

MINNESOTA DEPARTMENT OF TRANSPORTATION

City of Ham Lake, Minnesota

CONSTRUCTION PLAN FOR GRADING, RECLAIM, AGGREGATE BASE, PLANT MIXED BITUMINOUS SURFACE, STORM DRAINS AND CONCRETE CURB

LOCATED ON 143RD AVENUE NE FROM TH 65 TO 108 FEET WEST OF LINCOLN STREET

HAM LAKE PROJECT NO. 2505 STATE AID PROJ. NO. 197-127-001

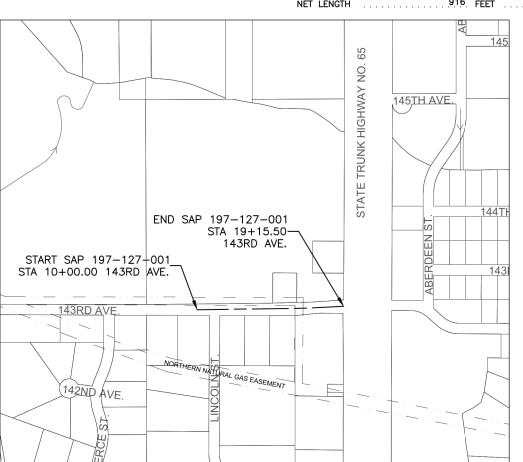
PLAN REVISIONS

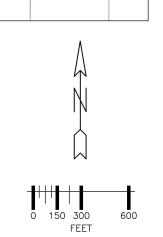
SHEET NO.

DATE

APPROVED BY

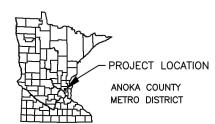
GROSS LENGTH916.	FEET	0.173	MILES
BRIDGES LENGTH	FEET	0.	MILES
EXCEPTIONS LENGTH	FEET	0.	MILES
NET LENGTH	FEET	0.173	MILES





143RD AVENUE NE STATE PROJECT NO. 197-127-001

	37
O. OF TRAFFIC LANES2 NO. OF PARKING LANES	.0 .
TOPPING SIGHT DISTANCE BASED ON: EIGHT OF EYE 3.5'	
	ADT (2025) 631 ADT (2045) 93 Design Speed 30 MPH AD. OF TRAFFIC LANES 2 NO. OF PARKING LANES FUNCTIONAL CLASSIFICATION COLLECTOR, LOW DENSITY COLL FACTOR 50% HCADT <150 CON DESIGN 9 TON STOPPING SIGHT DISTANCE BASED ON: HEIGHT OF EYE 3.5' HEIGHT OF OBJECT 2.0' Design Speed not achieved at: STA. N/A TO STA. N/A



ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINES FOR THE" INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

THE UTILITIES SHOWN ARE BASED UPON THE BEST INFORMATION AVAILABLE AND MAY NOT REFLECT THE ACTUAL EFFECTS ON THE UTILITIES BY CONSTRUCTION. ACTUAL DETERMINATIONS WILL BE MADE IN THE FIELD DURING CONSTRUCTION.

STATE AID PROJ. NO.	CHARGE	IDENTIFIER
197–127–001		

STATE FUNDS

GOVERNING SPECIFICATIONS

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

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE 2024 MnMUTCD, INCLUDING FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE

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SHEET NO DESCRIPTION

SHEET NO.	DESCRIPTION
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	AND STANDARD PLATES
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20	SIGNING AND STRIPING PLAN
21-23	CROSS SECTIONS

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

THIS PLAN CONTAINS 23 SHEETS

I HEREBY CERTIFY THAT THIS PLAN 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.

REG. NO. . . . 48768 DATE: .

CITY ENGINEER - HAM LAKE

Lucas Lortie

Digitally signed by Lucas Lortie Date: 2025.06.03 11:09:57 -05'00'

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

Lucas Lortie APPROVED FOR STATE AID FUNDING: FOR STATE AID ENGINEER

Digitally signed by Lucas Lortie

STATE AID PROJECT NO. 197-127-001

RFC ENGINEERING, INC. **Consulting Engineers**

13635 Johnson Street NE Ham Lake, MN 55304

Telephone 763-862-8000 Fax 763-862-8042

JOB NO. 2505

PLOT DATE: 6/02/2025 15:11

FILE: 32-4-101

SHEET NO. 1 OF 23 SHEETS

	STATEMENT OF ESTIMATED QUANTITIES							
						ENTIRE	S.A.P. 197-127-001	
TAB	SHEET	NOTES	ITEM NO.	ITEM	UNIT	PROJECT	ROADWAY	STORM SEWER
						ESTIMATED QUANTITIES	ESTIMATED QUANTITIES	ESTIMATED QUANTITIES
			2021.501	MOBILIZATION	LUMP SUM	1	1	
AA	3		2101.505	CLEARING (P)	ACRE	0.16	0.16	
AA	3		2101.505	GRUBBING (P)	ACRE	0.16	0.16	
AB	3	6	2104.502	SALVAGE SIGN	EACH	7	7	
AC	3	10	2104.502	SALVAGE MAIL BOX SUPPORT AND MAILBOX	EACH	3	3	
BD	3		2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)-DRIVEWAY	LIN FT	123	123	
AD	3		2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	93	93	
AE	3		2104.503	REMOVE METAL CULVERT	LIN FT	28	28	
AF	3		2104.503	REMOVE CURB AND GUTTER	LIN FT	126	126	
BD	4		2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	329	329	
AH	3	4	2106.507	EXCAVATION - COMMON (P)	CU YD	1 809	1 809	
AH	3	4	2106.507	COMMON EMBANKMENT (CV) (P)	CU YD	707	707	
BA	4		2211.509	AGGREGATE BASE CLASS 5	TON	1 267	1 267	
BD	4	8	2211.604	AGGREGATE BASE (CV) CLASS 5 4.0" THICK-DRIVEWAY	SQ YD	183	183	
BJ	4	8	2211.604	AGGREGATE BASE (CV) CLASS 5 6.0" THICK-COMMERCIAL DRIVEWAY	SQ YD	120	120	
AG	3		2215.504	FULL DEPTH RECLAMATION (P)	SQ YD	2 712	2 712	
BF	4	8	2360.504	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 1.0" THICK-COMMERCIAL DRIVEWAY	SQ YD	77	77	
BD	4	8	2360.504	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C) 2.0" THICK-DRIVEWAY	SQ YD	183	183	
BG	4	8	2360.504	TYPE SP 12.5 WEARING COURSE MIXTURE (3,C) 2.0" THICK-COMMERCIAL DRIVEWAY	SQ YD	77	77	
ВВ	4	9	2360.509	TYPE SP 9.5 WEARING COURSE MIXTURE (3,C)	TON	377	377	
BC	4	9	2360.509	TYPE SP 12.5 WEARING COURSE MIXTURE (3,C)	TON	377	377	
	15	1, 5	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS IV	LIN FT	31		31
	15	1, 5	2503.503	15" RC PIPE SEWER DESIGN 3006 CLASS IV	LIN FT	19		19
	15	2, 5	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL-2X3	EACH	1		1
	15	2, 5	2506.502	CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1-48"	EACH	1		1
	15		2506.602	CONNECT INTO EXISTING STORM SEWER	EACH	1		1
BN		2	2511.504	GEOTEXTILE FILTER TYPE 4	SQ YD	39	39	
ВМ	4		2511.507	RANDOM RIPRAP CLASS III	CU YD	6	6	
ВК	4		2531.503	CONCRETE CURB AND GUTTER DESIGN B612	LIN FT	47	47	
BL	4		2531.503	CONCRETE CURB AND GUTTER DESIGN B618	LIN FT	1 846	1 846	
ВН	4	8	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	34	34	
	4		2531.604	CONCRETE SPILLWAY	SQ YD	6	6	
BR	4	10	2540.602	INSTALL MAIL BOX SUPPORT WITH MAILBOX	EACH	3	3	
			2563.601	TRAFFIC CONTROL	LUMP SUM	1	1	
BP	4	6	2564.518	SIGN PANELS TYPE C	SQ FT	24	24	
BT	4	6	2564.602			7	7	
	16-17	7	2573.501	STABILIZED CONSTRUCTION EXIT	LUMP SUM	1	1	
ВО	4,16-17	7	2573.502	STORM DRAIN INLET PROTECTION	EACH	2	2	
BS	4,16-17	7	2573.502	CULVERT END CONTROL	EACH	1	1	
BQ	4,16-17	7	2573.503	SILT FENCE, TYPE MS	LIN FT	259	259	
	16-17	3	2575.605	TURF ESTABLISHMENT (25-131 SEEDING MIX)	ACRE	0.89	0.89	
BE	4,18		2582.503	4" DOUBLE YELLOW SOLID LINE PAINT	LIN FT	650	650	
DE	BE 4.10 2002.000 4 DOUBLE YELLOW SOLID LINE PAINT LIN FI 650 650							

- NOTES:

 1. SELECT GRANULAR BORROW, STRUCTURAL EXCAVATION, AND GRANULAR BACKFILL FOR STORM PIPES ARE INCIDENTAL.

 2. FILTER FABRIC AND FABRIC WRAP FOR CATCH BASINS AND MANHOLES ARE INCIDENTAL.

 3. ALL DISTURBED AREAS DETERMINED NOT TO BE PAVED, AGGREGATE SURFACE, CONCRETE SURFACE, OR RIP RAPPED SHALL HAVE 4 INCHES OF TOPSOIL, FERTILIZER TYPE 2, MULCH MATERIAL, AND SEED MIXTURE NO. 25-131 PER MINDOT STANDARD SPECIFICATION 3876. APPLY TYPE 1 HYDROMULCH AT THE RATE OF 2 (TWO) TONS SPECIFICATION 3876. APPLY TYPE 1 HYDROMULCH AT THE RATE OF 2 (TWO) TONS PER ACRE OR A HYDRAULIC SOIL STABILIZER OR BONDED FIBER MATRIX (TO ACHIEVE A 90% UNIFORM GROUND COVERAGE). SEED MIXTURE, WATER, TYPE 2 FERTILIZER, AND MULCH ARE INCIDENTAL. SOIL TESTING TO DETERMINE FERTILIZER MIXTURE RATIO AND RATE OF APPLICATION IS INCIDENTAL.

 4. MATERIAL FOUND IN THE SUBCUTS THAT IS UNSUITABLE FOR FILL IN THE ROADBED SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE.

 5. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE CONSTRUCTION LIMITS.

 6. SIGNS INCLUDE POSTS.

 7. INSTALLATION AND MAINTENANCE ARE INCIDENTAL.

 8. QUANTITY SHOWN USED FOR DRIVEWAY CONSTRUCTION. SEE DETAIL RFC—370A1.

 9. BITUMINOUS MATERIAL FOR TACK COAT SHALL BE INCIDENTAL.

 10. REMOVE SUPPORTS AND SALVAGE MAIL BOXES. SALVAGE MAIL BOXES ARE INCIDENTAL.

PLATE NO.	STANDARD PLATES - RFC ENGINEERING (IN THE PLANS)
RFC-366B1	TYPICAL STREET SECTION
RFC-363A3	PRIVATE DRIVEWAY/FIELD ENTRACE
RFC-370A1	COMMERCIAL DRIVEWAY
RFC-380A	CURB END
RFC-396A	CONCRETE SPILLWAY 90°
RFC-396B	CONCRETE SPILLWAY 45°
RFC-459C	RECTANGULAR CATCH BASIN
RFC-463	FABRIC AROUND CATCH BASIN
RFC-465A1	RECTANGULAR INLET FOR ROUND MANHOLE
RFC-654	STORM DRAIN BEDDING FOR RIGID AND FLEXIBLE PIPE *MNDOT DETAIL
RFC-857	SILT FENCE AT FES

SEED MIX 25-131: COMMERCIAL TURF MULCH TYPE 1 PLANT APRIL 1ST - JUNE 1ST FOR SPRING PLANTING OR JULY 20TH - SEPTEMBER 20TH FOR FALL PLANTING

BASIS FOR ESTIMATED QUANTITIES

AGGREGATE BASE 105 LBS/S.Y./INCH BITUMINOUS MIXTURE TACK COAT 0.05 GAL./S.Y.

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY

PLATE NO.	MnDOT STANDARD PLATES			
3000M	REINFORCED CONCRETE PIPE (6 SHEETS)			
3006Н	ASKET JOINT FOR R.C. PIPE (2 SHEETS)			
7100H	ONCRETE CURB & GUTTER			
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)			
9350C	MAILBOX SUPPORT SWING-AWAY TYPE (3 SHEETS)			



CENTURYLINK/LUMEN (763) 712-5017 CENTERPOINT ENERGY (763) 323-2760 COMCAST (952) 607-4078 CONNEXUS ENERGY (763) 323-4268 NORTHERN NATURAL GAS (877) 654-0646

PREPARED BY ME OR UNDER MY
PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A
DULY REGISTERED PROFESSIONAL
ENGINEER UNITER THE LAWS OF THE
STATE OF MINUSCOTA.

DATE 06/02/25 REG. NO. 48768 REVISION HISTORY

RFC ENGINEERING, INC. **Consulting Engineers**

13635 Johnson Street Ham Lake, MN 55304 Telephone 763-862-8000 Fax 763-862-8042

M.S.A.P. 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505

143RD AVENUE NE STREET RECONSTRUCTION

STATEMENT OF ESTIMATED QUANTITIES SHEET: 2 OF 23 AND STANDARD PLATES 38-1-102

2505 QT

06/02/25

JOB NUMBER: 2505

TRE	AA		
STATION	GRUBBING (ACRE)		
16+00 TO 18+45 143RD AVE RT		0.16	0.16
TOTAL		0.16	0.16

REMOVE CON	CRETE	CURB	AND	GUTTER	AF
STATION		LOC	CATION		LIN. FT.
30+12 TO 30+53		LINCOLN	ST. – RT		57
30+12 TO 30+53		LINCOLN	ST. – LT		69
TOTAL					126

	AB				
STATION	LOCATION	SIGN NO.	POST	CODE NO.	PANEL LEGEND
11+38	143RD AVE RT	C-21	SINGLE	R1-1	STOP & STREET
13+04	143RD AVE RT	C-22	SINGLE	R2-1	SPEED LIMIT 30 M.P.H.
18+14	143RD AVE RT	C-23	SINGLE	M6-1	DIRECTIONAL ARROW
18+14	143RD AVE RT	C-24	SINGLE	M1-5M	MINNESOTA ROUTE MARKER
18+14	143RD AVE RT	C-25	SINGLE	M6-1	DIRECTIONAL ARROW
18+14	143RD AVE RT	C-26	SINGLE	D3-2	STREET
18+78	143RD AVE LT	C-27	DOUBLE	R2-1	SPEED LIMIT 30 M.P.H.
TOTAL					7

RECLAIM BITUMINOUS PAVEMENT				
STATION	SQ. YD.			
10+00 TO 19+16	143RD AVE. – ROADWAY	2,498		
30+12 TO 30+53	LINCOLN ST ROADWAY	214		
TOTAL		2,712		

SALV	AC	
STATION	LOCATION	POST TYPE
12+61	143RD AVE. – LT	SINGLE
13+95	143RD AVE. – LT	SINGLE
15+65	143RD AVE. – LT	DOUBLE
TOTAL		3

SAWCUT BITU	AD	
STATION	LIN. FT.	
10+00	143RD AVE. — ROADWAY	24
19+16	143RD AVE. — ROADWAY	38
30+53	LINCOLN ST ROADWAY	31
TOTAL		93

REMOVI	AE		
STATION	LOCATION	TYPE	LIN. FT.
14+99 TO 15+27	143RD AVE. — LT	СМР	28
TOTAL			28

EARTHWORK SUMMARY						АН	
EXCAVATION (CU YD) EMBANKMENT (CU YD)							
TOPSOIL 554 CU YD (EV) COMMON 939 CU YD (EV) BIT RECLAIM 316 CU YD (EV) TOPSOIL 527 CU YD (EV)/1.1 = 479 CU YD (CV) COMMON EX 296 CU YD (EV)/1.3 = 228 CU YD (CV) WASTE 670 CY YD (EV) TOPSOIL 527 CU YD (EV)/1.3 = 228 CU YD (CV) TOPSOIL 527 CU YD (EV) 707 CU YD (CV) 228 CU YD (CV) 228 CU YD (CV)							
NOTES: ① TOTAL EXCAVATION (EV) REQUIRED FOR PROJECT. ② TOTAL EMBANKMENT (CV) REQUIRED FOR PROJECT.							



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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNITED THE LAWS OF THE STATE OF MINISSOTA.

DATE 06/02/25 REG. NO. 48768

RFC ENGINEERING, INC. Consulting Engineers

13635 Johnson Street Ham Lake, MN 55304 Telephone 763-862-8000 Fax 763-862-8042 M.S.A.P. 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505 143RD AVENUE NE STREET RECONSTRUCTION

CHECKED BY: DAK

NOTES:

1. TOP OF GRADING SUBGRADE IS DEFINED AS THE BOTTOM OF THE CLASS 5 AGGREGATE BASE.

2. BITUMINOUS AND CONCRETE DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH MnDOT SPEC. 2104.3C3.

3. COMPACTION OF ALL GRADING AND BASE ITEMS SHALL BE BY THE "QUALITY COMPACTION METHOD".

4. USE TACK COAT BETWEEN ALL BITUMINOUS LAYERS AND BETWEEN BITUMINOUS AND CONCRETE

STRIP ALL TOPSOIL AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE TOPSOIL OR USE AS

WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN THIS WORK SHALL BE

EXISTING 143RD AVENUE IS APPROXIMATELY 2" TO 3" OF BITUMINOUS AND 4" OF CLASS 5.

ANY SIGNS MARKED FOR SALVAGING THAT ARE DAMAGED DURING THE SALVAGING PROCESS AND ARE
DEEMED BEYOND ACCEPTABLE BY THE ENGINEER SHALL BE REMOVED AND REPLACED AT THE

CURB AND GUTTER. TACK COAT IS INCIDENTAL.

INCIDENTAL FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.
STATIONING FOR LOCATION OF EXISTING AND NEW SIGNS IS APPROXIMATE.

FILL OUTSIDE OF ROAD CORE.

CONTRACTORS EXPENSE.

EARTHWORK SUMMARY AND TABULATIONS

DATE: 06/02/25

JOB NUMBER: 2505

SHEET: 3 OF 23

FILE: 38-1-103

2505 TAB

AGGREGA ⁻ CLAS	ВА			
STATION TO STATION	STATION TO STATION LOCATION			
10+00 TO 19+16	1,200			
30+15 TO 30+53	67			
TOTAL		1,267		

TYPE SP 9.5 BI WEARING COURSE (SPWEA3400 COMMERCIAL D	BF	
STATION	LOCATION	SQ. YD.
18+50	143RD AVE. — RT	77
TOTAL		77

CONCRI GUTTER	ВК		
STATION TO STATION	LIN. FT.		
18+08 TO 18+24	TO 18+24 143RD AVE RT		
18+76 TO 18+92	24		
TOTAL		47	

SIGN PANELS TYPE C							BP	
					PANEL			
SIGN NO.	NOTE	TOTAL QTY.	POST	SIZE (IN)	AREA (SQ. FT.)	TOTAL AREA (SQ. FT.)	CODE NO.	PANEL LEGEND
C-7		1	DOUBLE	48 X 24	8	8	W1-7	TWO-DIRECTION LARGE ARROW
C-8		4	SINGLE	24 X 24	4	16	R8-3	NO PARKING
C-9	8	1	SINGLE	VARIES X 8			D3-1	STREET
TOTAL						24		

BQ

LIN. FT.

172 88

260

BR

TYPE

SINGLE

SINGLE

SINGLE

TYPE SP WEARING (SF	BB		
STATION TO STATION	TONS		
10+00 TO 19+16	356		
30+15 TO 30+53	22		
TOTAL			377

TYPE SP 12.5 WEARING COUR (SPWEB34 COMMERCIAL	BG	
STATION	LOCATION	SQ. YD.
18+50	143RD AVE. — RT	77
TOTAL		77

CONCRET GUTTER D	BL	
STATION TO STATION	LIN. FT.	
10+00 TO 19+16	143RD AVE LT	917
10+00 TO 10+61	143RD AVE RT	61
11+56 TO 19+16	143RD AVE RT	760
30+15 TO 30+53	LINCOLN ST LT	54
30+15 TO 30+53	54	
TOTAL		1,846

CLASS 3

LOCATION

143RD AVE. - LT

143RD AVE. - RT

ВМ

CU. YD.

3

6

INS	BT					
SIGN NO.	NOTE	TOTAL QTY.	POST	PANEL SIZE (IN)	CODE NO.	PANEL LEGEND
C-1		1	SINGLE	30 X 30	R1-1	STOP (SALVAGED)
C-2		1	SINGLE	24 X 30	R2-1	SPEED LIMIT 30 M.P.H. (SALVAGED)
C-3		2	SINGLE	21 X 15	M6-1	DIRECTIONAL ARROW (SALVAGED)
C-4		1	SINGLE	24 X 24	M1-5M	MINNESOTA ROUTE MARKEF (SALVAGED)
C-5		1	SINGLE	24 X 30	D3-2	STREET (SALVAGED)
C-6		1	DOUBLE	24 X 30	R2-1	SPEED LIMIT 30 M.P.H. (SALVAGED)
TOTAL		7				

TYPE SP WEARING (SF	ВС		
STATION TO STATION	TONS		
10+00 TO 19+16	356		
30+15 TO 30+53	22		
TOTAL	377		

6" CON PAVEN COMMERCIAL	ВН	
STATION	SQ. YD.	
18+50	143RD AVE. — RT	34.4
TOTAL		34.4

	RIPRAP
	STATION
	19+16
	19+16
	TOTAL

GEOTEX T	BN	
STATION	LOCATION	SQ. YD.
19+16	143RD AVE. – LT	19.6
19+16	143RD AVE RT	19.6
TOTAL		39.2

CULV	BS	
STATION	LOCATION	QUANTITY
19+75	143RD AVE RT	1
TOTAL		1
		•

SILT FENCE

LOCATION

143RD AVE. - LT

143RD AVE. - LT

MAILBOX SUPPORT

(SWING-AWAY TYPE)

LOCATION

143RD AVE. - LT

143RD AVE. - LT

143RD AVE. - LT

STATION TO

STATION 10+00 TO 11+53

18+50 TO 19+16

STATION

12+13

13+70

14+94

TOTAL

RE:	BD				
STATION LOCATION REMOVE SAWCUT (L.F.) PLACE (S.Y.)					
		BIT	BIT	BIT	CL5
12+13	RT.	44	16	36	36
13+70	RT.	78	26	74	74
14+94	RT.	34	18	30.5	30.5
15+85	RT.			42.5	42.5
18+50	RT.	173	63		
TOTAL		329	123	183	183

LOCATION

143RD AVE. - ROADWAY

143RD AVE. - ROADWAY

ΒE

LIN. FT.

372

278

650

4" DOUBLE SOLID LINE

YELLOW-PAINT

6" AGGREGATE BASE CLASS 5 COMMERCIAL DRIVEWAY		
LOCATION	SQ. YD.	
143RD AVE RT	120	
	120	
	S 5 DRIVEWAY	

STOF INLET F	ВО			
STATION	STATION LOCATION			
16+68	1			
16+68	143RD AVE RT	1		
TOTAL		2		

Ν	0	T	Ε	S	

- TOP OF GRADING SUBGRADE IS DEFINED AS THE BOTTOM OF THE CLASS 5 AGGREGATE BASE.
- BITUMINOUS AND CONCRETE DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFFSITE IN ACCORDANCE WITH MnDOT SPEC. 2104.3C3.
- COMPACTION OF ALL GRADING AND BASE ITEMS SHALL BE BY THE "QUALITY COMPACTION METHOD".
- USE TACK COAT BETWEEN ALL BITUMINOUS LAYERS AND BETWEEN BITUMINOUS AND CONCRETE CURB AND GUTTER. TACK COAT IS INCIDENTAL.
- STRIP ALL TOPSOIL AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE TOPSOIL OR USE AS FILL OUTSIDE OF ROAD CORE.
- WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN, IT SHALL MEAN THIS WORK SHALL BE INCIDENTAL FOR WHICH NO DIRECT COMPENSATION WILL BE MADE.
- STATIONING FOR LOCATION OF EXISTING AND NEW SIGNS IS APPROXIMATE. 8. SIGN AND POST INSTALLED BY OTHERS

STATION

11+55 TO 15+28

16+37 TO 19+16

TOTAL

CENTURYLINK/LUMEN CENTERPOINT ENERGY CENTURYLINK/LUMEN (763) 712-5017 CENTERPOINT ENERGY (763) 323-2760 COMCAST (952) 607-4078 CONNEXUS ENERGY (763) 323-4268 NORTHERN NATURAL GAS (877) 654-0646 REVISION HISTORY

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EARTHWORK SUMMARY AND TABULATIONS

06/02/25 JOB NUMBER: 2505 SHEET: 4 OF 23 FILE: 38-1-104

2505 TAB 2

UTILITY COMPANIES - CA GOPHER STATE ONE CALL FIELD UTILITY LOCATE REQUEST CENTERPOINT ENERGY CENTURYLINK CONNEXUS ENERGY COMCAST CABLE COMMUNICATIONS, INC. MINNESOTA DEPARTMENT OF TRANSPORTATION NORTHERN NATURAL GAS

CENTER	СВ			
ALIGNMENT	NOTES			
143RD AVENUE	16+56 TO 19+16	24' RT	UNDERGROND GAS	LEAVE AS IS
TRUNK HIGHWAY 65	19+36	0	UNDERGROND GAS	LEAVE AS IS

CEN	СС			
ALIGNMENT	STATION	OFFSET	INPLACE ITEM	NOTES
143RD AVENUE	10+00 TO 19+16	33' LT	UNDERGROND CABLE	LEAVE AS IS
TRUNK HIGHWAY 65	19+36	0	OVERHEAD CABLE	LEAVE AS IS

CONNEX	CD					
ALIGNMENT	STATION	STATION OFFSET INPLACE ITEM				
143RD AVENUE	10+00 TO 19+16	18' LT	OVERHEAD ELECTRIC	RELOCATE		
143RD AVENUE	16+56	19' RT	OVERHEAD ELECTRIC	RELOCATE		
TRUNK HIGHWAY 65	19+36	0	OVERHEAD ELECTRIC	LEAVE AS IS		

GENERAL NOTES:

- STATIONING FOR 143RD AVENUE REFERENCES THE PROPOSED CENTERLINE FOR THE PROJECT.
 ALL REMOVALS AND RELOCATIONS, EXCEPT FOR MnDOT FACILITIES, ARE TO BE COMPLETED BY THE UTILITY OWNER.

С	OMCAS	ST		CE
ALIGNMENT	STATION	OFFSET	INPLACE ITEM	NOTES
143RD AVENUE	10+00 TO 19+16	33' LT	UNDERGROND CABLE	LEAVE AS IS
TRUNK HIGHWAY 65	19+36	0	OVERHEAD CABLE	LEAVE AS IS

MINN	ESOTA	DOT		CF
ALIGNMENT	STATION	OFFSET	INPLACE ITEM	NOTES
TRUNK HIGHWAY 65	19+36	0'	UNDERGROND FIBER	LEAVE AS IS

NORTHER	CG			
ALIGNMENT	STATION	OFFSET	INPLACE ITEM	NOTES
143RD AVENUE	10+00 TO 16+39	53' LT	HIGH PRESSURE UNDERGROUND GAS	LEAVE AS IS
143RD AVENUE	16+39	53' LT TO 53' RT	HIGH PRESSURE UNDERGROUND GAS	LEAVE AS IS



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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNITER THE LAWS OF THE STATE OF MINUSCOTA.

DATE 06/02/25 REG. NO. 48768 REVISION HISTORY

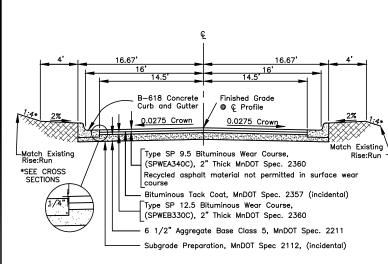
RFC ENGINEERING, INC. **Consulting Engineers**

13635 Johnson Street Ham Lake, MN 55304 Telephone 763 862 8000 Fax 763-862-8042

M.S.A.P. 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505 143RD AVENUE NE STREET RECONSTRUCTION

2505 TAB 06/02/25 JOB NUMBER: 2505 SHEET: 5 OF 23 FILE: 38-1-105

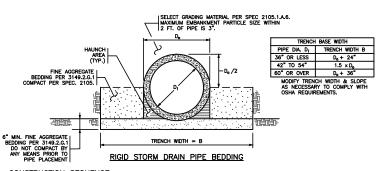
UTILITY TABULATIONS CHECKED BY: DAK



TYPICAL URBAN SECTION

TYPICAL STREET SECTION COMMERCIAL 9-TON RFC-366B1

NOT TO SCALE



CONSTRUCTION SEQUENCE

NOTES

EXCAVATE & CONSTRUCT ALL TRENCHES AND SLOPES PER OSHA REQUIREMENTS. PIPE SIZE IS BASED ON THE NOMINAL INSIDE DIAMETER. PROTECT ALL PIPE DURING CONSTRUCTION PER SPEC. 2501 OR 2503.

Varies (Curb Cut) Depress Curb See Plans for Curve Radius B612 Curb-- B612 Curb B612 Concrete Cur Contro % Min, 3% Max See Plans Concrete Curb **VARIES** Fynansian Joint Match existing driveway width and

elevation at matchline unless otherwise directed by engineer (See Plans). If existing driveway is concrete, apron and driveway shall be constructed of 6"

and arriveway shall be constructed of a concrete with 6*x6*-6/6 welded wire fabric per MnDOT Spec. 3303 in flat sheets, not rolls. Epoxy coated dowel bars conforming to MnDOT Spec. 3302 shall be placed in the existing driveway pavement along the sawcut line. Dowel pavement diong the sawcut line. Dowel bars shall be properly coated with a MnDOT approved lubricant. Dowel bars shall be #13. and placed at 24 °OC spacing. All work shall conform to MnDOT (4) spec. 2301 and 2531. Concrete shall be per MnDOT Spec. 2461 for ready—mix with 3,900 PSI at 28 days, with air content of 5% to 7%. Coarse aggregat for concrete shall be per MnDOT Spec. 3137 with 1" max, Class A aggregate. Joint sealer shall be hot-poured, low Joint sealer snall be not-poured, low modulus, mastic type per MnDOT Spec.

3725. Membrane curing compound shall be per MnDOT Spec. 3754 and 2301.3J.

(3) If existing driveway is gravel, apron and driveway within R/W shall be constructed per bituminous driveways. Type SP 9.5 Bituminous Wear Course (SPWEA340C), 1" Thick MnDOT Spec. 2360.

Type SP 12.5 Bituminous Wear Course (SPWEB330C), 2" Thick MnDOT Spec. 2360. LB. 6" Reinforced Concrete Slab, MnDOT Spec. 2301 and 2531.

6" Aggregate Base Class 5, MnDOT Spec. 2211.

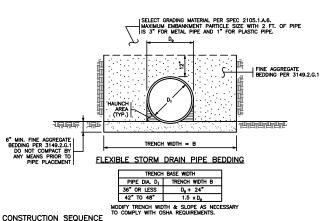
Gravel driveways matching beyond R/W from the 6 class 5.

If existing driveway is bituminous, apron shall be constructed per concrete driveway and driveway behind apron shall be bituminous per note A. All bituminous work shall conform to MnDOT Specifications 2112. 2211, 2357 and 2360. Tack coat is to be applied between bituminous courses and between concrete and bituminous surfaces.

⑤ Driveways in cut sections to slope up from 1" curb lip to R/W at 2% min, 3% max then slope to matchline. Driveways in fill sections to slope up from 1" curb lip to R/W at min of 2% then slope to matchline. See Plan for slope.

COMMERCIAL DRIVEWAY DETAIL RFC-370A1

NOT TO SCALE



CONSTRUCTION SEQUENCE

- L. LOOSELY PLACE 6" OF FINE AGOREGATE BEDDING MATERIAL TO GRADE, DO NOT COMPACT PRIOR TO PIPE PLACEMENT.

 2. FOR PIPES WITH BELL REMOVE MATERIAL IN BELL AREA PRIOR TO PLACEMENT.

 3. FURNISH AND INSTALL PIPE TO GRADE.

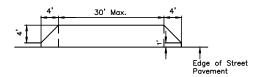
 4. AFTER PLACEMENT OF THE PIPE, PLACE ADDITIONAL BEDDING AND COMPACT THE FULL LENGTH ON BOTH SIDES OF THE PIPE UNDERNEATH
 THE HAUNCH AREA BY FIRST SHOVEL SLICING (MANUALLY SHOVE THE BLADE END OF SHOVEL AT AN ANGLE DOWN THE ENTIRE LENGTH OF TH
 HAUNCH UNDER THE PIPE) THEN COMPACT THE REMUNCH AT AN ANGLE USING A POWERED MECHANICAL OR PREJUMATIC DEVICE (I.E. POLE
 TAMPER, JUMPINS, JACK, OR SIMLAR), COMPACT THE REMUNCH AT AN ANGLE USING A POWERED MECHANICAL OR PREJUMATIC DEVICE (I.E. POLE
 TAMPER, JUMPINS, JACK, OR SIMLAR), COMPACT THE REMUNCH MET AND UTSIDE THE HAUNCH AREA TO REGULEMENTS OF THE
 PIPE UP TO THE MITCHEST OF THE
 PIPE UP TO THE MID—HEIGHT WHEN

 5. PLACE AND COMPACT BACKFILL EVENLY AND SIMULTANEOUSLY IN 8" LIFTS ON EACH SIDE OF THE PIPE UP TO THE MID—HEIGHT WHEN

 6. COMPLETE REMAINING BACKFILL.

CONSTRUCT ALL TRENCHES AND SLOPES PER OSHA REQUIREMENTS. BASED ON THE NOMINAL INSIDE DIAMETER.
PIPE DURING CONSTRUCTION PER SPEC. 2501 OR 2503.

STORM DRAIN BEDDING FOR RIGID AND FLEXIBLE PIPE NOT TO SCALE



- Match existing driveway width and elevation at matchline unless otherwise directed by engineer (See Plans).
- ② If existing driveway is concrete, apron and driveway shall be constructed of 6" concrete with 6" \times 6" 6/6 welded wire concrete with 6 x 6 - 6/6 welded wire fabric per MnDOT Spec. 3303 in flat sheets, not rolls. Epoxy coated dowel bars conforming to MnDOT Spec. 3002 shall be placed in the existing driveway povement along the sawcut line. Dowel bars shall be properly coated with a MDOT. be properly coated with a MnDOT approved lubricant. Dowel bars shall be size #4 and placed at 24" OC. All work shall conform to MnDOT Spec, 2301 and 2531. Concrete shall be ready—mix 3,900 PSI at 28 days, with air content 5% to 7%, coarse aggregate shall be 1" max, class A and per MnDOT Spec. 3137. Joint sealer shall be hot—poured, low modulus, mastic type per MnDOT Spec 3725. Membrane curing compound shall be per MnDOT Specs. 3754 and 2301.3M.
- ③ If existing driveway is gravel, apron and driveway within R/W shall be constructed per existing bituminous driveways. Gravel driveways matching beyond R/W shall be

NOTE:
HS20 Roadway Loading Catch Basin Cover Slab of

SECTION A-A

1. Steps needed for structure height greater than

Pipe Tongue or Groove.
Location of Structure as Shown in Plans.

4. See Plan for Box and Grate Type.

Depress Castina 1 Below Gutter Line

*Frame, Grate, and Curb Box — See Plan for Specific

Precast Reinf

1/2 Pipe Dia. Min

*Considered Bicycle Safe

Concrete Barrel

Structure

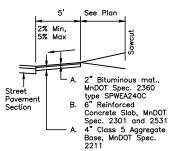
Cover Slab to Rest on Bed of Mortar on Full

Thickness of Structure Walls, not to Rest on

SECTIONAL VIEW

Precast Reinforced Concrete with Rectangular Opening.

24"



(4) If existing driveway is bituminous, apron and driveway behind apron shall be bituminous per A. above. All bituminous work shall conform to MnDOT Specifications 2112, 2211, 2357 and 2360. Tack coat

B. 4" Suitable Base

(5) Driveways in fill sections to slope up from 1" curb lip to end of apron (5' from back of curb) at min of 2% then slope to matchline. See Plan for slope.

24"

Adjusting Rings, 2 Min., 3 Max., Full

PLAN OF COVER

SLAB

Rings Not to Exceed 3/4" Total.

STRUCTURE REQUIREMENTS

D B C E T K

48" 58" 5" 6" 6" 14" 54" 65" 5.5" 8" 8" 14" 60" 72" 6" 8" 8" 14"

|66"|79"|6.5"|8"|8"|14"|

72" 86" 7" 8" 8" 14"

78" 93" 7.5" 8" 8" 14"

84" 100" 8" 8" 8" 14"

Precast Reinforced Conc. Base.

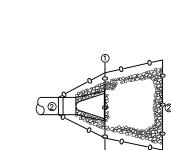
MnDOT Spec. ref. 2506, Detail ref. 4011, 4020, 4022

Invert Fillet Cast in Place

bituminous surfaces.

PRIVATE DRIVEWAY/FIELD ENTRANCE RFC-363A3

NOT TO SCALE



Expansion Joint

CURB END DETAIL RFC-380A

NOT TO SCALE

Pavement

Top of Curb

Bottom of Curb

SEQUENCING:

1. Place silt fence along construction limits, the portion of silt fence in front of the pipe shall be removed during flared end section placement.

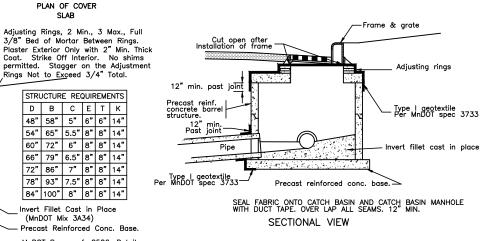
Once the flared end section is placed, silt fence

PLAN VIEW

- shall be furnished and installed around the top of the flored end section and surrounding the riprop
- 4. Contractor may substitute silt fence for bio-roll

or rock log to act as weir for flow into culvert. SILT FENCE AT FES RFC-857

NOT TO SCALE



SEAL FABRIC ONTO CATCH BASIN AND CATCH BASIN MANHOLE WITH DUCT TAPE. OVER LAP ALL SEAMS, 12" MIN.

FABRIC AROUND CATCH BASIN RFC-463

NOT TO SCALE

RECTANGULAR INLET FOR ROUND MANHOLE RFC-465A1 NOT TO SCALE

SPECIAL 1 = 48" ø

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MSAP 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505 143RD AVENUE NE STREET RECONSTRUCTION

CHECKED BY:

TYPICAL SECTION AND DETAILS

06/02/2 JOB NUMBER: 2505 SHEET: 6 OF 23 38-1-106

DWG: 2505 DETAIL

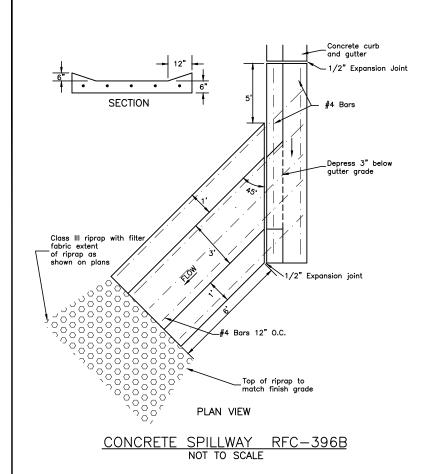
fillet cast in place

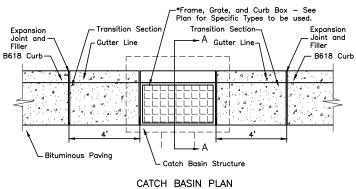


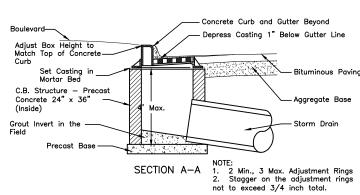
CENTURYLINK/LUMEN CENTERPOINT ENERGY (763) 323-2760 COMCAST CONNEXUS ENERGY NORTHERN NATURAL GAS (877) 654-0646

REVISION HISTORY ENGINEER UNPR THE LWS OF THE STATE OF MINN SOTA.

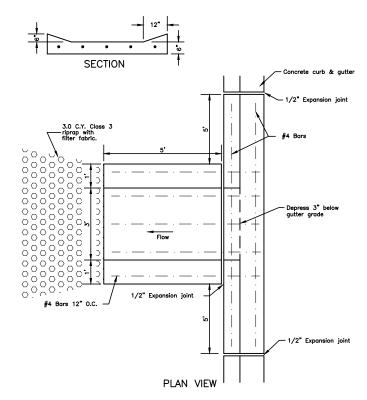
ATE 06/02/25 REG. NO. 48768 DATE 06/02/25







RECTANGULAR CATCH BASIN RFC-459C NOT TO SCALE SPECIAL



CONCRETE SPILLWAY RFC-396A NOT TO SCALE

COPHER STATE 800-252-1166 651-454-0002 CENTURYLINK/LUMEN CENTERPOINT ENERGY CENTURYLINK/LUMEN (763) 712-5017 CENTERPOINT ENERGY (763) 323-2760 COMCAST (952) 607-4078 CONNEXUS ENERGY (763) 323-4268 NORTHERN NATURAL GAS (877) 654-0646

PREPARED BY ME OR UNDER MY
PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION AND THAT I AM A
DULY REGISTERED PROFESSIONAL
ENGINEER UNITER THE LAWS OF THE
STATE OF MINISTOTA.

DATE 06/02/25 REG. NO. 48768 REVISION HISTORY

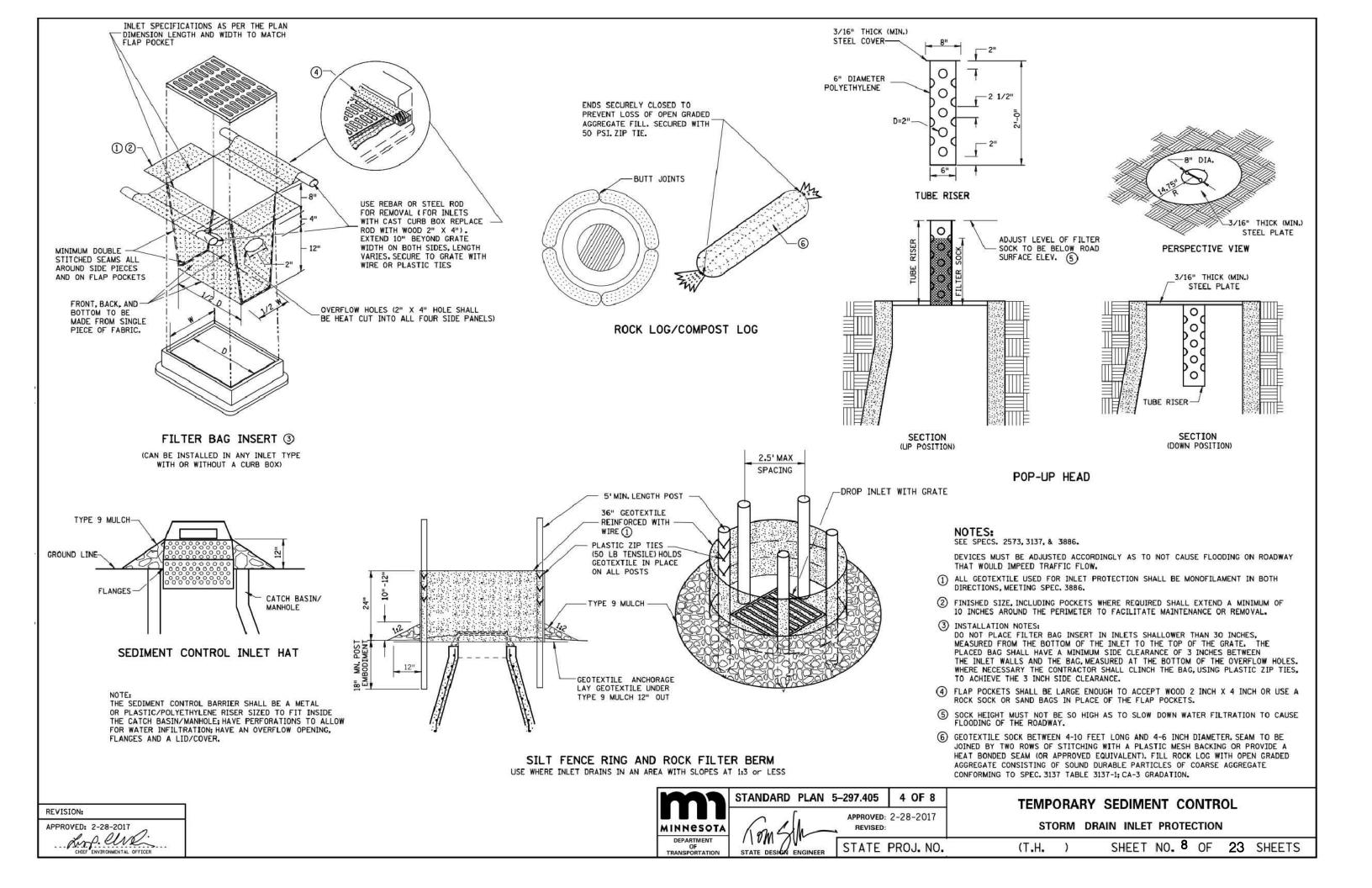
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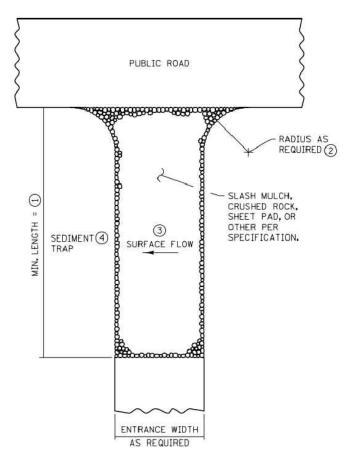
13635 Johnson Street Ham Lake, MN 55304 Telephone 763—862—8000 Fax 763-862-8042

M.S.A.P. 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505 143RD AVENUE NE STREET RECONSTRUCTION

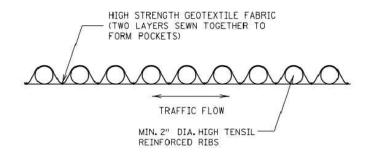
DWG: 2505 DETAIL 2 06/02/25 JOB NUMBER: 2505 SHEET: 7 OF 23

FILE: 38-1-107

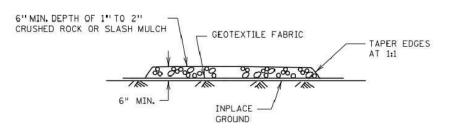




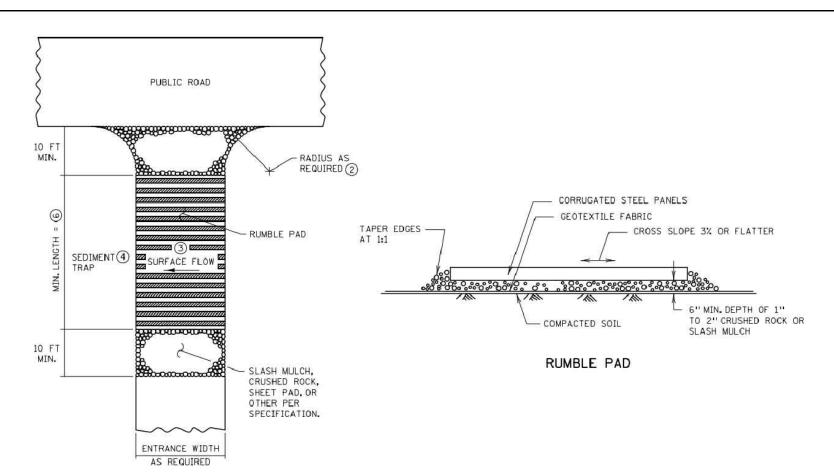
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT (5)(7)



SHEET PAD



SLASH MULCH OR CRUSHED ROCK



RUMBLE PAD CONSTRUCTION EXIT 50

NOTES:

SEE SPECS. 2573 & 3882.

- 1) MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
- 2 PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
- 3 IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE, IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
- (4) IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.
- (5) IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
- 6 MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.
- 7 MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED, MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.



STANDARD PLAN 5-297.405 5 OF 8 APPROVED: 2-28-2017 REVISED: 1 om

TEMPORARY SEDIMENT CONTROL

STABILIZED CONSTRUCTION EXIT

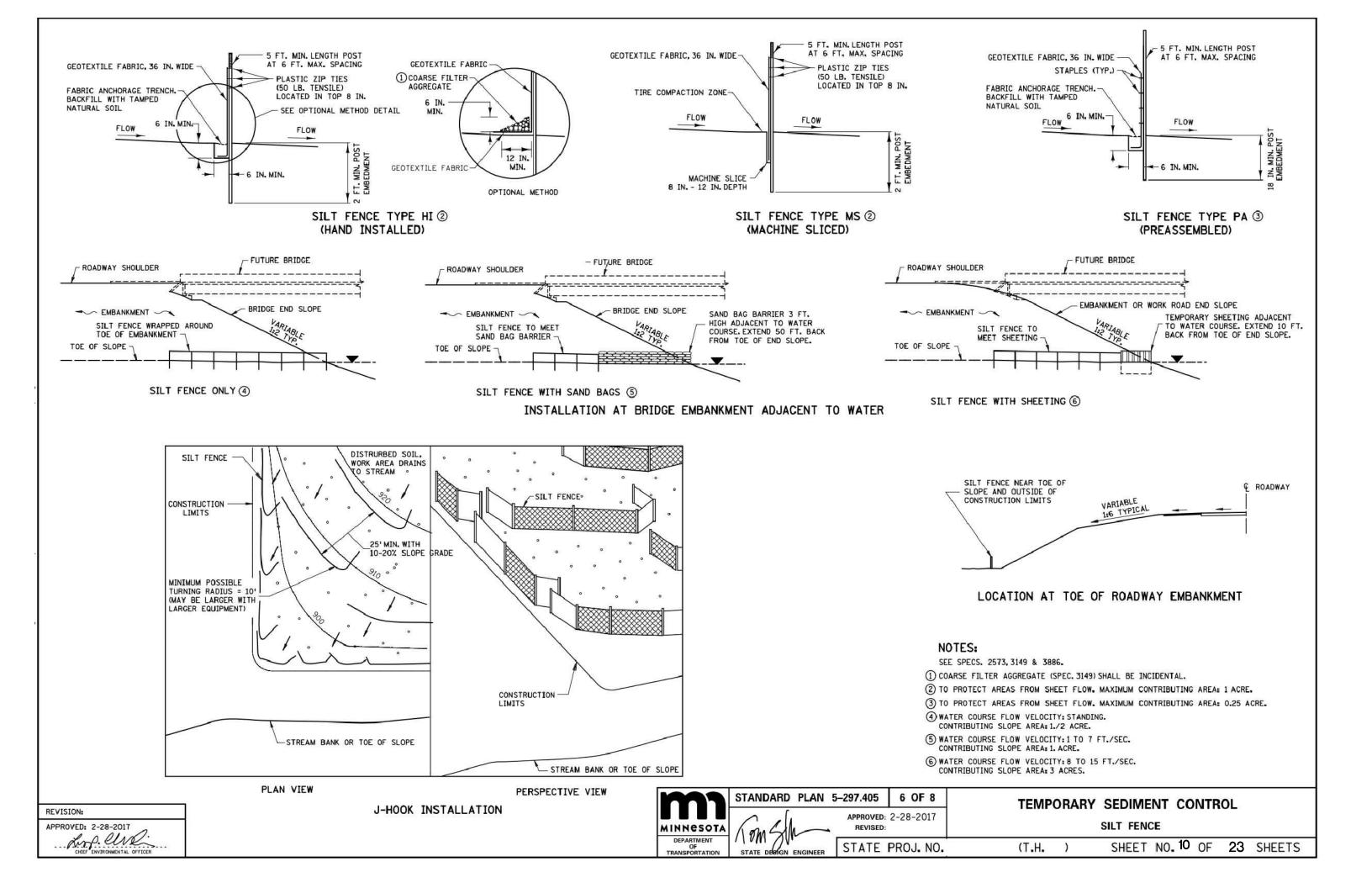
STATE PROJ. NO. (T.H.

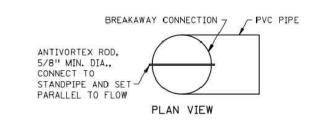
APPROVED: 2-28-2017 Loop elve

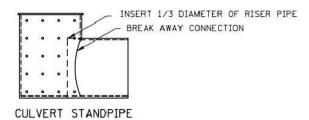
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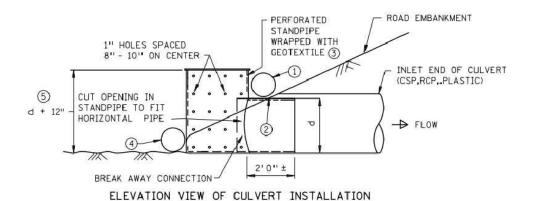
STATE DESIGN ENGINEER

SHEET NO. 9 OF 23 SHEETS



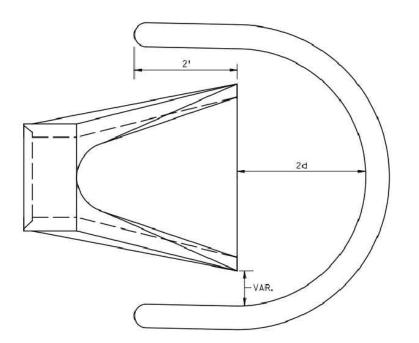




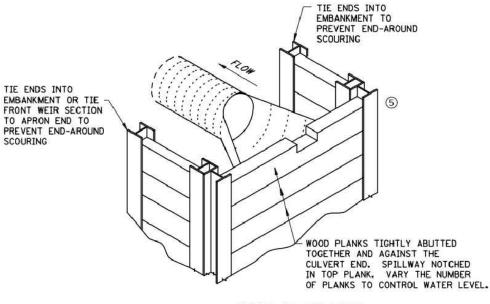


CULVERT STANDPIPE INSERT (D-RISER) d= CULVERT SIZE: 12" - 36"

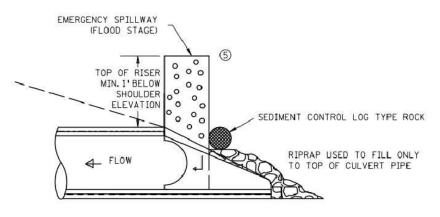
SCOURING



SEDIMENT CONTROL LOG WEIR (COMPOST, WOOD CHIP, OR ROCK) d = CULVERT SIZE: 12"-36"

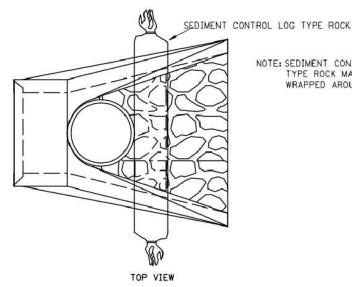


WOOD PLANK WEIR



END VIEW

LONGITUDINAL SECTION



NOTE: SEDIMENT CONTROL LOG TYPE ROCK MAY BE WRAPPED AROUND RISER

CULVERT STANDPIPE INSERT (D-RISER)

NOTES:

(T.H.

SEE SPECS, 2573, 3891 & 3893.

FOR USE WHEN TEMPORARY PONDING IS NEEDED IN DITCH SECTIONS FOR SEDIMENT CONTROL.

MANUFACTURED ALTERNATIVES LISTED ON MODOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST.

- 1) ROCK LOG OR SANDBAG TO HOLD STANDPIPE AND ACT AS A SEAL BETWEEN RISER PIPE AND CULVERT.
- ② PLACE CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO CSP OR RCP CULVERT.
- 3 ALL GEOTEXTILE USED FOR CULVERT PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886 FOR MACHINE SLICED.
- 4 ROCK LOG OR RIP RAP TO HOLD STANDPIPE AND ACT AS A FILTER BETWEEN RISER PIPE AND CULVERT.
- (5) HEIGHT OVERFLOW NOT TO CAUSE FLOODING OF ROAD OR ADJACENT PROPERTIES.



STANDARD PLAN 5-297.405 8 OF 8 APPROVED: 2-28-2017 REVISED: STATE DESIGN ENGINEER

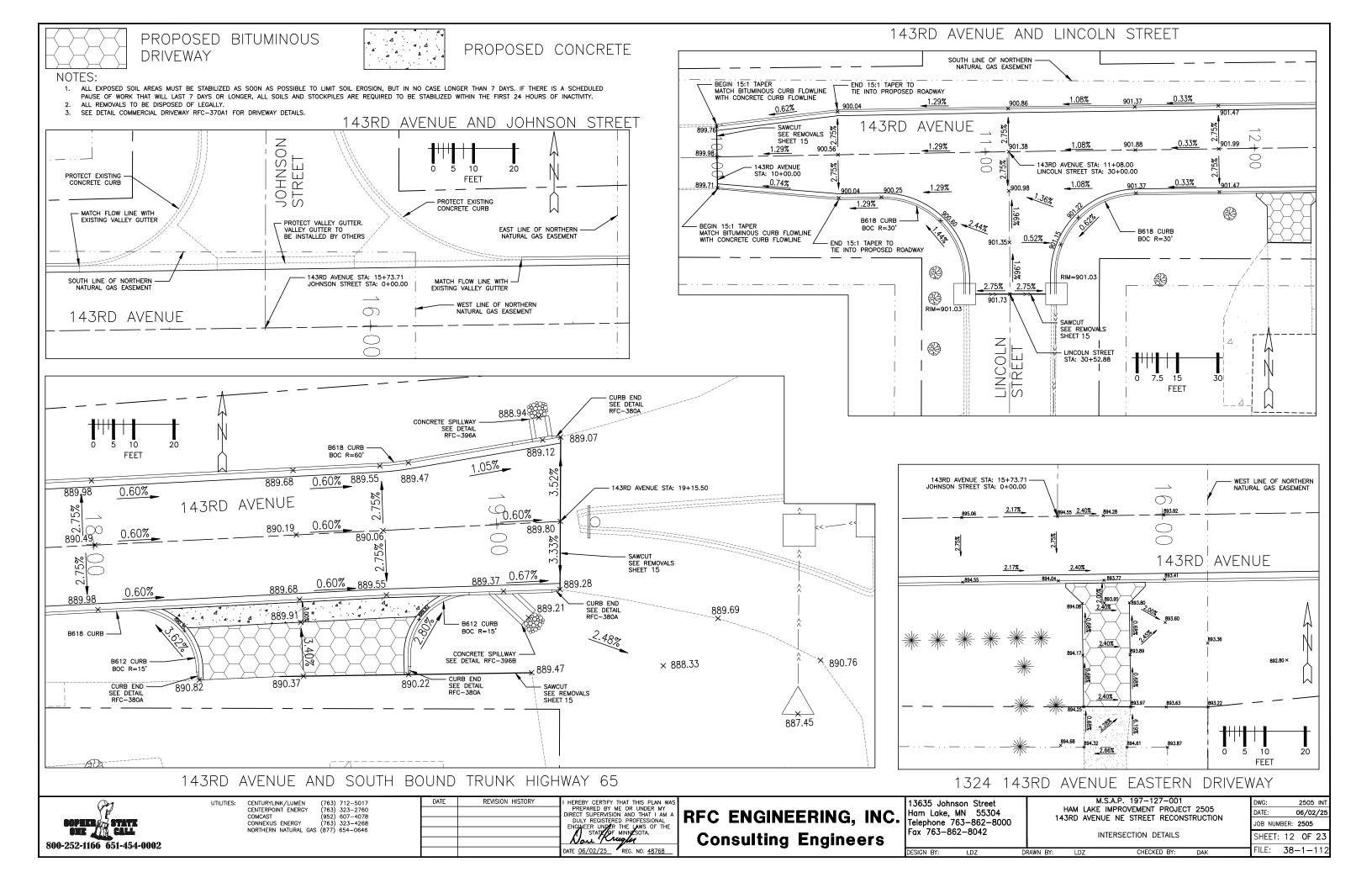
TEMPORARY SEDIMENT CONTROL

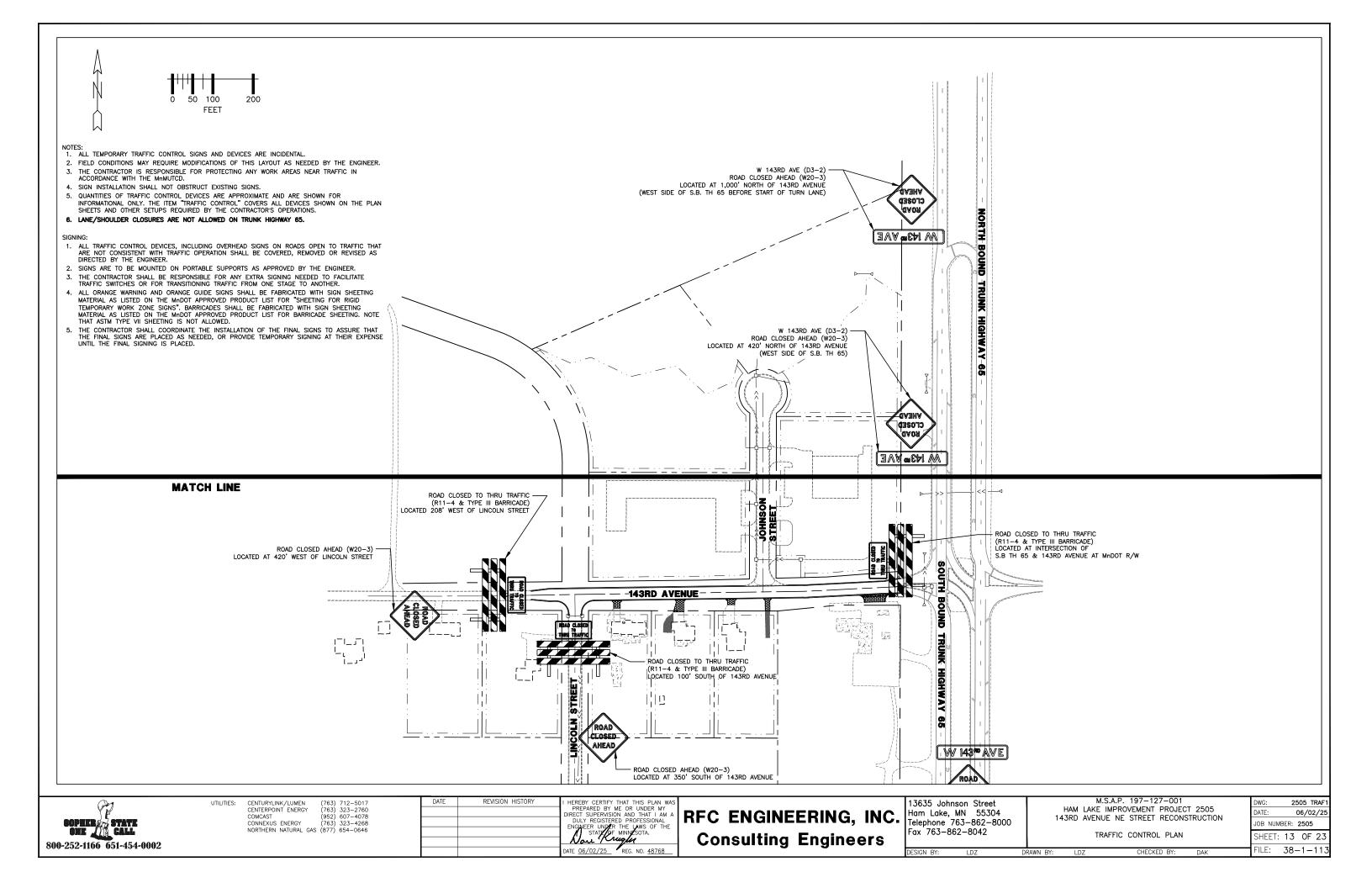
CULVERT END CONTROLS

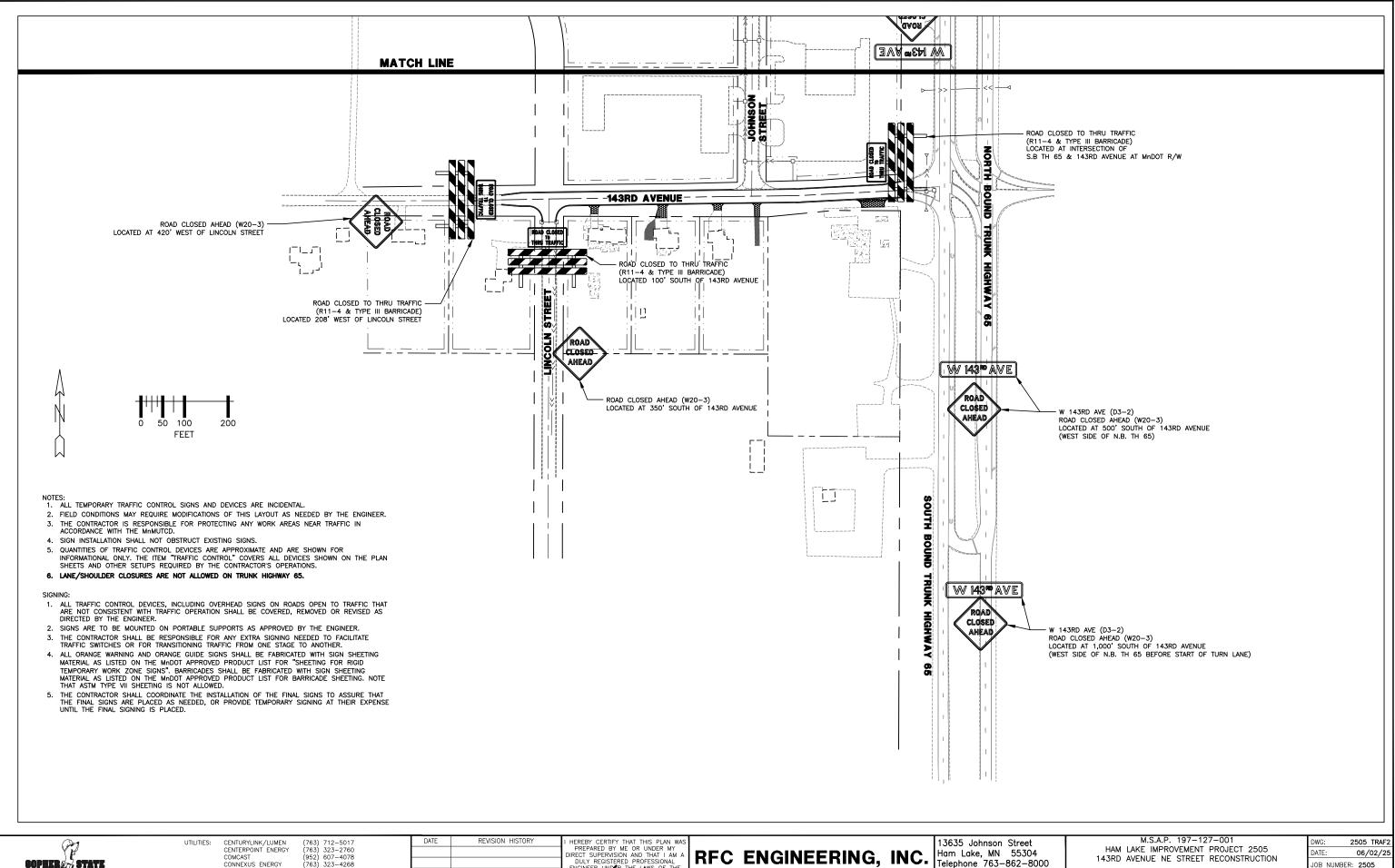
SHEET NO. 11 OF 23 SHEETS

REVISION: APPROVED: 2-28-2017 Loop elve

STATE PROJ. NO.









COMCAST CONNEXUS ENERGY NORTHERN NATURAL GAS (877) 654-0646

ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

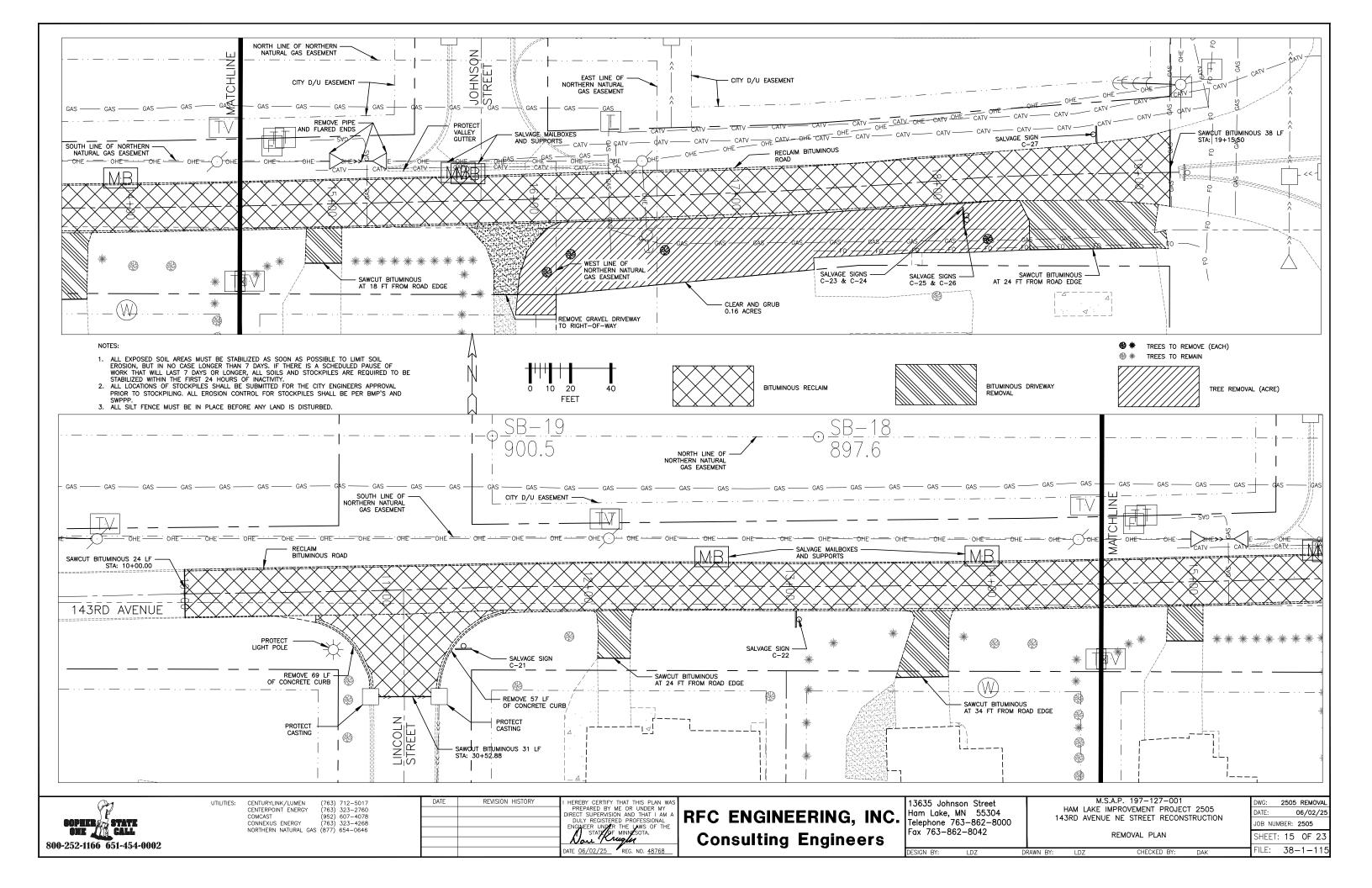
ATE 06/02/25 REG. NO. 48768 DATE <u>06/02/25</u>

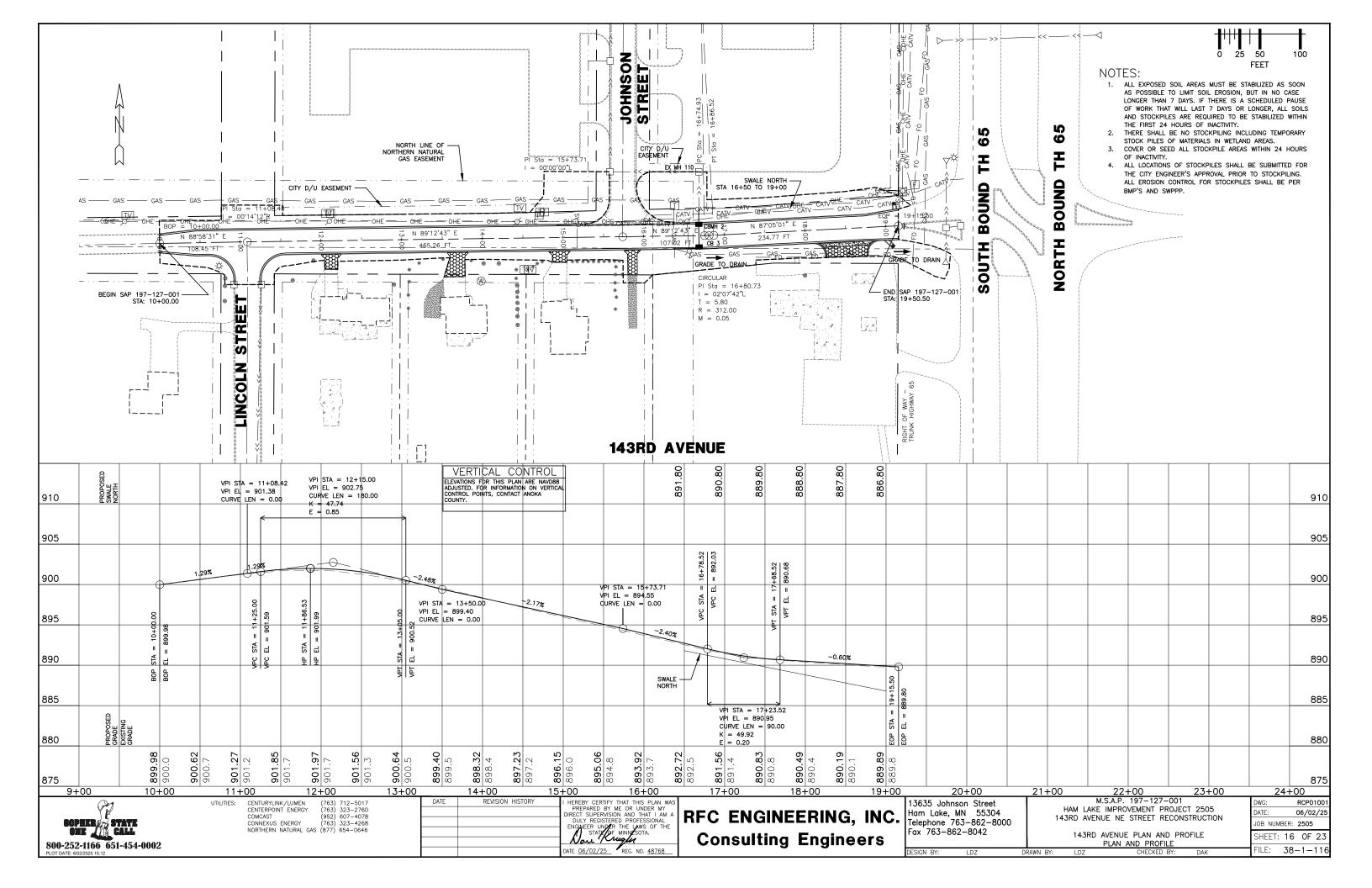
Consulting Engineers

Telephone 763-862-8000 Fax 763-862-8042

CHECKED BY:

JOB NUMBER: 2505 TRAFFIC CONTROL PLAN SHEET: 14 OF 23 38-1-11

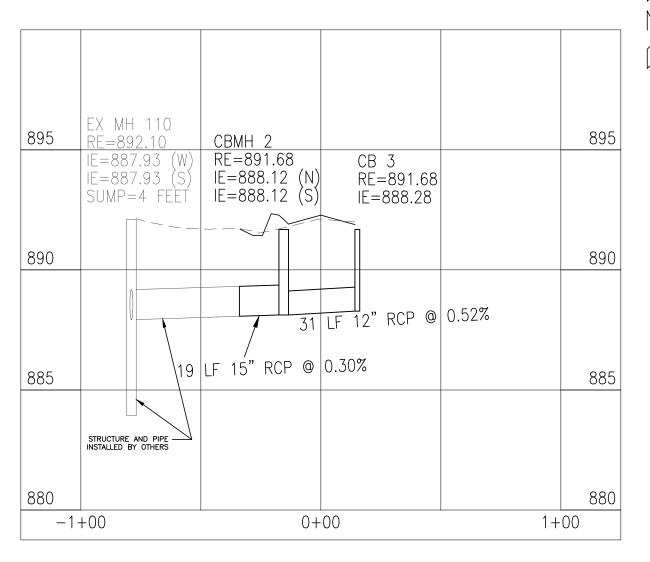


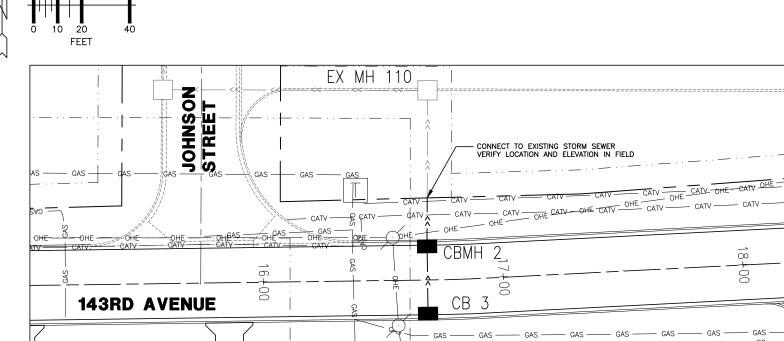


NOTES:

- 1. ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION, BUT IN NO CASE LONGER THAN 7 DAYS. IF THERE IS A SCHEDULED PAUSE OF WORK THAT WILL LAST 7 DAYS OR LONGER, ALL SOILS AND STOCKPILES ARE REQUIRED TO BE STABILIZED WITHIN THE FIRST 24 HOURS OF INACTIVITY.
- THERE SHALL BE NO STOCKPILING INCLUDING TEMPORARY STOCK PILES OF MATERIALS IN WETLAND AREAS.
- THERE SHALL BE NO STOCKPILING INCLUDING TEMPORARY STOCK PILES OF MATER
 COVER OR SEED ALL STOCKPILE AREAS WITHIN 24 HOURS OF INACTIVITY.
- 4. ALL SILT FENCE MUST BE IN PLACE BEFORE ANY LAND IS DISTURBED.
- 5. ALL REMOVALS TO BE DISPOSED OF LEGALLY.
- 6. ** NEENAH FOUNDRY R-3067; EAST JORDAN IRON WORKS V-7030; D&L FOUNDRY I-1804.

						STO	RM DRA	AIN								
STRUCTURE	STATION			DESIGN	TOP OF CASTING	INVERT	CASTING ASSEMBLY (NEENAH,	TYPE GRATE (NEENAH	12" R.C.P.	15" R.C.P.	PIPE APRON	TRASH GUARD	APRON	FLOWS TO	INLET	% GRADE
			STRUCTURE		OR INLET		EJ, DL)**	(NEENAH CASTINGS)	LIN FT	LIN FT	LIN FT	EACH	EACH			GRADE
CB 3	16+68.2	RT.	2' x 3'	RFC-459B	891.68	888.28	R-3067	L								
									31					CBMH 2	888.12	0.52
CBMH 2	16+68.2	LT.	48" ø	RFC-465A1	891.68	888.12	R-3067	L								
										19				EX MH 110	887.93	0.30
TOTAL									31	19	0	0	0			







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CENTERPOINT ENERGY (763) 323-2760
COMCAST (952) 607-4078
CONNEXUS ENERGY (763) 323-4268
NORTHERN NATURAL GAS (877) 654-0646

REVISION HISTORY

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINISTOTA.

DATE 06/02/25 REG. NO. 48768

RFC ENGINEERING, INC.
Consulting Engineers

13635 Johnson Street Ham Lake, MN 55304 Telephone 763-862-8000 Fax 763-862-8042

M.S.A.P. 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505 143RD AVENUE NE STREET RECONSTRUCTION

 DWG:
 2505
 STORM
 1

 DATE:
 06/02/25

 JOB NUMBER:
 2505

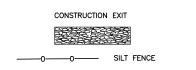
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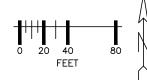
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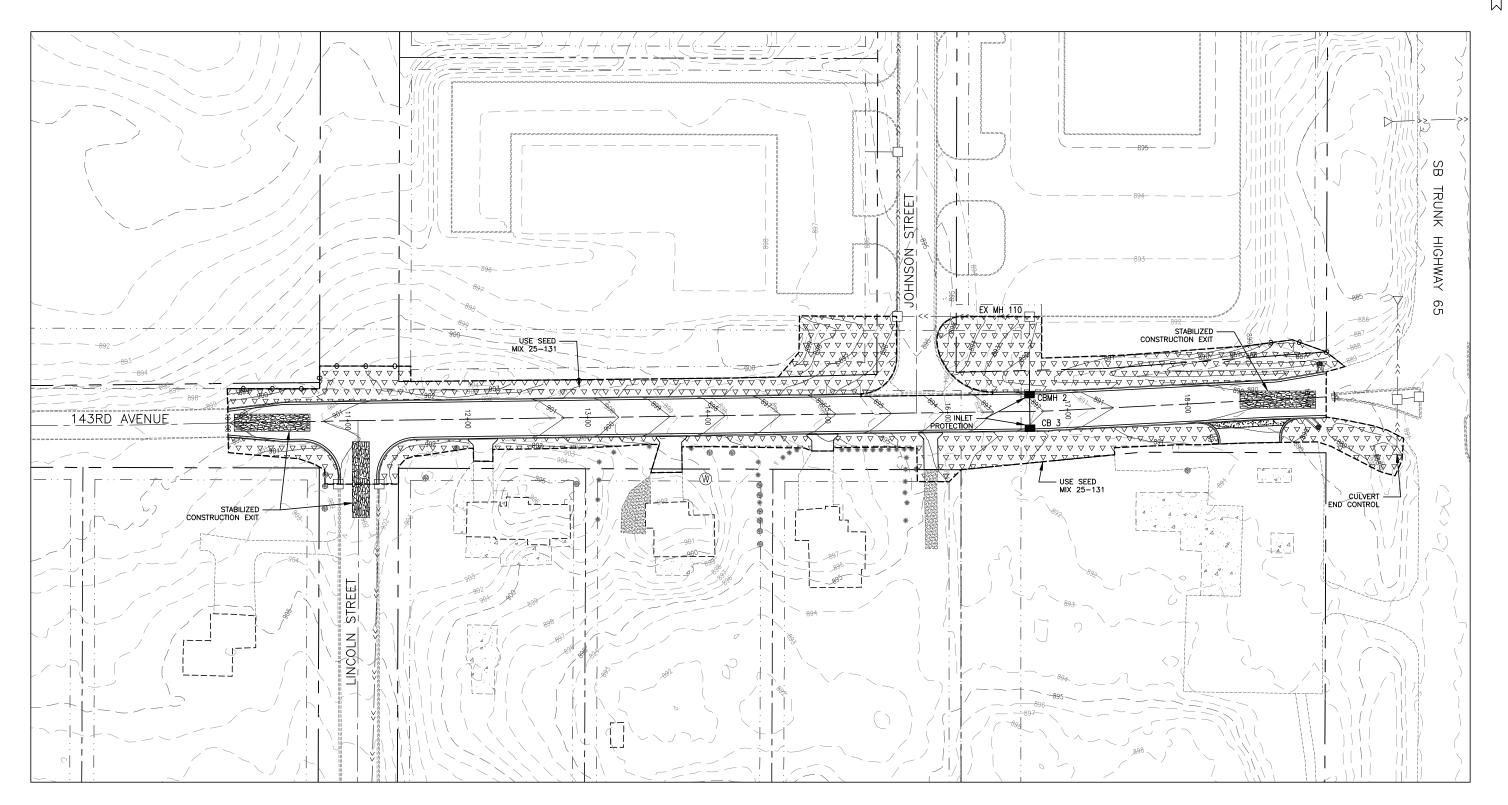
- ALL GRADING OPERATIONS SHALL BE CONDUCTED IN A MANNER TO MINIMIZE THE POTENTIAL FOR SITE EROSION.
 ALL EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE TO LIMIT SOIL EROSION, BUT IN NO CASE LONGER THAN 7 DAYS. IF THERE IS A SCHEDULED PAUSE OF WORK THAT WILL LAST 7 DAYS OR LONGER, ALL SOILS AND STOCKPILES ARE REQUIRED TO BE STABILIZED WITHIN THE FIRST 24 HOURS OF INACTIVITY.
 SALVAGED TOPSOIL SHALL BE STOCKPILED IN PLACE TO MAINTAIN CONTINUITY OF PROPERTY OWNERS EXISTING TURF CONDITIONS. UPON APPROVAL OF ENGINEER, SOIL MAY BE STOCKPILED UPON REVIEW OF ALTERNATE PLAN PROVIDED BY CONTRACTOR.
 COVER OR SEED ALL STOCKPILE AREAS WITHIN 24 HOURS OF INACTIVITY.



RIPRAP, CLASS III WITH FABRIC

SEED MIX 25—131: COMMERCIAL TURF MULCH TYPE 1 PLANT APRIL 1ST — JUNE 1ST FOR SPRING PLANTING OR JULY 20TH — SEPTEMBER 20TH FOR FALL PLANTING







CENTURYLINK/LUMEN CENTERPOINT ENERGY REVISION HISTORY ENGINEER UNITER THE LAWS OF THE STATE OF MINNESOTA.

DATE 06/02/25 REG. NO. 48768

RFC ENGINEERING, INC. **Consulting Engineers**

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M.S.A.P. 197-127-001 HAM LAKE IMPROVEMENT PROJECT 2505 143RD AVENUE NE STREET RECONSTRUCTION

DWG: 2505 SWPPP 06/02/25 JOB NUMBER: 2505 STORMWATER POLLUTION PREVENTION PLAN SHEET: 18 OF 23 38-1-118

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

CONSTRUCTION ACTIVITY INFORMATION: STATE AID PROJECT 197-127-001, HAM LAKE, ANOKA COUNTY, MINNESOTA, 55304, 45.2297 LATITUDE NORTH, 93.2361 LONGITUDE WEST (BY ONLINE TOOL).

TOTAL PROJECT DISTURBED AREA IS 1.68 ACRES.

THIS IS A ROAD RECONSTRUCTION PROJECT.

0.16 ACRES OF NEW IMPERVIOUS SURFACE.
0.02 ACRES OF NEW PERVIOUS SURFACE.

DRAINAGE IS TO A FUTURE CITY POND LOCATED NORTH OF THE PROJECT AND WEST TOWARDS T.H. 65. THE NORTHERN POND DRAINS TO COON CREEK AND THE REMAINDER DRAINS INTO THE MnDOT DITCH ALONG T.H. 65. THERE ARE SPECIAL WATER OR IMPAIRED WATER WITHIN ONE MILE DOWNSTREAM OF THE PROJECT. COON CREEK IS IMPAIRED FOR E.COLI , BIOTIC IMPAIRMENT, AND TOTAL SUSPENDED SOLIDS (TSS). COUNTY DITCH #58 IS IMPAIRED FOR E.COLI.

CONTACT INFORMATION:
OWNER: CITY OF HAM LAKE, OWNER CONTACT: DENISE WEBSTER CITY ADMINISTRATOR, DWEBSTER@HAMLAKEMN.GOV, 763-434-9555, 15544 CENTRAL AVENUE, HAM LAKE, MN, 55304

ALTERNATE OWNER CONTACT: DAVID A KRUGLER, CITY ENGINEER. DKRUGLER@RFCENGINEERING.COM 763-862-8000. RFC ENGINEERING INC, 13635 JOHNSON STREET NE, HAM LAKE, MN 55304

ALTERNATE CONTRACTOR CONTACT:

PARTY RESPONSIBLE FOR OPERATION AND MAINTENANCE OF PERMANENT STORMWATER MANAGEMENT SYSTEM: CITY OF HAM LAKE PUBLIC WORKS, JOHN WITKOWSKI, 763-235-1662, 15544 CENTRAL AVENUE, HAM LAKE, MN, 55304

GENERAL CONSTRUCTION PROJECT INFORMATION:
THE PROJECT CONSISTS OF RECONSTRUCTING 143RD AVENUE FROM LINCOLN STREET TO T.H. 65: WORK INCLUDES GRADING, AGGREGATE BASE, PLANT MIXED BITUMINOUS SURFACE, STORM DRAINS, AND CONCRETE CURB AND GUTTER.

THE SOILS ON THE SITE ARE PRIMARILY HYDROLOGIC SOIL GROUP TYPE A WITH INFILTRATION CAPACITY. THERE IS NO MUCK IN THE WETLANDS. THE GROUNDWATER IN THIS AREA IS MEDIUM.

<u>GENERAL_SITE_INFORMATION:</u>
ALL EROSION CONTROL MEASURES MUST BE PLACED PRIOR TO COMMENCEMENT OF LAND DISTURBING ACTIVITIES AND BE MAINTAINED UNTIL ALL DISTURBED AREAS ON THE SITE HAVE BEEN RESTORED.

CONSTRUCTION EXITS SHALL BE SURFACED WITH CRUSHED ROCK AND DESIGNATED PRIOR TO CONSTRUCTION OR APPROVED EQUAL (REFER TO DETAIL).

TRENCHES FOR STORM DRAIN PIPE AND STRUCTURES ARE TO BE BACKFILLED BY THE END OF THE WORK DAY.

NO STORMWATER MITIGATION MEASURES ARE REQUIRED AS THE RESULT OF AN ENVIRONMENTAL, ARCHAEOLOGICAL, OR OTHER REQUIRED LOCAL, STATE, OR FEDERAL REVIEW OF THE PROJECT.

THE PROJECT IS NOT LOCATED IN A KARST AREA.

THE PROJECT DOES NOT DISCHARGE TO A CALCAREOUS FEN LISTED IN MINN. R. 7050.0180, SUBP. 6B.

THE SITE DOES NOT DISCHARGE TO A WATER THAT IS LISTED AS IMPAIRED FOR PHOSPHORUS. TURBIDITY. DISSOLVED OXYGEN OR

THE SITE IS WITHIN 1-MILE OF A WATER THAT IS LISTED AS IMPAIRED. COON CREEK IS IMPAIRED WITH E.COLI, BIOTIC IMPAIRMENT, AND TOTAL SUSPENDED SOLIDS. COUNTY DITCH #58 IS IMPAIRED WITH E.COLI.

SELECTION OF A PERMANENT STORMWATER MANAGEMENT SYSTEM:
NEW IMPERVIOUS SURFACE CREATED BY THIS PROJECT IS 0.16 ACRES.

INFILTRATION ON THE SITE IS NOT PROPOSED DUE TO LIMITED RIGHT-OF-WAY

HYDROLOGIC REPORT (DRAINAGE CALCULATIONS) AND DRAINAGE MAPS (WITH DRAINAGE DIVIDES) PREPARED FOR THIS PROJECT ARE AVAILABLE IN THE CITY'S ENGINEERS OFFICE. STORM WATER RUNOFF FROM THE SITE DRAINS INTO A FUTURE CITY POND AND THEN OVERFLOWS TO A WETLAND EAST OF THE PROJECT. THE WETLAND DRAINS INTO THE M-DOT DITCH ALONG T.H 65 AND THEN INTO COON CREEK, THE RUNOFF FROM THE SITE WILL BE CONVEYED VIA NEW ON SITE STORM DRAINS INTO EXISTING STORM SEWER TO THE NORTH. THE LAST STORM DRAIN STRUCTURE JUST PRIOR TO CONNECTING INTO THE EXISTING STORM SEWER WILL BE EQUIPPED WITH A SUMP (GRIT CHAMBERS). GRIT CHAMBERS ARE BEING USED DUE TO THE HIGH GROUND WATER TABLE. THE SUMP (GRIT CHAMBERS) ARE SIZED PER COON CREEK WATERSHED DISTRICT REQUIREMENTS. ANY RUNOFF NOT CAPTURED BY STORM STRUCTURES WILL FLOW TO THE MnDOT DITCH TO THE EAST.

EROSION PREVENTION PRACTICES:
THERE ARE NO CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, LONG HORIZONTAL SLOPE GRADING FOR THE PROJECT.
THERE ARE UNDISTURBED AREAS WITHIN THE PROJECT LIMITS.

ALL DISTURBED AREAS SHALL BE RESTORED WITH SOD, SEED, WOOD FIBER BLANKET, OR PAVED SURFACE WITHIN SEVEN (7) DAYS OF ROUGH GRADING.

ALL EXPOSED SOIL AREAS MUST HAVE TEMPORARY EROSION PROTECTION OR PERMANENT COVER WITHIN SEVEN (7) DAYS AFTER THE AREA IS NOT ACTIVELY BEING WORKED.

FERTILIZER: MnDOT SPECIFICATION 3881, TYPE 2 SEEDING: MnDOT SEED MIXTURE 25-131 OR 33-261 (FOR PONDS), HYDROMULCH: MnDOT SPECIFICATION 3884 TYPE 1 OR 3 WITH APPLICATION RATE PER MnDOT SPECIFICATION 2575.3H.

PROVIDE EROSION CONTROL FABRIC FOR ALL SLOPES STEEPER THAN 1:3.

THERE ARE NO DRAINAGE DITCHES CONSTRUCTED WITH THIS PROJECT

 $\begin{array}{c} \underline{\text{SEDIMENT CONTROL PRACTICES:}} \\ \text{THERE ARE NO DRAINAGE DITCHES OR SEDIMENT BASINS FOR THIS PROJECT.} \end{array}$

THERE ARE NO SLOPES WITH A GRADE OF 1:3 OR STEEPER WITH A SLOPE LENGTH GREATER THAN 75 FEET.

THERE ARE NO DRAINAGE INFILTRATION BASINS FOR THIS PROJECT

ALL SEDIMENT CONTROL DEVICES ARE TO BE IN PLACE PRIOR TO UPSTREAM LAND DISTURBING ACTIVITIES

WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER, PIPE OUTLETS MUST CONTAIN RIPRAP, SEED AND PLACE EROSION CONTROL BLANKETS ON DISTURBED AREAS WITHIN 200 LINEAL FEET OF PIPE OUTLETS INCLUDING THE DOWN SLOPE TO THE PIPE OUTLET, SILT FENCING TO BE PLACED AROUND THE DISTURBED AREA AND SILT FENCE ROUTED ACROSS THE TOP OF THE OUTLET.

WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER, SEED AND PLACE EROSION CONTROL BLANKETS ON DISTURBED AREAS WITHIN 200 FEET OF PIPE INLET INCLUDING THE DOWN SLOPE TO THE PIPE INLET, SILT FENCING TO BE PLACED AROUND THE DISTURBED AREA, PLACE A SECOND SILT FENCE ROUTED ACROSS THE TOP OF THE INLET AND PLACE INLET PROTECTION. PIPE INLET PROTECTION SHALL BE PER BMPS SUCH AS SILT FENCE OR STRAW BALES STAKED AROUND THE APRON OPENING OR OTHER APPROVED EQUIVALENT.

WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER, SEED AND PLACE EROSION CONTROL BLANKETS ON DISTURBED AREAS WITHIN 200 FEET OF CATCH BASIN INLET. PLACE INLET PROTECTION IMMEDIATELY AFTER STRUCTURE IS BACKFILLED. CATCH BASIN INLET PROTECTION SHALL BE PER BMPS SUCH AS CLEAR ROCK AROUND STEEL PLATE OVER FABRIC OR OTHER APPROVED EQUIVALENT UNTIL THE CATCH BASIN CASTING IS PLACED. IMMEDIATELY AFTER THE CASTING IS PLACED, PROVIDE CATCH BASIN INLET PROTECTION PER BMPS SUCH AS FILTER BAG INSERT OR OTHER APPROVED EQUIVALENT. NO CAPTURED SEDIMENT SHOULD BE ALLOWED TO DROP INTO THE CATCH BASIN.

PROVIDE SILT FENCE DOWNSTREAM OF STOCKPILE AREAS. STOCKPILES ARE NOT TO BLOCK DRAINAGE CONVEYANCE SYSTEMS

SEDIMENT TRACKED OFFSITE SHALL BE MINIMIZED AND SWEPT ON A DAILY BASIS.

TEMPORARY SEDIMENTATION BASINS ARE NOT BEING USED TO REDUCE WETLAND IMPACTS, DUE TO THE LACK OF RIGHT OF WAY.

DEWATERING AND BASIN DRAINING:
ALL DEWATERING IS TO DISCHARGE TO SEDIMENT SACKS, ROCK WEEPER, BIO ROLL AREA, ETC. TO PREVENT EROSION AND
MINIMIZE SEDIMENT DISCHARGING FROM THE SITE. EXCESSIVE SEDIMENT-LADEN WATER WILL NOT BE PERMITTED TO DISCHARGE
FROM THE SITE. DEWATERING PRACTICES ARE NOT TO CAUSE DOWNSTREAM NUISANCE CONDITIONS, EROSION, OR NON-PERMITTED WETLAND INUNDATION CAUSING ADVERSE IMPACTS. DISCHARGE FROM DEWATERING WILL BE TO ROAD DITCHES.
LARGE VOLUMES OF DEWATERING WILL REQUIRE DISCHARGE INTO SEDIMENT SACKS PRIOR TO DISCHARGING INTO THE ROAD

ADDITIONAL BMPS FOR SPECIAL WATERS AND DISCHARGES TO WETLANDS: THE PROJECT DOES DISCHARGE INTO OR WITHIN 1 MILE OF SPECIAL WATERS.

THERE ARE NO BUFFER ZONES OR UNDISTURBED AREA ZONES.

THE STORM DRAIN SYSTEM WAS SET UP TO DISTRIBUTE THE STORMWATER RUNOFF INTO THE FUTURE CITY POND AS CLOSE TO EXISTING CONDITIONS AS POSSIBLE. THIS INCLUDED PROVIDING STORM DRAIN ON BOTH SIDES OF THE STREET IN ORDER TO ACHIEVE THIS. THE DRAINAGE IS PENDING APPROVAL BY COON CREEK WATERSHED DISTRICT.

THERE IS CONVERSION OF WETLANDS INTO STORMWATER PONDS.

INSPECTION AND MAINTENANCE:
THE CONTRACTIOR SHALL PLACE A RAIN GAUGE ON THE PROJECT SITE AT A LOCATION APPROVED BY THE ENGINEER. RAINFALL
DATA SHALL BE KEPT WITH THE SWPPP RECORDS.

THE CONTRACTOR MUST 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. INSPECTIONS AND MAINTENANCE TO BE

INSPECTIONS FORMS ARE AVAILABLE AT: https://tinyurl.com/2armt4kj select the appropriate inspection form from the list.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT DEVICES, AS WELL AS ALL EROSION AND SEDIMENT CONTROL, FOR THE DURATION OF THE PROJECT.

THE CONTRACTOR WILL INVESTIGATE AND MUST COMPLY WITH THE FOLLOWING

CONTRACTOR MUST INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES TO ENSURE INTEGRITY AND EFFECTIVENESS. CONTRACTOR MUST REPAIR, REPLACE OR SUPPLEMENT ALL NONFUNCTIONAL BMPS WITH FUNCTIONAL BMPS BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY UNLESS ANOTHER TIME FRAME IS SPECIFIED BELOW. CONTRACTOR MAY TAKE ADDITIONAL TIME IF FIELD CONDITIONS PREVENT

DURING EACH INSPECTION, CONTRACTOR MUST INSPECT SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS BUT NOT CURB AND GUTTER SYSTEMS, FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. CONTRACTOR 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. CONTRACTOR MUST COMPLETE REMOVAL AND STABILIZATION WITHIN SEVEN (7) CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR MUST USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF OBTAINING ACCESS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONTRACTOR MUST INSPECT CONSTRUCTION SITE VEHICLE EXIT LOCATIONS, STREETS AND CURB AND GUTTER SYSTEMS WITHIN AND ADJACENT TO THE PROJECT FOR SEDIMENTATION FROM ERSONO OR TRACKED SEDIMENT FROM VEHICLES. CONTRACTOR MUST REMOVE SEDIMENT FROM ALL PAVED SURFACES WITHIN ONE (1) CALENDAR DAY OF DISCOVERY OR, IF APPLICABLE, WITHIN A SHORTER TIME TO AVOID A SAFETY HAZARD TO USERS OF PUBLIC STREETS.

REPAIR, REPLACE OR SUPPLEMENT ALL PERIMETER CONTROL DEVICES WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.

CONTRACTOR MUST DRAIN TEMPORARY AND PERMANENT SEDIMENTATION BASINS AND REMOVE THE SEDIMENT WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES TWO FEET OR 1/2 THE STORAGE VOLUME, WHICHEVER IS LESS, WITHIN 72-HOURS OF DISCOVERY.

THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES ON THE SITE:

SOLID WASTE: COLLECT SEDIMENT, ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS, AND OTHER WASTES MUST BE DISPOSED OF PROPERLY OFFSITE AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.

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

EXTERNAL WASHING OF TRUCKS, INCLUDING CONCRETE DELIVERY 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. CONCRETE WASHOUT ON SITE MUST BE CONTAINED IN A LEAK-PROOF CONTAINMENT FACILITY OR IMPERMEABLE LINER.

THE CITY IS RESPONSIBLE FOR LONG TERM MAINTENANCE OF THE STORM DRAIN INCLUDING THE SUMPS (GRIT CHAMBERS). THE GRIT CHAMBERS ARE TO BE INSPECTED YEARLY AND CLEANED OUT AS NECESSARY TO MAINTAIN FUNCTION.

THE CONTRACTOR IS RESPONSIBLE FOR MONITORING AIR POLLUTION AND ENSURING IT DOES NOT EXCEED LEVELS SET BY LOCAL, STATE, OR FEDERAL REGULATIONS. THIS INCLUDES DUST CREATED BY WORK BEING PERFORMED ON THE SITE. AIR POLLUTION AND DUST CONTROL CORRECTION ARE CONSIDERED INCIDENTAL TO THE UNIT BID PRICES FOR WHICH WORK IS BEING PERFORMED. ADDITIONAL DUST CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER.

FINAL STABILIZATION:
THE CONTRACTOR MUST ENSURE FINAL STABILIZATION OF THE SITE. FINAL STABILIZATION IS ACHIEVED WHEN ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS ARE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OF THE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSIVE CONDITIONS.

ALL TEMPORARY EROSION PROTECTION, INCLUDING SILT FENCE, ARE TO BE REMOVED AFTER FINAL STABILIZATION OF THE SITE.

RECORDS RETENTION:
ALL REQUIREMENTS OF THE NPDES PERMIT AND THIS SWPPP SHALL REMAIN IN EFFECT UNTIL ALL LAND DISTURBING ACTIVITY
HAS BEEN COMPLETED, ALL FINAL RESTORATION HAS BEEN COMPLETED AND THE NOTICE OF TERMINATION FORM HAS BEEN
TO SHARP THE NEW YOUR POLITICAL AGENCY (MPCA).

REFER TO OTHER SHEETS OF THIS PLAN SET FOR DETAILED CONSTRUCTION INFORMATION. EXISTING AND PROPOSED GRADES FOR THE ROADWAY ARE SHOWN ON THE PLAN AND PROFILE SHEETS AND ON THE CROSS SECTION SHEETS.

THE CONTRACTOR SHALL MAINTAIN A COPY OF THE PLANS ONSITE AT ALL TIMES UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY. THE CONTRACTOR SHALL UPDATE THE SWPPP AS NECESSARY TO REFLECT CURRENT CONDITIONS ON THE SITE. CONTRACTOR IS TO PROVIDE THE ENGINEER A COPY OF THE REVISED SWPPP. THE REVISED SWPPP IS TO BE MAINTAINED WITH

THE CONSTRUCTION PLANS, INCLUDING THE SWPPP, AND THE SWPPP INSPECTION REPORTS ARE TO BE AVAILABLE TO THE ENGINEER AND TO THE MPCA AND COON CREEK WATERSHED DISTRICT INSPECTORS AT ALL TIMES.

THE CONTRACTOR IS TO PROVIDE THE ENGINEER A COPY OF THE SWPPP INSPECTION REPORTS WITHIN SEVEN (7) DAYS AFTER THE INSPECTION.

THE CONTRACTOR IS TO PROVIDE THE ENGINEER A COPY OF THE REVISED SWPPP WITHIN SEVEN (7) DAYS AFTER THE CONTRACTOR REVISES THE SWPPP.

ALL SWPPP INSPECTIONS AND ALL BMPS SHALL BE PLACED UNDER THE SUPERVISION OF A CONSTRUCTION INSTALLER CERTIFIED BY THE MPCA. THE CONSTRUCTION SITE SHALL BE MANAGED AND MAINTAINED BY A MPCA CERTIFIED CONSTRUCTION SITE MANAGEMENT.

THE CONTRACTOR SHALL PROVIDE THE CITY WITH A COPY OF CONSTRUCTION INSTALLER CERTIFICATION AND CONSTRUCTION SITE MANAGEMENT CERTIFICATION. A COPY OF THE CERTIFICATIONS, INCLUDING SWPPP DESIGNER, SHALL BE KEPT WITH THE SWPPP.

THE SWPPP, THE SWPPP INSPECTIONS REPORTS AND MAINTENANCE RECORDS SHALL BE KEPT FOR 3 YEARS.

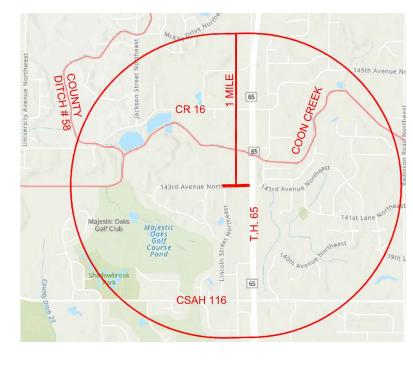
DRAINAGE CALCULATIONS AND DRAINAGE MAPS WILL BE KEPT BY THE CITY FOR AT LEAST 3 YEARS

- SEQUENCE OF EROSION CONTROL

 1. OBTAIN ALL NECESSARY PERMITS, INCLUDING NPDES GENERAL STORMWATER PERMIT.
- 2. CLEAR AND GRUB SITE.
- PLACE ALL PERIMETER SEDIMENT CONTROL DEVICES AND ROCK CONSTRUCTION EXITS.
 CONTACT CITY ENGINEER FOR APPROVAL OF SEDIMENT CONTROL DEVICES.
 ROUGH IN GRADE.

- PLACE TEMPORARY EROSION CONTROL DEVICES AS NECESSARY.
 PLACE STORM DRAIN SYSTEM.
 RE-ADJUST TEMPORARY EROSION CONTROL DEVICES AS NECESSARY. PLACE STORM DRAIN INLET PROTECTION AND OUTLET
- PROTECTION DEVICES AS NECESSARY.
- 9. PLACE SITE PAVEMENT.
 10. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, OBTAIN APPROVAL OF CITY ENGINEER.
 11. CONTRACTOR TO REMOVE ALL TEMPORARY EROSION CONTROL DEVICES AFTER ACCEPTANCE BY THE CITY.

TABULATION SI	JMMAF	?Y
ITEM	UNIT	TOTAL
SILT FENCE	L.F.	259
CATCH BASIN INLET PROTECTION	EACH	2
CLASS III RIPRAP W/ FABRIC	C.Y.	6.0
GEOTEXTILE FILTER FABRIC	S.Y.	39.2
CULVERT END CONTROL	EACH	1
HYDROMULCH TYPE 3	ACRE	0.89
TURF ESTABLISHMENT: SEED MIX 25-131	ACRE	0.89



HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY IRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL REVISION HISTORY CENTERPOINT ENERGY (763) 323-2760 COMCAST CONNEXUS ENERGY ONE STATE ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 06/02/25 REG. NO. 48768 NORTHERN NATURAL GAS (877) 654-0646 800-252-1166 651-454-0002 PLOT DATE: 6/02/2025 15:12 DATE 06/02/25

RFC ENGINEERING, INC. Consulting Engineers

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06/02/2 143RD AVENUE NE STREET RECONSTRUCTION JOB NUMBER: 2505 STORMWATER POLLUTION PREVENTION PLAN SHEET: 19 OF 23 38-1-119 CHECKED BY:

DWG: 2505 SWPPP

