

2026 NOVOTNY ROAD IMPROVEMENTS PROJECT

CONSTRUCTION PLANS FOR:
 SANITARY SEWER, WATERMAIN, STORM SEWER & STREET IMPROVEMENTS
 BAXTER, MINNESOTA
 STARK ENGINEERING PROJECT #25-135



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.
 Date: 4/24/26
 Registration No. 26093
 Name: Leo A. Daly

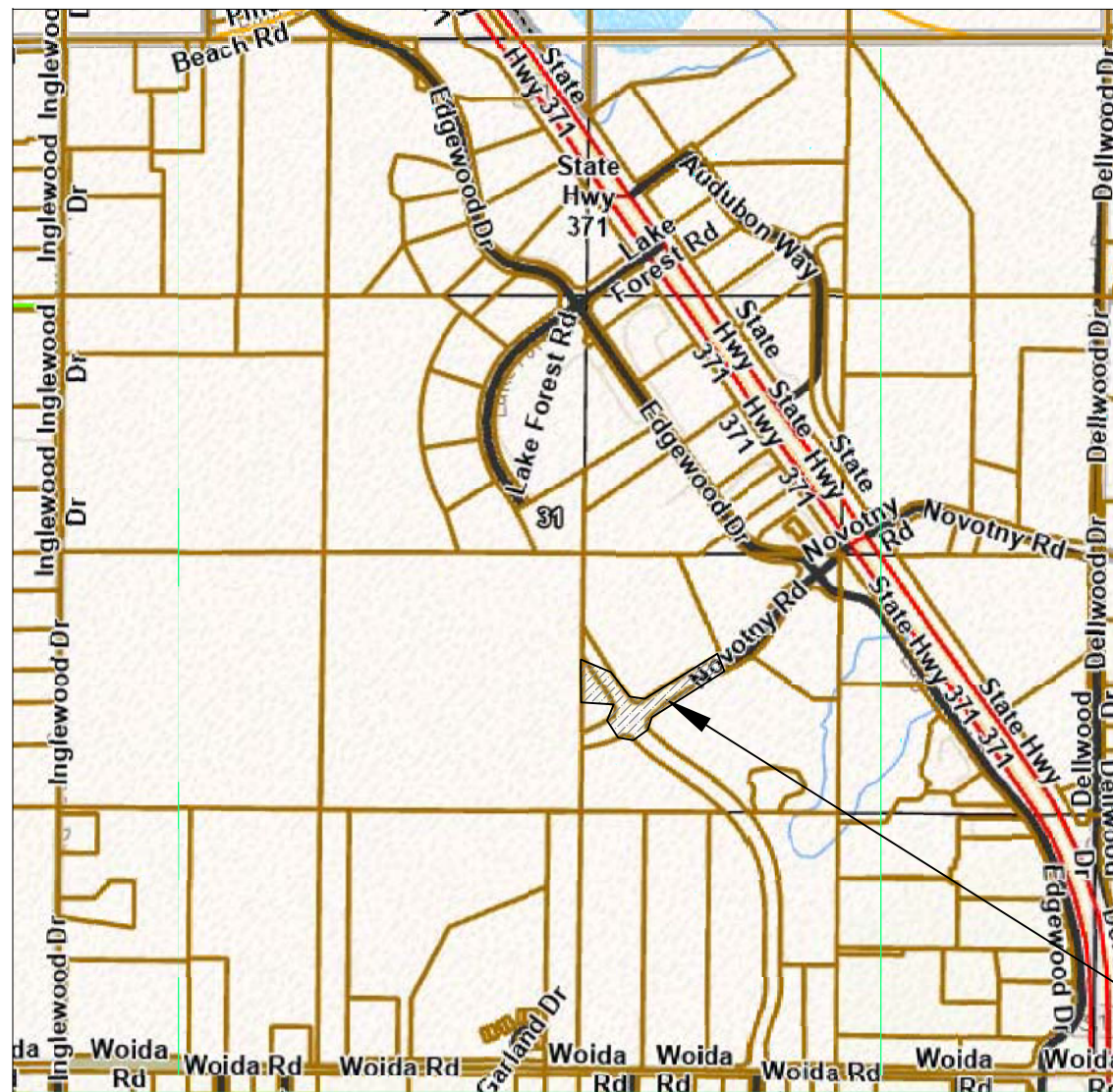
REVISIONS	CONST. DOC	CITY REVIEW
1/26/26		
3/23/26		
4/24/26		

TITLE SHEET

2026 NOVOTNY ROAD IMPROVEMENTS
 BAXTER, MINNESOTA
 for: LEO A. DALY

SHEET INDEX

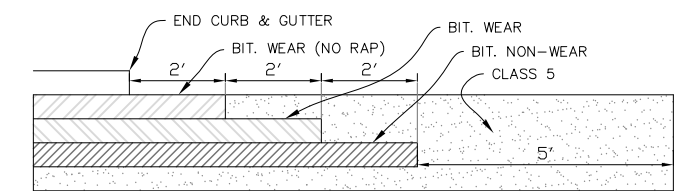
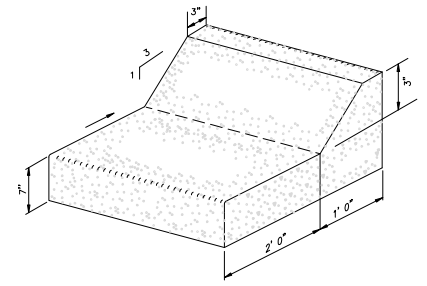
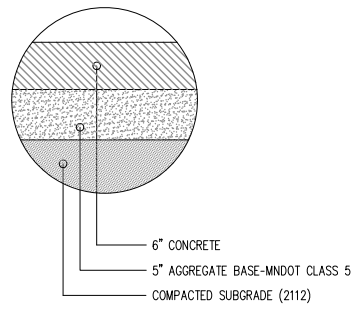
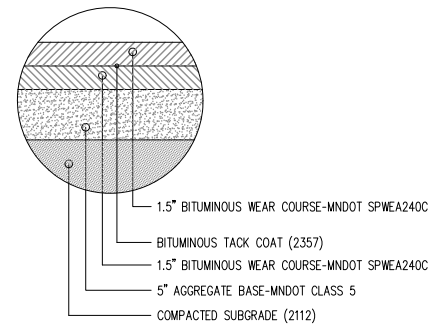
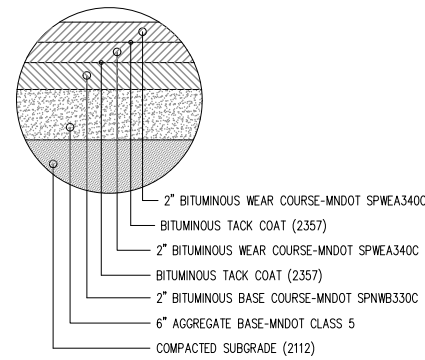
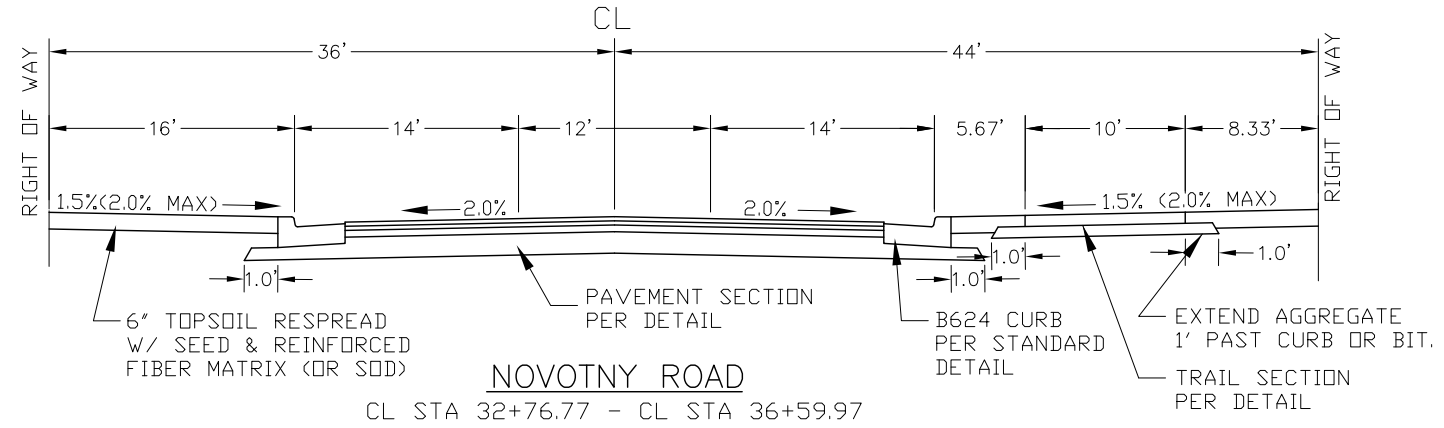
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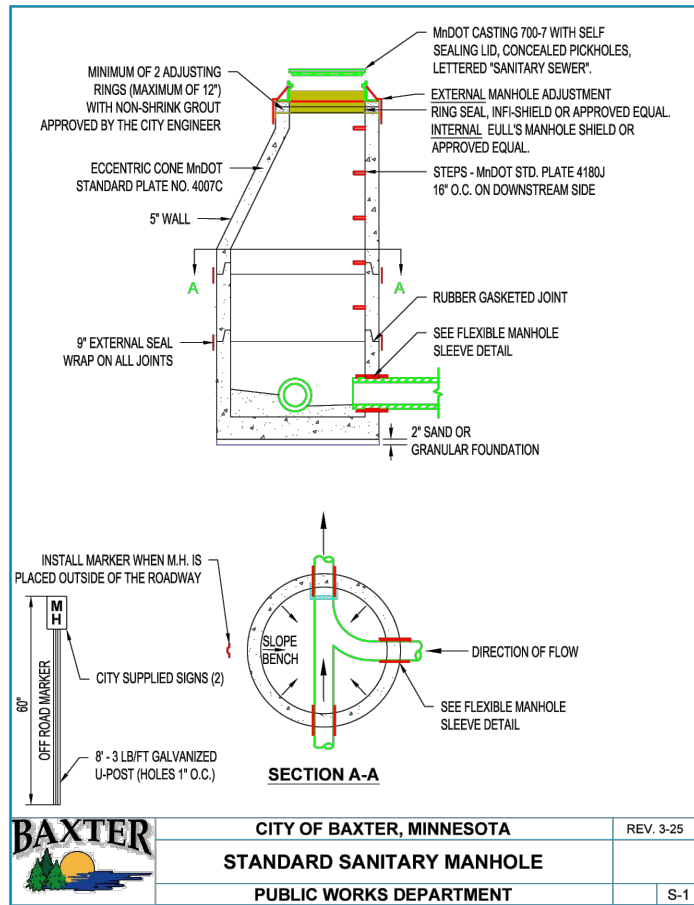
PROJECT AREA
 NOVOTNY ROAD IMPROVEMENTS

STATEMENT OF ESTIMATED QUANTITIES FOR- Novotny Road

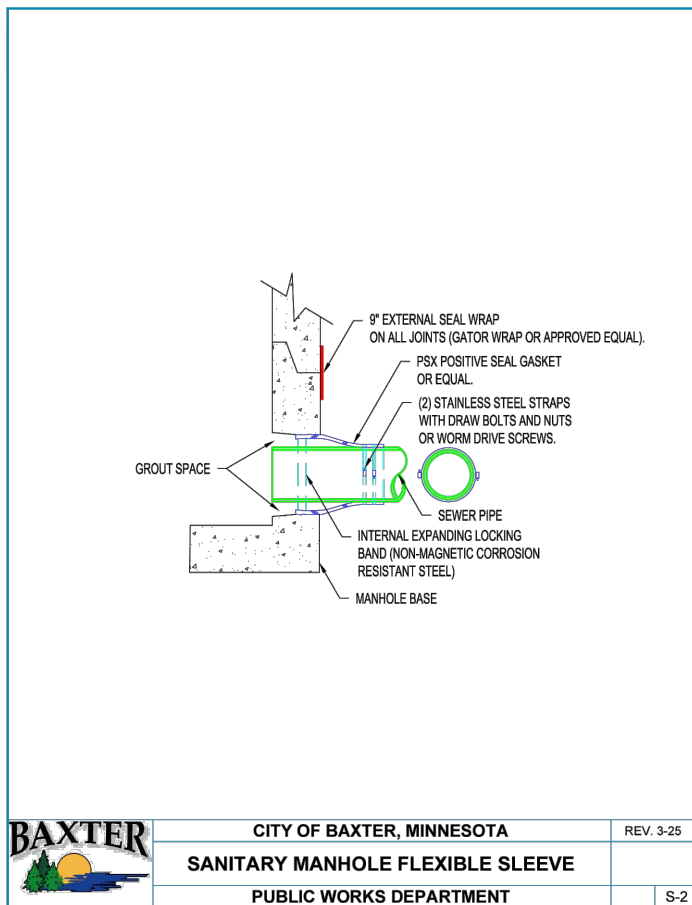
NO.	ITEM	QUANTITY	UNIT
1	MOBILIZATION	1	LUMP SUM
2	CLEARING AND GRUBBING	1	LUMP SUM
3	COMMON EXCAVATION (PLANNED QUANTITY)	4,200	CU. YD.
4	STRUCTURAL FILL (LOOSE VOLUME)	8,850	CU. YD.
5	BORROW MATERIAL (LOOSE VOLUME)	5,800	CU. YD.
6	STRIP, STOCKPILE, AND SPREAD 6" TOPSOIL (PLANNED QUANTITY)	1,230	CU. YD.
7	SILT FENCE	2,650	LIN. FT.
8	ROCK CONSTRUCTION ENTRANCE	1	EACH
9	INLET PROTECTION	9	EACH
10	STREET SWEEPER (WITH PICKUP BROOM)	15	HOURL
11	CONSTRUCTION WATER	10	1000 GAL
12	TEMPORARY SEEDING	1.55	ACRE
13	PERMANENT TURF SEED, FERTILIZER, ADDITIVE & RFM	1.85	ACRE
14	WET DITCH NATIVE SEED FOR POND AREA	0.40	ACRE
15	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	110	LIN. FT.
16	REMOVE BITUMINOUS PAVEMENT	25	SQ. YD.
17	REMOVE EXISTING CURB STOP	1	EACH
18	REMOVE EXISTING CURB & GUTTER	74	LIN. FT.
19	MILL BITUMINOUS PAVEMENT	71	SQ. YD.
20	12" RCP STORM SEWER	410	LIN. FT.
21	15" RCP STORM SEWER	218	LIN. FT.
22	18" RCP STORM SEWER	56	LIN. FT.
23	12" RCP FES WITH FLEXMAT	1	EACH
24	18" RCP FES WITH FLEXMAT	1	EACH
25	STORM SEWER CATCH BASIN MANHOLE	9	EACH
26	STORM SEWER OUTFLOW MANHOLE	1	EACH
27	FLEXMAT EOF	1	EACH
28	CONNECT TO EXISTING SANITARY SEWER	2	EACH
29	6" PVC SEWER (SDR 26)	77	LIN. FT.
30	8" PVC SEWER (SDR 26)	280	LIN. FT.
31	10" PVC SEWER (SDR 26)	678	LIN. FT.
32	SANITARY MANHOLE	47.3	LIN. FT.
33	TRACER WIRE SYSTEM (SANITARY)	1	LUMP SUM
34	CLEAN AND TELEWISE SANITARY SYSTEM	1	LUMP SUM
35	CONNECT TO EXISTING WATER MAIN	1	EACH
36	8" GATE VALVE	2	EACH
37	12" GATE VALVE	4	EACH
38	HYDRANT AND 6" GATE VALVE	2	EACH
39	6" C900 WATER MAIN	104	LIN. FT.
40	8" C900 WATER MAIN	73	LIN. FT.
41	12" C900 WATER MAIN	1,069	LIN. FT.
42	DUCTILE IRON FITTINGS	889	LBS
43	TRACER WIRE SYSTEM (WATERMAIN)	1	LUMP SUM
44	AGGREGATE BASE (CV) CLASS 5 (P)	824	CU. YD.
45	TYPE SP 9.5 WEARING COURSE MIXTURE	681	TON
46	TYPE SP 12.5 NON WEARING COURSE MIXTURE	378	TON
47	BITUMINOUS MATERIAL FOR TACK COAT	454	GAL
48	COMMERCIAL DRIVEWAYS	2	EACH
49	CONCRETE B624 CURB AND GUTTER	1,425	LIN. FT.
50	CONCRETE D424 CURB AND GUTTER	663	LIN. FT.
51	CONCRETE R424 CURB AND GUTTER	170	LIN. FT.
52	7" CONCRETE MEDIAN	224	SQ. YD.
53	7" CONCRETE CENTER ISLAND	236	SQ. YD.
54	PEDESTRIAN RAMPS	753	SQ. FT.
55	TRUNCATED DOME PANELS	512	SQ. FT.
56	STRIPING - 4" BROKEN LINE YELLOW PAINT	112	LIN. FT.
57	STRIPING - 4" SOLID LINE YELLOW PAINT	602	LIN. FT.
58	STRIPING - 12" SOLID LINE YELLOW PAINT	51	LIN. FT.
59	STRIPING - LEFT TURN ARROW	4	EACH
60	STRIPING - CROSSWALK	8	EACH
61	STRIPING - 8" DOTTED WHITE LINE (THERMOPLASTIC)	60	LIN. FT.
62	STREET SIGNAGE	12	EACH
63	STREET LIGHTS	8	EACH
64	TEMPORARY BARRICADES	9	EACH



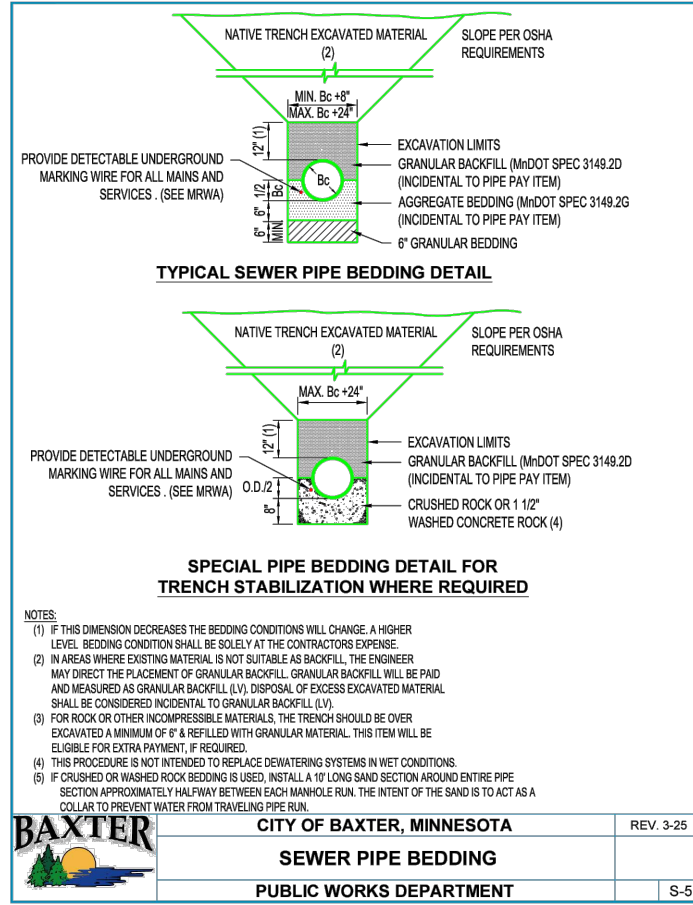
MNDOT STANDARD PLATES	
STANDARD PLATE	DESCRIPTION
3000M	REINFORCED CONCRETE PIPE
3006H	GASKET JOINT FOR REINFORCED CONCRETE PIPE
3007F	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3022C	PRECAST CONCRETE SAFETY APRON
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3145G	CONCRETE PIPE OR PRECAST BOX CULVERT TIES
4006L	CATCH BASIN, DESIGN G & H
4007C	PRECAST MECHANICAL JOINT SEWER MANHOLE
4010I	CONCRETE ADJUSTING RINGS
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN COVER
4108F	ADJUSTING RINGS FOR CATCH BASINS AND MANHOLES
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN (700-7)
4180J	MANHOLE OR CATCH BASIN STEP
7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100H	CONCRETE CURB & GUTTER (B624)
7111J	INSTALLATION OF CATCH BASIN CASTINGS



BAXTER	CITY OF BAXTER, MINNESOTA	REV. 3-25
	STANDARD SANITARY MANHOLE	
	PUBLIC WORKS DEPARTMENT	S-1



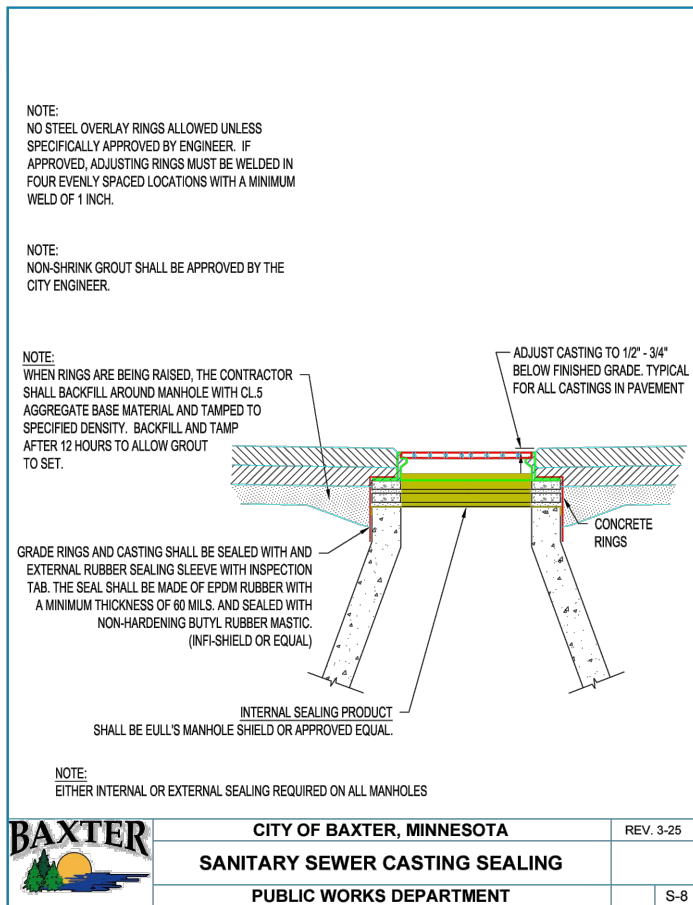
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	SANITARY MANHOLE FLEXIBLE SLEEVE	
	PUBLIC WORKS DEPARTMENT	S-2



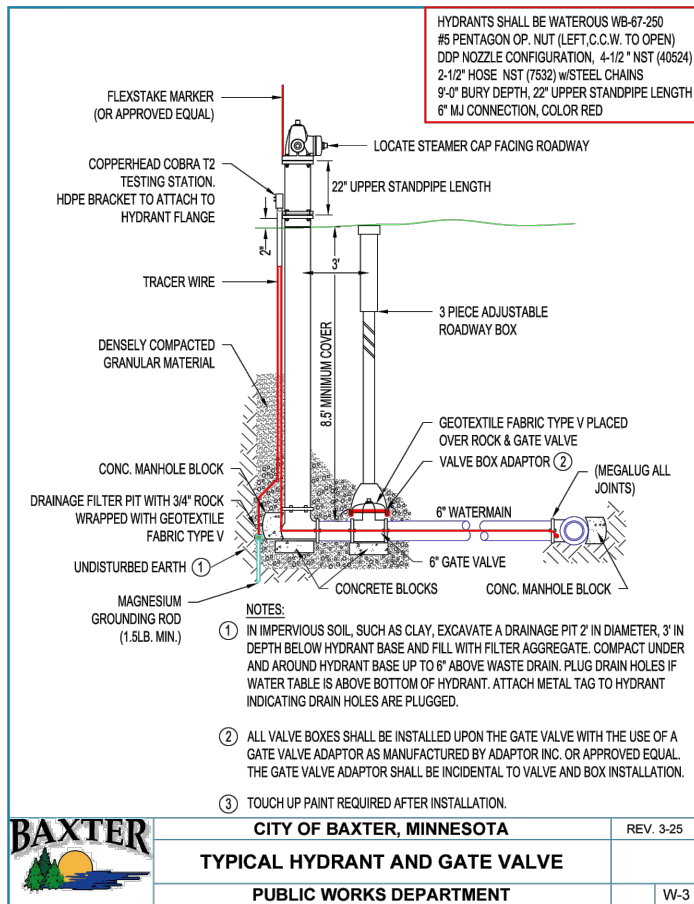
NOTES:

- (1) IF THIS DIMENSION DECREASES THE BEDDING CONDITIONS WILL CHANGE. A HIGHER LEVEL BEDDING CONDITION SHALL BE SOLELY AT THE CONTRACTOR'S EXPENSE.
- (2) IN AREAS WHERE EXISTING MATERIAL IS NOT SUITABLE AS BACKFILL, THE ENGINEER MAY DIRECT THE PLACEMENT OF GRANULAR BACKFILL. GRANULAR BACKFILL WILL BE PAID AND MEASURED AS GRANULAR BACKFILL (LV). DISPOSAL OF EXCESS EXCAVATED MATERIAL SHALL BE CONSIDERED INCIDENTAL TO GRANULAR BACKFILL (LV).
- (3) FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHOULD BE OVER EXCAVATED A MINIMUM OF 6" & REFILLED WITH GRANULAR MATERIAL. THIS ITEM WILL BE ELIGIBLE FOR EXTRA PAYMENT, IF REQUIRED.
- (4) THIS PROCEDURE IS NOT INTENDED TO REPLACE DEWATERING SYSTEMS IN WET CONDITIONS.
- (5) IF CRUSHED OR WASHED ROCK BEDDING IS USED, INSTALL A 10' LONG SAND SECTION AROUND ENTIRE PIPE SECTION APPROXIMATELY HALFWAY BETWEEN EACH MANHOLE RUN. THE INTENT OF THE SAND IS TO ACT AS A COLLAR TO PREVENT WATER FROM TRAVELING PIPE RUN.

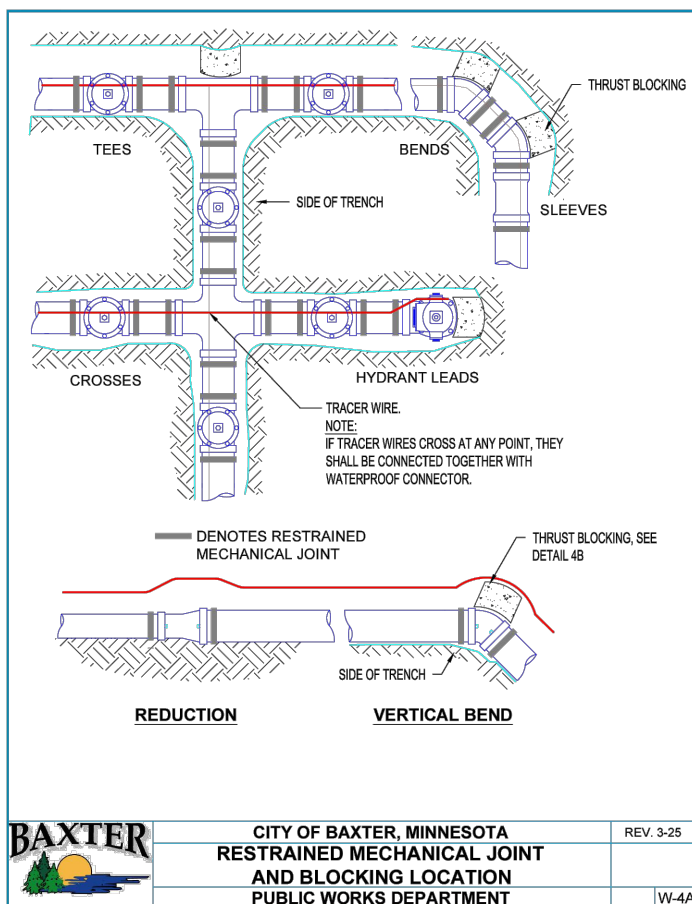
BAXTER	CITY OF BAXTER, MINNESOTA	REV. 3-25
	SEWER PIPE BEDDING	
	PUBLIC WORKS DEPARTMENT	S-5



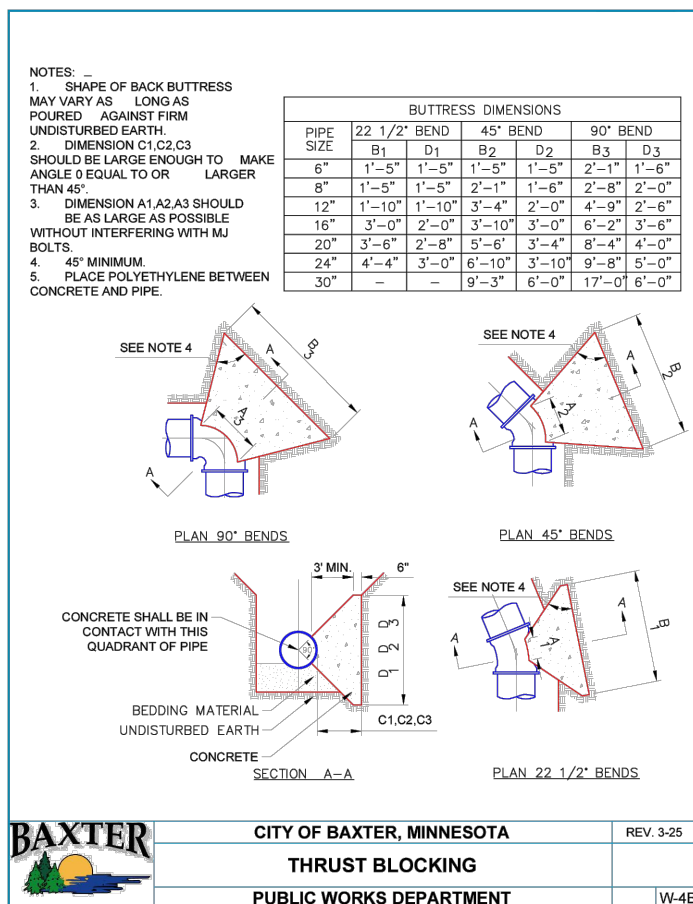
BAXTER	CITY OF BAXTER, MINNESOTA	REV. 3-25
	SANITARY SEWER CASTING SEALING	
	PUBLIC WORKS DEPARTMENT	S-8



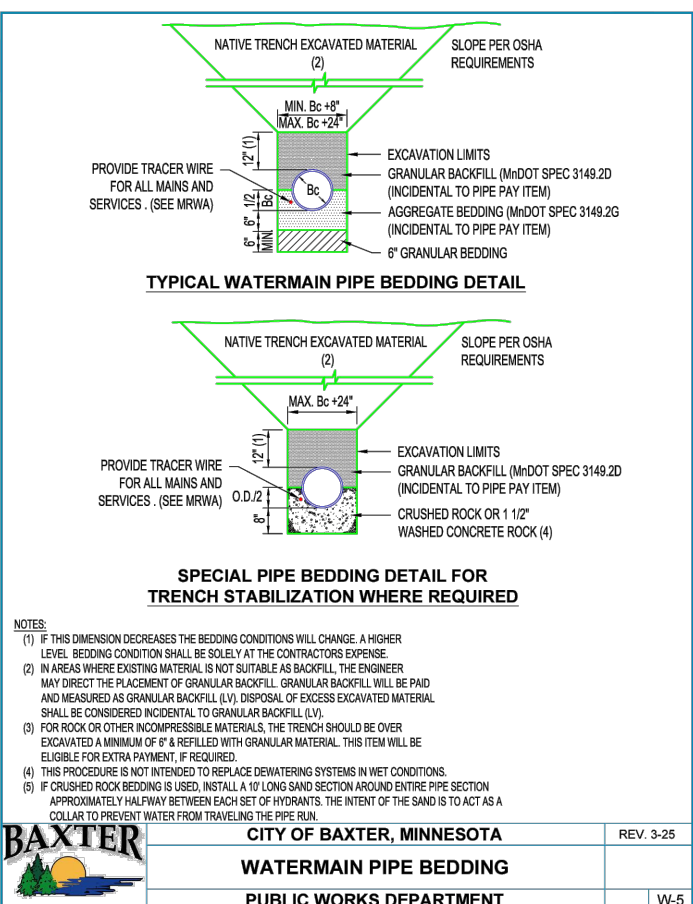
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	TYPICAL HYDRANT AND GATE VALVE	
	PUBLIC WORKS DEPARTMENT	WV-3



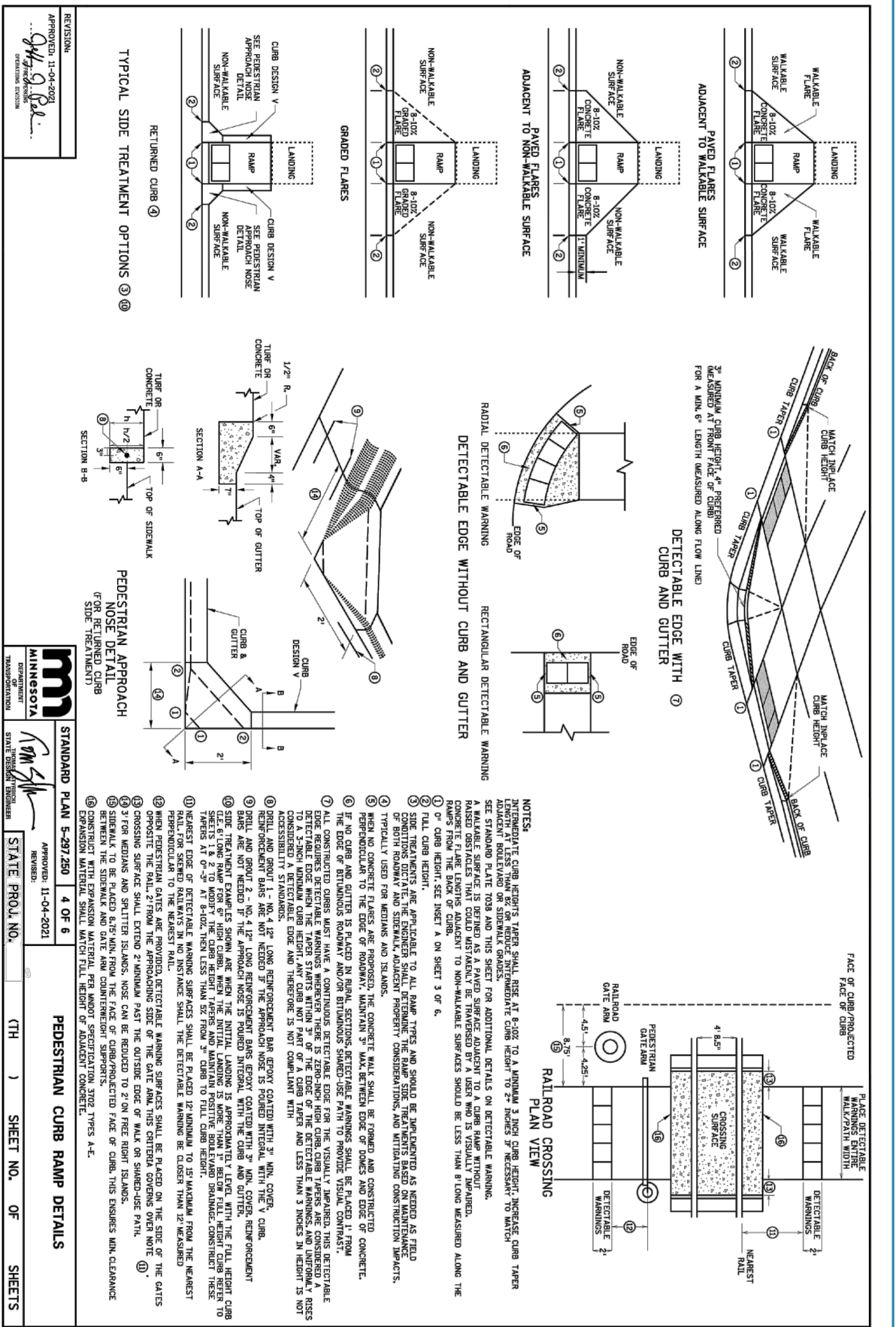
BAXTER	CITY OF BAXTER, MINNESOTA	REV. 3-25
	RESTRAINED MECHANICAL JOINT AND BLOCKING LOCATION	
	PUBLIC WORKS DEPARTMENT	WV-4A



BAXTER	CITY OF BAXTER, MINNESOTA	REV. 3-25
	THRUST BLOCKING	
	PUBLIC WORKS DEPARTMENT	WV-4B



BAXTER	CITY OF BAXTER, MINNESOTA	REV. 3-25
	WATERMAIN PIPE BEDDING	
	PUBLIC WORKS DEPARTMENT	WV-5

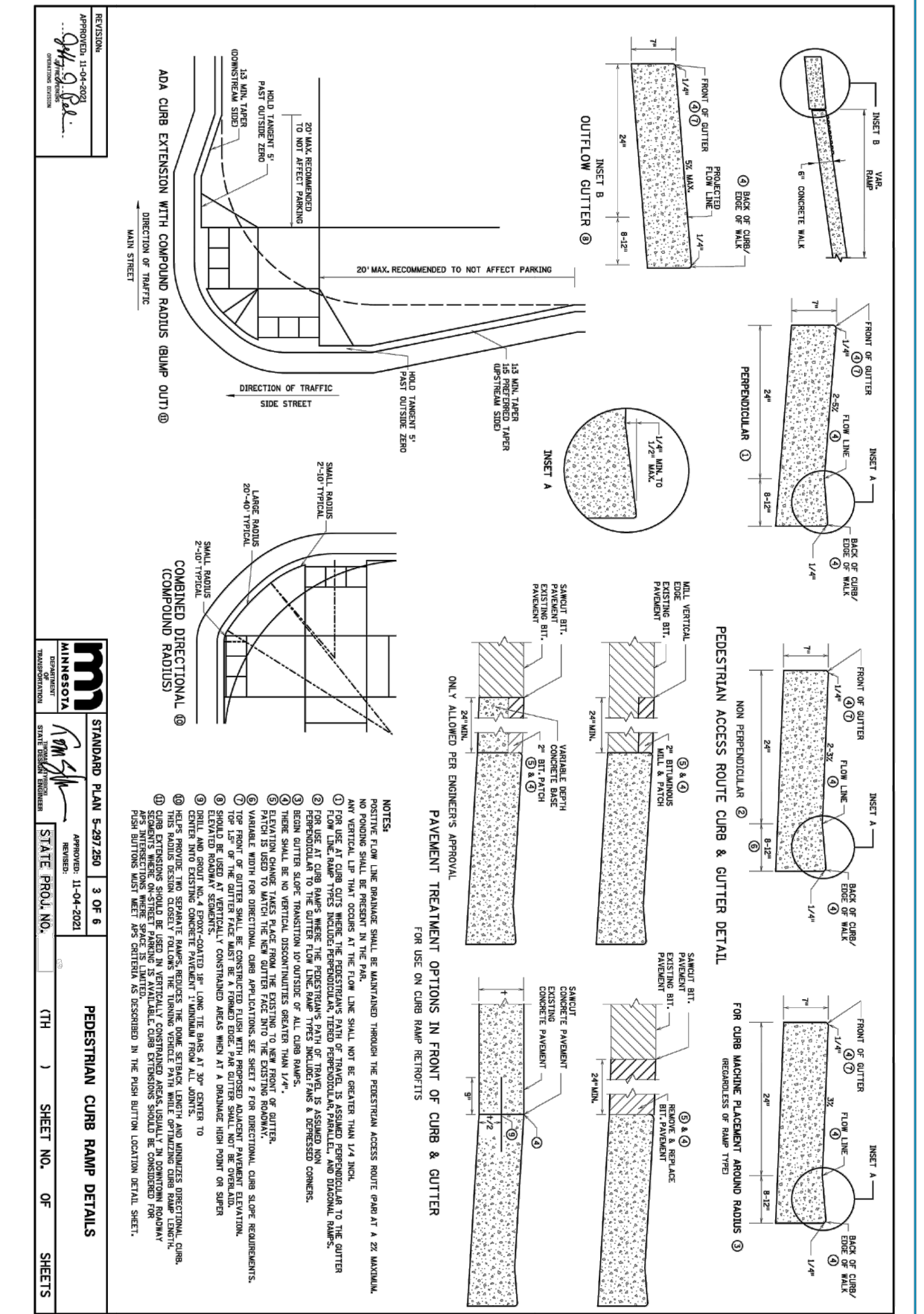


REVISED: APPROVED: 11-04-2021
STANDARD PLAN 5-297.250 4 OF 6
STATE PROJ. NO. (TH)) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

CITY OF BAXTER, MINNESOTA
PUBLIC WORKS DEPARTMENT

REV. 3-25 RD-4

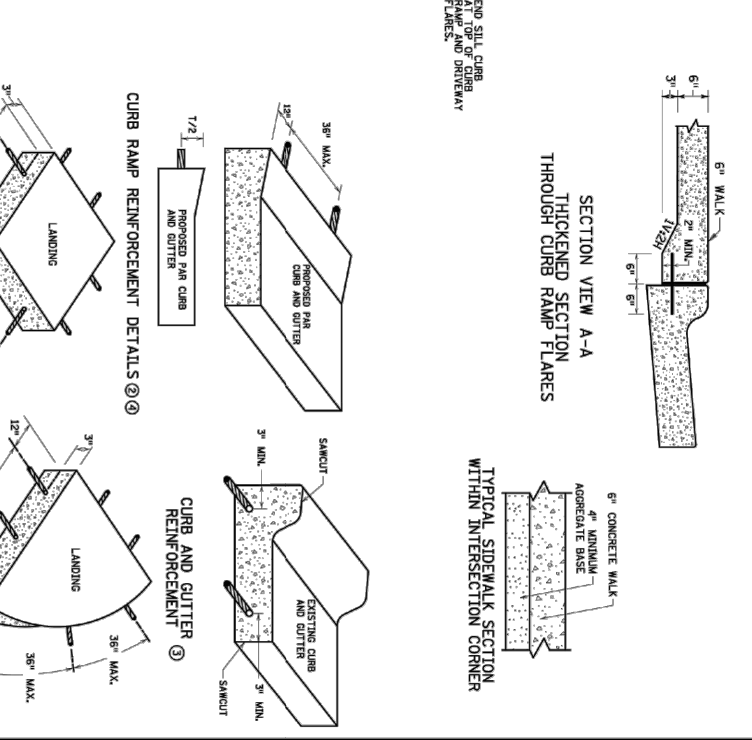
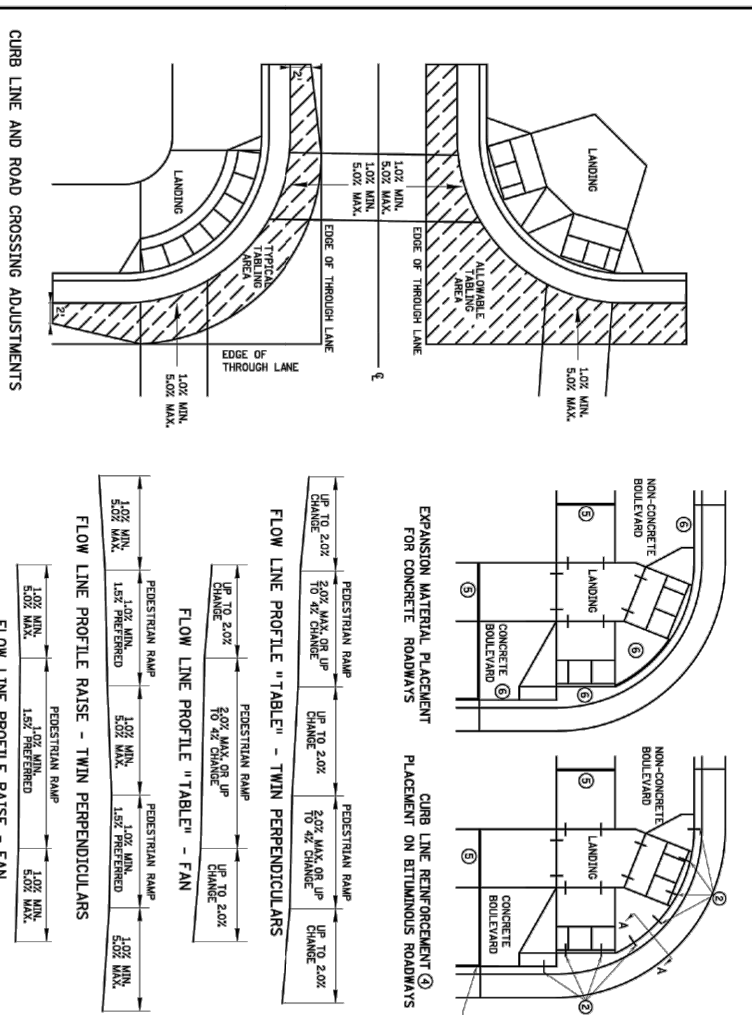


REVISED: APPROVED: 11-04-2021
STANDARD PLAN 5-297.250 3 OF 6
STATE PROJ. NO. (TH)) SHEET NO. OF SHEETS

PEDESTRIAN CURB RAMP DETAILS

CITY OF BAXTER, MINNESOTA
PUBLIC WORKS DEPARTMENT

REV. 3-25 RD-3



GENERAL NOTES:

"TABLET" OF CROSSWALK 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 SCENE ALLOWS.

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

WALK & OVERLAP PROJECTS "TABLET" OF FLOW LINES IN FRONT OF THE PEDESTRIAN RAMP IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2% AND THE PROJECT SCENE ALLOWS. THE FLOW LINES IN FRONT OF THE THROUGH LANE, TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:

1. 2% MAX. CROSS-SLOPE OF THE ROAD
2. 12" MIN. WALK CROSS-SLOPE
3. 1" MIN. 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

SEPARATE LANDING POUR REINFORCEMENT SHALL BE USED FOR ALL CONSTRUCTION JOINTS, BARS TO BE PAID BY EACH.

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

1. 1.0% MIN. AND 6.0% MAX. MAXIMUM CROSS-SLOPE OF PEDESTRIAN RAMP
2. 1.0% RECOMMENDED MAX. FLOW LINE
3. 5.0% RECOMMENDED MAX. FLOW LINE
4. LONGITUDINAL THROUGH LANE ROADWAY TAPER SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

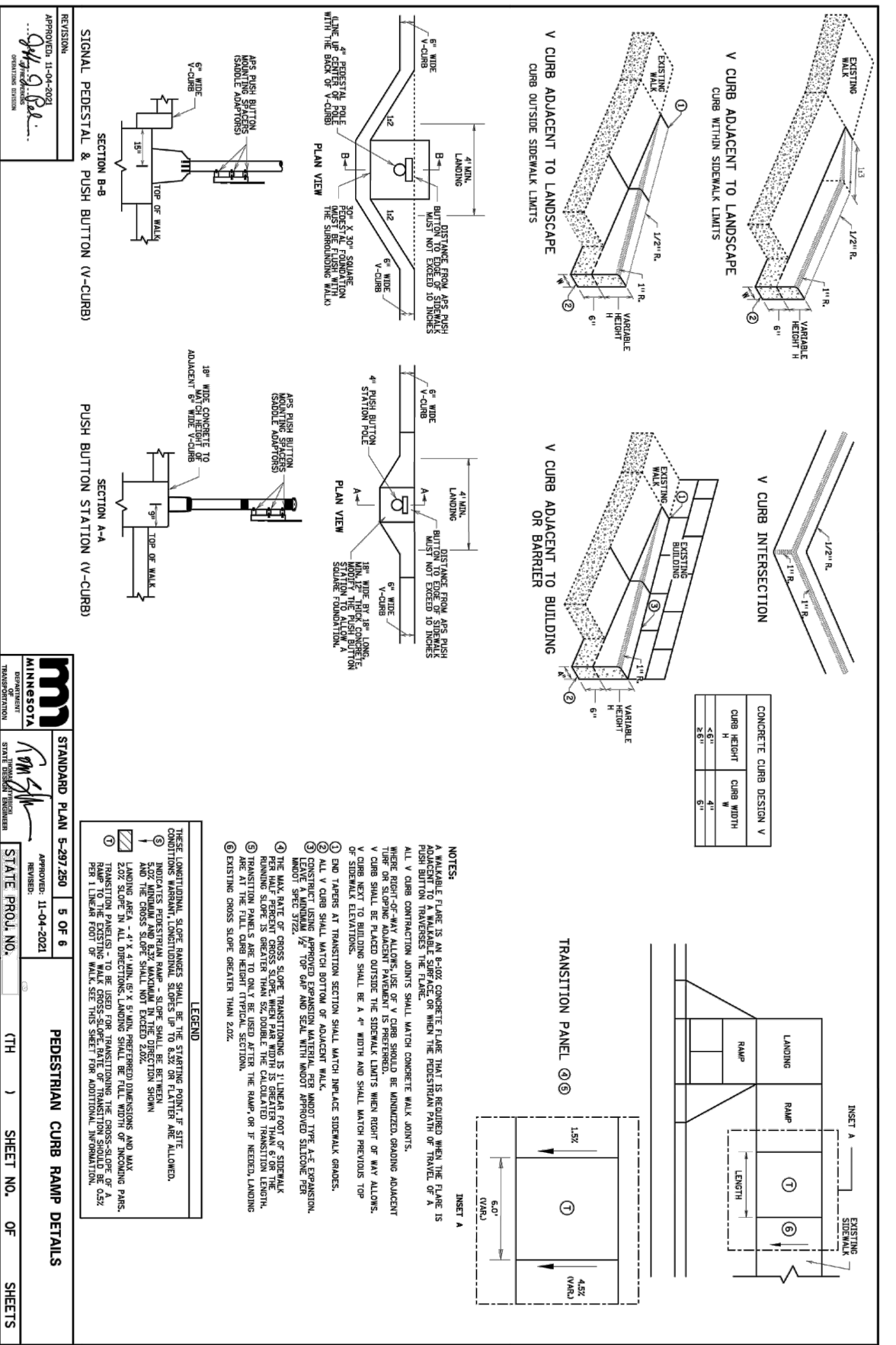
1. TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE RAINING SLOPE GREATER THAN 2% SHALL BE FORMED AND PLACED SEPARATELY BY AN INDEPENDENT CONCRETE POUR.
2. DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS EPOXY COATED AT 36" MAXIMUM CENTER TO CENTER 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.
4. THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS SEE NOTE 6.
5. CONSTRUCT WITH EXPANSION MATERIAL PER MINOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
6. USE AN APPROVED TYPE F 0.4" THICK THRUO SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF PAVEMENT OVERLAY.

APPROVED: 11-04-2021
REVISIONS: *W. A. Dalby*
STANDARD PLAN 5-297250 6 OF 6
MINNESOTA DEPARTMENT OF TRANSPORTATION STATE HIGHWAY DESIGN
STATE PROJ. NO. (TH)) SHEET NO. OF SHEETS
PEDESTRIAN CURB RAMP DETAILS



CITY OF BAXTER, MINNESOTA
PEDESTRIAN CURB RAMP DETAILS
PUBLIC WORKS DEPARTMENT

REV. 3-25
RD-6



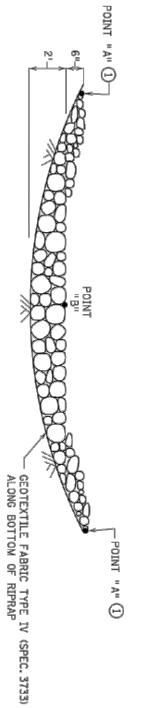
APPROVED: 11-04-2021
REVISIONS: *W. A. Dalby*
STANDARD PLAN 5-297250 5 OF 6
MINNESOTA DEPARTMENT OF TRANSPORTATION STATE HIGHWAY DESIGN
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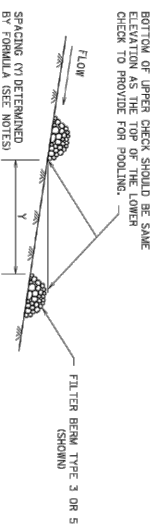
CITY OF BAXTER, MINNESOTA
PEDESTRIAN CURB RAMP DETAILS
PUBLIC WORKS DEPARTMENT

REV. 3-25
RD-5

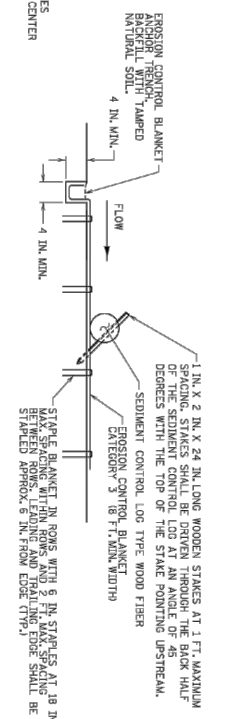
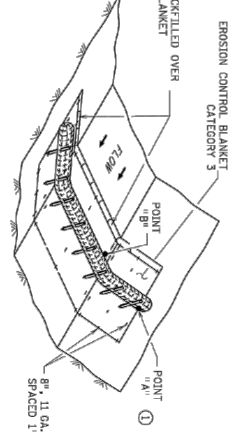
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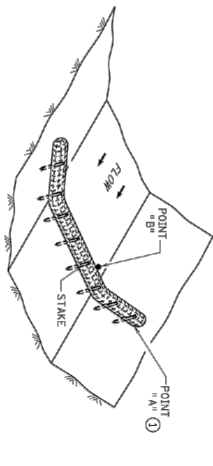
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) (3)
FOR USE ON ROUGH GRADED AREAS



DITCH CHECK SPACING
FOR ALL FILTER BERM TYPES



SEDIMENT CONTROL LOG TYPE BLANKET SYSTEM (3)



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST (3)
FOR USE ON ROUGH GRADED AREAS

- NOTES:**
SEE SPECS. 2973, 3901, 3733, 3886, 3888 & 3899.
FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:
APPROXIMATE SPACING OF DITCH CHECKS (FT) = $Y = \frac{100 \times X}{V}$
X = DITCH CHECK HEIGHT (FT)
V = CHANNEL SLOPE
X 100
① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DITCH AND NOT AROUND THE ENDS.
② PERMANENT ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT, A 1/8" APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.
③ DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT/SEC.
④ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT/SEC.
⑤ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT/SEC.

REVISIONS
APPROVED 2-28-2017
DESIGNED AND DRAWN BY: *[Signature]*
CITY ENGINEER

REVISIONS
APPROVED 2-28-2017
DESIGNED AND DRAWN BY: *[Signature]*
STATE DESIGN ENGINEER

RECEIVED
APPROVED 2-28-2017
DESIGNED AND DRAWN BY: *[Signature]*
TEMPORARY SEDIMENT CONTROL DITCH CHECK



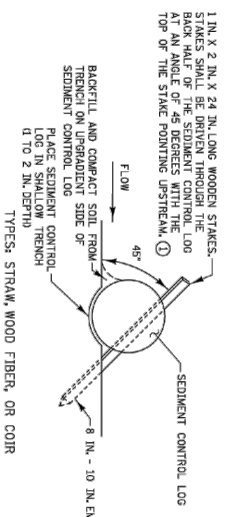
CITY OF BAXTER, MINNESOTA

DITCH CHECK

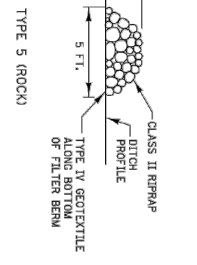
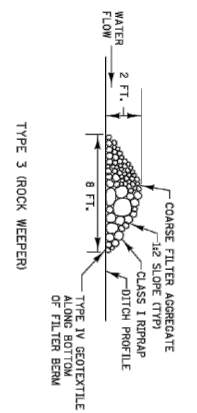
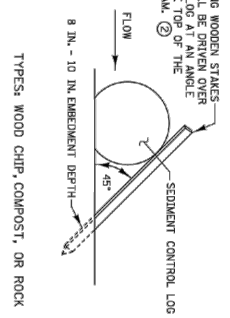
PUBLIC WORKS DEPARTMENT

EC-3

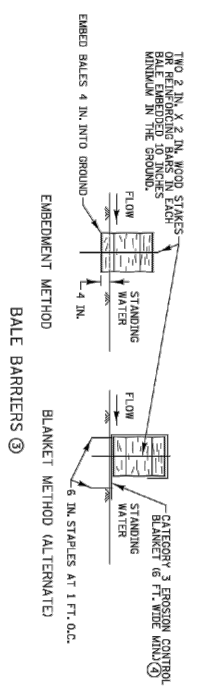
REV. 3-25



SEDIMENT CONTROL LOGS



TYPE 1 (COMPOST), TYPE 2 (SLASH MULCH), OR TYPE 4 (TOWNSOIL)



- NOTES:**
SEE SPECS. 2973, 3149, 3874, 3882, 3886, & 3897.
① GAGE BETWEEN STAKES SHALL BE A MAXIMUM OF 1 FOOT FOR DITCH CHECKS OR 2 FEET FOR OTHER APPLICATIONS.
② PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.
③ TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS 16 INCH MAX. DEPTH. BALES SHALL CONSIST OF TYPE 1 MULCH OR APPROXIMATELY 14 IN. X 18 IN. X 36 IN. LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.
④ INSTEAD OF TRENCHING, PLACE BALE ON THE BLANKET AND WRAP BLANKET AROUND THE BALE.

REVISIONS
APPROVED 2-28-2017
DESIGNED AND DRAWN BY: *[Signature]*
CITY ENGINEER

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APPROVED 2-28-2017
DESIGNED AND DRAWN BY: *[Signature]*
STATE DESIGN ENGINEER

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APPROVED 2-28-2017
DESIGNED AND DRAWN BY: *[Signature]*
TEMPORARY SEDIMENT CONTROL FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS



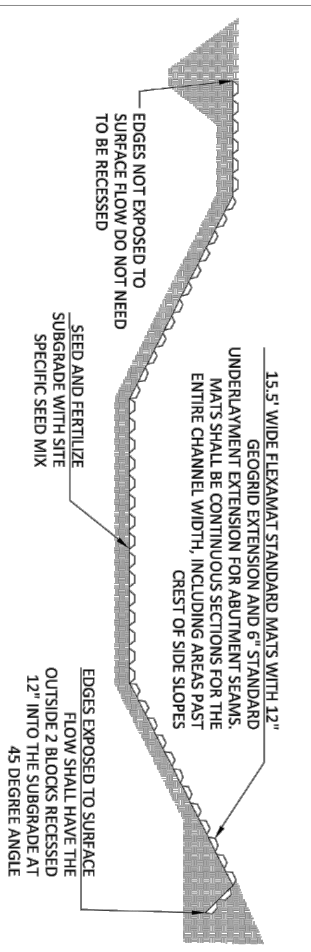
CITY OF BAXTER, MINNESOTA

FILTER BERMS, SEDIMENT CONTROL LOGS AND BALE BARRIERS

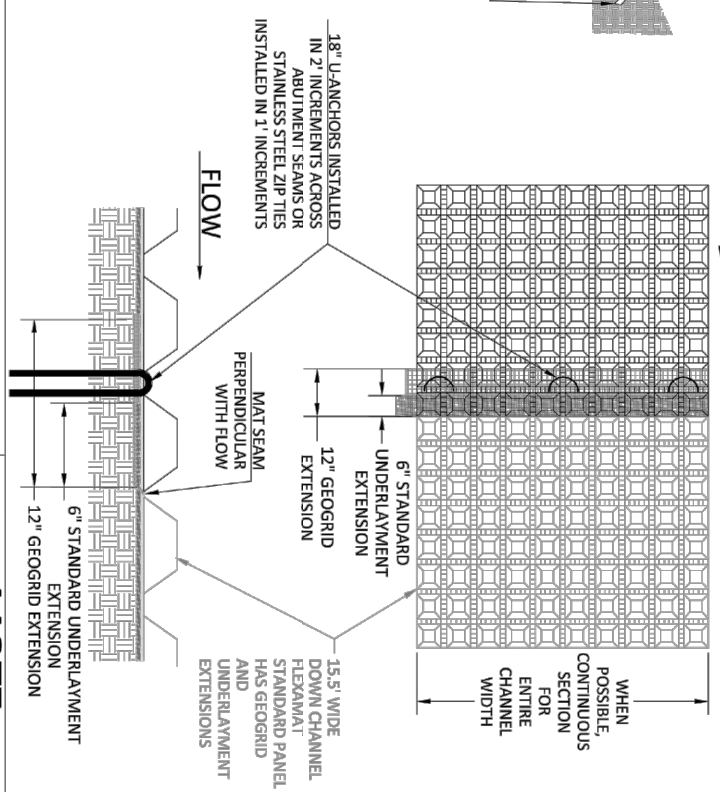
PUBLIC WORKS DEPARTMENT

EC-2

METHOD FOR TREATING EDGES EXPOSED TO SURFACE SHEET FLOW



ABUTMENT METHOD FOR SEAMS PERPENDICULAR WITH FLOW



FLEXAMAT STANDARD - CHANNEL LAYOUT PERPENDICULAR TO FLOW



CONSTRUCTION NOTES:

1. AN AUTHORIZED MANUFACTURER REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
2. GRADE CHANNEL SO THAT WATER WILL FLOW DOWN CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
3. PRIOR TO FLEXAMAT STANDARD INSTALLATION, SEED AND FERTILIZER SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
4. INSTALL FLEXAMAT STANDARD ROLLS THAT ARE 15.5' WIDE WITH A 12' GEOGRID EXTENSION AND 6' STANDARD UNDERLAYMENT EXTENSION.
 - 4.1. INSTALL MATS SO THAT THE MATTING EXTENDS PAST THE CREST OF EITHER SIDE SLOPE FOR SLOPES STEEPER THAN 2:1, EMBED EDGE IN A 12" VERTICAL ANCHOR TRENCH. MATS SHALL BE CONTINUOUS SECTIONS ACROSS THE CHANNEL, INCLUDING AREAS PAST CREST OF SIDE SLOPES.
 - 4.2. FOR SLOPES LESS THAN 2:1, OUTSIDE LONGITUDINAL EDGES SHALL BE EMBEDDED IN A 12' 45 DEGREE ANCHOR TRENCH. ONLY IF EXPOSED TO SURFACE FLOW.
 - 4.3. INSTALLATION STARTS AT THE DOWN CHANNEL END AND MOVES UP THE CHANNEL. TOWARDS THE START OF CHANNEL OR OUTLET STRUCTURE, INSTALL UP CHANNEL MATS OVER THE GEOGRID AND UNDERLAYMENT EXTENSIONS OF DOWNSTREAM MATS. ENSURE EXTENSIONS ARE LAYING FLAT ON SUBGRADE AND UNDER ADJACENT MAT.
 5. INSTALL 18" U-ANCHORS IN 2' INCREMENTS BEHIND ANCHOR TRENCH AND ACROSS MAT ABUTMENT SEAMS. INSTALL U-ANCHORS PERPENDICULAR TO FLOW DIRECTLY BEHIND FIRST BLOCK OF PERPENDICULAR TO FLOW AND ENCOMPASS A MINIMUM OF THREE CONDS OF GRID OF EITHER MAT AT ABUTMENT SEAMS.
 6. AT THE INITIAL LEADING EDGE OF THE ARMORED CHANNEL, EMBED MAT 18" IN A VERTICAL ANCHOR TRENCH. FILL AND COMPACT ANCHOR TRENCH WITH SUITABLE FILL AT ENDING EDGE OF

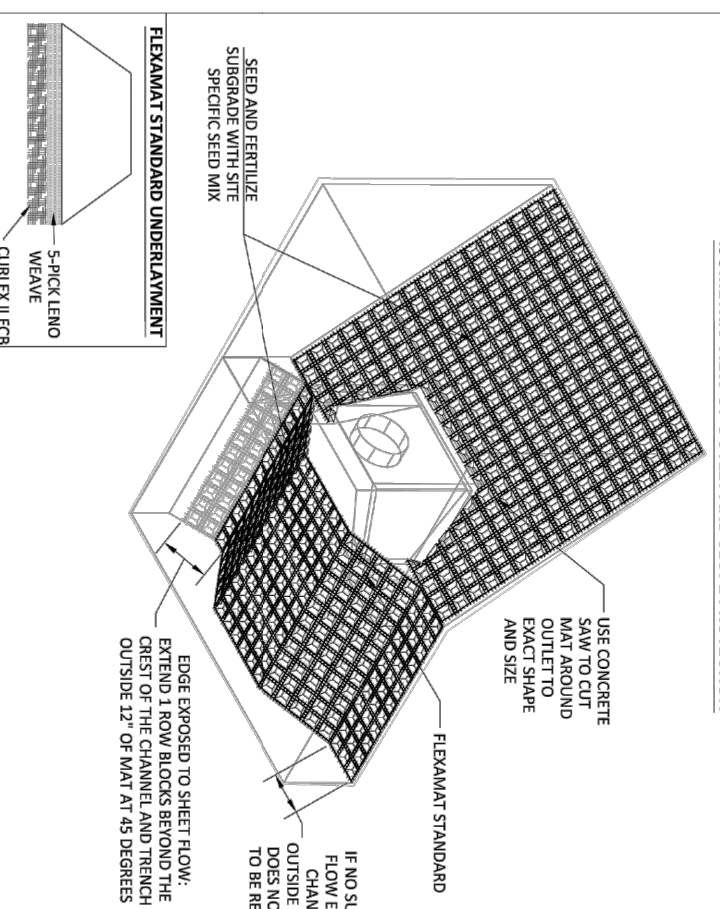
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ENTERPRISES, INC.
Flexamat
(513) 772-6689
Info@Flexamat.com
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CITY OF BAXTER, MINNESOTA
FLEXAMAT - CHANNEL LAYOUT
PUBLIC WORKS DEPARTMENT

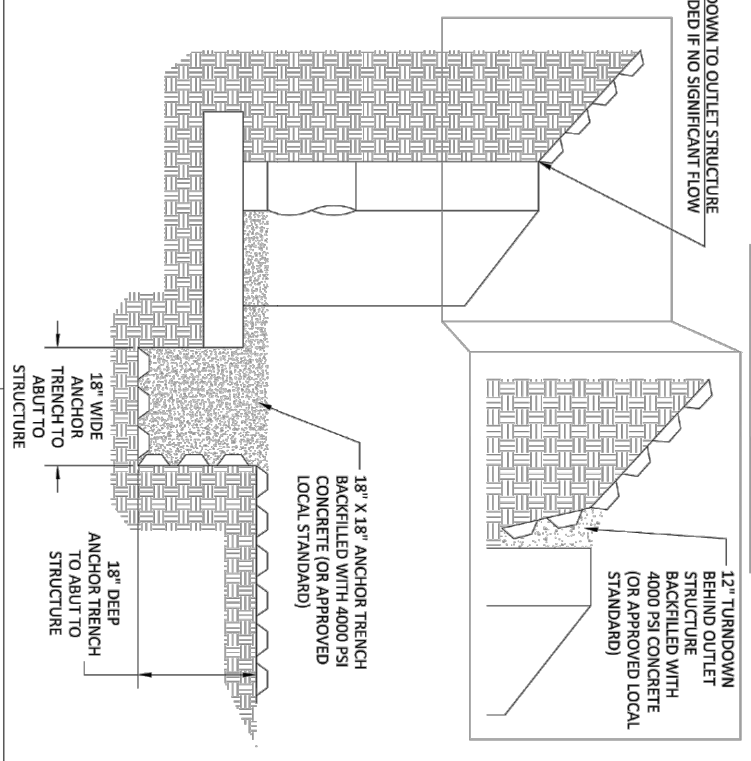
REV. 3-25
EC-9B

ISOMETRIC VIEW OF OUTLET AND SLOPE PROTECTION



TURNDOWN TO OUTLET STRUCTURE NOT NEEDED IF NO SIGNIFICANT FLOW

PROFILE VIEW OF ANCHOR TRENCHES



FLEXAMAT STANDARD - OUTLET ARMORING

CONSTRUCTION NOTES:

1. GRADE CHANNEL SO THAT WATER WILL FLOW DOWN CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND. THE PREPARED SURFACE SHALL PROVIDE A FIRM UNYIELDING FOUNDATION FOR THE MATS.
2. PRIOR TO FLEXAMAT STANDARD INSTALLATION, SEED AND FERTILIZER SUBGRADE WITH SITE SPECIFIC SEED MIX IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS.
3. INSTALL FLEXAMAT STANDARD ROLLS THAT ARE 15.5' WIDE WITH A 12' GEOGRID EXTENSION AND 6' UNDERLAYMENT EXTENSION.
 - 3.1. WHERE POSSIBLE AVOID LONGITUDINAL ABUTMENT SEAMS IN CHANNEL BOTTOM.
 - 3.2. FOR OUTLET PROTECTION WIDER THAN 16 SEE CHANNEL PARALLEL TO FLOW INSTALLATION DETAIL.
 - 3.3. CHANNEL PARALLEL TO FLOW INSTALLATION DETAIL.
4. AT THE BEGINNING OF CHANNEL, THE INITIAL LEADING EDGE OF FLEXAMAT EXPOSED TO CONCENTRATED FLOW SHALL BE EMBEDDED 18" VERTICALLY INTO ANCHOR TRENCH. THE TRENCH SHALL BE FILLED WITH 4,000 PSI CONCRETE.
5. AT THE END OF THE ARMORED CHANNEL, EMBED THE MAT 18" IN A TERMINATION TRENCH. FILL AND COMPACT TERMINATION TRENCH WITH A COHESIVE FILL.

GUIDANCE TABLE FOR STORMWATER OUTFALL PROTECTION

PIPE DIAMETER	8 CFS	12"	18"	24"	30 CFS	36"	48"	60"
FLEXAMAT WIDTH ("MIN)	5.5'	8'	8'	10'	12'	15'	20'	25'
FLEXAMAT LENGTH (7"MIN)	5'	8'	8'	10'	12'	15'	20'	25'

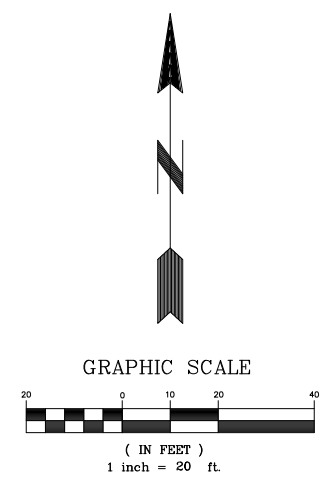
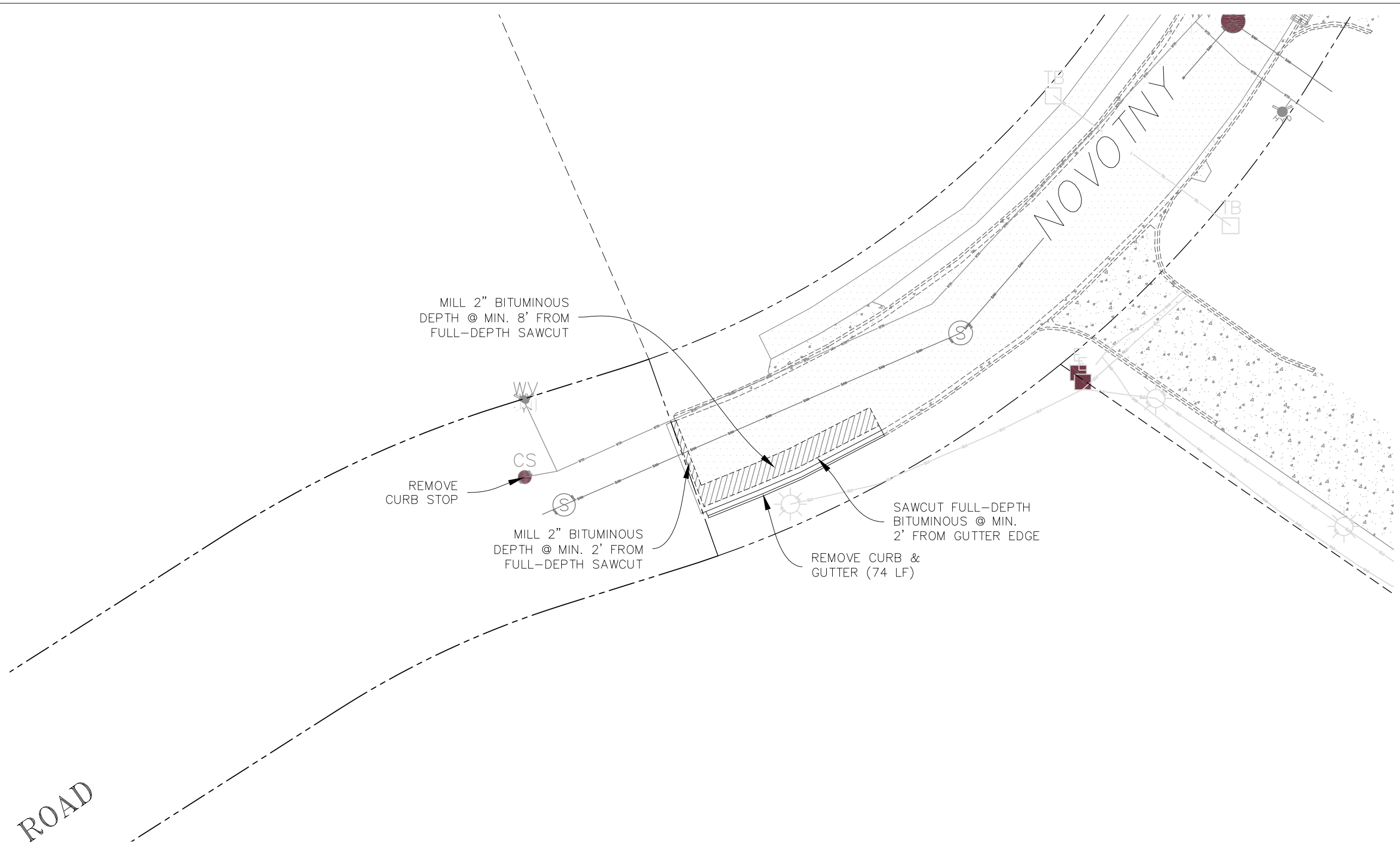
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CITY OF BAXTER, MINNESOTA
FLEXAMAT - OUTLET ARMORING
PUBLIC WORKS DEPARTMENT



REV. 3-25
EC-9A



ROAD

NOTES:

1. BASE PLAN USED IS A SURVEY PREPARED BY ARRO LAND SURVEYING OF BRAINERD, INC.
2. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL CONFIRM ALL LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT UTILITY COMPANIES VIA GOPHER STATE ONE-CALL ONLINE OR BY CALLING 811 OR 1-800-252-1166.
3. ALL CONSTRUCTION SHALL CONFORM TO THE MOST RESTRICTIVE OF THE PROJECT SPECIFICATIONS, THE STANDARD SPECIFICATIONS OF THE CITY OF BAXTER AND THE LATEST EDITION OF MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
4. CONTRACTOR SHALL PROTECT ALL EXISTING SANITARY SEWER, WATERMAINS AND SERVICES NOT MARKED FOR REMOVAL.
5. ALL EXISTING STREETS SHALL BE SAWCUT AT MATCH POINTS.
6. STRIP EXISTING TOPSOIL WITHIN RIGHT-OF-WAY AND STOCKPILE ONSITE.

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ENGINEERING

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

Wayne C. Stark

Date: 4/24/26 Registration No.: 26093

REVISIONS	CONST.	DOC.	CITY REVIEW	CITY REVIEW
1/26/26				
3/23/26				
4/24/26				

REMOVALS

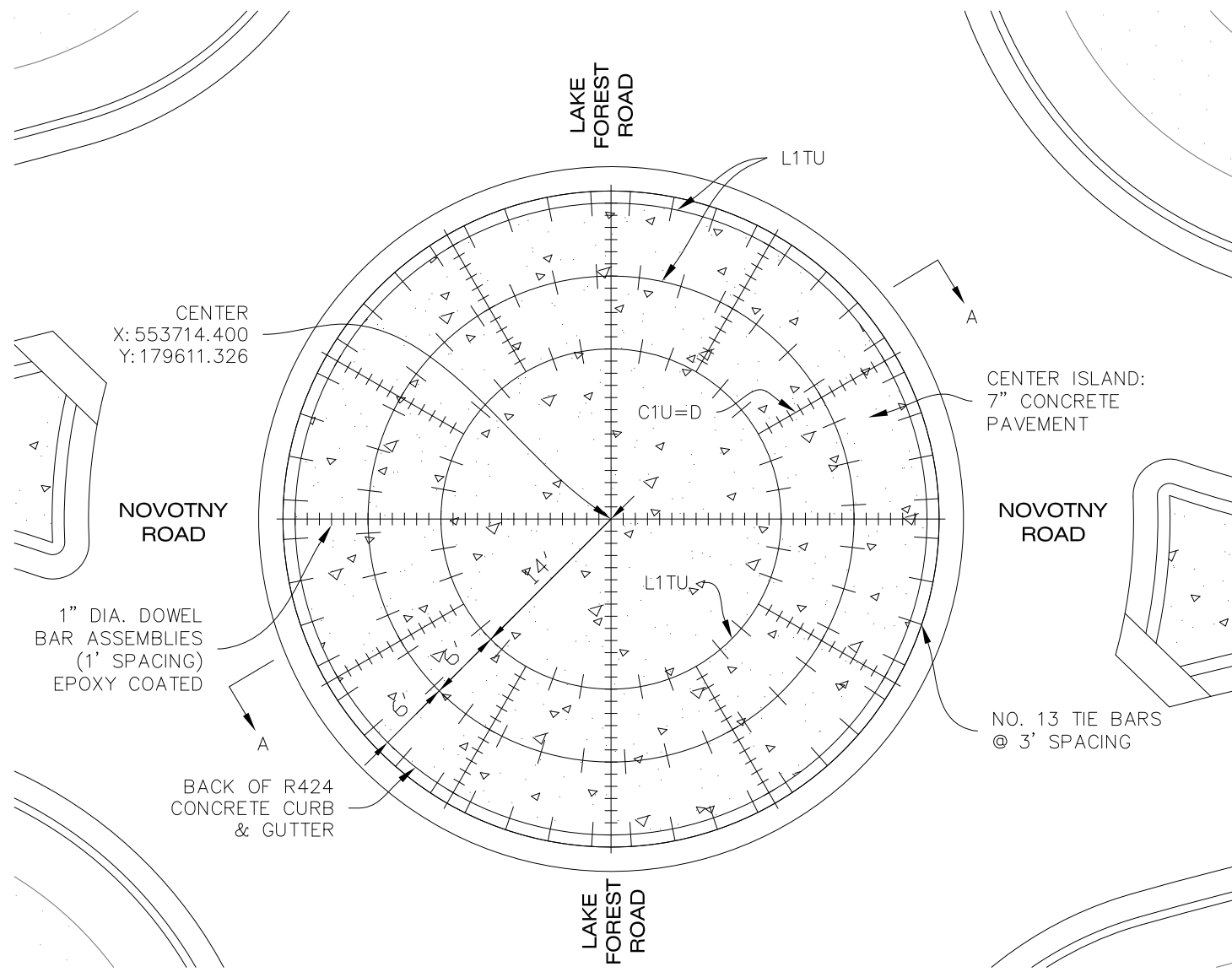
2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA

for:
LEO A. DALY

C-11

OF 25 SHEETS

NOVOTNY ROAD AND LAKE FOREST ROAD

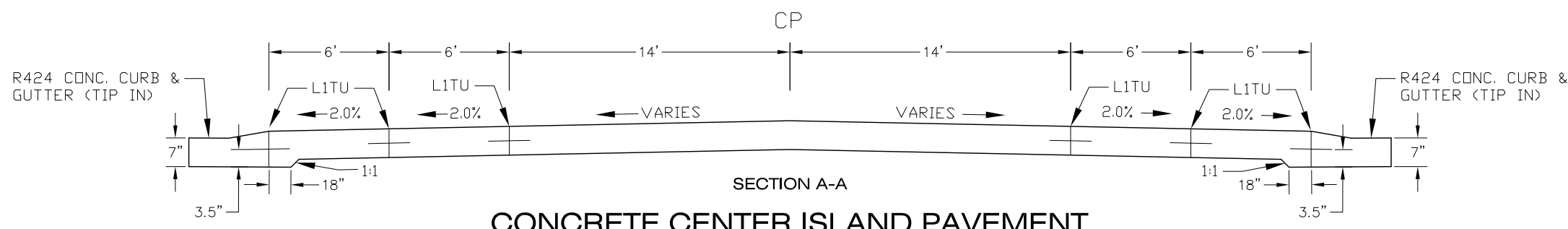


PLAN VIEW JOINT LAYOUT

NOT TO SCALE

NOTES:

1. DOWEL BAR ASSEMBLIES SHALL BE SIMILAR TO THOSE SHOWN ON STANDARD PLATE 1103M.
2. ALL REINFORCING BARS SHALL BE EPOXY COATED IN ACCORDANCE WITH SPEC. 3301 AND SHALL MEET THE REQUIREMENTS OF GRADE 60 FOR AASHTO M-31 OR M-53.
3. TIE BARS: USE NO. 4 BARS, 2' LONG AT 3' SPACING.
4. ALL REINFORCEMENT AND TIE BARS ARE CONSIDERED INCIDENTAL.
5. ADDITIONAL CONCRETE PAVEMENT DEPTH ADJACENT TO CONCRETE CURB DESIGN R424 IS INCIDENTAL.

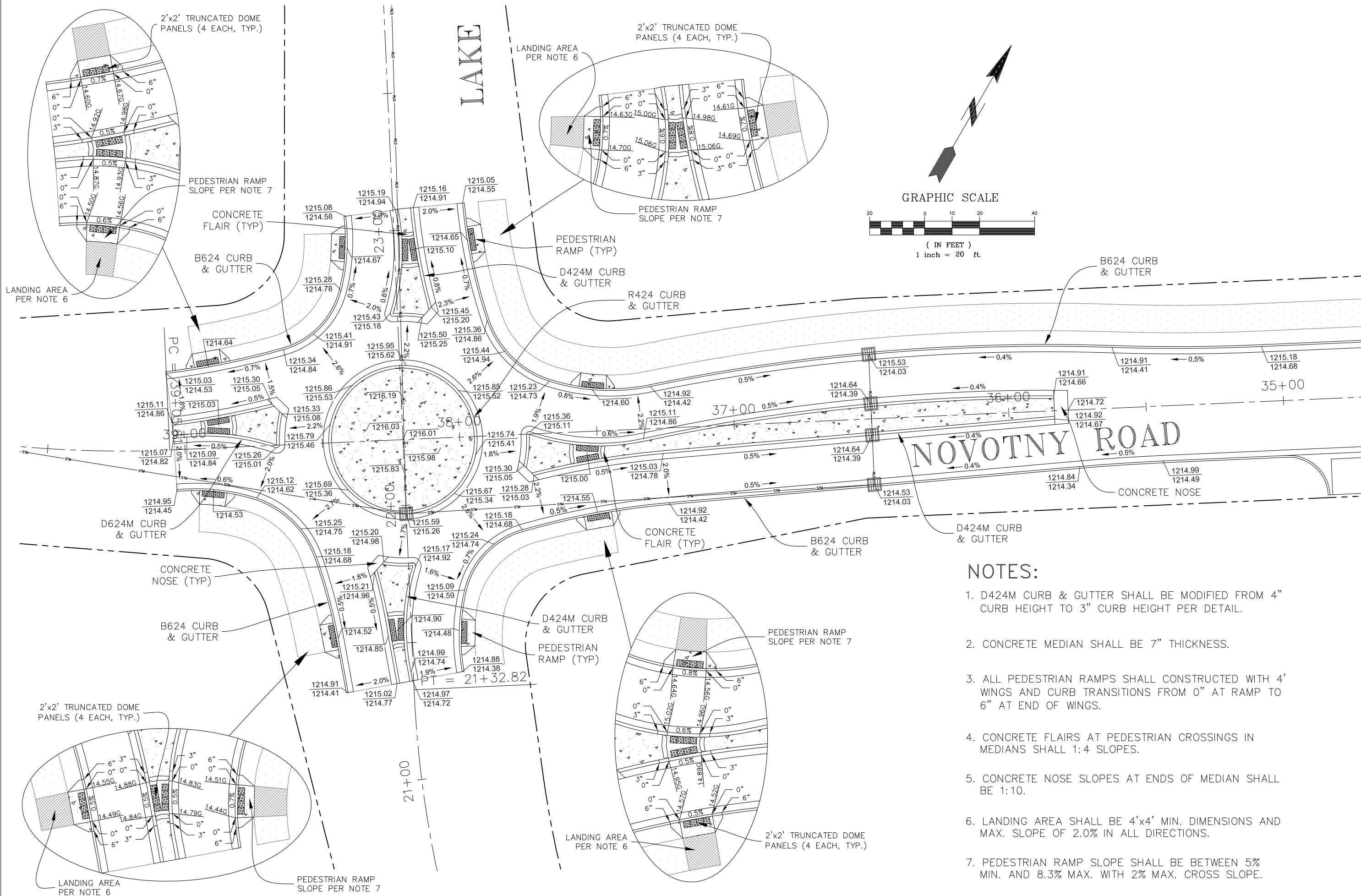


CONCRETE CENTER ISLAND PAVEMENT

NOT TO SCALE

REVISIONS	DATE	BY	DESCRIPTION
1/26/26	CONST. DOC.		
3/25/26	CITY REVIEW		
4/24/26	CITY REVIEW		

NOVOTNY ROAD AND LAKE FOREST ROAD



NOTES:

1. D424M CURB & GUTTER SHALL BE MODIFIED FROM 4" CURB HEIGHT TO 3" CURB HEIGHT PER DETAIL.
2. CONCRETE MEDIAN SHALL BE 7" THICKNESS.
3. ALL PEDESTRIAN RAMPS SHALL CONSTRUCTED WITH 4' WINGS AND CURB TRANSITIONS FROM 0" AT RAMP TO 6" AT END OF WINGS.
4. CONCRETE FLAIRS AT PEDESTRIAN CROSSINGS IN MEDIANS SHALL 1:4 SLOPES.
5. CONCRETE NOSE SLOPES AT ENDS OF MEDIAN SHALL BE 1:10.
6. LANDING AREA SHALL BE 4'x4' MIN. DIMENSIONS AND MAX. SLOPE OF 2.0% IN ALL DIRECTIONS.
7. PEDESTRIAN RAMP SLOPE SHALL BE BETWEEN 5% MIN. AND 8.3% MAX. WITH 2% MAX. CROSS SLOPE.

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3/25/26	CITY REVIEW	
4/24/26	CITY REVIEW	

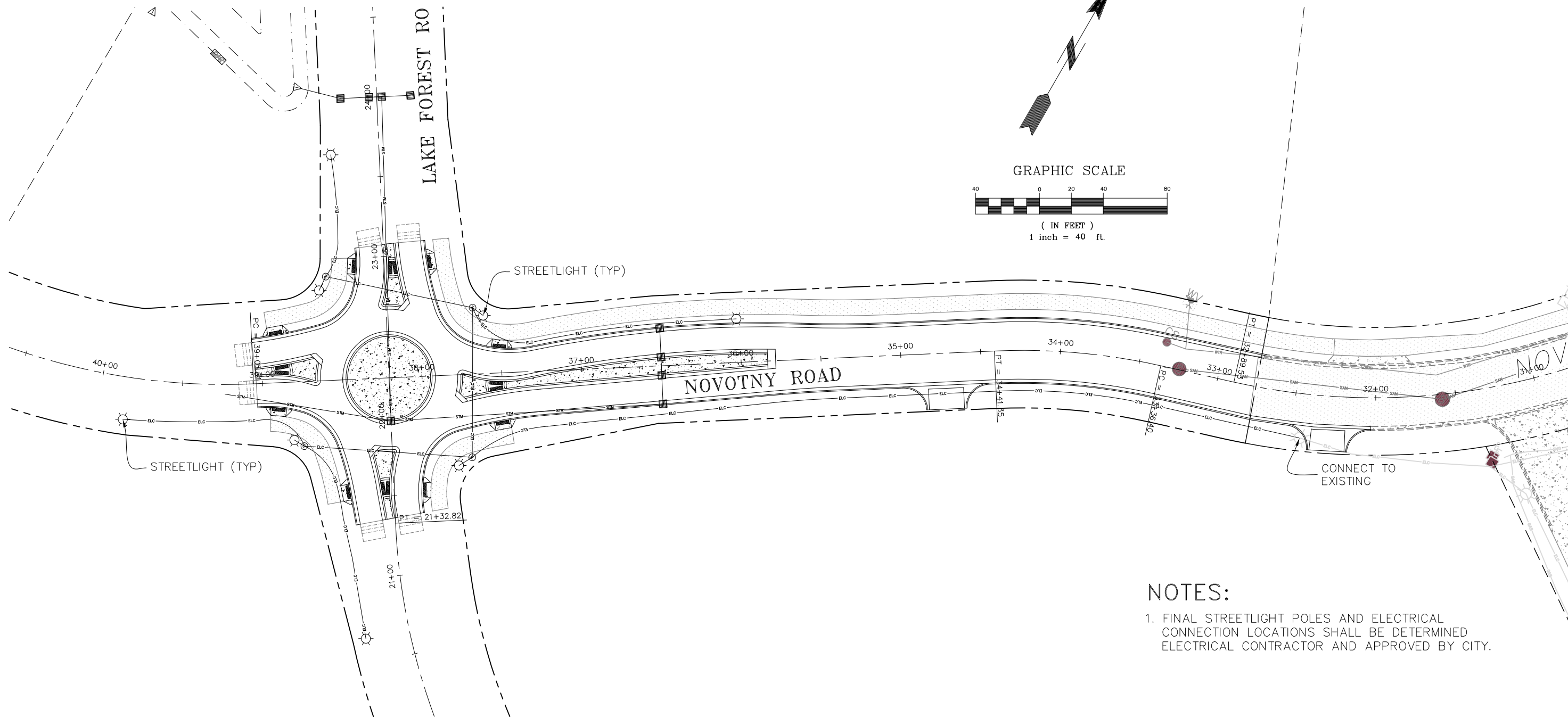
ROUNDABOUT DETAILS

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for: LEO A. DALY

SHEET

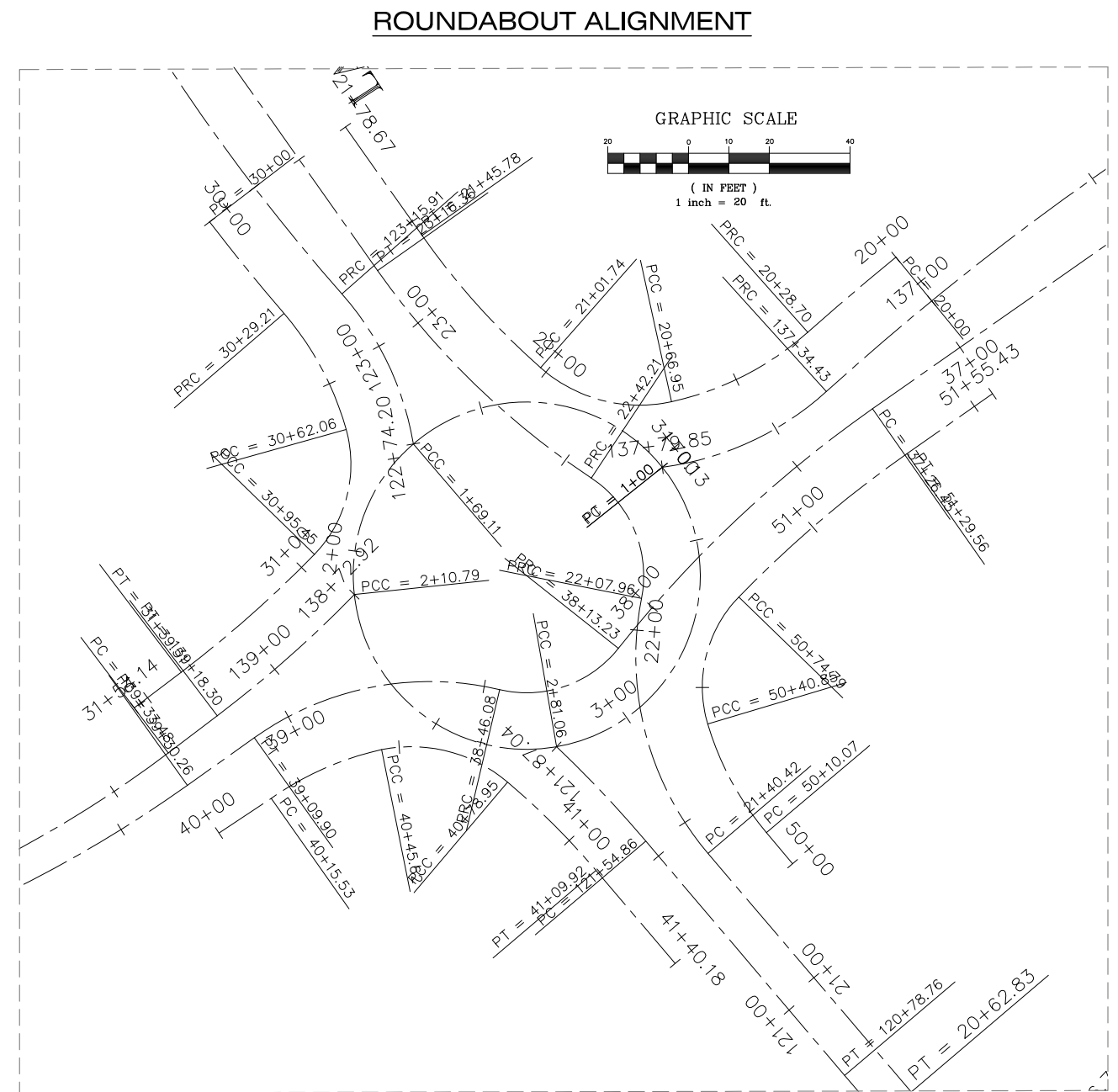
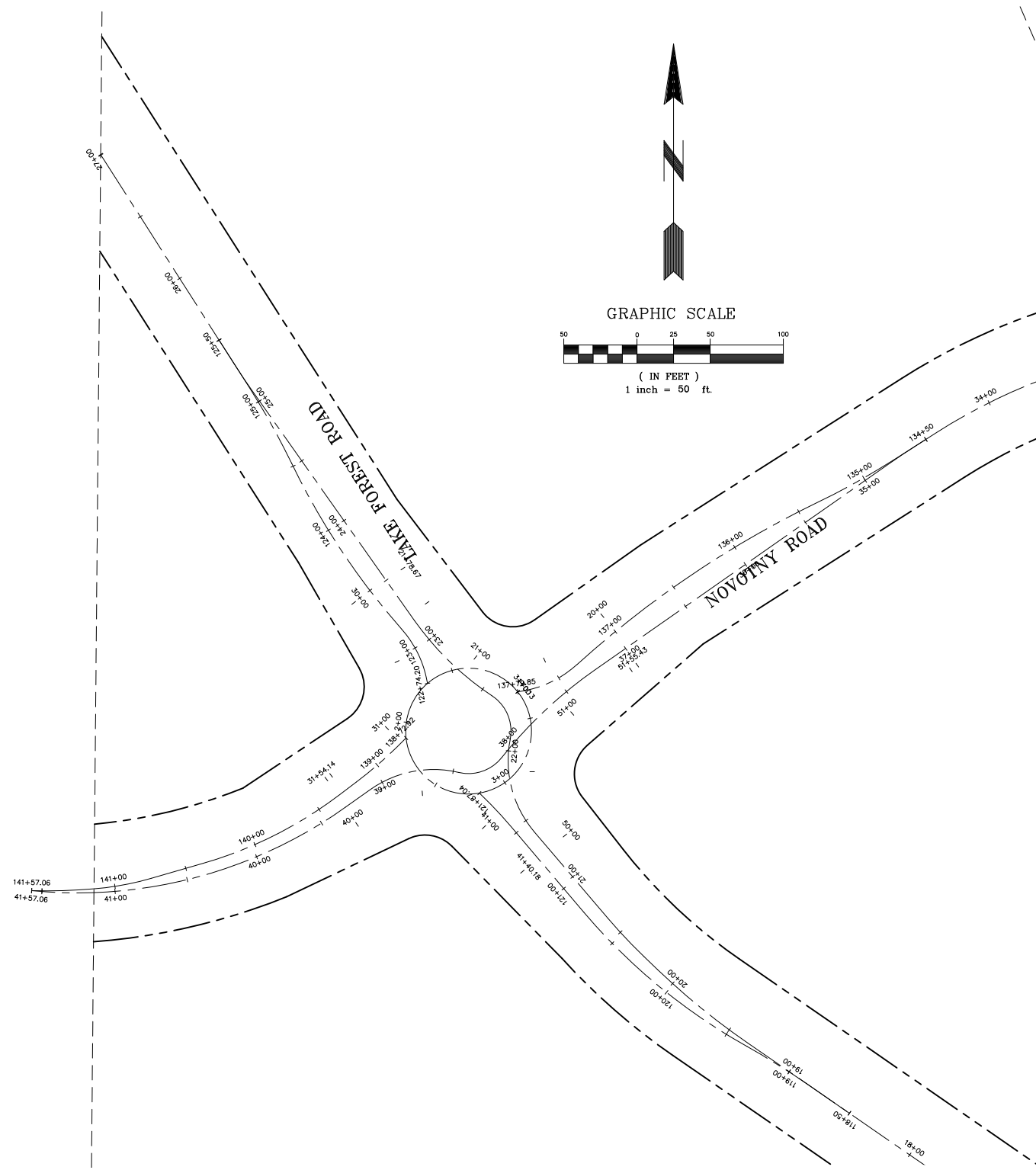
C-13
OF 25 SHEETS

NOVOTNY ROAD AND LAKE FOREST ROAD



NOTES:

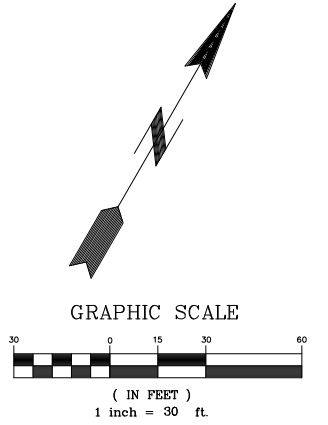
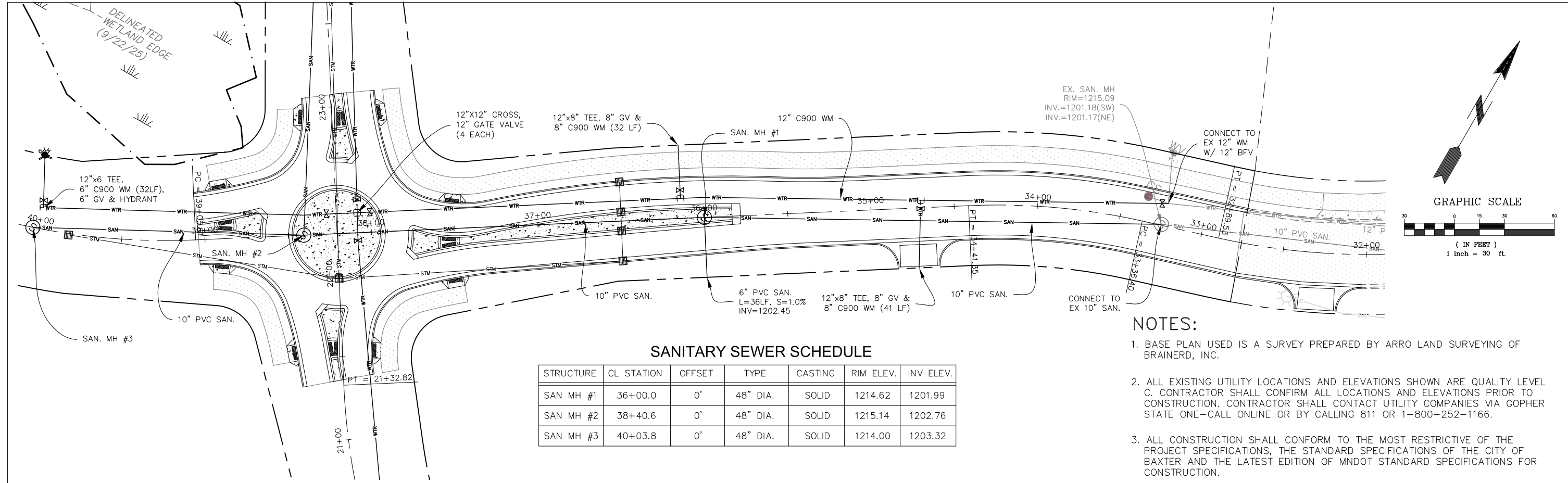
1. FINAL STREETLIGHT POLES AND ELECTRICAL CONNECTION LOCATIONS SHALL BE DETERMINED ELECTRICAL CONTRACTOR AND APPROVED BY CITY.



REVISIONS	DATE	BY	DESCRIPTION
1/26/26	DOC.		
3/23/26	CITY REVIEW		

NOVOTNY ROAD
ALIGNMENT

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for:
LEO A. DALY



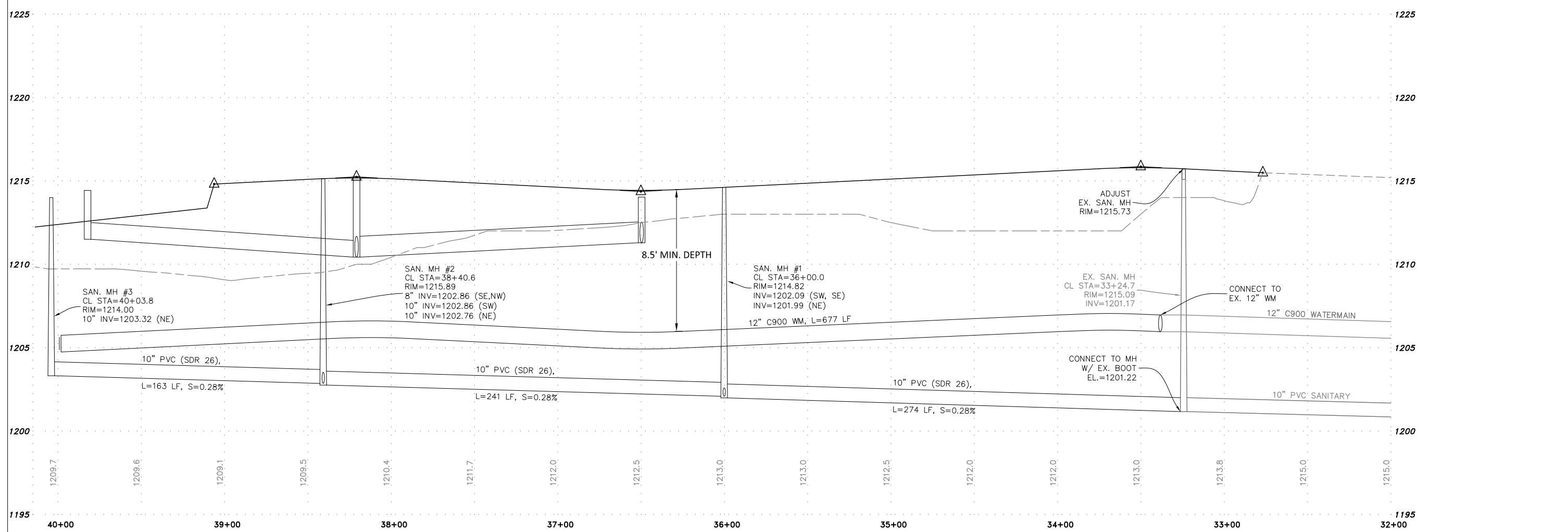
SANITARY SEWER SCHEDULE

STRUCTURE	CL STATION	OFFSET	TYPE	CASTING	RIM ELEV.	INV ELEV.
SAN MH #1	36+00.0	0'	48" DIA.	SOLID	1214.62	1201.99
SAN MH #2	38+40.6	0'	48" DIA.	SOLID	1215.14	1202.76
SAN MH #3	40+03.8	0'	48" DIA.	SOLID	1214.00	1203.32

NOTES:

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4. 10' MINIMUM SEPARATION REQUIRED BETWEEN WATERMAIN AND SANITARY SEWER.

NOVOTNY ROAD - SANITARY & WATERMAIN



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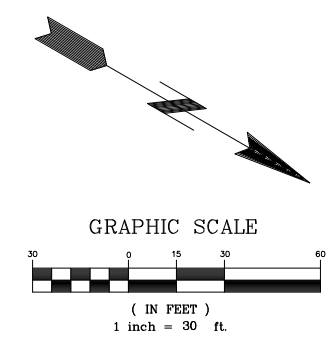
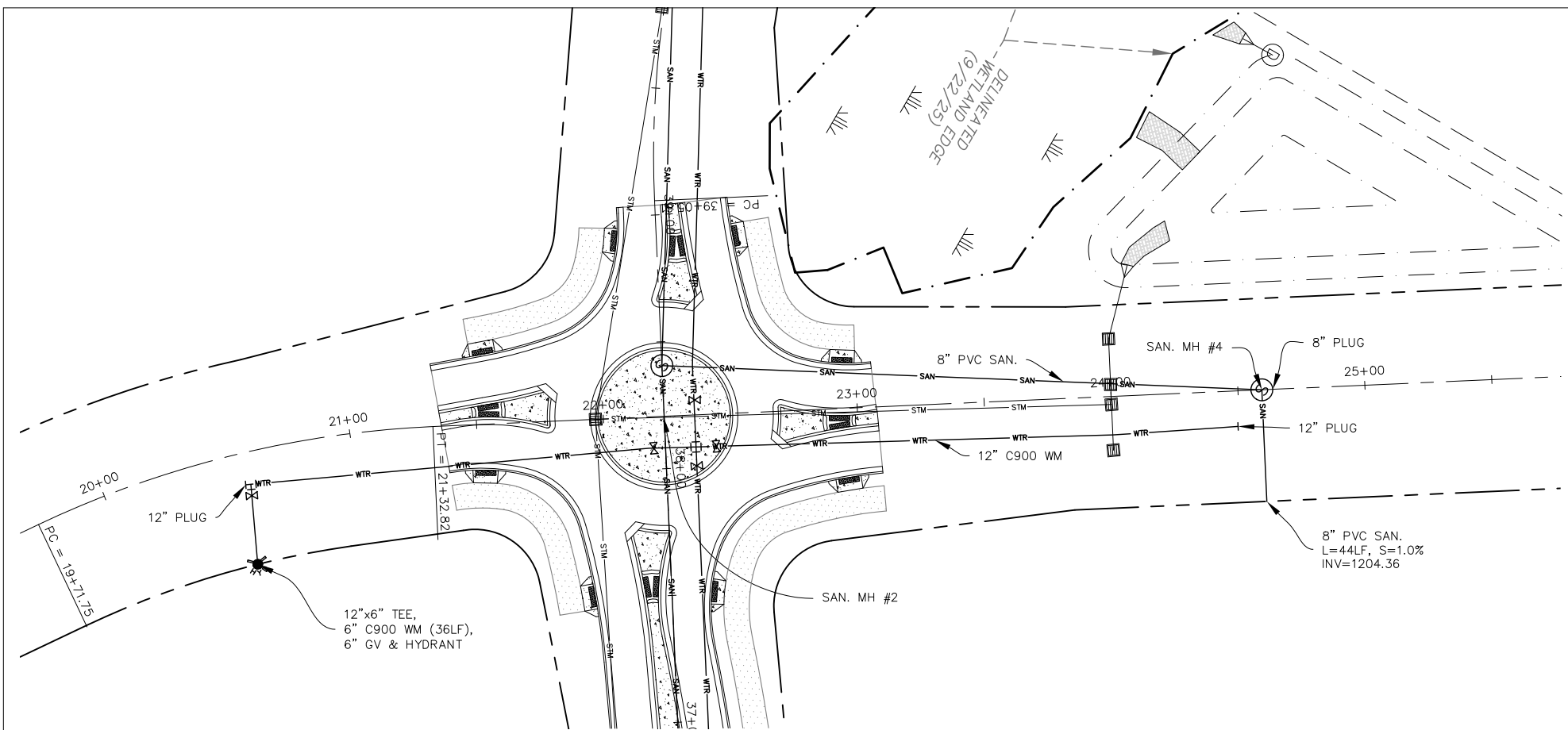
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly registered Engineer under the laws of the State of Minnesota.

Date: 4/24/26
Registration No.: 26093
Leo A. Daly, P.E.

NOVOTNY ROAD - SANITARY & WATERMAIN PLAN & PROFILE

2026 NOVOTNY ROAD IMPROVEMENTS BAXTER, MINNESOTA for: LEO A. DALY

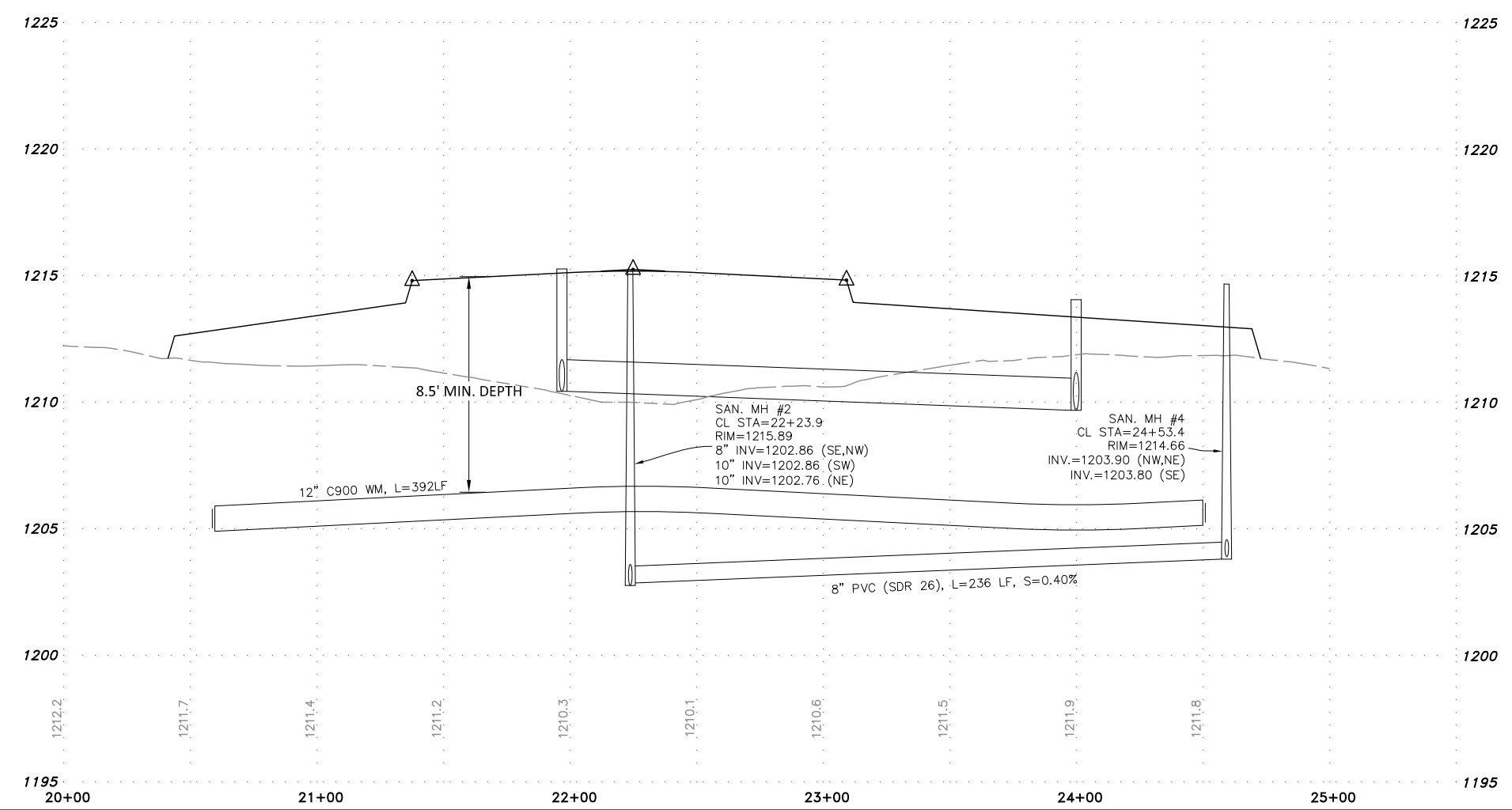
SHEET C-16 OF 25 SHEETS



NOTES:

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4. 10' MINIMUM SEPARATION REQUIRED BETWEEN WATERMAIN AND SANITARY SEWER.

LAKE FOREST ROAD - SANITARY & WATERMAIN



SANITARY SEWER SCHEDULE

STRUCTURE	CL STATION	OFFSET	TYPE	CASTING	RIM ELEV.	INV ELEV.
SAN MH #2	22+23.9	0'	48" DIA.	SOLID	1215.89	1202.76
SAN MH #4	20+53.9	0'	48" DIA.	SOLID	1214.38	1203.55
SAN MH #5	24+59.4	0'	48" DIA.	SOLID	1214.66	1203.80

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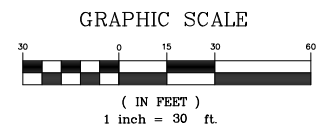
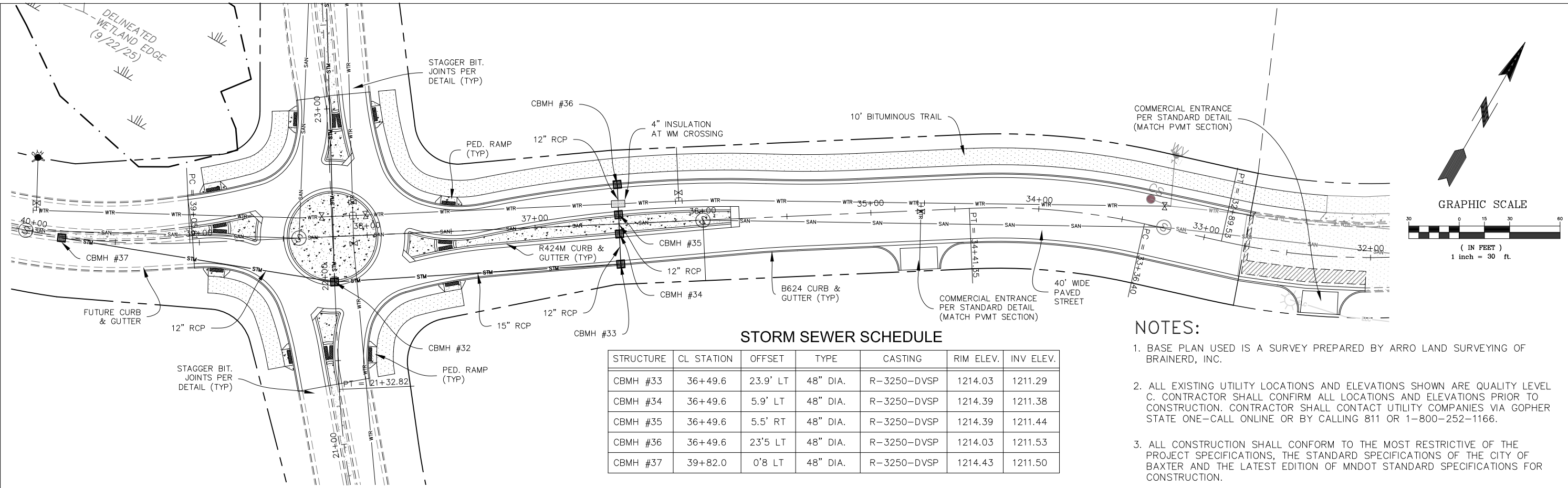
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Leo A. Daly
4/24/26 26093
Date Registration No.

REVISIONS

DATE	BY	REVISION
1/26/26	ICONST	DOC.
3/23/26	CITY	REVIEW
4/24/26	CITY	REVIEW

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for: LEO A. DALY



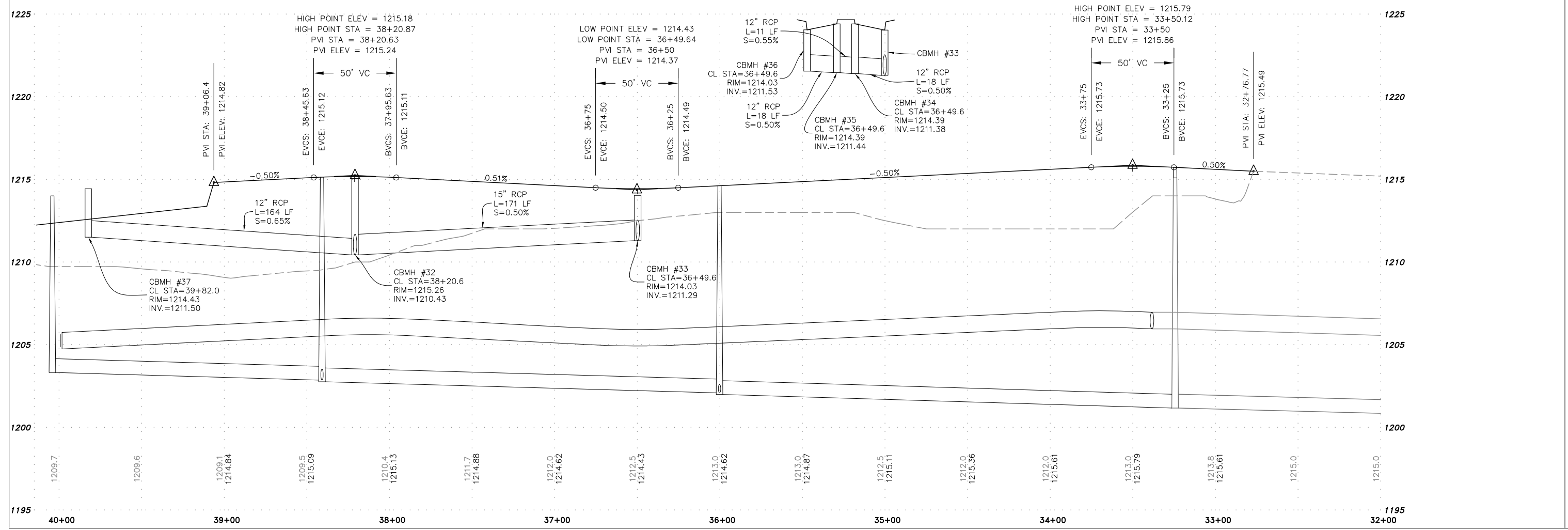
STORM SEWER SCHEDULE

STRUCTURE	CL STATION	OFFSET	TYPE	CASTING	RIM ELEV.	INV ELEV.
CBMH #33	36+49.6	23.9' LT	48" DIA.	R-3250-DVSP	1214.03	1211.29
CBMH #34	36+49.6	5.9' LT	48" DIA.	R-3250-DVSP	1214.39	1211.38
CBMH #35	36+49.6	5.5' RT	48" DIA.	R-3250-DVSP	1214.39	1211.44
CBMH #36	36+49.6	23'5 LT	48" DIA.	R-3250-DVSP	1214.03	1211.53
CBMH #37	39+82.0	0'8 LT	48" DIA.	R-3250-DVSP	1214.43	1211.50

NOTES:

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NOVOTNY ROAD - STREET & STORM SEWER



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Registration No.: 26093

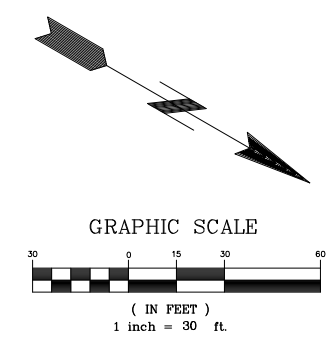
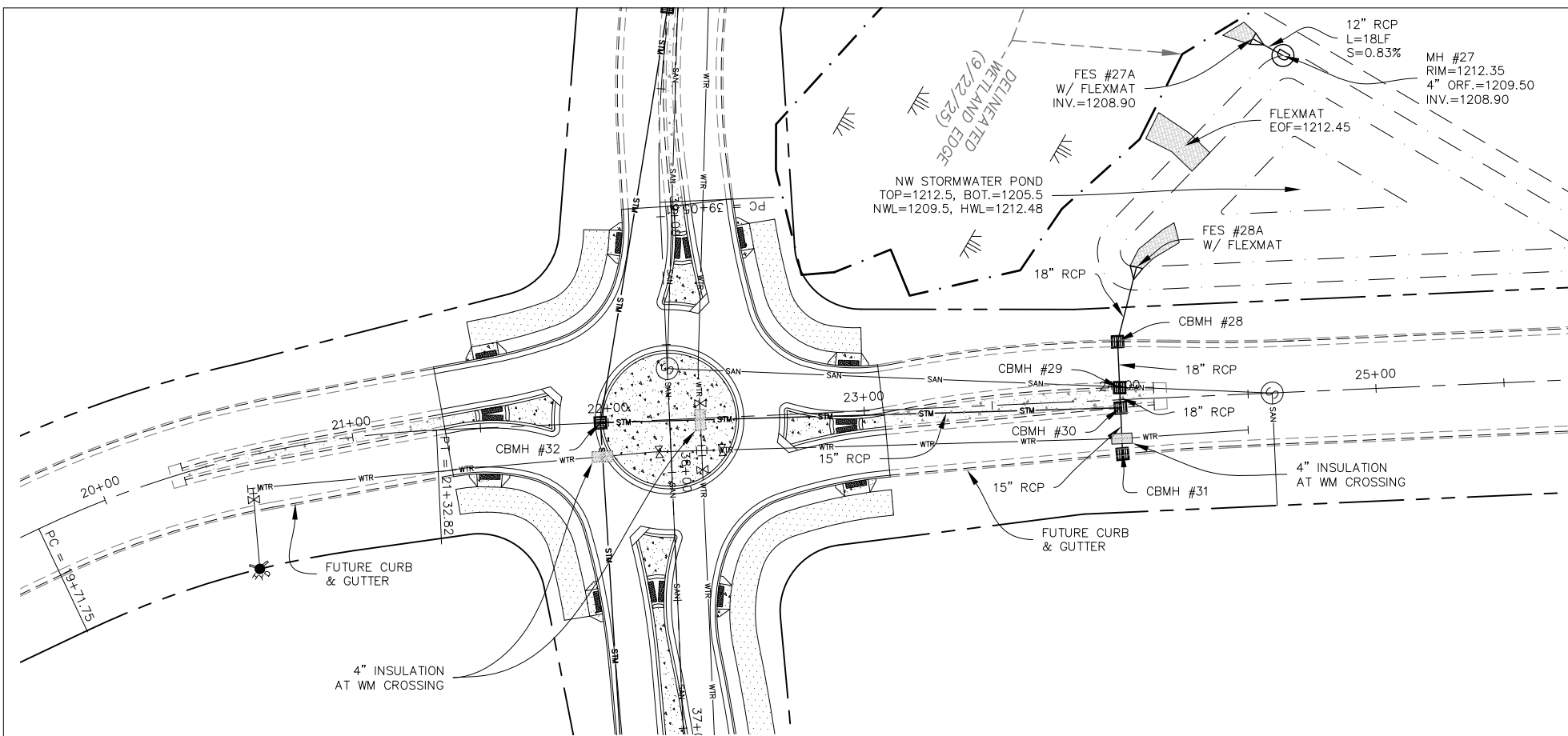
REVISIONS

11/10/25	CITY REVIEW
1/26/26	CONST. DOC.
3/23/26	CITY REVIEW
4/24/26	CITY REVIEW

NOVOTNY ROAD - STREET & STORM SEWER PLAN & PROFILE

2026 NOVOTNY ROAD IMPROVEMENTS BAXTER, MINNESOTA for: LEO A. DALY

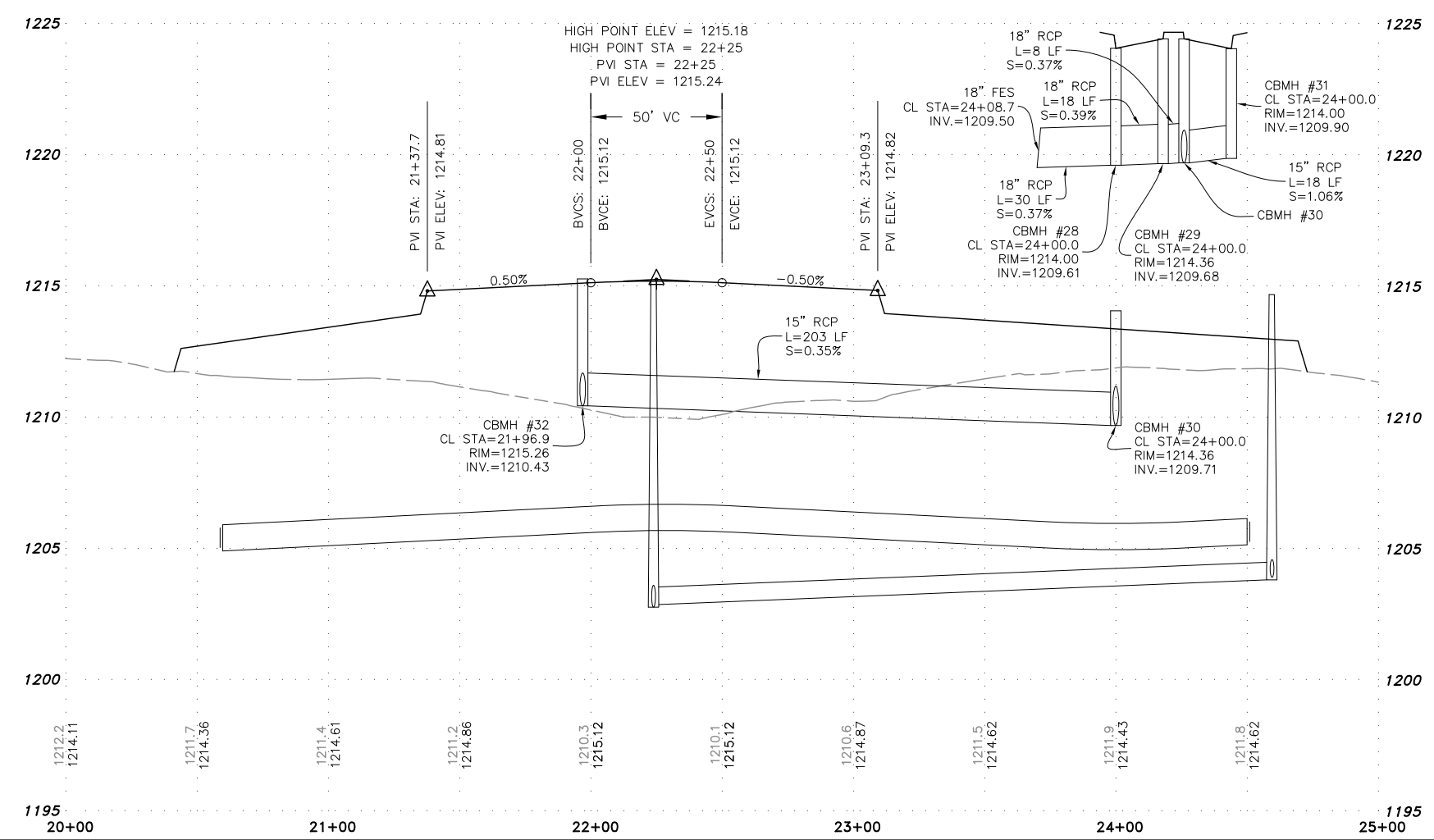
SHEET C-18 OF 25 SHEETS



NOTES:

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LAKE FOREST ROAD - STREET & STORM SEWER



STORM SEWER SCHEDULE

STRUCTURE	CL STATION	OFFSET	TYPE	CASTING	RIM ELEV.	INV. ELEV.
FES #28A	24+08.7	48' LT	N/A	N/A	N/A	1209.50
CBMH #28	24+00.0	22.7' LT	48" DIA.	R-3250-DVSP	1214.00	1209.61
CBMH #29	24+00.0	4.7' LT	48" DIA.	R-3250-DVSP	1214.36	1209.68
CBMH #30	24+00.0	3.2' RT	48" DIA.	R-3250-DVSP	1214.36	1209.71
CBMH #31	24+00.0	21.2' RT	48" DIA.	R-3250-DVSP	1214.00	1209.90
CBMH #32	21+96.9	0' LT	48" DIA.	R-3250-DVSP	1215.26	1210.43

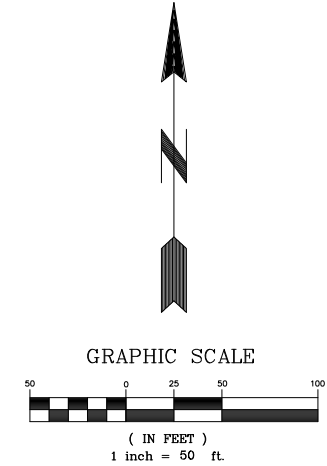
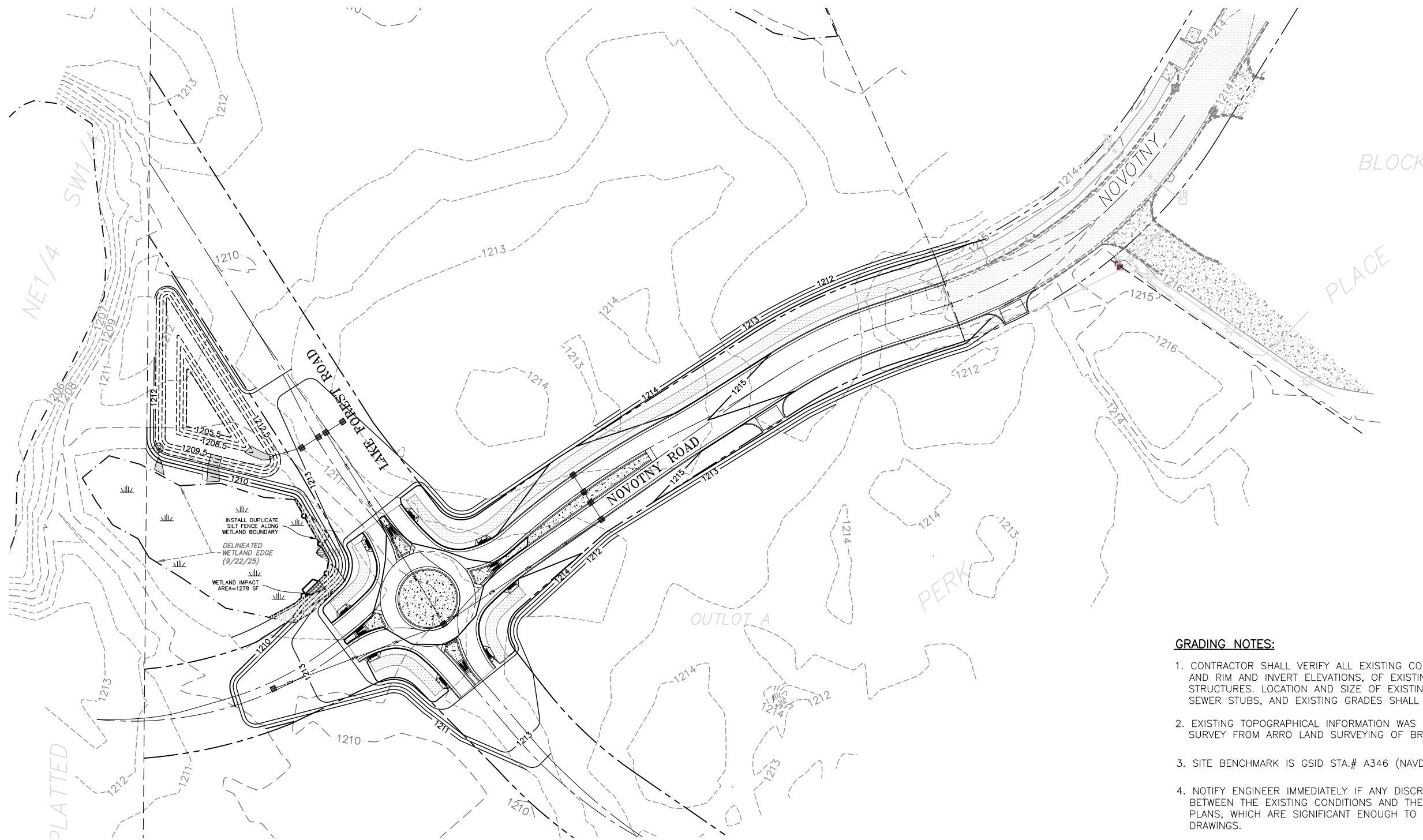
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BAXTER, MINNESOTA
for: LEO A. DALY

SHET
C-19
OF 25 SHEETS



NOTES:

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4. SEE SHEET C-22 FOR THE SEQUENCE AND PROTOCOLS TO BE FOLLOWED FOR EROSION AND SEDIMENT CONTROL DURING THE SITE DEVELOPMENT PROCESS.
5. CONTRACTOR SHALL LIMIT DISTURBANCE IN AND ADJACENT TO EXISTING WETLAND.

SURFACING NOTES:

1. SUBGRADES SHALL BE SCARIFIED AND/OR COMPACTED AS NECESSARY TO ATTAIN THE REQUIRED COMPACTION DESCRIBED IN THE PROJECT SPECIFICATIONS. COMPACTION TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING FIRM.
2. GRAVEL BASE COURSES SHALL BE ROLLED AND COMPACTED. TEST ROLLING OF THE GRAVEL BASE SHALL BE OBSERVED BY A SOILS ENGINEER TO VERIFY STABILITY.
3. CONSTRUCTION OF PAVEMENT SECTION SHALL MEET CITY AND MNDOT SPECIFICATIONS.
4. NO RECYCLED MATERIAL ALLOWED IN TOP LIFT OF BITUMINOUS.

GRADING NOTES:

1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATIONS, AND RIM AND INVERT ELEVATIONS, OF EXISTING DRAINAGE AND SANITARY STRUCTURES. LOCATION AND SIZE OF EXISTING SANITARY, WATER, AND STORM SEWER STUBS, AND EXISTING GRADES SHALL ALSO BE VERIFIED.
2. EXISTING TOPOGRAPHICAL INFORMATION WAS OBTAINED FROM A TOPOGRAPHICAL SURVEY FROM ARRO LAND SURVEYING OF BRAINERD, INC.
3. SITE BENCHMARK IS GSD STA.# A346 (NAVD 29 DATUM).
4. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED BETWEEN THE EXISTING CONDITIONS AND THE CONDITIONS NOTED ON THE PLANS, WHICH ARE SIGNIFICANT ENOUGH TO ALTER THE INTENT OF THE DRAWINGS.
5. NOTIFY ALL UTILITY COMPANIES WITH UTILITIES IN THE PROJECT AREA BEFORE THE START OF CONSTRUCTION AND VERIFY LOCATIONS OF UTILITIES BEFORE BEGINNING WORK.
6. CONTRACTOR SHALL PERFORM CALCULATIONS TO VERIFY EARTHWORK QUANTITIES. CONTRACTOR'S BID/QUOTE SHALL BE BASED ON HIS/HER OWN EARTHWORK CALCULATIONS.
7. ALL PROPOSED ELEVATIONS ARE TOP OF PAVING, UNLESS NOTED OTHERWISE. PROPOSED ELEVATIONS ARE INTENDED TO PROVIDE POSITIVE DRAINAGE TOWARDS CULVERTS AND/OR OUTLETS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE REQUIRED ELEVATIONS, WHICH WILL PROMOTE POSITIVE DRAINAGE THROUGHOUT THE PROJECT SITE.
8. TOPSOIL SHALL BE RESPREAD IN THE SEEDING AREAS ONLY AT A MINIMUM DEPTH OF 6 INCHES.
9. ANY BITUMINOUS PAVEMENT OR CONCRETE REMOVED OR DEBRIS ENCOUNTERED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE R.O.W. AND EASEMENTS OF THE OWNER PER MNDOT SPECIFICATION 2104.3C3 OR RECYCLED PER MNDOT SPECIFICATIONS.

STARK ENGINEERING

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320-249-2611
Sauk Rapids, Minnesota

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

Leo A. Daly 4/24/26 26093
Professional Engineer
Date: Registration No.

REVISIONS	DATE	BY	DESCRIPTION
1/26/26	DOC.		
3/23/26	CITY REVIEW		
4/24/26	CITY REVIEW		

GRADING & DRAINAGE PLAN

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for: LEO A. DALY

SHEET
C-20
OF 25 SHEETS

PROJECT INFORMATION:

- PROJECT NAME: 2026 NOVOTNY ROAD IMPROVEMENTS
PROJECT LOCATION: 72XX NOVOTNY ROAD, BAXTER, MINNESOTA
NW 1/4 OF SE 1/4 OF SEC. 31, TOWNSHIP 134, RANGE 28
N=46.374951', E=-94.253204'
PROJECT SIZE: TOTAL=3.50 ACRES, DISTURBED=3.40 ACRES
(DOES NOT INCLUDE ADJACENT DEVELOPMENTS).
IMPERVIOUS SURFACE AREA: EXISTING=0.00 ACRES, PROPOSED=0.86 ACRES.
- PERMANENT STORMWATER MANAGEMENT:
STORMWATER PONDS: YES - DESIGNED TO MEET CITY STORMWATER REQUIREMENTS. CITY SHALL BE RESPONSIBLE FOR LONG TERM MAINTENANCE. MAINTENANCE PLAN IS ON FILE WITH THE CITY'S MS 4 PERMIT DOCUMENTS.
- RECEIVING WATERS:
ONSITE STORMWATER PONDS: SPECIAL WATER-NO, IMPAIRED WATER-NO
WETLAND COMPLEX: SPECIAL WATER-NO, IMPAIRED WATER-NO
- STORMWATER MANAGEMENT DESCRIPTION: STORMWATER TREATMENT AND RATE CONTROL FROM THIS SITE ARE MANAGED WITHIN THE STORMWATER POND TO THE WEST OF THE SITE. STORMWATER REPORT AND CALCULATIONS AVAILABLE FROM STARK ENGINEERING UPON REQUEST.
- PERMITS FROM DNR, ARMY CORP OR LGU:
WETLAND ALTERATION PERMIT WILL BE OBTAINED PRIOR TO CONSTRUCTION DUE TO MINOR IMPACTS TO THE EXISTING WETLAND ON THIS SITE.
EAW, ENDANGERED OR THREATENED SPECIES OR ARCHEOLOGICAL REVIEW - NONE.
IS THIS SITE LOCATED IN KARST OR DRINKING WATER SUPPLY MANAGEMENT AREA - NO.

KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY DESCRIPTION:

OWNER:
DERRICK TAYLOR, EDGEWOOD DRIVE, LLC

SWPPP DESIGNER:
WAYNE C.B. STARK, P.E. CERTIFIED SWPPP DESIGNER

SWPPP COORDINATOR:

NAME _____

TITLE _____

CONSTRUCTION NOTES:

- THE OWNER AND CONTRACTOR SHALL COMPLETE AND SUBMIT AN NPDES PERMIT TO THE MN POLLUTION CONTROL AGENCY (MPCA) PRIOR TO CONSTRUCTION AND COMPLY WITH ALL REQUIREMENTS. REFER TO SHEET C-21 FOR LOCATION OF EROSION AND SEDIMENT CONTROL ITEMS.
- THE FOLLOWING SEQUENCE AND PROTOCOLS SHALL BE FOLLOWED FOR EROSION AND SEDIMENT CONTROL DURING THE SITE DEVELOPMENT PROCESS:
 - INSTALL SILT FENCE AND ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS PRIOR TO START OF WORK.
 - NO CONCRETE WASHOUTS ARE ALLOWED ON THE PROJECT SITE. SOIL STOCKPILES SHALL HAVE PERIMETER CONTROL AND HAVE TEMPORARY SEED AND MULCH.
 - MAINTAIN ALL TEMPORARY EROSION CONTROL DEVICES IN PLACE UNTIL THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED. INSPECT TEMPORARY EROSION CONTROL DEVICES ON A WEEKLY BASIS AND AFTER EACH 1/2" OR MORE RAIN EVENT. CLEAN OR MAINTAIN THESE DEVICES AS NEEDED TO BE EFFECTIVE. REPLACE DETERIORATED, DAMAGED OR ROTTED EROSION CONTROL DEVICES IMMEDIATELY.
 - REMOVE ALL SOILS AND SEDIMENTS DEPOSITED ONTO PUBLIC AND/OR PRIVATE PAVEMENT AREAS WITHIN 24 HOURS OF DEPOSITION. REMOVAL OF TRACKING MATERIALS SHALL BE COMPLETED AT THE END OF EACH WORK DAY WHEN IT OCCURS. SWEEPING MAY BE ORDERED AT ANY TIME IF CONDITIONS WARRANT.
 - PERFORM SITE REMOVALS, GRADING, EXCAVATION AND EMBANKMENT. SEED AND TRM ALL DISTURBED AREAS OUTSIDE OF PROPOSED PAVEMENT AND BUILDING AREAS IMMEDIATELY AFTER THIS WORK WHEN ACTIVITY WILL BE CEASED FOR 7 DAYS.
 - INSTALL UTILITIES, CONCRETE FLATWORK AND BITUMINOUS PAVEMENT SECTIONS. FINE GRADE SITE AND RESTORE GREEN AREAS WITH PERMANENT VEGETATION OF SOD/SEED & TRM PER PLANS.
 - REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER SITE HAS UNDERGONE FINAL STABILIZATION AND PERMANENT VEGETATION HAS BEEN ESTABLISHED WITH AT LEAST 70% COVERAGE.

NARRATIVE:

- STORM WATER POLLUTION PREVENTION PLAN (SWPPP) INCLUDES THE FOLLOWING:
 - DESCRIPTION OF THE EXISTING SITE CONDITIONS INCLUDING EXISTING LAND USE FOR THE SITE, SOIL TYPES FOR THE SITE AND THE LOCATION OF SURFACE WATERS WHICH ARE LOCATED ON OR NEXT TO THE SITE.
 - IDENTIFICATION OF THE BODY OF WATER(S) WHICH WILL RECEIVE RUNOFF FROM THE CONSTRUCTION SITE INCLUDING THE ULTIMATE BODY OF WATER THAT RECEIVES THE STORMWATER.
 - THE FOLLOWING ADDITIONAL PROJECT DOCUMENTATION SHALL BE CONSIDERED PART OF THIS SWPPP, BUT IS NOT BEING DUPLICATED FOR THIS DOCUMENT: CERTIFICATE OF SURVEY/PLAT, BUILDING PLANS AND GEOTECHNICAL REPORT.
 - DESCRIPTION OF STORMWATER MANAGEMENT CONTROLS AND VARIOUS BEST MANAGEMENT PRACTICES (BMPs) NECESSARY TO REDUCE EROSION, SEDIMENT AND POLLUTANTS IN THE STORMWATER DISCHARGE.
 - DESCRIPTION OF SWPPP COORDINATOR DUTIES INCLUDING FACILITY-MONITORING PLAN AND HOW CONTROLS WILL BE COORDINATED WITH CONSTRUCTION ACTIVITIES.
 - DESCRIPTION OF IMPLEMENTATION SCHEDULE AND PROVISIONS FOR AMENDMENT OF THE PLAN.
 - PROVISIONS FOR PERMANENT TURF ESTABLISHMENTS AND WATER QUALITY TREATMENT BMPs FOR IMPERVIOUS SURFACES.
- THE CONSTRUCTION SITE SWPPP COORDINATOR FOR THE FACILITY SHALL BE DEFINED BY THE OWNER AND CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. DUTIES OF THE SWPPP COORDINATOR SHALL INCLUDE THE FOLLOWING:
 - IMPLEMENTATION OF THE SWPPP.
 - OVERSEE MAINTENANCE PRACTICES IDENTIFIED AS BMPs IN THE SWPPP.
 - CONDUCT OR PROVIDE FOR INSPECTION AND MONITORING ACTIVITIES.
 - IDENTIFY POTENTIAL POLLUTANT SOURCES AND MAKE SURE THEY ARE ADDED TO THE PLAN.
 - IDENTIFY ANY DEFICIENCIES OF THE SWPPP AND MAKE SURE THAT THEY ARE CORRECTED.
 - ENSURE THAT ANY CHANGES IN CONSTRUCTION PLANS ARE ADDRESSED IN THE SWPPP.
 - EDUCATE AND/OR INSURE THAT CONTRACTORS AND SUB-CONTRACTORS ARE AWARE OF THE SWPPP AND PRACTICE EROSION/SEDIMENT CONTROLS, SPILL PREVENTION AND RESPONSE, GOOD HOUSEKEEPING, PROPER MATERIAL HANDLING, DISPOSAL AND CONTROL OF WASTE, EQUIPMENT FUELING, AND PROPER STORAGE, WASHING AND INSPECTION PROCEDURES.
- FACILITY DESCRIPTION:
 - THE CONSTRUCTION SITE IS LOCATED IN BAXTER, CROW WING COUNTY, MN. SEE PROJECT INFORMATION SECTION FOR MORE DETAILED LOCATION INFORMATION. IT IS BOUNDED BY VACANT LAND TO THE NORTH, WEST AND SOUTH SIDES AND A RESIDENTIAL LOT AS WELL AS A COMMERCIAL SITE ON THE EAST SIDE.
 - THE CONSTRUCTION WILL CONSIST OF LOT GRADING, UTILITY INSTALLATION AND STREET CONSTRUCTION WITH CURB AND GUTTER AND BITUMINOUS PAVEMENT. NO CONCENTRATED FLOW AREAS (DITCHES) OR PIPE OUTLETS ARE PROPOSED.
 - THE EXISTING CONDITIONS OF THIS SITE ARE A VACANT GRASS AND WOODED AREA WITH NO BUILDINGS. ACCORDING TO THE WEB SOIL SURVEY, THE EXISTING SOILS ARE LOUGEE-BARBER-GUIDA COMPLEX (D53B), AND ZIMMERMAN LOAMY FINE SAND (D62A). SITE SPECIFIC SOIL BORINGS ENCOUNTERED POORLY GRADED SAND (SP) AND SILTY SAND (SM).
 - REFER TO THE PLANS FOR THE SITE IMPROVEMENTS AND CONTOURS. DISTURBANCE OF THE SITE WILL OCCUR DUE TO SITE GRADING, UTILITY INSTALLATION, BUILDING CONSTRUCTION, STREET CONSTRUCTION AND LANDSCAPING.
- IDENTIFICATION OF POTENTIAL STORMWATER CONTAMINANTS:
 - SIGNIFICANT MATERIAL INVENTORY (SEE TABLE 1) - POLLUTANTS THAT RESULT FROM CLEARING, GRADING, EXCAVATION AND BUILDING MATERIALS THAT HAVE THE POTENTIAL TO BE PRESENT IN STORMWATER RUNOFF.
 - THE FOLLOWING POTENTIAL SOURCE AREAS OF STORMWATER CONTAMINATION WERE IDENTIFIED AND EVALUATED: CLEARED AND GRADED AREAS, SITE CONSTRUCTION INCLUDING CONCRETE WALKS AND BITUMINOUS PAVEMENTS, UTILITY INSTALLATION AND BUILDING CONSTRUCTION.
- TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES:
 - SILT FENCE BARRIERS WILL BE PLACED ACCORDING TO THE PLANS AND PRIOR TO CONSTRUCTION. THESE TEMPORARY PERIMETER CONTROLS SHALL NOT BE REMOVED UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETED ON THIS SITE AND SOILS HAVE BEEN STABILIZED.
 - TOPSOIL WILL BE STRIPPED AND STOCKPILED. STOCKPILES WILL HAVE PERIMETER CONTROLS (SILT FENCE OR SILT SOCK) AND BE STABILIZED WITH MULCH.
 - A ROCK CONSTRUCTION ENTRANCE WILL BE MAINTAINED THROUGHOUT THE PROJECT. THIS ENTRANCE WILL BE REQUIRED TO REDUCE VEHICLE TRACKING FROM THE SITE. REGULAR MAINTENANCE MAY NEED TO BE PERFORMED TO INSURE SEDIMENT IS NOT TRACKED ONTO LOCAL ROADWAYS. SWEEPING WILL BE USED TO CLEAN UP TRACKED SEDIMENT.
 - INLET PROTECTION WILL BE USED AT ALL DRAINAGE INLETS LOCATED DOWNSTREAM OF THE PROJECT.
 - EROSION CONTROL BLANKET AND SEDIMENT LOGS WILL ALSO BE IMPLEMENTED IN CRITICAL AREAS ALONG WITH SEED AND MULCH OR SOD DURING KEY PERIODS OF TURF ESTABLISHMENT.
 - UPON COMPLETION OF EXTERIOR WORK, TOPSOIL WILL BE RESTORED AND THE SITE WILL BE LANDSCAPED AND RESTORED PER CITY SPECIFICATIONS.
 - ONCE UP SLOPE AREAS ARE PERMANENTLY STABILIZED, ACCUMULATED SEDIMENT WILL BE REMOVED FROM ANY DITCH AREAS AND THEY WILL BE SEEDED AND MULCHED.
 - AFTER THE ENTIRE SITE IS STABILIZED, THE TEMPORARY BMPs WILL BE REMOVED FROM THE SITE.

- CONSTRUCTION PRACTICES TO MINIMIZE STORMWATER CONTAMINATION:
 - ALL CONSTRUCTION WASTE MATERIALS WILL BE COLLECTED AND DISPOSED OF PROPERLY ACCORDING TO ALL LOCAL AND REGULATORY REQUIREMENTS. GOOD HOUSEKEEPING, MONITORING AND SPILL CONTROL PRACTICES WILL BE FOLLOWING DURING CONSTRUCTION TO MINIMIZE STORMWATER CONTAMINATION FROM PETROLEUM PRODUCTS, FERTILIZERS, PAINTS AND CONCRETE.
 - ENVIRONMENTALLY FRIENDLY FERTILIZERS WILL ONLY BE APPLIED WITHIN THIS AREA AND WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER.
 - ALL VEHICLES ON SITE WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE FOR LEAKAGE.
 - ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATION.
 - SANITARY WASTE WILL BE MONITORED AND COLLECTED AT REGULAR INTERVALS FROM PORTABLE UNITS TO AVOID OVERFILLING.
 - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY UPON DISCOVERY.
 - CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER WITHIN THE PROJECT SITE.
 - PLASTER AND DRYWALL CLEANUP WATER WILL USE AN APPROVED ONSITE CONTAINMENT FACILITY.

7. MAINTENANCE AND INSPECTION PROCEDURES:

- AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A 1/4" RAINFALL EVENT OR GREATER, VISUAL INSPECTIONS OF THE ENTIRE CONSTRUCTION SITE WILL BE PERFORMED. THESE INSPECTIONS WILL BE CONDUCTED BY THE SWPPP COORDINATOR OR THEIR DESIGNEE. THE INSPECTION WILL VERIFY THE EROSION AND SEDIMENT BMPs ARE FUNCTIONING PROPERLY. THE FOLLOWING INSPECTION AND MAINTENANCE PRACTICES WILL BE USED TO MAINTAIN THE EROSION AND SEDIMENT CONTROLS.
- SILT FENCES WILL BE INSPECTED FOR DEPTH OF SEDIMENT, FOR TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
- BUILT UP SEDIMENT WILL BE REMOVED FROM THE SILT FENCE WHEN IT HAS REACHED 1/3 OF THE HEIGHT OF THE FENCE.
- TEMPORARY SEDIMENT BASINS ARE REQUIRED IF ANY AREA 5 ACRES OR LARGER DRAIN TO A COMMON LOCATION. THESE BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT. SEDIMENT SHALL BE REMOVED FROM THE BASIN WHEN IT REACHES A DEPTH OF 1'.
- TEMPORARY SEEDING SHALL BE COMPLETED WITHIN 7 DAYS IN DISTURBED AREAS. BOTH TEMPORARY AND PERMANENT SEEDING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS AND HEALTHY GROWTH.
- THE ROCK CONSTRUCTION ENTRANCE WILL BE INSPECTED FOR SEDIMENT TRACKED ONTO ROADWAY, FOR CLEAN GRAVEL AND TO MAKE SURE THAT ALL TRAFFIC USE IT WHEN LEAVING THE SITE.
- A MAINTENANCE INSPECTION REPORT WILL BE COMPLETED DURING EACH INSPECTION BY THE SWPPP COORDINATOR. A BLANK REPORT FORM IS AVAILABLE UPON REQUEST. COMPLETED FORMS WILL BE STORED ONSITE DURING THE ENTIRE CONSTRUCTION PROJECT. FOLLOWING CONSTRUCTION, THE COMPLETED FORMS WILL BE RETAINED BY THE OWNER OR THEIR DESIGNEE FOR A MINIMUM OF 3 YEARS.
- TERMINATION OF COVERAGE: THE SWPPP COORDINATOR AND THE OWNER WILL TERMINATE THE PERMIT BY SUBMITTING THE NOTICE OF TERMINATION AS DIRECTED IN PART 11C OF THE NPDES PERMIT. THE NOTICE SHALL BE SUBMITTED WHEN CONSTRUCTION IS COMPLETE AND PERMANENT COVER IS ESTABLISHED.
- MAINTENANCE PLAN: MAINTENANCE INSPECTIONS WILL BE COMPLETED BY THE OWNER BIANNUALLY AND WILL INCLUDE INSPECTION OF THE DRAINAGE BASINS, RECORD THE FINDINGS AND NOTE ANY CORRECTIVE ACTIONS TAKEN.

Table 1: Potential Construction Site Stormwater Pollutants

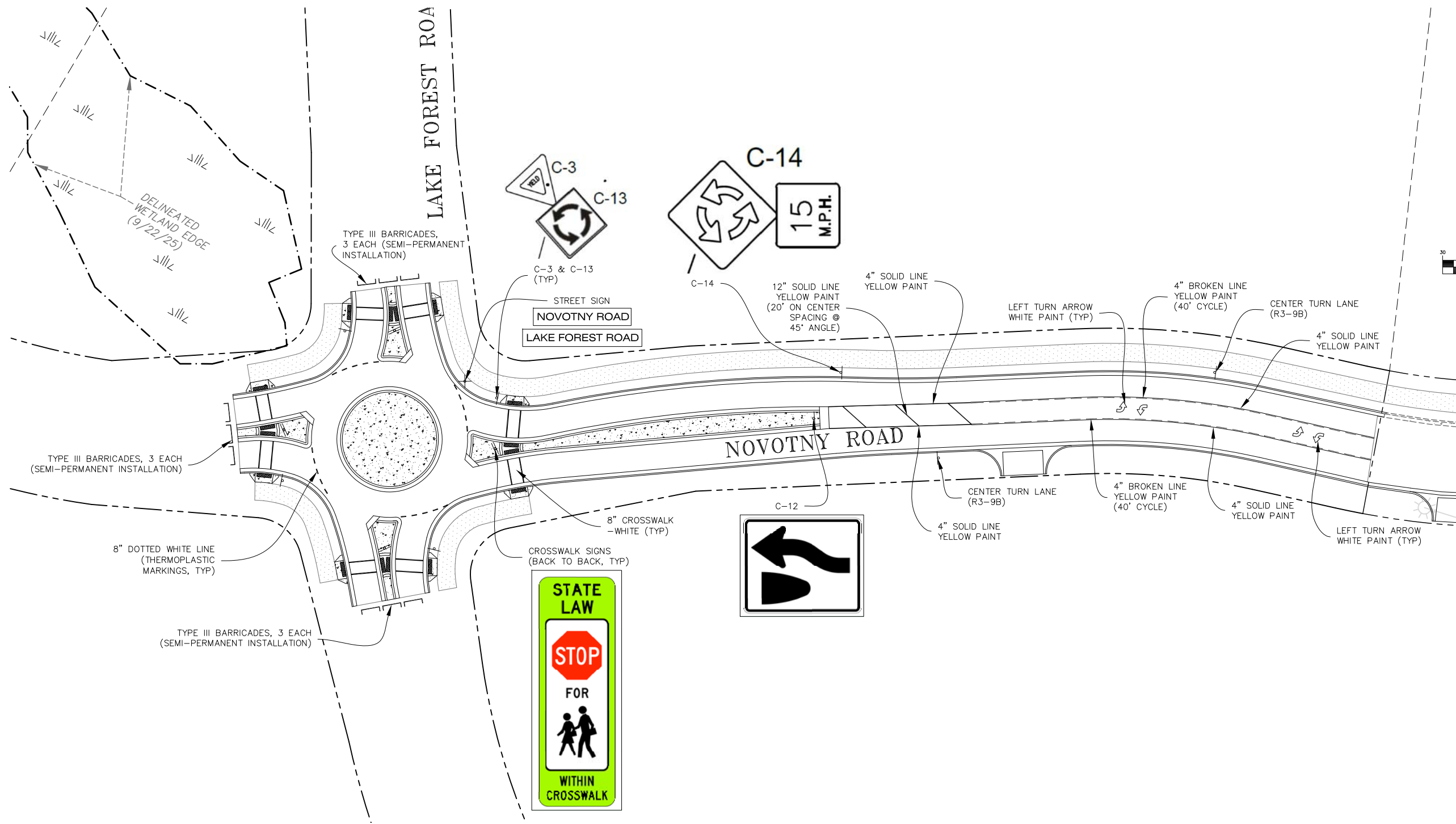
Material/Chemical	Physical Description	Stormwater Pollutants	Location
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	Herbicides used for noxious weed control
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	Newly seeded areas
Plaster	White granules or powder	Calcium sulphate, calcium carbonate, sulfuric acid	Building construction
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits
Asphalt	Black solid	Oil, petroleum distillates	Streets and roofing
Concrete	White solid/grey liquid	Limestone, sand, pH, chromium	Curb and gutter, building construction
Glue, adhesives	White or yellow liquid	Polymers, epoxies	Building construction
Paints	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	Building construction
Curing compounds	Creamy white liquid	Naphtha	Curb and gutter
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	Timber pads and building construction
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	Leaks or broken hoses from equipment
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/ staging area
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	Secondary containment/ staging area
Kerosene	Pale yellow liquid	Coal oil, petroleum distillates	Secondary containment/ staging area
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment
Sanitary toilets	Various colored liquid	Bacteria, parasites, and viruses	Staging area
Sediment	Solid particles	Soil	Erosion from cleared and graded areas

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.
Wayne C.B. Stark 3/23/26 26093
Professional Engineer Registration No.

REVISED	DATE	BY	REASON
1/26/26	CONST.	DOC	
3/23/26	CITY	REVIEW	

SWPPP NARRATIVE

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for:
LEO A. DALY



NOTES:

1. BASE PLAN USED IS A SURVEY PREPARED BY ARRO LAND SURVEYING OF BRAINERD, INC.
2. ALL EXISTING UTILITY LOCATIONS AND ELEVATIONS SHOWN ARE APPROXIMATE ONLY. CONTRACTOR SHALL CONFIRM ALL LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONTACT UTILITY COMPANIES VIA GOPHER STATE ONE-CALL ONLINE OR BY CALLING 811 OR 1-800-252-1166.
3. ALL CONSTRUCTION SHALL CONFORM TO THE MOST RESTRICTIVE OF THE PROJECT SPECIFICATIONS, THE STANDARD SPECIFICATIONS OF THE CITY OF BAXTER AND THE LATEST EDITION OF MNDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

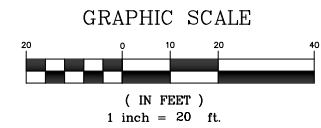
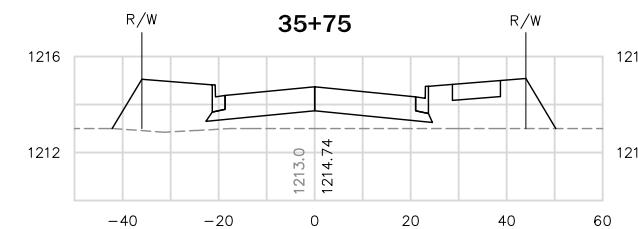
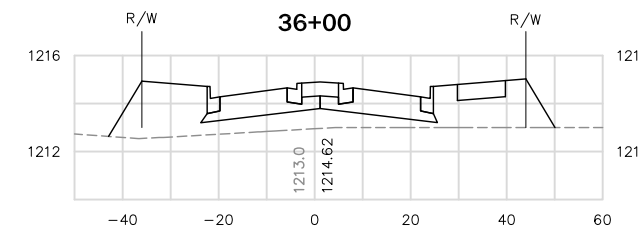
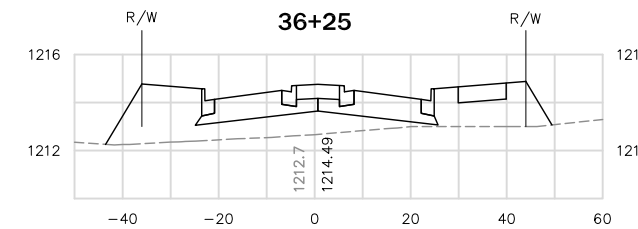
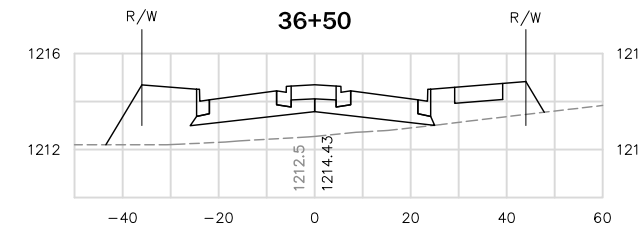
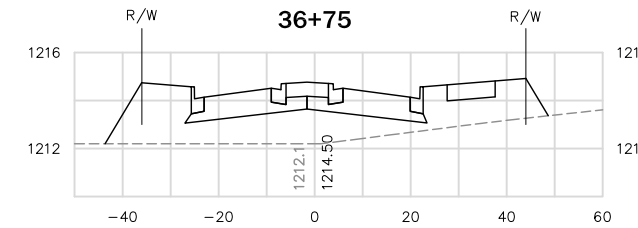
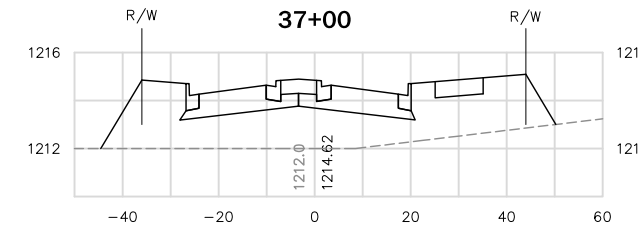
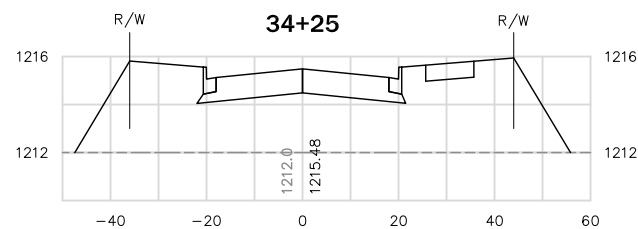
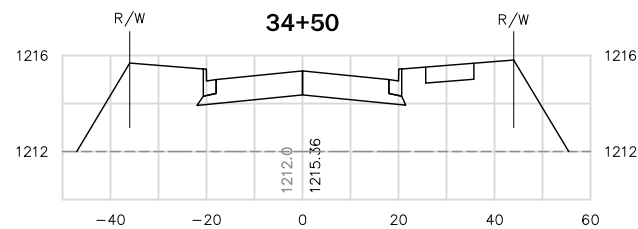
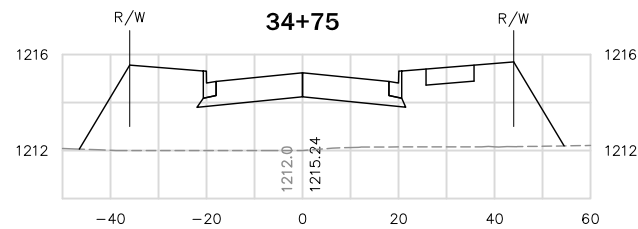
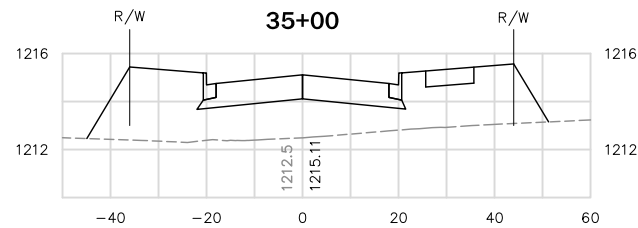
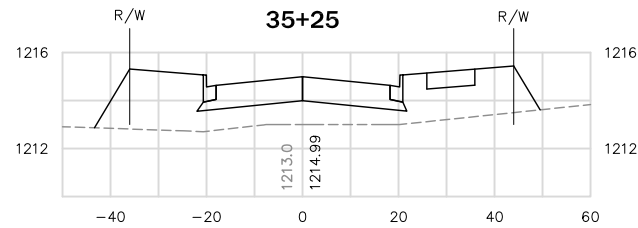
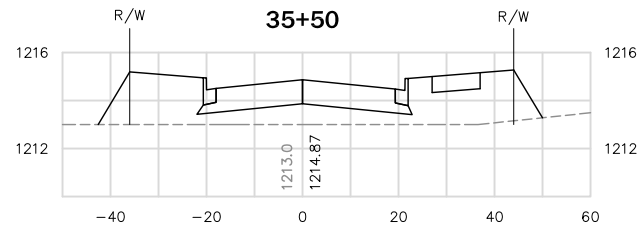
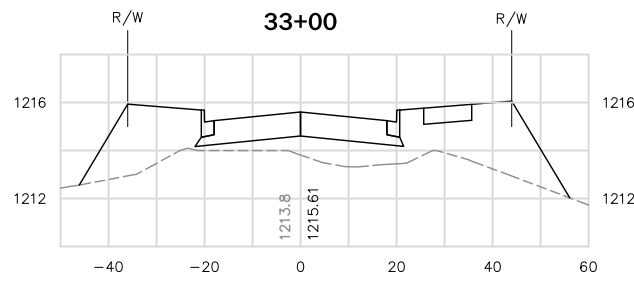
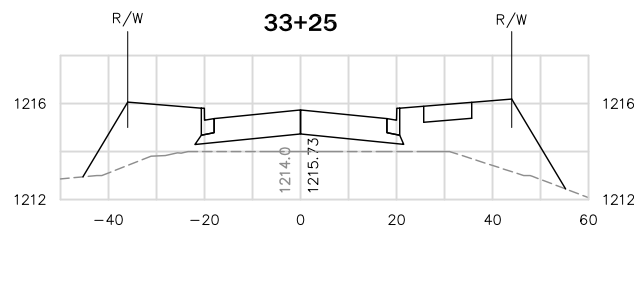
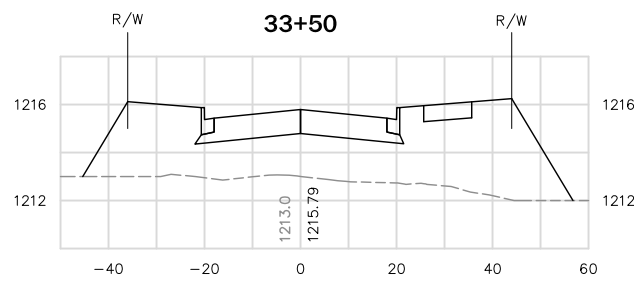
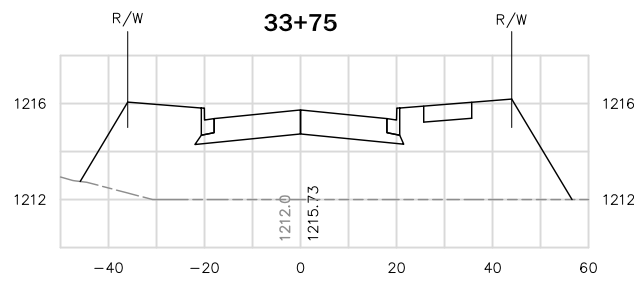
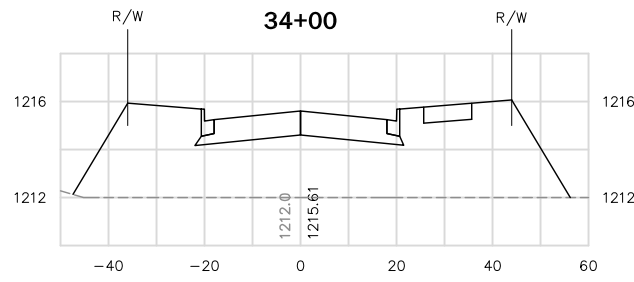
REVISIONS	DATE	BY	DESCRIPTION
1/26/26	CONST.	DOC.	
3/23/26	CITY REVIEW		
4/24/26	CITY REVIEW		

STRIPING, SIGNAGE & LIGHTING PLAN

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for: LEO A. DALY

NOVOTNY ROAD

STA. 33+00 - STA. 37+00



www.starkengineer.com
320-249-2611
Sauk Rapids, Minnesota



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Engineer under the laws of the State of Minnesota.
W. Stark 3/23/26 26093
Date Registration No.

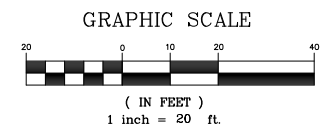
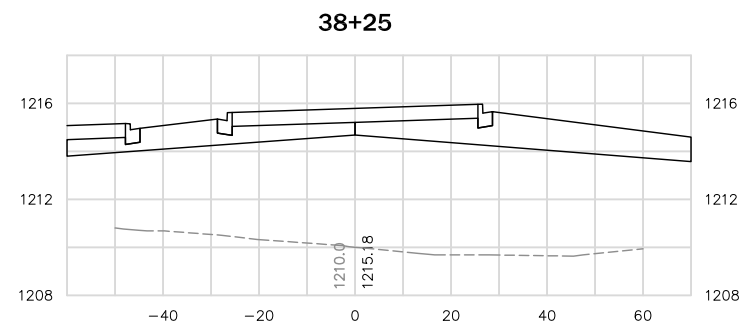
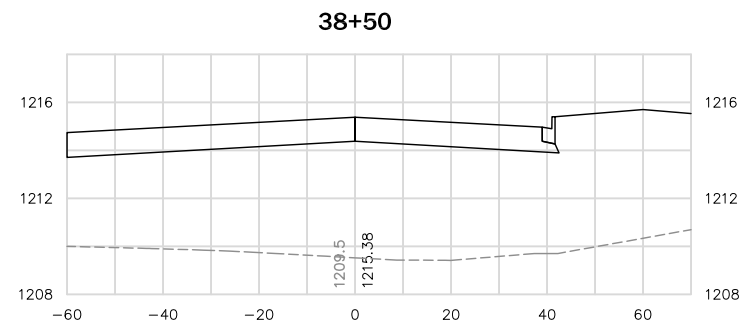
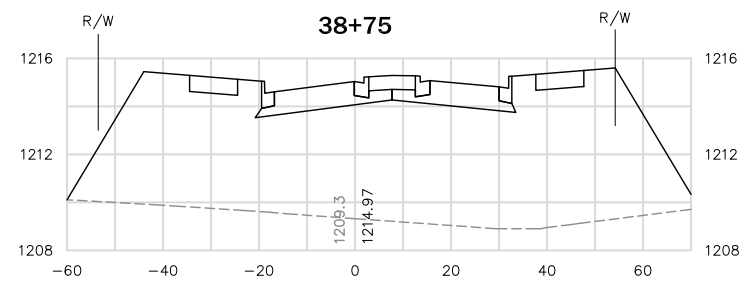
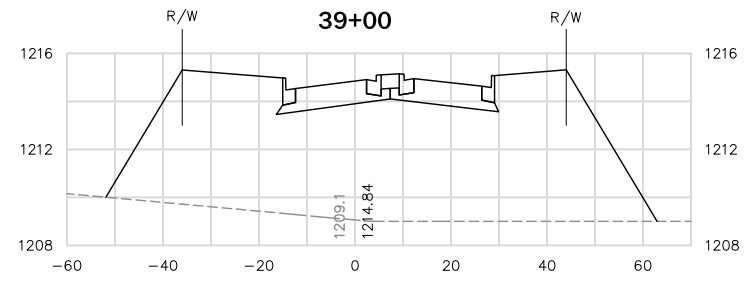
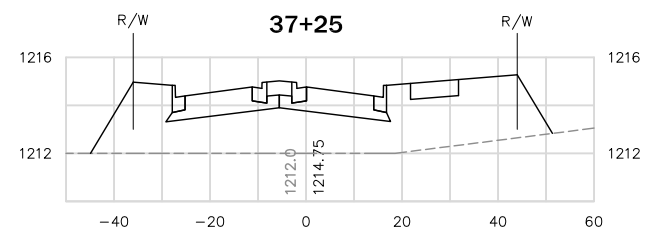
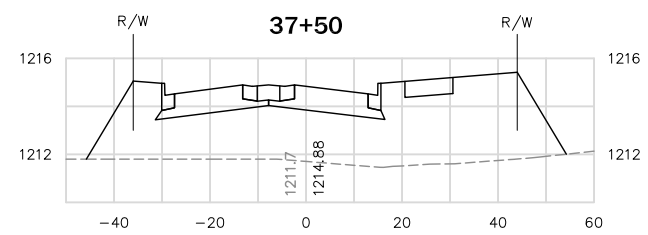
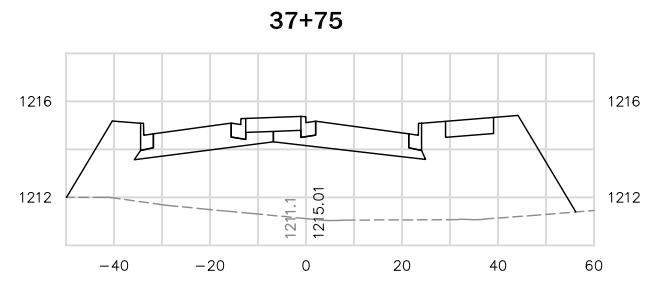
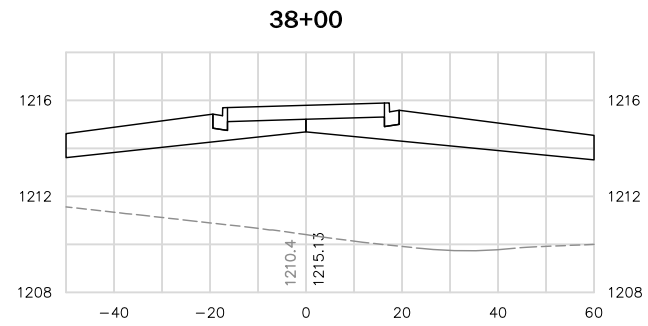
REVISIONS	DATE	BY	DESCRIPTION
1/26/26	CONST.	DOC.	
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CROSS SECTIONS

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for: LEO A. DALY

NOVOTNY ROAD

STA. 37+50 - STA. 39+00



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

Date: 3/23/26 Registration No.: 26093

Wine C. Stark

REVISIONS	DATE	BY	CHECKED	APPROVED
1/26/26	CONST.	DOC.		
3/23/26	CITY REVIEW			

CROSS SECTIONS

2026 NOVOTNY ROAD IMPROVEMENTS
BAXTER, MINNESOTA
for: LEO A. DALY

www.starkengineer.com
320-249-2611
Sauk Rapids, Minnesota

