lot basis, but in certain situations the area or adjusted front footage method may be utilized at the City Council's discretion.

The replacement of existing watermains is funded entirely by the City through the water enterprise funds.

Lateral benefit from major trunk watermains is assessed to properties benefited by the watermain. Lateral watermain assessments are based on the costs for an equivalent 8-inch diameter watermain for residential properties and for an equivalent 12-inch diameter watermain for commercial/industrial properties.

Individual water service lines installed directly to specified properties are fully assessed directly to the benefited properties. Properties that have existing private water services, but do not have

mainline watermains adjacent to, across or abutting their property lines pay 0% of the assessment rate for the new watermain but 100% of the cost associated with replacing their service lines.

Any existing water service lines found to be defective as part of the project, are replaced as part of the project and are assessed directly to the benefiting property as allowed under Chapter 8 of the City Charter.

Property owners electing to connect to City water during street reconstruction projects will receive a credit to offset those costs that would have been incurred by the City to reconstruct the street and boulevard after connecting to City water if the street were not being reconstructed. The amount of the credit will be set in the annual fee schedule approved by the City Council.

F. Street Boulevard Trees

All street boulevard trees installed as part of new street constructions or in reconstructing existing streets shall be included as part of the overall project costs included in the assessment calculations.

G. Street Lights

All costs for new streetlights installed as part of constructing new streets or streetlights relocated as part of reconstructing streets are included in the overall project costs and included in the assessment calculations, unless otherwise directed by the City Council. In new subdivisions, the City will require the developer to finance street light improvements rather than assessing the cost.

H. Other Improvements

Based on the City Council's determination, any other eligible improvements may be fully assessed or assessed in part.

SECTION 11. DEFERMENT OF SPECIAL ASSESSMENTS.

Subd. 1. The Council may defer the payment of any special assessment on homestead property owned by a person who is 65 years of age or older, or who is retired by virtue of permanent and total disability, and the City Clerk is hereby authorized to record the deferment of special assessments where all of the following conditions are met:

1. The applicant must apply for the deferment not later than 90 days after the assessment is adopted by the City Council.
2. The applicant must be 65 years of age or older or retired by virtue of permanent and total disability at the time the assessment is adopted.
3. The applicant must be the owner of the property.
4. The applicant must occupy the property as his or her principal place of residence.
5. The average annual payment for assessments levied against the subject property exceed one percent of the adjusted gross income of the applicant as evidenced by the applicant's most recent federal income tax return. The average annual payment of an assessment shall be the total cost of the assessment divided by the number of years over which it is spread.

Subd. 2. The deferment shall be granted for as long a period of time as the hardship exists and the conditions in subdivision 1 remain true. It shall be the duty of the applicant to notify the City Clerk of any change in his or her status that would affect eligibility for deferment.

Subd. 3. The entire amount of deferred special assessments shall be due within sixty days after loss of eligibility by the applicant. If the special assessment is not paid within the sixty (60) days, the City Clerk shall add thereto interest accruing from the first date the applicant loses eligibility at the rate as defined in section 6.4 and the total amount of principal and interest shall be certified to the County Auditor for collection with taxes the following year. Should the applicant demonstrate to the satisfaction of the Council, that full repayment of the deferred special assessment would cause the applicant particular undue financial hardship, the Council may order that the applicant pay within sixty days a sum equal to the number of installments of deferred special assessments outstanding and unpaid to date, including principal and interest, with the balance thereafter paid according to the terms and conditions of the original special assessments.

Subd. 4. The option to defer the payment of special assessments shall terminate and all amounts accumulated plus applicable interest shall become due upon the occurrence of any one of the following:

1. The death of the owner when there is no spouse who is eligible for deferment.
2. The sale, transfer or subdivision of all or any part of the property.
3. Loss of homestead status on the property.
4. Determination by the Council for any reason that immediate or partial payment would impose no hardship.

State Law References(s): Minn. Stat. § 435.193, Senior Citizens or retired & disabled persons hardship special assessment deferral.

*Original Adoption: 12/9/14 by Resolution #14-12-250
*Amended: 1/13/15 by Resolution #15-01-016 – *Section 6 - #4 Interest to reflect interest rate on bonded projects*

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area A

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 23,400.00	$ 23,400.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	11	$ 250.00	$ 2,750.00	
3	2104.502	CLEARING	EA	35	$ 400.00	$ 14,000.00	
4	2104.502	GRUBBING	EA	35	$ 400.00	$ 14,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	2,343.44	$ 35.00	$ 82,020.56	9.1" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	23.58	$ 500.00	$ 11,790.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	1,669.33	$ 50.00	$ 83,466.67	EV to CV conv. factor = 1.25. 8" under pavement, 6" under driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	440.16	$ 5.00	$ 2,200.80	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	710.54	$ 95.00	$ 67,501.68	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	532.91	$ 100.00	$ 53,290.80	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	908.27	$ 50.00	$ 45,413.33	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	1.30	$ 35,000.00	$ 45,471.07	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 445,634.91*	
					5-Percent Contingency Cost	*$ 22,281.75*	
					14-Percent Indirect Cost	*$ 65,508.33*	
					Estimated Project Cost	**$ 533,424.99**	**> Use $540,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area B

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 5,900.00	$ 5,900.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	4	$ 250.00	$ 1,000.00	
3	2104.502	CLEARING	EA	25	$ 400.00	$ 10,000.00	
4	2104.502	GRUBBING	EA	25	$ 400.00	$ 10,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	504.86	$ 35.00	$ 17,670.25	5.25" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	5.08	$ 500.00	$ 2,540.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	365.43	$ 50.00	$ 18,271.60	EV to CV conv. factor = 1.25. 8" under pavement, 6" under driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	94.83	$ 5.00	$ 474.13	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	153.08	$ 95.00	$ 14,542.35	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	114.81	$ 100.00	$ 11,480.80	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	195.67	$ 50.00	$ 9,783.70	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.28	$ 35,000.00	$ 9,796.14	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 111,788.98*	
					5-Percent Contingency Cost	*$ 5,589.45*	
					14-Percent Indirect Cost	*$ 16,432.98*	
					Estimated Project Cost	**$ 133,811.41**	**> Use $140,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area C

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 23,700.00	$ 23,700.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	20	$ 250.00	$ 5,000.00	
3	2104.502	CLEARING	EA	10	$ 400.00	$ 4,000.00	
4	2104.502	GRUBBING	EA	10	$ 400.00	$ 4,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	132.00	$ 5.00	$ 660.00	
6	2105.607	COMMON EXCAVATION	CY	2,224.06	$ 35.00	$ 77,841.94	4.4" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	27.09	$ 500.00	$ 13,545.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	1,475.78	$ 50.00	$ 73,788.89	EV to CV conv. factor = 1.25. 6" under pavement and driveways
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	505.68	$ 5.00	$ 2,528.40	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	816.31	$ 95.00	$ 77,549.64	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	612.23	$ 100.00	$ 61,223.40	
12	2504.602	ADJUST VALVE BOX	EA	6.00	$ 350.00	$ 2,100.00	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	1,043.47	$ 50.00	$ 52,173.33	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	1.49	$ 35,000.00	$ 52,239.67	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 450,350.28*	
					5-Percent Contingency Cost	*$ 22,517.51*	
					14-Percent Indirect Cost	*$ 66,201.49*	
					Estimated Project Cost	**$ 539,069.28**	**> Use $540,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area D

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 13,700.00	$ 13,700.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	6	$ 250.00	$ 1,500.00	
3	2104.502	CLEARING	EA	20	$ 400.00	$ 8,000.00	
4	2104.502	GRUBBING	EA	20	$ 400.00	$ 8,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	1,244.62	$ 35.00	$ 43,561.60	12.67" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	15.16	$ 500.00	$ 7,580.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	807.41	$ 50.00	$ 40,370.37	EV to CV conv. factor = 1.25. 6" under pavement and driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	282.99	$ 5.00	$ 1,414.93	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	456.82	$ 95.00	$ 43,398.03	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	342.62	$ 100.00	$ 34,261.60	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	583.94	$ 50.00	$ 29,197.04	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.84	$ 35,000.00	$ 29,234.16	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 260,547.73*	
					5-Percent Contingency Cost	*$ 13,027.39*	
					14-Percent Indirect Cost	*$ 38,300.52*	
					Estimated Project Cost	**$ 311,875.64**	**> Use $320,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area E

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 18,500.00	$ 18,500.00	5-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	13	$ 250.00	$ 3,250.00	
3	2104.502	CLEARING	EA	60	$ 400.00	$ 24,000.00	
4	2104.502	GRUBBING	EA	60	$ 400.00	$ 24,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	66.00	$ 5.00	$ 330.00	
6	2105.607	COMMON EXCAVATION	CY	1,695.94	$ 35.00	$ 59,358.06	5.33" average aggregate depth per soil borings. Includes 625' additional 6" excavation west end.
7	2112.519	SUBGRADE PREPARATION	RDST	16.71	$ 500.00	$ 8,355.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	1,236.74	$ 50.00	$ 61,837.04	EV to CV conv. factor = 1.25. 6" under pavement and driveways. Includes 625' additional 6" aggr base west end.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	311.92	$ 5.00	$ 1,559.60	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	503.53	$ 95.00	$ 47,835.16	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	377.65	$ 100.00	$ 37,764.60	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	643.64	$ 50.00	$ 32,182.22	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.92	$ 35,000.00	$ 32,223.14	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 351,194.82*	
					5-Percent Contingency Cost	*$ 17,559.74*	
					14-Percent Indirect Cost	*$ 51,625.64*	
					Estimated Project Cost	**$ 420,380.19**	**> Use $430,000**

Gravel Road Elimination Program
Preliminary Estimated Project Costs

Area F

ITEM No.	MNDOT No.	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT COST	COST EXTENSION	NOTES
1	2021.501	MOBILIZATION	LS	1	$ 19,300.00	$ 19,300.00	8-percent of estimated construction cost with 5-percent contingency.
2	2104.502	SALVAGE & RE-INSTALL MAILBOX SUPPORT	EA	17	$ 250.00	$ 4,250.00	
3	2104.502	CLEARING	EA	10	$ 400.00	$ 4,000.00	
4	2104.502	GRUBBING	EA	10	$ 400.00	$ 4,000.00	
5	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	70.00	$ 5.00	$ 350.00	
6	2105.607	COMMON EXCAVATION	CY	1,056.61	$ 35.00	$ 36,981.39	6.875" average aggregate depth per soil borings
7	2112.519	SUBGRADE PREPARATION	RDST	12.87	$ 500.00	$ 6,435.00	
8	2211.507	AGGREGATE BASE CLASS 5 MODIFIED (CV)	CY	727.78	$ 50.00	$ 36,388.89	EV to CV conv. factor = 1.25. 6" under pavement and driveways.
9	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	240.24	$ 5.00	$ 1,201.20	
10	2360.509	TYPE SP 12.5 NON WEARING COURSE MIXTURE (3,C) 2.0"	TON	387.82	$ 95.00	$ 36,842.52	
11	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.5"	TON	290.86	$ 100.00	$ 29,086.20	
12	2504.602	ADJUST VALVE BOX	EA	0.00	$ 350.00	$ -	
13	2506.502	ADJUST FRAME AND RING CASTING	EA	0.00	$ 500.00	$ -	
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	0.00	$ 40.00	$ -	
15	2531.604	7" CONCRETE VALLEY GUTTER	SY	0.00	$ 80.00	$ -	
16	2573.502	STORM DRAIN INLET PROTECTION	EA	0.00	$ 100.00	$ -	
17	2574.507	TOPSOIL (LV)	CY	495.73	$ 50.00	$ 24,786.67	CV to LV conv. factor = 1.3.
18	2575.501	TURF ESTABLISHMENT	ACRE	0.71	$ 35,000.00	$ 24,818.18	MnDOT seed mix 25-151 plus fertilizer.
					Estimated Construction Cost	*$ 228,440.05*	
					5-Percent Contingency Cost	*$ 11,422.00*	
					14-Percent Indirect Cost	*$ 33,580.69*	
					Estimated Project Cost	**$ 273,442.74**	**> Use $280,000**

CITY OF RAMSEY
CAPITAL IMPROVEMENT PROGRAM
2025-2034

The Capital Improvement Program document is a planning tool maintained by the city to identify future projects, related expenditures, and funding sources. All projects designated in the Capital Improvement Program are contingent upon availability of resources during the planned year. The total expenditure of projects includes city-funded sources as well as other resources such as grants, fees, bonding, etc.

MSA Fund

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Beginning Balance	3,960,405	1,089,728	1,082,215	85,436	409,578	627,241	894,989	1,521,621	1,850,252	1,906,935	2,389,901	3,124,498
Revenues												
Current Year Allocation (Held at State)	1,543,201	1,676,298	1,684,679	1,693,103	1,701,568	1,710,076	1,718,627	1,727,220	1,735,856	1,744,535	1,753,258	1,762,024
Transportation Tax - 2023 Legislation		12,066										
TIF Transfer for Variolite St												
Riverdale Reim from metro municipal agreement												
Interest Earnings	19,802	10,897	10,822	854	4,096	6,272	8,950	15,216	18,503	19,069	23,899	31,245
Coop Grant for Riverdale												
HRA Share for Riverdale		647,886										
TIF Share for Riverdale												
Total Revenue	5,523,408	3,436,876	2,777,717	1,779,393	2,115,243	2,343,589	2,622,566	3,264,057	3,604,611	3,670,539	4,167,058	4,917,767
Expenditures												
MSA Maintenance (Received from State Held Allocation)	(210,000)	(240,000)	(240,000)	(240,000)	(270,000)	(270,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)	(300,000)
CIP Projects												
MSA Overlays: 2023 See listing in CIP	(421,141)											
167th Avenue Street Recon	(1,652,600)											
Waco to Sunwood Dr Rec												
MSA overlays: 2024 See Listing in CIP	(697)	(366,900)										
MSA overlays: 2026 See Listing in CIP				(1,121,815)								
MSA overlays: 2027 See Listing in CIP					(747,780)							
MSA overlays: 2028 See Listing in CIP												
MSA overlays: 2029 See Listing in CIP							(239,400)					
MSA overlays: 2030 See Listing in CIP								(66,150)				
MSA overlays: 2031 See Listing in CIP									(876,488)			
MSA overlays: 2034 See Listing in CIP												**980,437**
MSA Pavement Rejuvenation												
Alpine Drive (TH 47 & Roanoke) Street Recon								(1,019,655)				
Alpine Drive (Variolite & Ramsey Blvd) Street Recon									(492,188)			
Alpine Drive (Puma CSAH 83)	(44,798)	(689,602)										
Alpine Drive (5/47)			(530,250)									
Alpine Drive (cr57/CSAH 5)			(445,031)									
Alpine Drive ((TH10 & Puma Street)						(1,107,600)						
142nd Avenue										(529,200)		
161st Avenue Recon	(766,655)	(38,000)										
Riverdale between Llama & Bowers & Capstone/Pearson	(261,636)											
Jaspar Street (Sunwood/McKinley)										(413,438)		
Juniper Ridge between 156th & Roanoke Street Recon					(390,628)							
Sunwood Drive Recon CR5 Erkium St			(303,000)									
Uranimite Street (149th ave/152nd ln)											(327,600)	
Waco Street (150th/Alpine Dr)											(372,960)	
142nd Ave Street Recon					(67,594)							
Roundabout-Alpine/Armstrong	(184,575)											
Hwy 10 & BNSF RR Grade Separation at Ramsey Blvd	(375,000)	(250,000)	(375,000)									
Hwy 10 & BNSF RR Grade Separation at Sunfish Lake	(375,000)	(250,000)	(375,000)									
Recon Xkimo TH47 to 142nd	(37,222)	(474,159)										
Concrete Repairs			(405,000)				(549,545)					
Annual MSA Pavement Marking Improvements	(104,355)	(46,000)	(19,000)	(8,000)	(12,000)	(71,000)	(12,000)	(28,000)	(29,000)	(38,000)	(42,000)	(22,000)
Total Expenditures	(4,433,679)	(2,354,661)	(2,692,281)	(1,369,815)	(1,488,002)	(1,448,600)	(1,100,945)	(1,413,805)	(1,697,676)	(1,280,638)	(1,042,560)	658,437
FUND BALANCE, End of Year	**1,089,728**	**1,082,215**	**85,436**	**409,578**	**627,241**	**894,989**	**1,521,621**	**1,850,252**	**1,906,935**	**2,389,901**	**3,124,498**	**5,576,204**

Pavement Management Fund-9435												
	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Beginning Balance	15,102,525	14,628,255	10,556,453	6,126,043	3,915,162	1,777,321	1,357,833	701,982	407,993	(268,577)	(6,590)	(1,070,111)
Special Assessments	9,857	-	-	-	-	-	-	-	-	-	-	-
Transfers In: TIF 1-Flintwood Hills Recon				840,000								
Transfers In: TIF 2-Flintwood Hills Recon				175,920								
Transfers In: TIF 2-Riverside West Recon				199,665								
Transfers In: TIF 2-Windemere Woods Recon					658,685							
Property Tax Levy(based on 5% Levy increase	1,739,254	1,826,217	1,917,528	2,013,404	2,114,074	2,219,778	2,330,767	2,447,305	2,569,671	2,698,154	2,833,062	2,974,715
Est Arbitrage	(166,156)											
Interest Earnings	495,686	73,141	52,782	30,630	19,576	8,887	6,789	3,510	2,040	(1,343)	(33)	(5,351)
Total Revenues	2,078,641	1,899,358	1,970,310	3,259,619	2,792,335	2,228,665	2,337,556	2,450,815	2,571,711	2,696,811	2,833,029	2,969,364
Road Improvements:												
Pavement Management Projects(See CIP listings)	(2,521,754)	(5,855,870)	(6,341,430)	(5,420,331)	(4,891,213)	(2,616,120)	(2,984,494)	(2,744,805)	(3,248,280)	(2,434,824)	(3,896,550)	(3,957,030)
Special Assessment Rebate	(31,158)	(59,290)	(59,290)	(50,169)	(38,964)	(32,033)	(8,913)					
Inspector Vehicle for road projects		(56,000)										
Total Expenditures	(2,552,912)	(5,971,160)	(6,400,720)	(5,470,500)	(4,930,177)	(2,648,153)	(2,993,407)	(2,744,805)	(3,248,280)	(2,434,824)	(3,896,550)	(3,957,030)
Increase (decrease) in Cash	(474,271)	(4,071,802)	(4,430,410)	(2,210,881)	(2,137,841)	(419,488)	(655,851)	(293,990)	(676,569)	261,987	(1,063,521)	(987,666)
FUND BALANCE, End of Year	**14,628,255**	**10,556,453**	**6,126,043**	**3,915,162**	**1,777,321**	**1,357,833**	**701,982**	**407,993**	**(268,577)**	**(6,590)**	**(1,070,111)**	**(2,057,776)**

PUBLIC IMPROVEMENT REVOLVING [PIR] FUND #9400

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
FUND BALANCE - Beginning of Year	5,518,433	5,026,067	3,721,431	2,458,145	2,376,727	2,129,494	1,919,789	1,707,987	1,494,067	1,278,007	1,059,787	839,385
REVENUES:												
Special Assessments (P&I) & Payoffs	532,280	9,056										
Wear Course Parkside Towhhomes		7,700										
PSD Special Assess for Bunker Lake Blvd				191,000								
Reim Pothole Patching Arpa Funds		100,000										
Reim Fire Truck Loan				300,000								
Prior 2010 COR Exp Reim	45,343											
General Fund -30% transfer (exces	27,827	-	-	-	-	-	-	-	-	-	-	-
TIF 8 Reimbursement interfund Loan												
Interest Earnings	264,751	50,261	37,214	24,581	23,767	21,295	19,198	17,080	14,941	12,780	10,598	8,394
Total Revenues	870,201	167,016	37,214	515,581	23,767	21,295	19,198	17,080	14,941	12,780	10,598	8,394
EXPENDITURES:												
Hwy 47 Transportation Study		30,000										
Alpine/Armstrong Roundabout Landscaping					40,000							
Business Park 95 Cul-De-Sac		139,354										
County 5 Transportation Study		50,000										
County 83 Transportation Study		35,000										
Hwy 10 road impr-bill time	14,972	100,000										
Hwy 10 & BNSF RR Grade Sep at Ram	375,000	250,000	375,000									
Hwy 10 & BNSF RR Grade Sep at Sunfi	375,000	250,000	375,000									
Pothole Patching	422,595											
Basalt st		99,000										
McKinley Street Pavement Ext (From CC Case)		94,172										
MSA Bunkr Lake Blvd (See Oppidan Contrib & Spec Asses to PSD				391,000								
2025 Neighborhood Overlays			14,500									
Ramsey Villas Sound Wall		58,001										
Sunwood Drive Roundabout Landscaping			30,000									
Sunwood Drive Concrete Repairs		50,000										
Tree Preservation-Riverdale (Capstone/Pearson project)-10		110,125										
Anoka Cnty S.A. Expenses		6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Transfers to Other Funds:												
General Fund-Loan For Fire Truck			300,000									
General Fund Transfer To	175,000	200,000	200,000	200,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Total Expenditures	1,362,567	1,471,652	1,300,500	597,000	271,000	231,000	231,000	231,000	231,000	231,000	231,000	231,000
INCREASE (DECREASE) IN CASH	(492,366)	(1,304,636)	(1,263,286)	(81,419)	(247,233)	(209,705)	(211,802)	(213,920)	(216,059)	(218,220)	(220,402)	(222,606)
FUND BALANCE - End of Year	**5,026,067**	**3,721,431**	**2,458,145**	**2,376,727**	**2,129,494**	**1,919,789**	**1,707,987**	**1,494,067**	**1,278,007**	**1,059,787**	**839,385**	**616,779**

Sewer Utility Fund - Working Capital

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
New Construction Units	50	50	100	25	25	25	25	25	25	25	25	25
Connection Charge	1,349	1,349	1,389	1,417	1,445	1,474	1,503	1,534	1,564	1,596	1,627	1,660
Beginning Balance	11,545,660	11,216,353	7,824,276	4,822,412	4,479,531	4,609,654	4,536,059	4,344,956	4,316,977	4,152,783	3,838,880	3,360,737
Utility Revenue												
From Utility Billings(sewer study)	1,986,513	2,285,920	2,335,216	2,381,920	2,429,559	2,478,150	2,527,713	2,578,267	2,629,833	2,682,429	2,736,078	2,790,799
WRITE DOWN INV TO MARKET VALUE												
Interest Earnings	850,112	56,082	39,121	24,112	22,398	23,048	22,680	43,450	43,170	41,528	38,389	33,607
SAC (1% of SAC Fee to Met Council)	7,952	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Connection Charges-Trunk	92,711	67,450	138,900	35,420	36,128	36,850	37,587	38,339	39,106	39,888	40,686	41,500
(see Construction units & Connection Charge Above)												
Operating Expense	(1,576,798)	(1,876,029)	(1,917,601)	(2,051,833)	(2,195,461)	(2,349,144)	(2,513,584)	(2,689,535)	(2,877,802)	(3,079,248)	(3,294,796)	(3,525,431)
(Personal Services, Supplies, Other Services & Charges)												
CIP Projects-Sewer Utilities												
Utility Truck(s)		(75,000)	(34,000)			(39,000)						
Water truck (1/4 cost)				(84,000)								
Jetter/Vac Truck				(650,000)								
Televisng Trailer		(50,000)										
Mobile Generator					(164,000)							
Backhoe (portion of cost)							(17,000)					
Pavement Mgmt Road Projects	(20,840)											
Xkimo		**(5,000)**										
Juniper Woods		**(16,000)**										
161st Avenue Recon	(138,216)	**(10,000)**										
Lift Station #1 Rehab & Generator		**(100,000)**	**(65,000)**									
Lift Station #4 Backup Generator							**(250,000)**					
Lift Station #7 Backup Generator						**(225,000)**						
Replace Pumps at Liftsation #2		(57,000)										
Replace Pumps at Liftsation #4		(59,000)										
Trott Brook Crossing Liftstation #10	(1,530,740)	(35,000)										
Water Treatment Plant		(3,500,000)	(3,500,000)									
Fire Station #1 Sanitary Sewer		(20,000)										
Remaining Working Capital Balance	**11,216,353**	**7,824,276**	**4,822,412**	**4,479,531**	**4,609,654**	**4,536,059**	**4,344,956**	**4,316,977**	**4,152,783**	**3,838,880**	**3,360,737**	**2,702,712**

Stormwater Management Fund #292

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Beginning Balance	1,081,777	1,441,919	1,816,383	1,187,547	1,219,422	1,251,616	1,284,132	1,316,974	1,350,144	1,383,645	1,417,481	1,451,656
Developer's Contributions	235,196	301,367	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
COR Infiltration Contributions												
Home2 Suites	18,510											
Waterfront		27,678										
Lightbridge Academy		20,000										
Skyline On Sunwood		11,000										
Aldi	23,220											
Reim prior 2010 COR Exp	24,929											
Interest Earnings	58,288	14,419	18,164	11,875	12,194	12,516	12,841	13,170	13,501	13,836	14,175	14,517
Total Revenues	360,143	374,464	38,164	31,875	32,194	32,516	32,841	33,170	33,501	33,836	34,175	34,517
CIP Projects-Park Projects												
Riversbend Regional Storm Basin			(667,000)									
Total Expenditures	-	-	(667,000)	-	-	-	-	-	-	-	-	-
Increase (decrease) in Cash	360,143	374,464	(628,836)	31,875	32,194	32,516	32,841	33,170	33,501	33,836	34,175	34,517
FUND BALANCE, End of Year	1,441,919	1,816,383	1,187,547	1,219,422	1,251,616	1,284,132	1,316,974	1,350,144	1,383,645	1,417,481	1,451,656	1,486,173

Storm Water Utility Fund #605	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Working Capital												
Beginning Balance	2,864,406	3,035,191	2,426,536	1,535,262	947,476	398,935	775,560	1,035,314	1,294,941	1,219,743	1,242,551	950,322
Utility Revenue -	1,252,659	1,333,400	1,533,410	1,686,751	1,855,426	2,040,969	2,143,017	2,250,168	2,362,676	2,480,810	2,604,851	2,735,093
From Utility Billings												
Interest Earnings	148,835	30,352	24,265	15,353	9,475	3,989	7,756	10,353	12,949	12,197	12,426	9,503
Total revenues	1,401,494	1,363,752	1,557,675	1,702,104	1,864,901	2,044,958	2,150,773	2,260,521	2,375,626	2,493,008	2,617,276	2,744,596
Operating Expense												
(Personal Services, Supplies, Other												
Services & Charges)	(482,623)	(516,407)	(663,869)	(765,256)	(841,781)	(1,000,960)	(1,176,056)	(1,368,661)	(1,580,527)	(1,813,580)	(2,069,938)	(2,351,932)
CIP Projects-Stormwater Utility												
Street Sweeper			(330,000)		(330,000)							
Water Truck (1/4 of Cost)				(84,000)								
Vactor Trailer		(211,534)										
Jetter/Vac Truck ($850K total)				(200,000)								
Ford f550 (1/3 cost) $128,255		(58,650)										
Water Truck (Share of)				(125,000)								
Annual Drainage Enhancement			(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
Outlet Control Structure Improvement	(81,925)											
Central Park Parking Lot Recon-Run Off	(136,755)											
River Storm Water Discharge Treatment			(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
Storm Sewer 142nd Avenue										(108,486)		
Storm Sewer 161st Avenue	(230,116)	(10,000)										
Storm Sewer Anderson Estates												(85,050)
Storm Sewer Alpine Drive									(73,828)			
Storm Sewer Barthels Rum River Acres		(151,313)										
Storm Sewer Barthels Rum River Acres 2nd	(231,896)	(10,000)										
Storm Sewer Bunker Lake Blvd(Jackal St/Armstrong)				(49,215)								
Storm Sewer Carol Rose Est				(67,014)								
Storm Sewer Brookview Est										(80,590)		
Storm Sewer Countryside Est (From cc case)				(291,006)								
Storm sewer for concrete repairs							(143,182)					
Storm Sewer Deerwood St					(104,751)							
Storm Sewer Dickensons Mississippi Est			(306,722)									
Storm Sewer Echo Ridge										(22,680)		
Storm Sewer Xkimo St		(106,600)										
Storm Sewer Fox Ridge Et 1st & 2nd			(394,506)									
Storm Sewer Ford Brook Est 3rd		(108,360)										
Storm Sewer Halls Dover		(88,200)										
Storm Sewer Alicia St							(80,719)					
Storm Sewer Alpine Drive								(152,948)				
Storm Sewer Alpine (puma-CSAH 83)		(110,160)										
Storm Sewer Alpine Dr (5/47)			(79,538)									
Storm Sewer Alpine (CR 57/CSAJ 5)			(66,755)									
Storm Sewer Hall-Anderson Acres					(163,152)							
Storm Sewer Sorteberg 6					(114,948)							
Storm Sewer Jaspar St										(62,016)		
Storm Sewer Klemish & Klemish									(143,640)			
Storm Sewer Winnemere woods					(98,803)							
Storm Sewer High Point			(214,524)									
Storm Sewer Menkvels Country Park							(89,775)					
Storm Sewer Nature View								(43,470)				
Storm Sewer North Forty									(105,840)			
Storm Sewer Northfork Lake										(58,590)		
Storm Sewer Northfork Oaks 2nd										(51,030)		
Storm Sewer Northfork Oaks 3rd										(94,500)		
Storm Sewer Oakwood Hills					(46,350)							
Storm Sewer Riverside West				(29,950)								
Storm Sewer River Bluffs								(62,606)				
Storm Sewer Section 01 unplatted				(132,192)								
Storm Sewer Section 22 Unplatted			(44,541)									
Storm Sewer Section 06 Unplatted												(231,525)
Storm Sewer Section 07 Unplatted							(13,076)					
Storm Sewer Section 17 Unplatted							(121,078)					
Storm Sewer Section 24 Unplatted								(34,965)				
Storm Sewer Section 15 Unplatted									(148,365)			
Storm Sewer Sunwood D/Waco Street Recon												
Storm Sewer Ramsey Meadows 1, 3 & 4						(43,290)						
Storm Sewer Sunfish Square 1 & 2							(86,231)					
Storm Sewer Sunwood (5/Erkium)			(45,450)									
Storm Sewer Section 21 unplatted						(287,352)						
Storm Sewer 167th Ave		(78,550)										
Storm Sewer-Flintwood Hills				(152,388)								
Storm Sewer-Juniper between 156 & Roanoke					(58,594)							
Storm Sewer-Juniper Woods 1-3rd		(61,875)										
Storm Sewer 142nd Avenue					(10,139)							
Storm Sewer 2027 MSA Overlay Projects					(37,389)							
Storm Sewer 2023 MSA Overlay Projects	(11,657)											
Storm Sewer 2023 Overlay Projects	(8,356)											
Storm Sewer 2024 MSA overlay projects		(18,345)										
Storm Sewer 2024 overlay projects		(114,195)										
Storm Sewer 2025 overlay projects			(69,190)									
Storm Sewer 2026 overlay projects				(32,451)								
Storm Sewer 2027 overlay projects					(49,133)							
Storm Sewer 2028 overlay projects						(20,592)						
Storm Sewer 2029 MSA overlay projects							(11,970)					
Storm Sewer 2029 Overlay Projects							(18,932)					
Storm Sewer 2030 MSA Overlay Projects								(3,308)				
Storm Sewer 2030 Overlay Projects								(42,872)				
Storm Sewer 2031 MSA Overlay Projects									(43,824)			
Storm Sewer 2031 Overlay Projects									(29,799)			
Storm Sewer 2034 MSA Overlay Projects												(49,022)
Storm Sewer 2034 Overlay Projects												(5,985)
Storm Sewer Rivenwick 1st & 2nd												(125,213)
Storm Sewer Riverwood Hills												(117,180)
Storm Sewer Rodeo Hills/Valley View		(174,168)										
Storm Sewer Section 01 unplateed Recon		(50,400)										
Storm Sewer Sortegerg's street recon			(83,855)									
Storm Sewer Whispering Pine Est Plat 5												(16,632)
Storm Sewer Whispering Pine Est Plat 3	(47,381)	(45,000)										
Storm Sewer Windsorwood					(58,401)							
Storm Sewer Woodlawn Est								(142,065)				
2026 MSA Overlays				(168,272)								
Storm Sewer-MSA Alpind Drive T 10 & PUMA						(166,140)						
Storm Sewer-Gateway Industrial Park										(28,728)		
Storm Sewer-MSA Uranimite											(49,140)	
Storm Sewer-MSA Waco Street											(55,944)	
Storm Sewer-Brookview Est											(77,490)	
Storm Sewer-hunters Ridge											(315,630)	
Storm Sewer-Regency Pond 1-3											(191,363)	
Storm Sewer Sports Have Secc 1 Unpl				(43,146)								
Stormwater Drainage Impr 156 & Juniper Ridge					(350,000)							
Stormwater Drainage Impr 156th & Armstrong									(175,000)			
Total Expenditures	(1,230,709)	(1,972,407)	(2,448,949)	(2,289,890)	(2,413,441)	(1,668,334)	(1,891,018)	(2,000,895)	(2,450,824)	(2,470,200)	(2,909,505)	(3,132,538)
Remaining Working Capital Balance	**3,035,191**	**2,426,536**	**1,535,262**	**947,476**	**398,935**	**775,560**	**1,035,314**	**1,294,941**	**1,219,743**	**1,242,551**	**950,322**	**562,380**
		5% rate inc	15% rate inc	10% rate inc	10% rate inc	10% rate inc	5% rate inc	5% rate inc	5% rate inc	5% rate inc	5% rate inc	5% rate inc

Water Utility Fund #601

	Actual 2023	Projected 2024	Projected 2025	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030	Projected 2031	Projected 2032	Projected 2033	Projected 2034
Capital Expenses-Equipment												
CIP Projects												
Fire Station #1 Extension of Water		$ (20,000)										
Backhoe (portion of cost)							(17,000)					
Water Reading Meter Fixed Network					(175,000)							
Water truck (1/4 cost)				(84,000)								
util truck cost share	(60,764)	(58,650)	(34,000)			(39,000)						
A. **Water Supply & Treatment Improvements**												
Construct Well #9& Pumphouse #5			(50,000)	(1,100,000)								
Construct Well #10 & Pumphouse #6						(1,750,000)						
Well #1 Rehabilitation (Not in CIP Maintenance)		(59,000)	(62,000)	(65,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)	(68,000)
Pumphouse #1 Roof Replacement			(42,500)									
Well #1 Pressure Filter and Generator					(1,500,000)							
Water Treatment Facility 10 MGD Groundwater includes lines	(6,468,692)	(19,500,000)	(8,500,000)									
Refurbish Water Tower #2			(20,000)	(1,000,000)								
Refurbish Water Tower #1			$ (20,000)		(750,000)							
Watermain - xkimo		$ (33,000)										
Watermain - Alpine Drive		$ (601,000)										
Watermain-Dickenson's Mississippi Estates			$ (250,000)									
Watermain - Halls Dover Acres		$ (400,000)										
161st Ave Recon	$ (133,666)	$ (10,000)										
Subtotal - Capital Expenses	$ (6,663,122)	$ (20,681,650)	$ (8,978,500)	$ (2,249,000)	$ (2,493,000)	$ (1,857,000)	$ (85,000)	$ (68,000)	$ (68,000)	$ (68,000)	$ (68,000)	$ (68,000)
Operational Expenses												
Operating Expense-Distribution and Administration	$ (1,263,548)	$ (1,351,996)	$ (1,541,276)	$ (1,649,165)	$ (1,764,607)	$ (1,888,129)	$ (2,020,298)	$ (2,161,719)	$ (2,313,039)	$ (2,474,952)	$ (2,648,199)	$ (2,833,573)
Operating Expense-Treatment			(672,667)	(1,079,630)	(1,155,204)	(1,236,068)	(1,322,593)	(1,415,175)	(1,514,237)	(1,620,234)	(1,733,650)	(1,855,005)
Subtotal-Operating Expense	$ (1,263,548)	$ (1,351,996)	$ (2,213,943)	$ (2,728,795)	$ (2,919,811)	$ (3,124,198)	$ (3,342,891)	$ (3,576,894)	$ (3,827,276)	$ (4,095,186)	$ (4,381,849)	$ (4,688,578)
Total Annual Expenses	$ (7,926,670)	$ (22,033,646)	$ (11,192,443)	$ (4,977,795)	$ (5,412,811)	$ (4,981,198)	$ (3,427,891)	$ (3,644,894)	$ (3,895,276)	$ (4,163,186)	$ (4,449,849)	$ (4,756,578)
Water System Revenue												
New Service Connections(From Fiscal Impact Study 10/05 reduced by 200-3(	50	50	100	50	25	25	25	25	25	25	25	25
Water Sales (gallons/year)	1,076,136,938	1,090,126,718	1,104,298,366	1,118,654,245	1,133,196,750	1,147,928,308	1,162,851,376	1,177,968,443	1,193,282,033	1,208,794,700	1,224,509,031	1,240,427,648
Water rates ($/1000 gal)	$ 3.17	$ 3.33	$ 3.66	$ 4.02	$ 4.43	$ 4.87	$ 5.11	$ 5.32	$ 5.53	$ 5.75	$ 5.98	$ 6.22
Water Availability Charge (WAC) ($/connection)()	$ 1,481	$ 1,481	$ 1,555	$ 1,602	$ 1,650	$ 1,699	$ 1,750	$ 1,803	$ 1,857	$ 1,912	$ 1,970	$ 2,029
ɔnnection/Trunk Charge ($/connection)(4.5% after year 2005)	$ 2,043	$ 2,009	$ 2,069	$ 2,121	$ 2,174	$ 2,228	$ 2,284	$ 2,341	$ 2,400	$ 2,460	$ 2,521	$ 2,584
ate Revenue(Water Sales/1000 x Water Rates) + water meters	$ 3,574,961	$ 3,332,883	$ 3,666,172	$ 3,959,465	$ 4,157,439	$ 4,365,311	$ 4,583,576	$ 4,766,919	$ 4,957,596	$ 5,155,900	$ 5,362,136	$ 5,576,621
WAC Revenue(Service Connections x Wac Charge)	$ 917,425	$ 74,050	$ 362,427	$ 80,083	$ 41,242	$ 42,480	$ 43,754	$ 45,067	$ 46,419	$ 47,811	$ 49,246	$ 50,723
WRITE DOWN INVESTMENTS TO MARKET VALUE												
Interest Earnings	$ 2,072,701	$ 124,013	$ 32,009	$ 19,268	$ 15,192	$ 19,430	$ 14,926	$ 27,688	$ 40,254	$ 51,744	$ 62,667	$ 72,909
Total System Revenue	$ 6,565,087	$ 3,530,946	$ 4,060,608	$ 4,058,816	$ 4,213,873	$ 4,427,220	$ 4,642,256	$ 4,839,674	$ 5,044,269	$ 5,255,455	$ 5,474,049	$ 5,700,253
PW Land/Building-Internal Loan 2009-2028 @2%	**$ 39,337**	**$ 40,124**	**$ 40,926**	**$ 41,745**	**$ 41,745**	**$ 41,745**						
Internal Loan to offset Muni Center Debt beginning year 2011-2030 @2%	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**	**$ 61,853**				
State GRANT (on building only not trunk lines)			**$ 3,200,000**									
Sales Tax Reim (on building only. Not lines)			**$ 1,280,845**									
Water Working Capital Balance												
Total Annual Expenses	$ (7,926,670)	$ (22,033,646)	$ (11,192,443)	$ (4,977,795)	$ (5,412,811)	$ (4,981,198)	$ (3,427,891)	$ (3,644,894)	$ (3,895,276)	$ (4,163,186)	$ (4,449,849)	$ (4,756,578)
Total System Revenue	$ 6,666,277	$ 3,632,923	$ 8,644,232	$ 4,162,414	$ 4,317,471	$ 4,530,818	$ 4,704,109	$ 4,901,527	$ 5,044,269	$ 5,255,455	$ 5,474,049	$ 5,700,253
Net Income(Loss)	$ (1,260,393)	$ (18,400,723)	$ (2,548,210)	$ (815,381)	$ (1,095,340)	$ (450,380)	$ 1,276,218	$ 1,256,633	$ 1,148,993	$ 1,092,270	$ 1,024,200	$ 943,675
Beginning Water Working Capital Balance	$ 26,063,011	$ 24,802,617	$ 6,401,894	$ 3,853,684	$ 3,038,303	$ 1,942,963	$ 1,492,584	$ 2,768,802	$ 4,025,435	$ 5,174,428	$ 6,266,697	$ 7,290,897
Ending Water Working Capital Balance	$ 24,802,617	$ 6,401,894	$ 3,853,684	$ 3,038,303	$ 1,942,963	$ 1,492,584	$ 2,768,802	$ 4,025,435	$ 5,174,428	$ 6,266,697	$ 7,290,897	$ 8,234,572

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Not Applicable

Title:

Receive Updates on Improvement Projects, Studies and 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

#25-01 Rivers Bend Regional Stormwater Pond Improvements

- Construction completed
- Receive first grant payment from the Anoka Conservation District (ACD) in December in the amount of $168,874.49.
- The second grant payment will be requested in late January after the next pay application is received.
- Project close out scheduled for Spring 2025

#25-02 MSA Sunwood Drive Reconstruction – CSAH 5 to Erkium Street

- 2025 construction
- ***See separate bid award case***

#25-03 MSA Alpine Drive Reconstruction – CSAH 57 to TH 47

- Design and plan preparation in progress
- 2025 construction

#25-04 Dickenson's Mississippi Estate Street Reconstruction

- Design and plan preparation in progress
- 2025 construction

#25-05 High Point Street Reconstruction

- Design and plan preparation in progress
- 2025 construction
- ***See separate design alternative case***

#25-06 Sorteberg's Street Reconstruction

- Design and plan preparation in progress
- 2025 construction

#25-09 2025 Crack Seal Improvements

- 2025 construction
- ***See separate bid authorization case***

#25-10 2025 Pavement Rejuvenation

- 2025 construction
- ***See separate bid authorization case***

#24-01 Barthel's Rum River Acres & White Pine Estates Street Reconstructions

- Substantially complete
- Punch list items are being addressed

#24-02 Halls Dover Acres Street Reconstruction

- Substantially complete
- Punch list items are being addressed

#24-03 2024 NE Ramsey Street Reconstruction
- Substantially complete
- Punch list items are being addressed

#24-04 Ford Brook Estates Drainage Improvements
- Substantially complete
- Punch list items are being addressed

#24-05 Xkimo St MSA (TH47 to 142nd Avenue) Reconstruction
- Substantially complete
- Punch list items are being addressed

#24-06 2024 MSA Pavement Overlay Improvements (McKinley St)
- Substantially complete
- Punch list items are being addressed
- Final completion scheduled for June 30, 2025

#24-07 2024 Neighborhood Overlay Improvements
- Substantially complete
- Punch list items are being addressed

#24-11 Alpine Drive MSA Street Reconstruction (Puma St to CSAH 83)
- Substantially complete
- Punch list items are being addressed

#24-12 Juniper Woods 1st – 3rd Street Reconstruction
- Substantially complete
- Punch list items are being addressed

#24-13 Fox Ridge Estates 1st and 2nd Additions Street Reconstruction
- 2024 skim patching completed
- 2025 reconstruction
- ***See separate bid award case***

#24-14 Ramsey Gateway Mississippi River Outfall Removal
- 2025 Change Order to IP #20-11, Ramsey Gateway Highway 10 Improvements

#24-51 TH 47 Trail Gap Connection – 142nd Avenue to Xkimo Street
- Bolton & Menk prepared plans and specs for 10' trail construction
- ***MnDOT cost contribution update is anticipated to be available in February***

#24-56 Lift Station #1 Generator Improvements
- Generator installation anticipated mid-January

#23-19 COR Infrastructure Improvements
- Construction complete
- Punch list items are being addressed

#23-20 COR Mass Grading
- Construction complete
- Final payment in progress

#21-08 WTP Trunk Watermain Improvements
- Construction complete
- Punch list items are being addressed

#21-09 Centralized Water Treatment Plant
- Construction in progress

- Substantial completion scheduled in August, 2025
- Final completion scheduled for October, 2025

#20-11 Ramsey Gateway Highway 10 Improvements

- Sunfish Lake Blvd grade separations (RR and TH10) are complete and open to traffic
- Ramsey Blvd grade separations (RR and TH10) will be constructed in 2025
- Final completion anticipated June 2026
- Project webpage https://www.anokacountymn.gov/3918/Hwy-10Ramsey-Blvd-Interchange

City of Anoka Improvement Projects

Ferry Street / Trunk Highway 47 Grade Separation of BNSF Rail Crossing

- City is leading project
- $45M in bonds authorized October 2020

Highway 47 Corridor Improvements – Garfield St to Bunker Lk Blvd

- Combined with above City-led project
- 3-lane design
- Received regional solicitation funds for 2027 construction
- Permanent signal system at McKinley Street
- Construction proposed for 2027 - 2029

Anoka County Improvement Projects

- No updates.

MnDOT Improvement Projects

- No updates.

Studies & Items of Interest

Wetland 114 P staff updates

- Water levels are stable.
- Staff continues to monitor water levels and will provide updates as needed.

Commercial/Industrial/Residential Developments

- Staff can respond to questions as needed.

PWC Future Topics Calendar Discussion Items

See calendar in next case.

Notification:

Notification is not required for this case.

Time Frame/Observations/Alternatives:

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

Recommendation:

Staff will offer recommendations on specific items when requested.

Outcome/Action:

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

Attachments

No file(s) attached.

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	01/16/2025 04:05 PM
Form Started By: Bruce Westby		Started On: 01/15/2025 06:50 PM
Final Approval Date: 01/16/2025		

Public Works Committee

Meeting Date: 01/21/2025

Primary Strategic Plan Initiative: Not Applicable

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.

Notification:

Notification is not required for this case.

Time Frame/Observations/Alternatives:

Less than 5 minutes is anticipated to be necessary to review the future topics calendar and address questions.

Funding Source:

Dependent on discussion.

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; _____.

Outcome/Action:

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

Attachments

PWC Calendar Jan2025

Form Review

Inbox	Reviewed By	Date
Brian Hagen	Brian Hagen	01/16/2025 04:05 PM
Form Started By: Bruce Westby		Started On: 01/15/2025 06:52 PM
Final Approval Date: 01/16/2025		

Public Works Committee Future Topics Calendar *

Date	Topics for Discussion – Committee Action
Future/TBD	Sunwood Drive Roundabout Landscaping *(Riverblood)*
Ongoing	Veterans Drive Dog Park Fence *(Riverblood)*
Date	**Topics for Discussion – Regulatory**
Date	**Topics for Discussion – Policy**
Future/TBD	Landscaped Median Maintenance Policy *(Riverblood)*
Jan. 2025	***Gravel Road Elimination Policy (Westby)***
Date	**Topics for Discussion – Planning and Budget**
Future/TBD	Asset Management Program Update *(Westby)*
Ongoing	Targeted Trail Gap Connection Planning *(Riverblood)*
Ongoing	Use of Recycled Shingles for Pavement Patching *(Westby)*
Date	**Topics for Discussion – Staff Updates**
Ongoing	Project Review Process Improvements *(Westby)*
Ongoing	Flashing Yellow Arrow Improvement Opportunities *(Westby)*
Ongoing	TH 47 Improvements, Bunker Lk Blvd to Hwy 10 *(Westby)*
Feb. 2024	TH 47 Trail Connection - 142nd to So. of Xkimo *(Riverblood)*

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