EXISTING

- RIGHT OF WAY
- PERMANENT EASEMENT
- PROPERTY LINE
- HORIZONTAL CONTROL POINT
- BENCHMARK
- SURVEY MARKER
- SOIL BORING
- SANITARY SEWER AND MANHOLE
- FORCE MAIN AND LIFT STATION
- SANITARY SEWER SERVICE & CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND MANHOLE
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- GAS MAIN, VALVE, VENT AND METER
- HANDHOLE
- BURIED FIBER OPTIC CABLE AND MANHOLE
- BURIED PHONE CABLE, PEDESTAL AND MANHOLE
- BURIED TV CABLE, PEDESTAL AND MANHOLE
- BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER
- OVERHEAD WIRE, POLE AND GUY WIRE
- LIGHT POLE
- TRAFFIC SIGNAL
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RAILROAD TRACKS
- DECIDUOUS AND CONIFEROUS TREE
- BUSH / SHRUB AND STUMP
- EDGE OF WOODED AREA
- WETLAND
- BUILDING
- FENCE (UNIDENTIFIED)
- BARBED WIRE FENCE
- CHAIN LINK FENCE
- ELECTRIC WIRE FENCE
- WOOD FENCE
- WOVEN WIRE FENCE
- PLATE BEAM GUARDRAIL
- CABLE GUARDRAIL
- POST / BOLLARD
- RETAINING WALL

PROPOSED

- STREET CENTERLINE
- RIGHT-OF-WAY
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- SANITARY SEWER, BULKHEAD AND MANHOLE
- FORCE MAIN
- SANITARY SERVICE AND CLEANOUT
- WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
- WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- DRAIN TILE
- DITCH / SWALE
- RIPRAP
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RETAINING WALL

BIDDING DOCUMENTS

DAKOTA COUNTY, MINNESOTA

CONSTRUCTION PLANS FOR

INTERSTATE VALLEY CREEK STABILIZATION & WATER QUALITY BEST MANAGEMENT PRACTICE PROJECT

COUNTY PROJECT NO. P30002
CITY PROJECT NO. MH202409

N

N.T.S.

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

THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.

Know what's **below.** **Call** before you dig.

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

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

INDEX

THIS PLAN CONTAINS 27 SHEETS.

PROJECT LOCATION

APPROVED:

CITY ENGINEER OF MENDOTA HEIGHTS _____ DATE _____

APPROVED:

DAKOTA COUNTY ENGINEER _____ DATE _____

DAKOTA COUNTY, MINNESOTA

SEH
PHONE: 952.912.2600
10650 RED CIRCLE DRIVE,
SUITE 500
MINNETONKA, MN 55343
www.sehinc.com

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.

Signature MARK CHRISTENSON, PE (MN)

Date: 9/26/2024 Lic. No. 62963

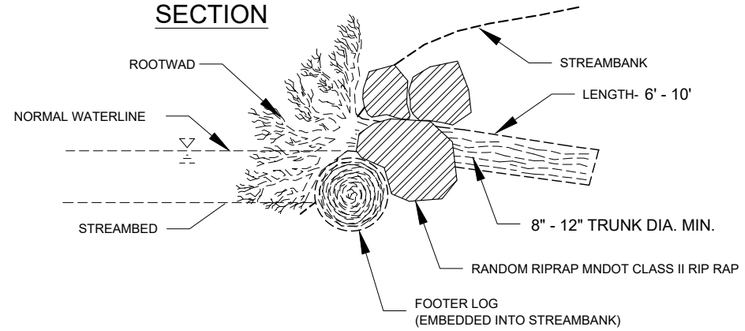
PROJECT NO. 167782

ITEM NO.	MNDOT SPEC NO.	ITEM DESCRIPTION	UNIT	ESTIMATED PROJECT TOTALS	NOTES	Reach 1	Reach 2	Park Place Basin	Valley Park Basin
						QTY	QTY	QTY	QTY
1	2021.501	MOBILIZATION	LS	1		1			
2	2101.505	CLEARING	ACRE	1		0.15	0.05	0.05	0.75
3	2101.505	GRUBBING	ACRE	1		0.15	0.05	0.05	0.75
4	2104.502	REMOVE DRAINAGE STRUCTURE	EA	1				1	
5	2104.503	REMOVE SEWER PIPE (STORM)	LF	211				133	78
6	2104.503	REMOVE PIPE CULVERTS	LF	164				77	87
7	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	36				36	
8	2106.507	COMMON EMBANKMENT (CV)	CY	343	(P)	216	4	123	
9	2106.507	EXCAVATION - COMMON (EV)	CY	3202	(P)	527		1492	1183
10	2106.602	TEMPORARY ROCK CONSTRUCTION ENTRANCE	EA	2				1	1
11	2211.509	AGGREGATE BASE, CLASS 5	TON	9				9	
12	2360.509	TYPE SP 9.5 WEARING COURSE MIX (2;C)	TON	10				10	
13	2451.507	SALVAGE AND REINSTALL EXISTING STREAM BED MATERIAL	CY	85		85			
14	2452.503	STEEL SHEET PILE WALL (WEIR)	SF	2195					2195
15	2502.503	6-INCH PE CORRUGATED PERFORATED PIPE	LF	157				157	
16	2502.503	4-INCH PE CORRUGATED PERFORATED PIPE	LF	335					335
17	2502.602	6" PVC PIPE DRAIN CLEANOUT	EA	4				4	
18	2502.602	4" PVC PIPE DRAIN CLEANOUT	EA	5					5
19	2503.503	18-INCH STORM SEWER PIPE	LF	61				61	
20	2503.503	24-INCH STORM SEWER PIPE	LF	62					62
21	2503.602	18-INCH PIPE APRON	EA	1				1	
22	2503.602	24-INCH PIPE APRON	EA	1					1
23	2503.602	CONNECT TO EXISTING STORM SEWER	EA	3				2	1
24	2504.602	6" KNIFE VALVE	EA	1				1	
25	2504.602	4" KNIFE VALVE	EA	1					1
26	2506.503	CONST DRAINAGE STRUCTURE TYPE CC (DES 48-4020)	LF	11				7	4
27	2506.602	CASTING ASSEMBLY R-1733	EA	2				1	1
28	2511.507	RANDOM RIPRAP CLASS II	CY	31					31
29	2511.507	RANDOM RIPRAP CLASS III	CY	85		12		24	49
30	2563.601	TRAFFIC CONTROL	LS	1		1			
31	2571.502	PLUG	EA	1524				1301	223
32	2573.503	SILT FENCE; TYPE MS	LF	1510		445		400	665
33	2573.603	INSTALL FLOTATION SILT CURTAIN	LF	40		20			20
34	2575.504	ROLLED EROSION PREVENTION CATEGORY 20	SY	22566		11423	950	2905	7288
35	2575.507	ENGINEERED FILTRATION MEDIA	CY	996				397	599
36	2575.508	SEED MIXTURE 36-212	LB	34		3		5	26
37	2575.508	SEED MIXTURE 32-231	LB	7		4	3		
38	2575.508	SEED MIXTURE 35-242	LB	32		4		7	21
39	2575.508	SEED MIXTURE 34-265	LB	4		4			
40	2575.508	FERTILIZER TYPE 3	LB	556		270	30	90	166
41	2575.508	HYDRAULIC REINFORCED FIBER MATRIX	LB	550		100		100	350
42	2577.507	ROOT WRAP	CY	91		68	23		
43	2577.602	ROOTWAD	EA	4		2	2		
44	2577.602	CROSS VANE	EA	4			4		

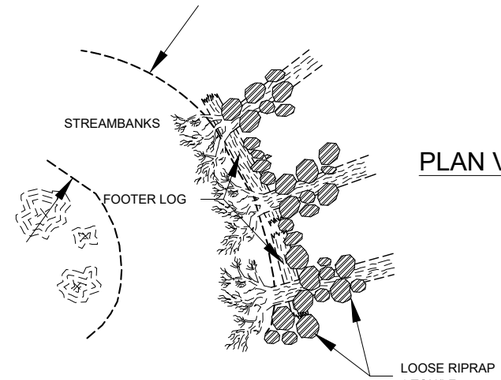
Valley Park Basin		
Scientific Name	**Common Name**	**No. of plants**
Shrubs		
Aronia melanocarpa	Black Chokeberry	2
Cephalanthus occidentalis	Button Bush	3
Cornus sericea	Red-Osier Dogwood	2
Forbs and Ferns		
Agastache foeniculum	Giant Hyssop	5
Anenome canadensis	Canada Anemone	5
Asclepias incarnata	Marsh Milkweed	5
Aster novae-angliae	New England Aster	5
Aster punicus	Red-Stemmed aster	5
Boltonia asteroides	Boltonia	5
Gentiana andrewsii	Bottle gentian	5
Liatris pychnostachya	Prairie Blazingstar	5
Lobelia siphilitica	Great Blue Lobelia	5
Pycnanthemum virginianum	Mountain Mint	5
Rudbeckia hirta	Black-eyed Susan	5
Helenium autumnale	Sneezeweed	5
Lobelia cardinalis	Cardinal flower	5
Amorpha canescens	Lead plant	5
Coreopsis lanceolata or palmata	coreopsis	5
Vernonia fasciculata	Ironweed	5
Eutrochium maculatum	Joe Pye weed	5
Aquilegia canadensis	Columbine	5
Grasses, Sedges, and Rushes		
Carex brevior	Plains Oval Sedge	18
Carex hystericina	Porcupine Sedge	18
Carex vulpinoidea	Brown Fox Sedge	18
Bromus Ciliatus	Fringed Brome	18
Panicum virgatum	Switchgrass	18
Schizachyrium scoparium	Little Bluestem	18
Andropogon gerardii	Big Bluestem	18

Park Place Basin		
Scientific Name	**Common Name**	**No. of plants**
Shrubs		
Aronia melanocarpa	Black Chokeberry	4
Cephalanthus occidentalis	Button Bush	3
Cornus sericea	Red-Osier Dogwood	4
Forbs and Ferns		
Agastache foeniculum	Giant Hyssop	25
Anenome canadensis	Canada Anemone	25
Asclepias incarnata	Marsh Milkweed	25
Aster novae-angliae	New England Aster	25
Aster punicus	Red-Stemmed aster	25
Boltonia asteroides	Boltonia	25
Gentiana andrewsii	Bottle gentian	25
Liatris pychnostachya	Prairie Blazingstar	25
Lobelia siphilitica	Great Blue Lobelia	25
Pycnanthemum virginianum	Mountain Mint	25
Rudbeckia hirta	Black-eyed Susan	25
Helenium autumnale	Sneezeweed	25
Lobelia cardinalis	Cardinal flower	25
Amorpha canescens	Lead plant	25
Coreopsis lanceolata or palmata	coreopsis	25
Vernonia fasciculata	Ironweed	25
Eutrochium maculatum	Joe Pye weed	25
Aquilegia canadensis	Columbine	25
Grasses, Sedges, and Rushes		
Carex brevior	Plains Oval Sedge	120
Carex hystericina	Porcupine Sedge	120
Carex vulpinoidea	Brown Fox Sedge	120
Bromus Ciliatus	Fringed Brome	120
Panicum virgatum	Switchgrass	120
Schizachyrium scoparium	Little Bluestem	120
Andropogon gerardii	Big Bluestem	120

SECTION



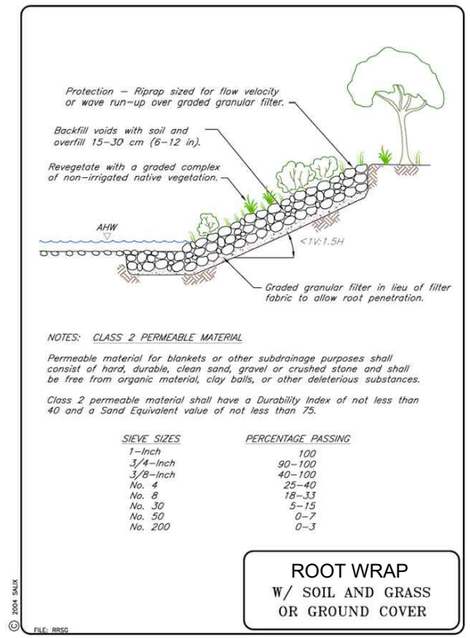
ROOT WAD DETAIL



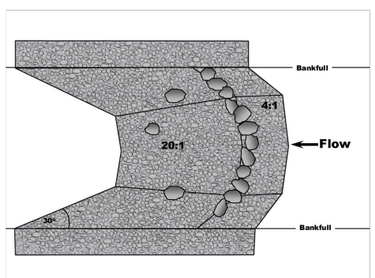
PLAN VIEW

CONSTRUCTION NOTES

1. THE FOOTER LOG SHALL BE PLACED AT THE PLANNED TOE OF SLOPE. FOOTER LOGS SHALL BE FIRMLY PLACED INTO THE STREAMBED SO THAT WATER IS NOT FLOWING UNDER IT. A REAR FOOTER LOG MAY BE USED TO MAKE THE ROOTWAD TIP TOWARD THE WATER MORE. IF A LOW FLOW CHANNEL IS TO BE CREATED, IT WILL BE DONE PRIOR TO THE BEGINNING ROOTWAD INSTALLATION.
2. THE TRUNK OF THE ROOTWAD LOG SHALL REST ON THE FOOTER LOG. THE LOWER PART OF THE ROOTWAD WILL BE IN THE WATER WHERE IT CAN DEFLECT WATER AND CREATE HABITAT.
3. THE ROOTWADS SHALL OVERLAP SLIGHTLY. THE UPSTREAM ROOTWAD IS TO BE ON THE OUTSIDE OF THE DOWNSTREAM ROOTWAD (SHINGLE EFFECT)
4. IF LARGE ROCKS ARE AVAILABLE, PLACE THEM BETWEEN THE ROOTWADS PRIOR TO BACKFILL, IN ADDITION TO THE REQUIRED LOOSE ROCK RIPRAP.

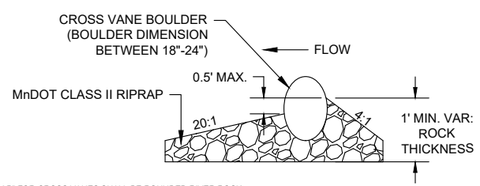


ROOT WRAP
W/ SOIL AND GRASS
OR GROUND COVER



NTS

DETAIL
CROSS VANE CONCEPT DESIGN
ROCK RIFFLE TO BE FIELD FITTED

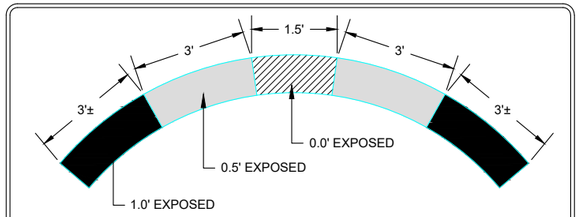


NOTE: "RIPRAP" FOR CROSS VANES SHALL BE ROUNDED RIVER ROCK MEETING SIZE GRADATION OF SPECIFIED MNDOT RIPRAP CLASSES

RIFFLE
MID-CHANNEL PROFILE

NTS

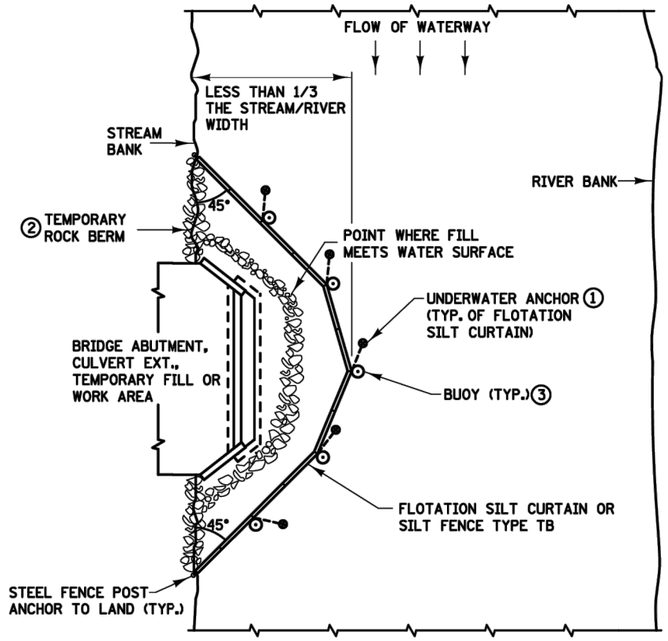
DETAIL
CROSS VANE PROFILE



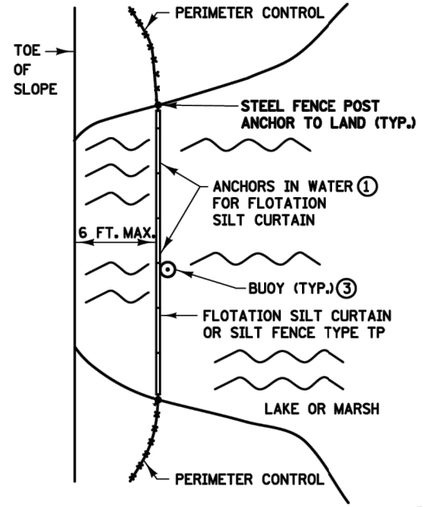
NTS

DETAIL
ROCK RIFFLE PLAN VIEW

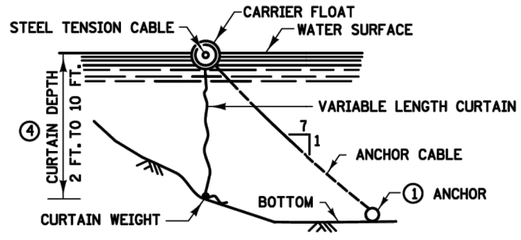
SEH Project	167782	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT	**DETAILS**	3
Drawn By	SS	.			.				
Designed By	MC	.			.			MARK CHRISTENSON, PE (MN)	DAKOTA COUNTY, MINNESOTA		of 27
Checked By	BH	.			.			DATE 9/26/2024 LICENSE NO. 62963			



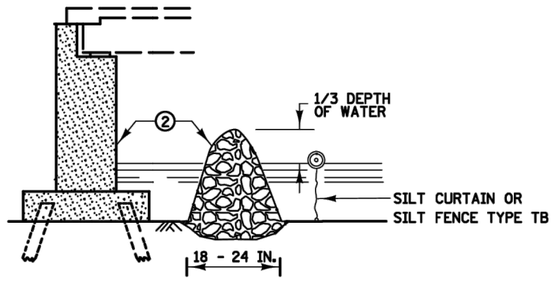
PLAN VIEW FOR STREAM ⑤



PLAN VIEW FOR LAKE OR MARSH ⑤



FLOTATION SILT CURTAIN



TEMPORARY ROCK BERM
FOR SEDIMENT CONTROL

INSTALLATION GUIDELINES
SILT FENCE TYPE TB

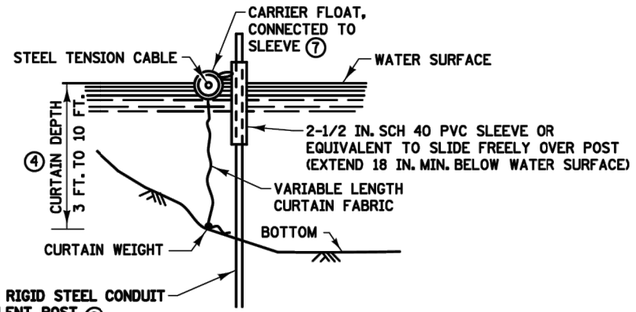
MINIMUM WATER DEPTH: 1 FT.
MAXIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: STILL WATER

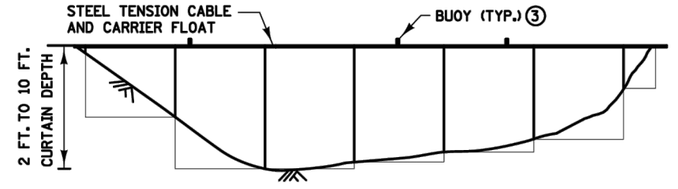
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 2 FT./SEC.
MAXIMUM WAVE HEIGHT: 1 FT

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: MOVING WATER

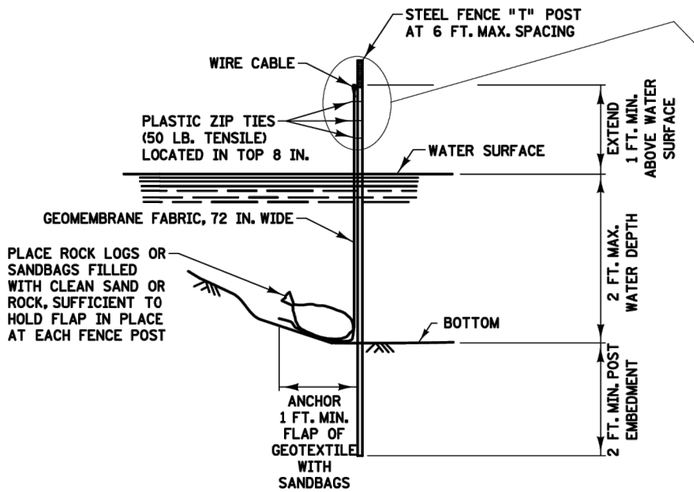
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.
MAXIMUM WAVE HEIGHT: 2 FT.



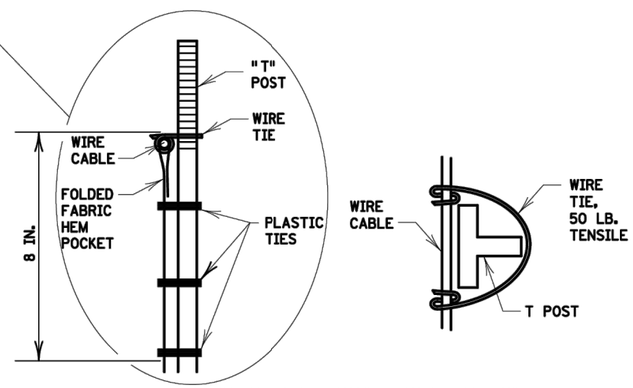
ALTERNATE FLOTATION SILT CURTAIN



FRONT VIEW FOR FLOTATION SILT CURTAIN



SILT FENCE TYPE TB ⑥



FABRIC/CABLE/POST CONNECTION

NOTES:

SEE SPECS. 2573, 3886, 3887 & 3893.

① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.

② IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.

③ ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.

④ MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.

⑤ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.

⑥ EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.

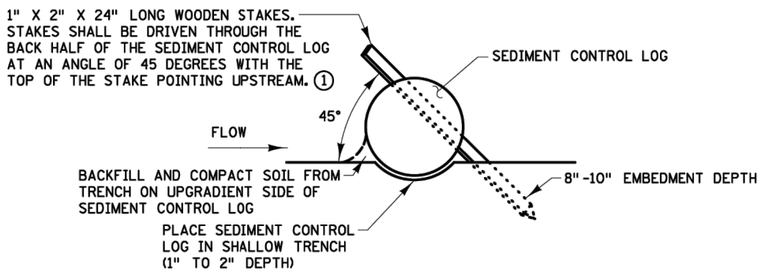
⑦ ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.

⑧ PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

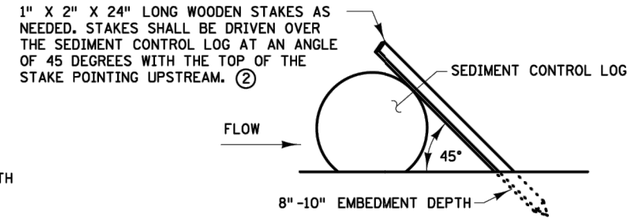
INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT

DAKOTA COUNTY, MINNESOTA

LEAD EXPERT OFFICE	LYNN CLARKOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP	TEMPORARY SEDIMENT CONTROL SILT CURTAIN OR SILT FENCE TYPE TB	APPROVED: 02-28-2017 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	1 OF 8
	DEPARTMENT OF TRANSPORTATION	STANDARD PLAN	STATE PROJ. NO. SEH 167782		SHEET NO. 4
			TRUNK HWY.		TOTAL SHEETS 27

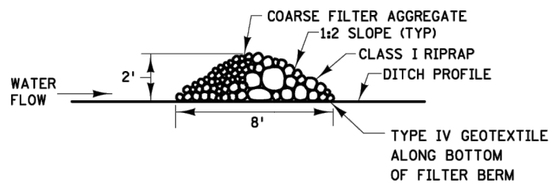


TYPES: STRAW, WOOD FIBER, OR COIR

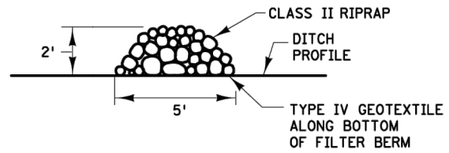


TYPES: WOOD CHIP, COMPOST, OR ROCK

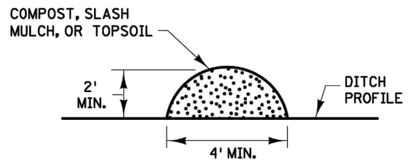
SEDIMENT CONTROL LOGS



TYPE 3 (ROCK WEEPER)

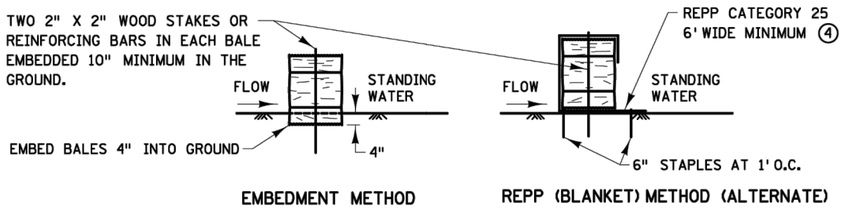


TYPE 5 (ROCK)



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

FILTER BERMS



EMBEDMENT METHOD

REPP (BLANKET) METHOD (ALTERNATE)

BALE BARRIERS(3)

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT

DAKOTA COUNTY, MINNESOTA

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.

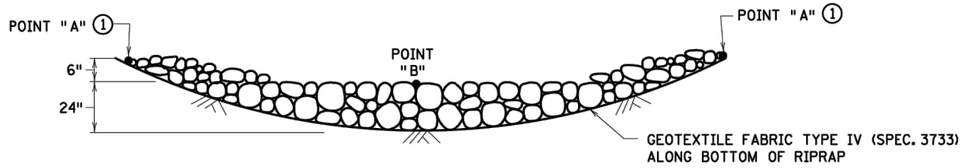
(1) SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.

(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.

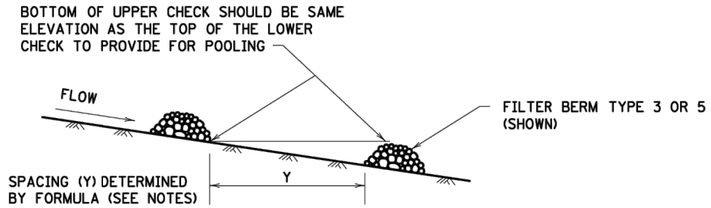
(3) TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6" MAXIMUM DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14" X 18" X 36" LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.

(4) INSTEAD OF TRENCHING, PLACE BALE ON THE REPP (BLANKET) AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

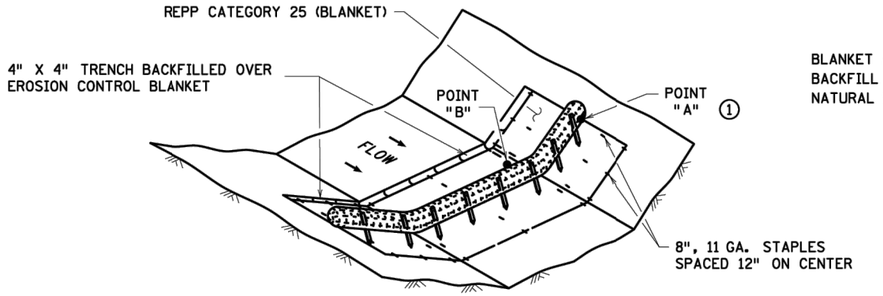
LEAD EXPERT OFFICE	MARNI KARNOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP	TEMPORARY SEDIMENT CONTROL FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS	APPROVED: 01-08-2020 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	2 OF 8
DEPARTMENT OF TRANSPORTATION		STANDARD PLAN	STATE PROJ. NO. SEH 167782		SHEET NO. 5	
			TRUNK HWY.		TOTAL SHEETS 27	

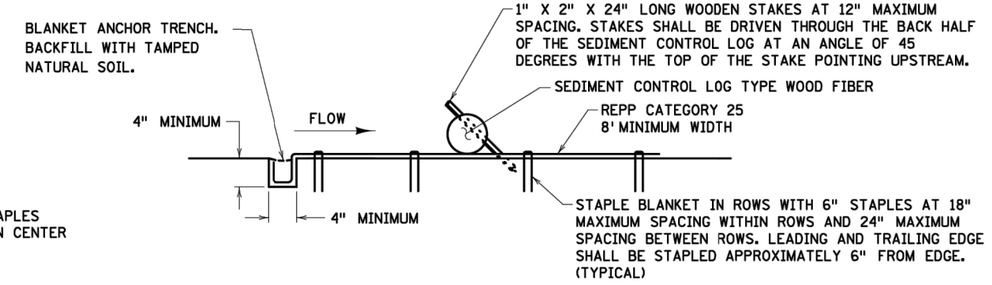


ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ③
FOR USE ON ROUGH-GRADED AREAS
ONLY FOR USE OUTSIDE CLEAR ZONE ②

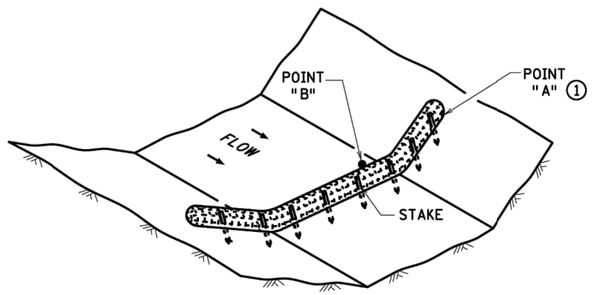


DITCH CHECK SPACING
FOR ALL FILTER BERM TYPES





SEDIMENT CONTROL LOG TYPE REPP (BLANKET) SYSTEM ④



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST ⑤
FOR USE ON ROUGH GRADED AREAS

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

NOTES:
REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT.)}}{\text{\% CHANNEL SLOPE}} \times 100$$

① POINT "A" MUST BE A MINIMUM OF 6" HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

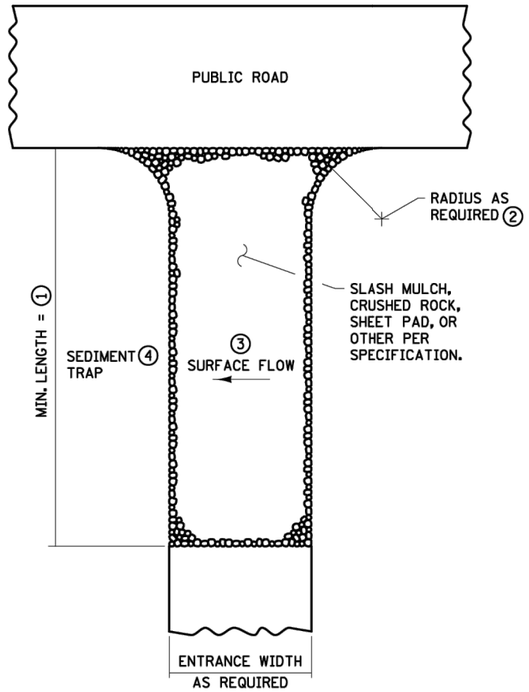
② ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

③ DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT./SEC.

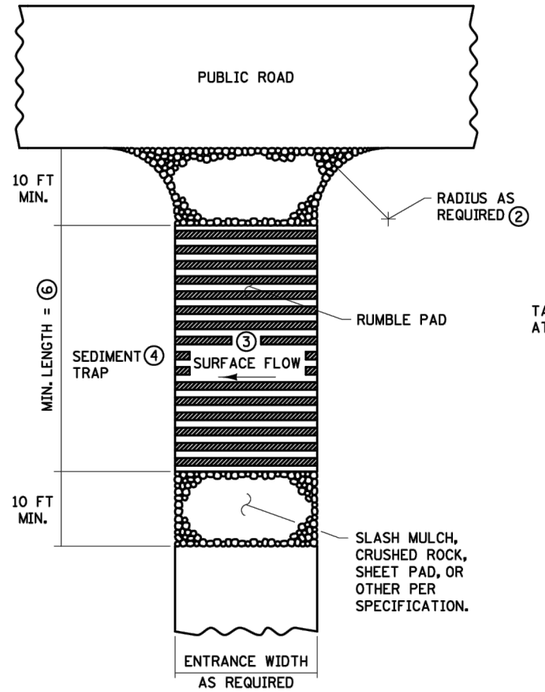
④ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT./SEC.

⑤ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT./SEC.

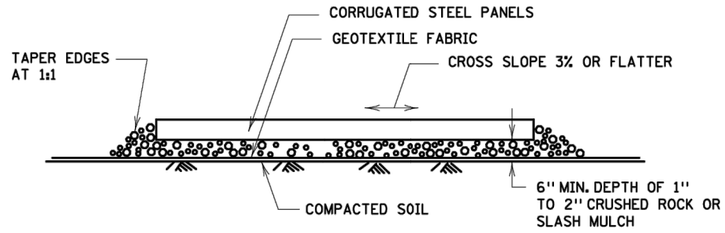
LEAD EXPERT OFFICE	MARNI KARNOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP		TEMPORARY SEDIMENT CONTROL DITCH CHECK	APPROVED: 01-08-2020 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	3 OF 8
	DEPARTMENT OF TRANSPORTATION		STANDARD PLAN	STATE PROJ. NO. SEH 167782		SHEET NO. 6
				TRUNK HWY.		TOTAL SHEETS 27



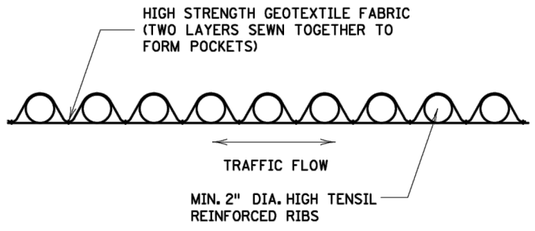
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT ⑤⑦



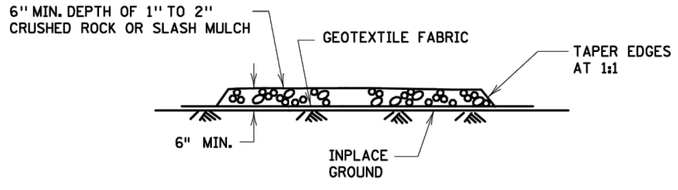
RUMBLE PAD CONSTRUCTION EXIT ⑤⑦



RUMBLE PAD



SHEET PAD



SLASH MULCH OR CRUSHED ROCK

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.

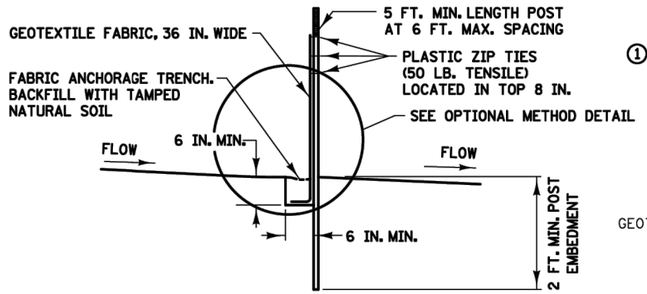
(4) IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.

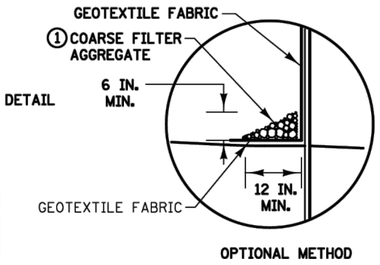
(5) IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.

(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.

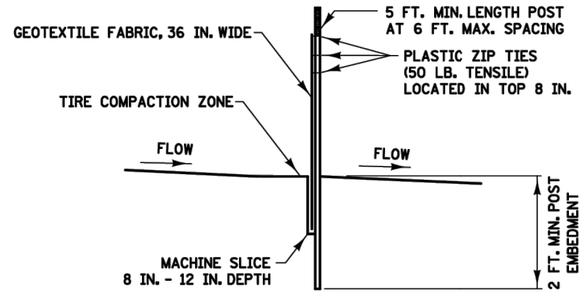
(7) MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

LEAD EXPERT OFFICE	LYNN CLARKOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP	TEMPORARY SEDIMENT CONTROL STABILIZED CONSTRUCTION EXIT	APPROVED: 02-28-2017 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405 / 5 OF 8
DEPARTMENT OF TRANSPORTATION		STANDARD PLAN	STATE PROJ. NO. SEH 167782		SHEET NO. 7
			TRUNK HWY.		TOTAL SHEETS 27

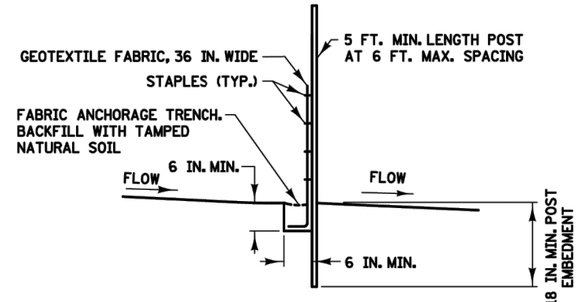




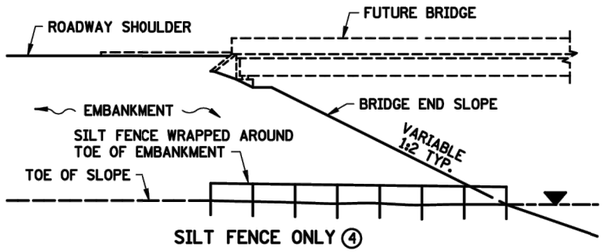
SILT FENCE TYPE HI ②
(HAND INSTALLED)



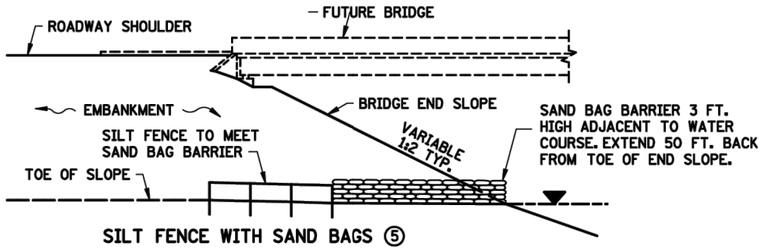
SILT FENCE TYPE MS ②
(MACHINE SLICED)



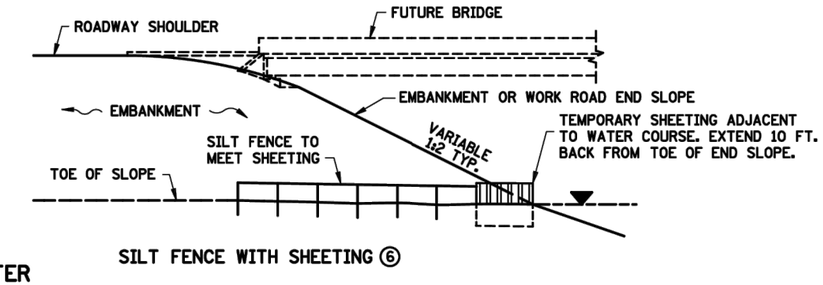
SILT FENCE TYPE PA ③
(PREASSEMBLED)



SILT FENCE ONLY ④

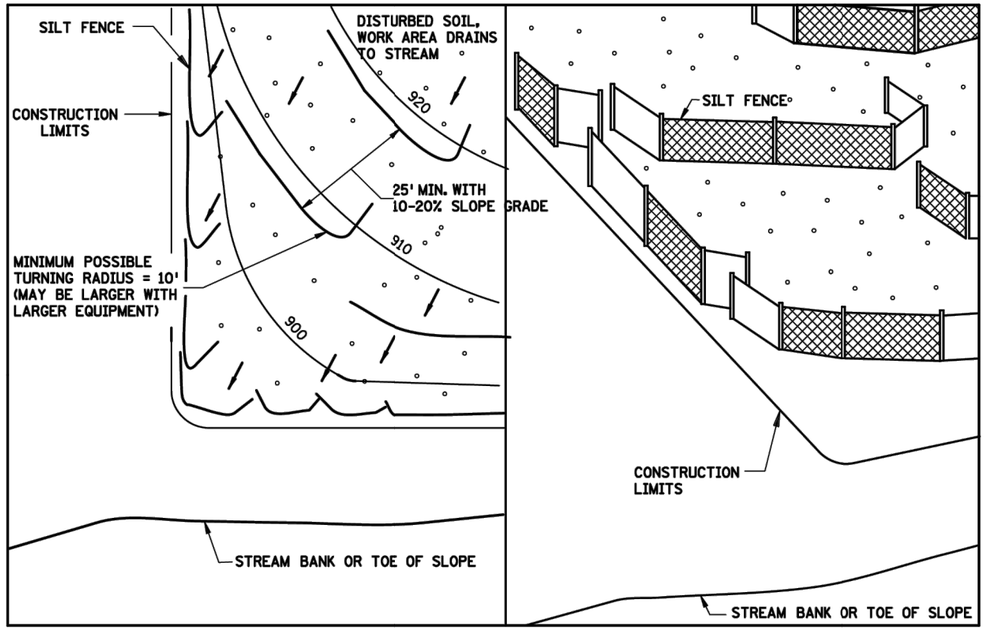


SILT FENCE WITH SAND BAGS ⑤

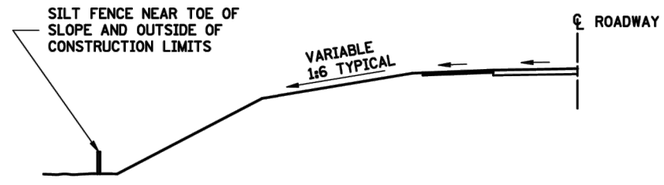


SILT FENCE WITH SHEETING ⑥

INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



J-HOOK INSTALLATION



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

SEE SPECS. 2573, 3149 & 3886.

① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

② TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 1 ACRE.

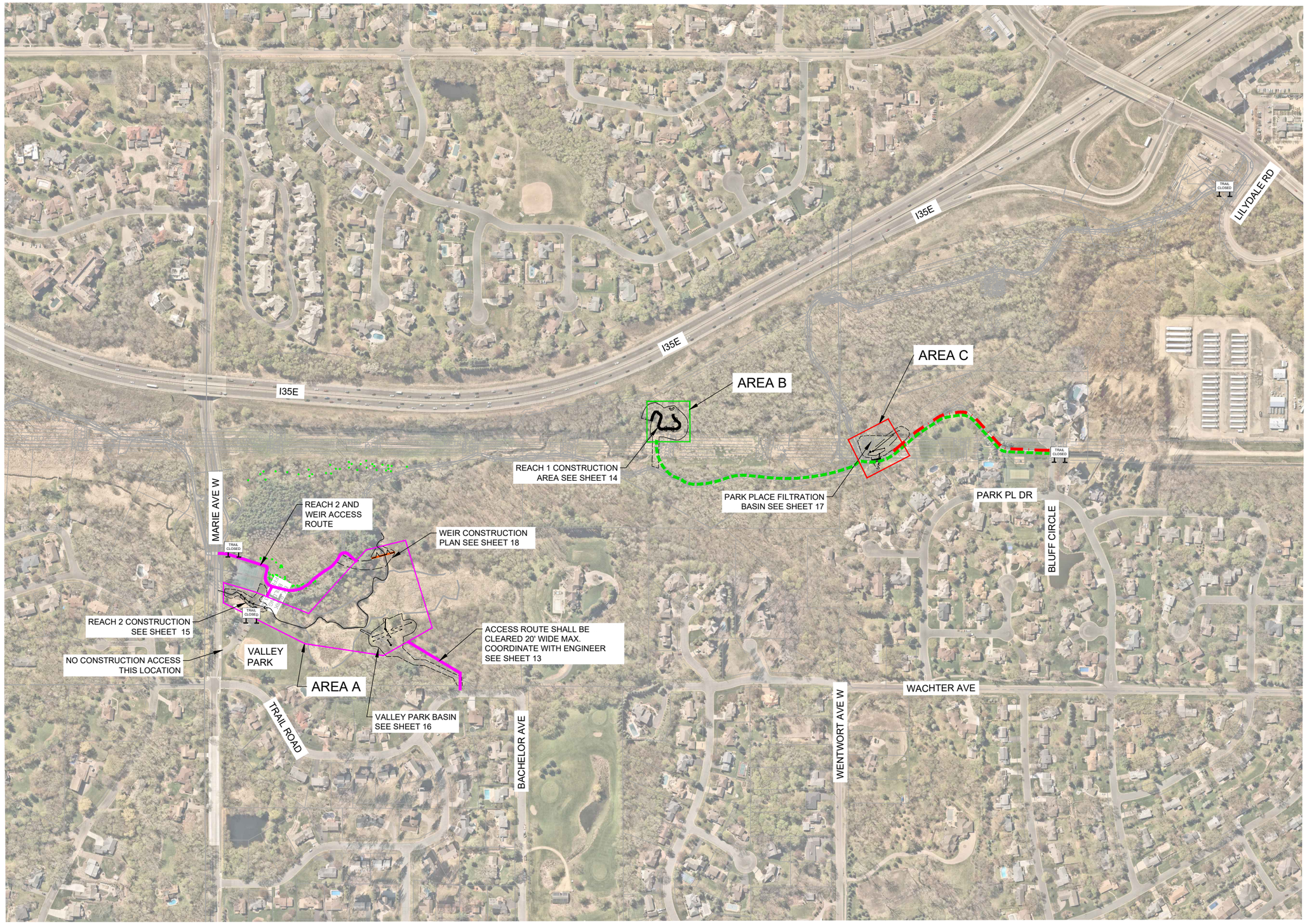
③ TO PROTECT AREAS FROM SHEET FLOW. MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.

④ WATER COURSE FLOW VELOCITY: STANDING. CONTRIBUTING SLOPE AREA: 1./2 ACRE.

⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC. CONTRIBUTING SLOPE AREA: 1. ACRE.

⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC. CONTRIBUTING SLOPE AREA: 3 ACRES.

LEAD EXPERT OFFICE	LYNN CLARKOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP		TEMPORARY SEDIMENT CONTROL SILT FENCE	APPROVED: 02-28-2017 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	6 OF 8
	DEPARTMENT OF TRANSPORTATION		STANDARD PLAN	STATE PROJ. NO. SEH 167782 TRUNK HWY.		SHEET NO. 8 TOTAL SHEETS 27



200 0 200 400
scale 100 feet

KEY

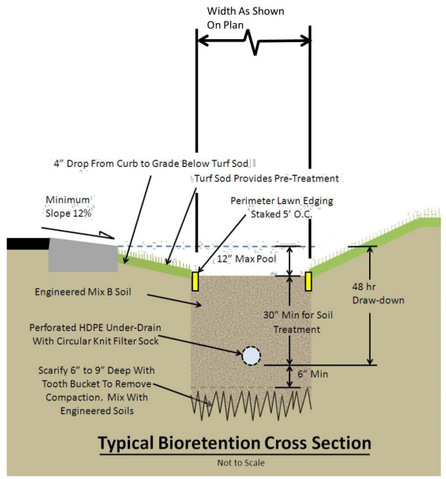
- AREA A ACCESS ROUTE
- AREA B ACCESS ROUTE
- AREA C ACCESS ROUTE
- TRAIL CLOSED SIGN

NOTES:

1. WHERE FEASIBLE, CONTRACTOR SHALL USE EXISTING TRAILS OR OTHER PASSABLE ROUTES TO ACCESS THE WORK.
2. TREE CLEARING FOR ACCESS SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER PRIOR TO BEGINNING WORK.
3. STAGING SHALL BE ALLOWED ON EXISTING TRAIL SURFACE OR IN AREAS APPROVED FOR CLEARING.

Save: 8/21/2024 4:53 PM sszymonowicz Plot: 10/8/2024 4:53 PM X:\AE\D\DAKOTA\167782\5-final-dsgn\51-drawings\1b-Civil\cad\dwg\sheet\IVC_DA167782PL-ACCESS.dwg

SEH Project	167782	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	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.	INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
Drawn By	SS							MARK CHRISTENSON, PE (MN)	DAKOTA COUNTY, MINNESOTA
Designed By	MC							DATE 9/26/2024 LICENSE NO. 62963	PROJECT ACCESS AND GENERAL LOCATION PLAN
Checked By	BH								



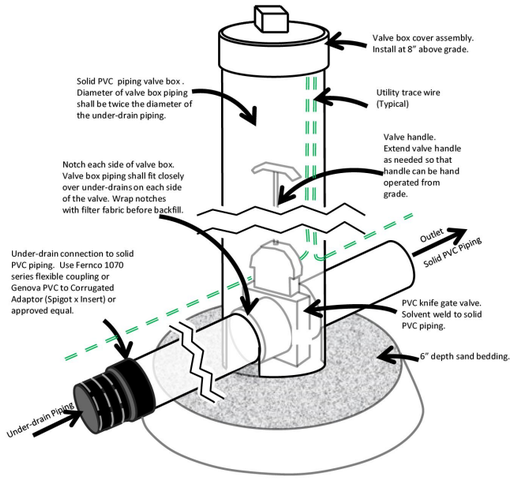
Typical Bioretention Cross Section

Not to Scale

Dakota County Soil And Water Conservation District
4100 220th Street West, Suite 102
Farmington, MN 55024
Phone: 651.480.7777
www.dakotacountyswcd.org

Typical Bioretention Cross Section

Not to Scale | Revision Date 11/22/11



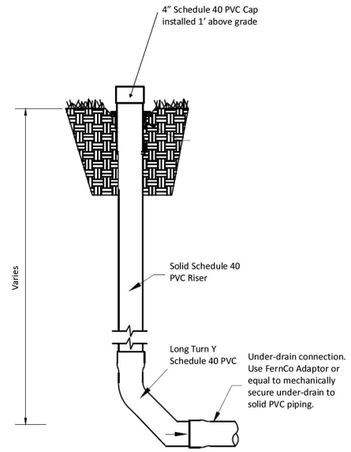
NOTES:

1. Solid piping and fittings shall be PVC Schedule 40 unless noted otherwise. Piping diameters and elevations shall be as shown on the approved plans. All solid pipe fitting and joints shall be solvent welded or have mechanical coupler to provide watertight connections.
2. The knife gate valve shall be a Valterra GKV PVC Schedule 40 with 304 stainless steel paddle and metal handle or approved equal. The valve diameter shall match the diameter of the under-drain piping unless noted otherwise.
3. Valve box cover assembly includes a PVC clean-out adapter with threaded plug to access valve handle and trace wires from grade.
4. The utility trace wire shall be insulated 12 gauge copper installed along all pipe runs. Provide access to wires inside of the valve box .
5. The valve shall be installed in the full open position. The SWCD will observe the temporary pool following a rain event and will adjust the valve as needed to achieve the optimum drain down time of approximately 12 hours. Further valve adjustment should not be needed unless plants show signs of stress.

Dakota County Soil And Water Conservation District
4100 220th Street West, Suite 102
Farmington, MN 55024
Phone: 651.480.7777
www.dakotacountyswcd.org

Under-drain Valve & Valve Box

Not to Scale | Revision Date 4/26/17



NOTE: VENTS TO BE LEFT OPEN AND FLUSH WITH GROUND FOR ONE YEAR

Dakota County Soil And Water Conservation District
4100 220th Street West, Suite 102
Farmington, MN 55024
Phone: 651.480.7777
www.dakotacountyswcd.org

Non-Vented Cleanout Assembly

Not to Scale | Revision Date 11/12/19

Bioretention (raingarden) Operation and Maintenance Notes:

1) Perimeter turf mowing, trash removal, active weed management, occasionally replacing plants, adding shredded mulch and other ongoing maintenance that is normally provided to maintain typical planted landscapes should be provided for the raingardens.

2) The estimated service life of raingardens when properly constructed and maintained ranges from 10 to 30 years or more before major reconstruction may be needed. Plant health and the drain down time of the temporary surface pool are both key indicators of successful raingarden performance and long service life. Poor plant health and/or surface pools remaining longer than 24 hours may be signs that professional evaluation of the raingarden is needed. Do not wait until the raingarden has failed before calling for technical assistance. Contact the Dakota County Soil and Water Conservation District at (651) 480-7777.

3) The underdrain valve is to remain in the full open position for the first growing season. After plant growth fully resumes in the 2nd season, close the valve and observe the drain down time of the temporary surface pool following a storm event. Adjust the valve opening as needed to achieve the optimum surface drain down time of approximately 12 hours. Further valve adjustment should not be necessary unless the plant health shows signs of stress. (e.g. Yellow leaves are a common sign of excessively wet conditions)

4) A total of 1 inch of water per week is required to establish the plantings for the first 2 growing seasons. (Water may be a combination of natural precipitation or provided). Further watering is not needed after the plants have established.

5) Minimize the use of winter sand and salt applications in the areas draining to the raingarden because both are damaging to the plants, soil permeability as well as the biological processes within the soil that break down the pollutants as stormwater passes through the raingarden.

6) Do not allow sediment (or soil from disturbed upland areas) to enter into the raingarden. Early spring pavement sweeping to remove accumulated sediment before it is washed into the raingardens is highly recommended. If early sweeping is not feasible, consider temporarily blocking the curb opening to keep sediment on the pavement until sweeping can be completed. All excessive sediment within the cell must be removed each spring.

7) Using the raingardens for winter snow storage is highly discouraged due to the potential for damage to the plant materials and compaction of the engineered soil mixture. Perimeter snow fences to limit plows from pushing snow into the raingardens are highly recommended. All damaged plant materials must be replaced each spring.

Bioretention Installation Notes:

1) All work must comply with Dakota County Low Impact Development Standards. (See www.dakotaswcd.org)

2) The Dakota County Soil and Water Conservation District (SWCD) is providing quality control and field verifications of the bioretention installations. Call the SWCD at (651) 480-7777 to schedule field verifications prior to burying any work and/or installing any concrete, mulch and/or plant materials.

3) The project area must be staked off and marked to keep all construction traffic, equipment and material stockpiles out of the proposed bioretention areas.

4) Bioretention practices shall not be excavated until the contributing drainage areas with exposed soils have been fully stabilized and bituminous base course installed on contributing pavement areas. Divert upland drainage areas to prevent runoff from entering the excavated cell or into the work area. Do not use bioretention cells as temporary sediment basins or allow construction runoff into the cell.

5) Deliver sample materials onsite for SWCD prior approval. Prior to beginning the installation, sufficient material quantities shall be onsite to complete the installation and stabilize exposed soil areas without delay.

6) Care must be taken to avoid contamination of engineered soils with sediment, in-situ or topsoil during and after installation. Materials must be segregated.

7) Installation with dry soil conditions is critical to prevent smearing and compaction. Schedule work for periods of dry weather. Do not work if soil conditions are wet. Excavation, soil placement and rapid stabilization of perimeter slopes with turf sod must be completed before the next precipitation event. Turf sod placed in flow paths shall be secured with at least 6 stakes per roll to prevent undermining or movement until sod roots establish.

8) Do not leave infiltration areas and/or perimeter slopes exposed overnight. Secure the site from risk of precipitation damages at the end of every work day. In the event of rain, take action to divert stormwater away from the work area and temporarily cover of all exposed soils with filter fabric or impermeable sheeting.

9) SWCD field observation of excavation and soil placement is required. Notify SWCD prior to digging. Use backhoe with tooth bucket for cell excavation to avoid compacting or smearing of soils. (Do not use skid steer for excavation within the cell) Use tooth bucket to scarify (rip) underlying soils 6" to 9" deep to remove compaction. Gently mix the first lift of engineered soils with the loosened underlying soils to avoid stratification and promote permeability. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin. Leveling and final grading within the cell must be completed by hand.

10) The side slopes of the bioretention cell shall be 3h:1v or flatter. Lawn edging shall be installed along the outside perimeter of the cell to physically define the limits of the bioretention cell. Lawn edging shall be securely staked per manufacturers' installation requirements or 5 ft. O.C. whichever is greater.

11) Replacement Engineered Soil shall be Minnesota Stormwater Manual 4.1.2 Mix B: Enhanced Filtration Blend (Well blended mixture of 80% ASTM C-33 Coarse Washed Sand (MnDot 3126) and 20% MnDot 3890 Grade 2 Leaf Litter Compost. The material supplier shall provide documentation that the compost has been sampled and tested as required by the Seal of Testing Assurance (STA) Program of the United States Composting Council (USCC) and a gradation sieve analysis for the washed sand. THE ENGINEERED SOIL SHALL NOT CONTAIN ANY TOPSOIL OR FILTER AGGREGATE WITH FINES.

12) Perforated under-drains shall be slotted single wall HDPE with circular knit polymeric filament filter sock per ASTM D6707-01. MnDot 3733 Type I sewn seam non-woven fabric shall not be used.

13) Notify the SWCD prior to placing any mulch or installing any plantings. The SWCD shall field check elevations, soil compaction and permeability. Note: Depending on conditions observed, compaction removal by hand may be needed prior to placing mulch and/or after plantings.

14) Keep bioretention systems off-line by restricting stormwater inflow until vegetation is well established in the cell and all up gradient areas have been stabilized and impervious surfaces cleared of construction sediment.

15) Installed sod and plantings require a total of 1" of water per week and active weed management until well established. Watering costs are considered incidental to sod and planting installations.

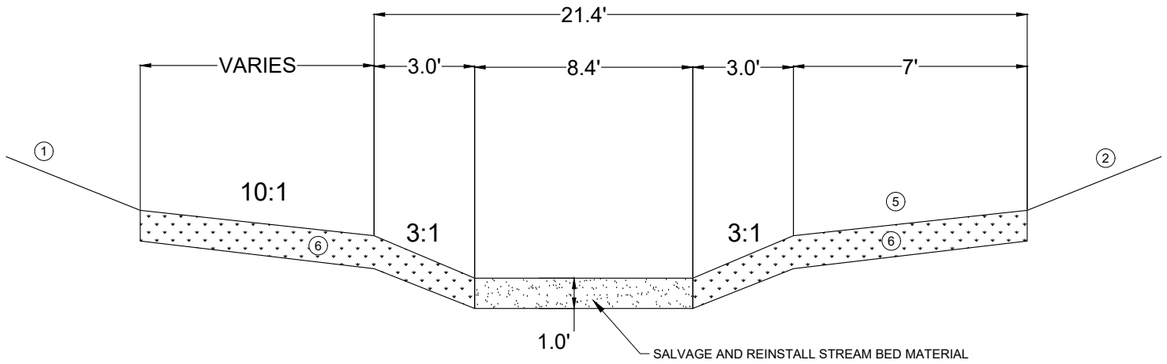
		Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
SEH Project	167782	.			.		
Drawn By	SS	.			.		
Designed By	MC	.			.		
Checked By	BH	.			.		

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.

MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

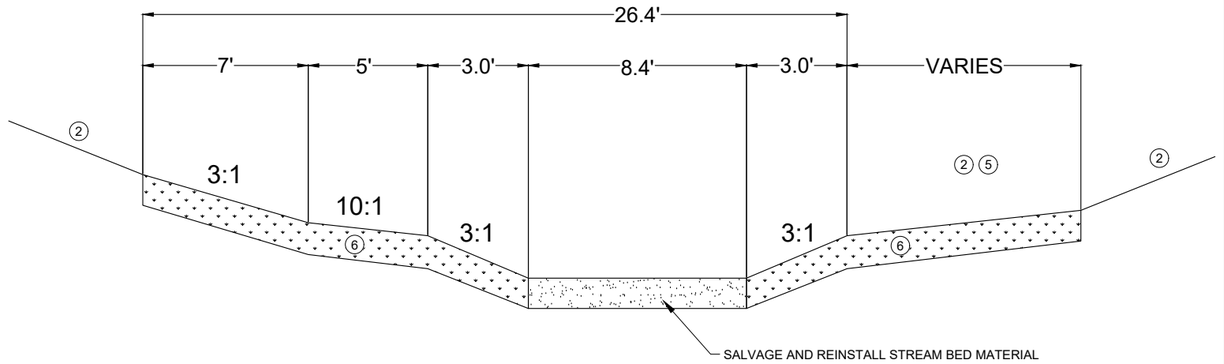
BIORETENTION CONSTRUCTION NOTES



TYPICAL SECTION #1

NTS

STA. 502+03.47 - 502+32.00



TYPICAL SECTION #1B

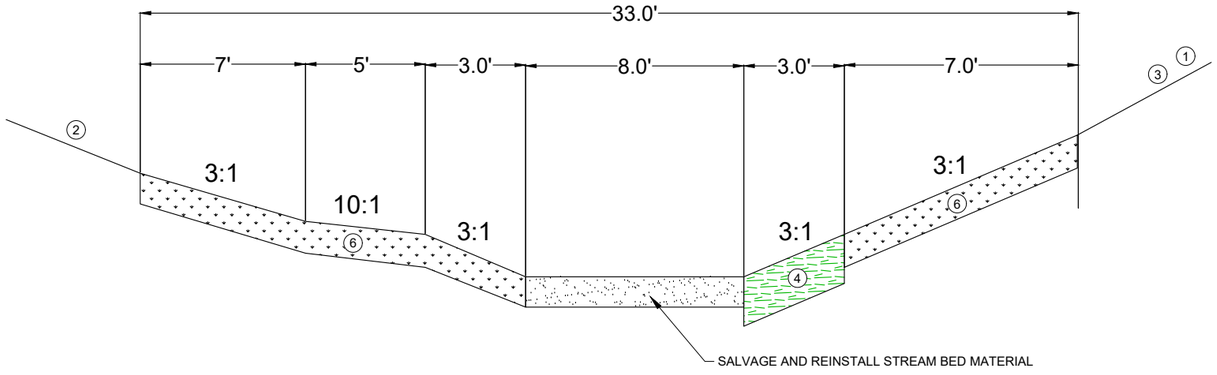
NTS

STA. 502+69.79 - 503+04.29 (7)

STA. 504+33.00 - 504+58.14

KEYED NOTES:

1. 1V:3H TIE IN
2. VARIABLE TIE IN, 1V:3H MAX
3. RIDGE LINE TIE IN
4. ROOT WAD, SEE DETAILS ON SHEET 3
5. 7' AT 15% SLOPE
6. 6" TOPSOIL AND SEED

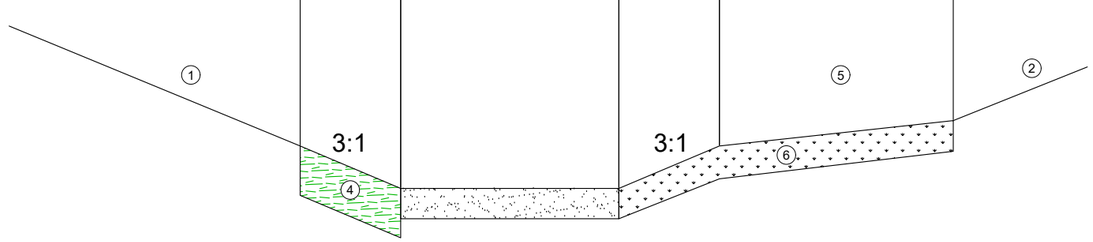


TYPICAL SECTION #2

NTS

STA. 503+04.29 - 503+18.10

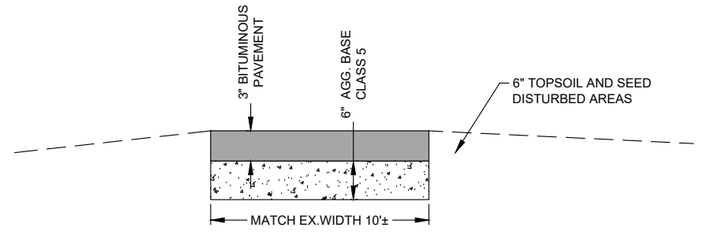
STA. 503+18.10 - 504+33.00 (3)



TYPICAL SECTION #3

NTS

STA. 502+32.21 - 502+69.79



TYPICAL SECTION EXISTING TRAIL REPLACEMENT

NTS

PARK PLACE BASIN

SEH Project	167782
Drawn By	SS
Designed By	MC
Checked By	BH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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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 LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

MARK CHRISTENSON, PE (MN)

DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT

DAKOTA COUNTY, MINNESOTA

TYPICAL SECTIONS

LEGEND

CLEARING AND GRUBBING

10 0 10 20
scale 5 feet

PETRO

EX. XCEL ELECTRIC 100' EASEMENT

CONSTRUCTION LIMITS

506 + 23.26

506 + 00

505 + 00

SILT FC

504 + 00

503 + 00

502 + 00

501 + 00

500 + 00

G

MNDOT ROW

REACH 1 - AREA C

LEGEND

CLEARING AND GRUBBING

REMOVE BITUMINOUS TRAIL

20 0 20 40
scale 10 feet

EX. XCEL ELECTRIC 100' EASEMENT

REMOVE EX. 15" STORM PIPE TO OUTLET INCLUDE FES REFER TO SHEET 17 FOR LOCATION

PETRO

PARK PLACE BASIN

		Revision Issue				Revision Issue	
SEH Project	IVC_DA167782	Rev.#	Description	Date	Rev.#	Description	Date
Drawn By	SS	# #		#	# #		#
Designed By	MC	# #		#	# #		#
Checked By	BH	# #		#	# #		#

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MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

REMOVAL PLANS

12 of 27

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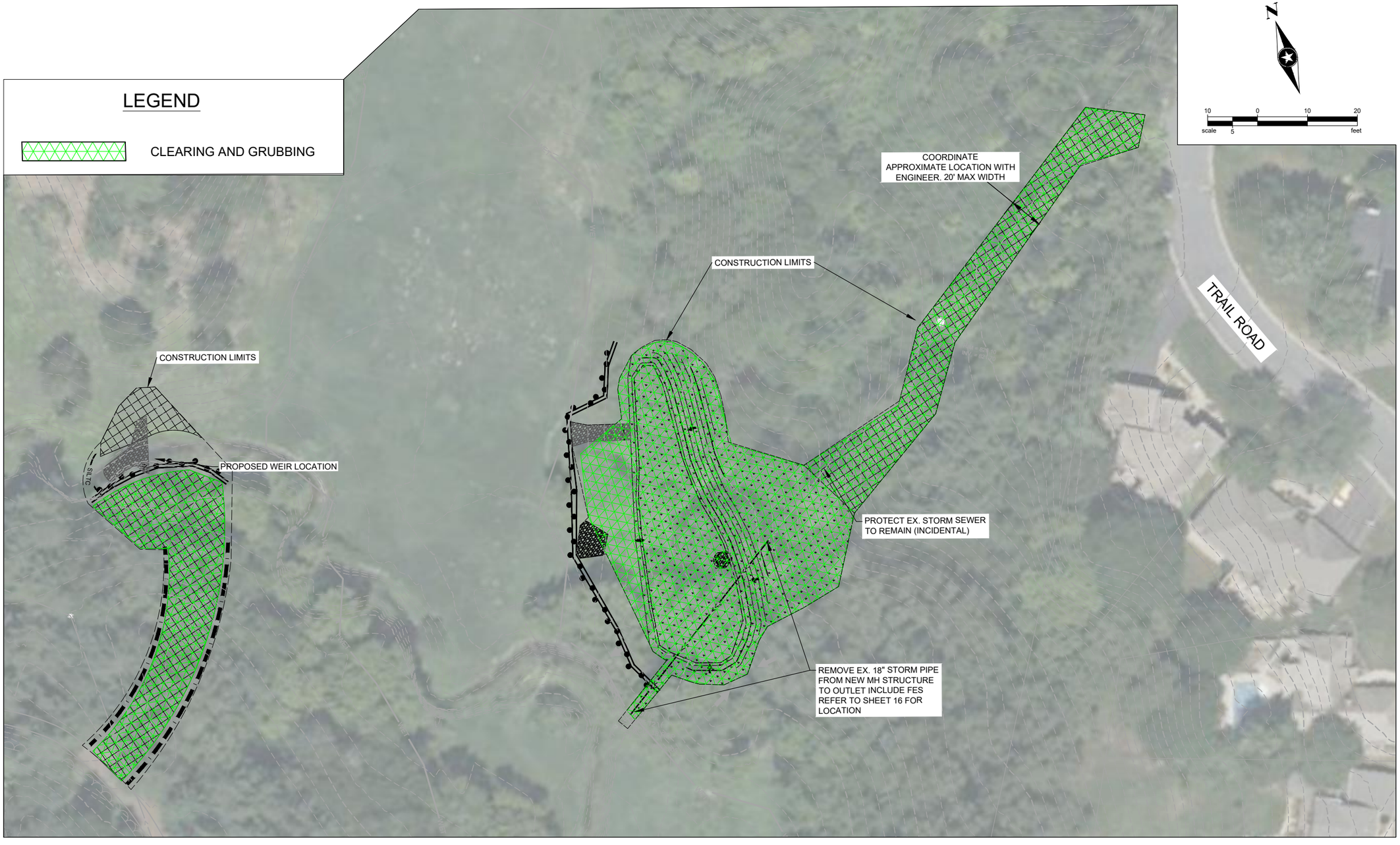

VALLEY PARK BASIN

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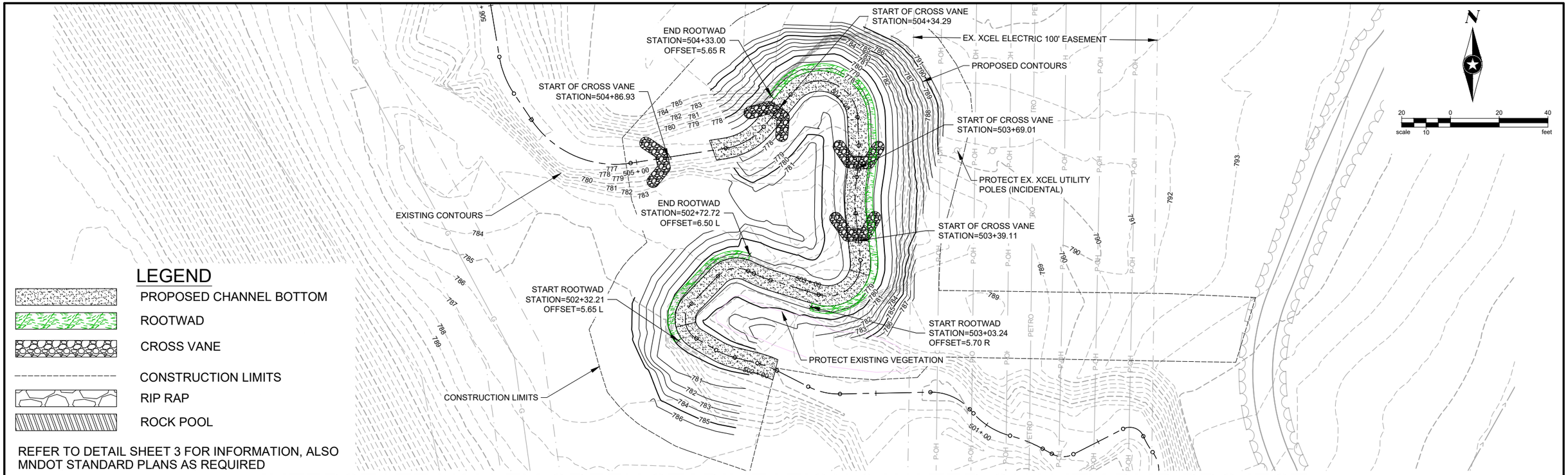
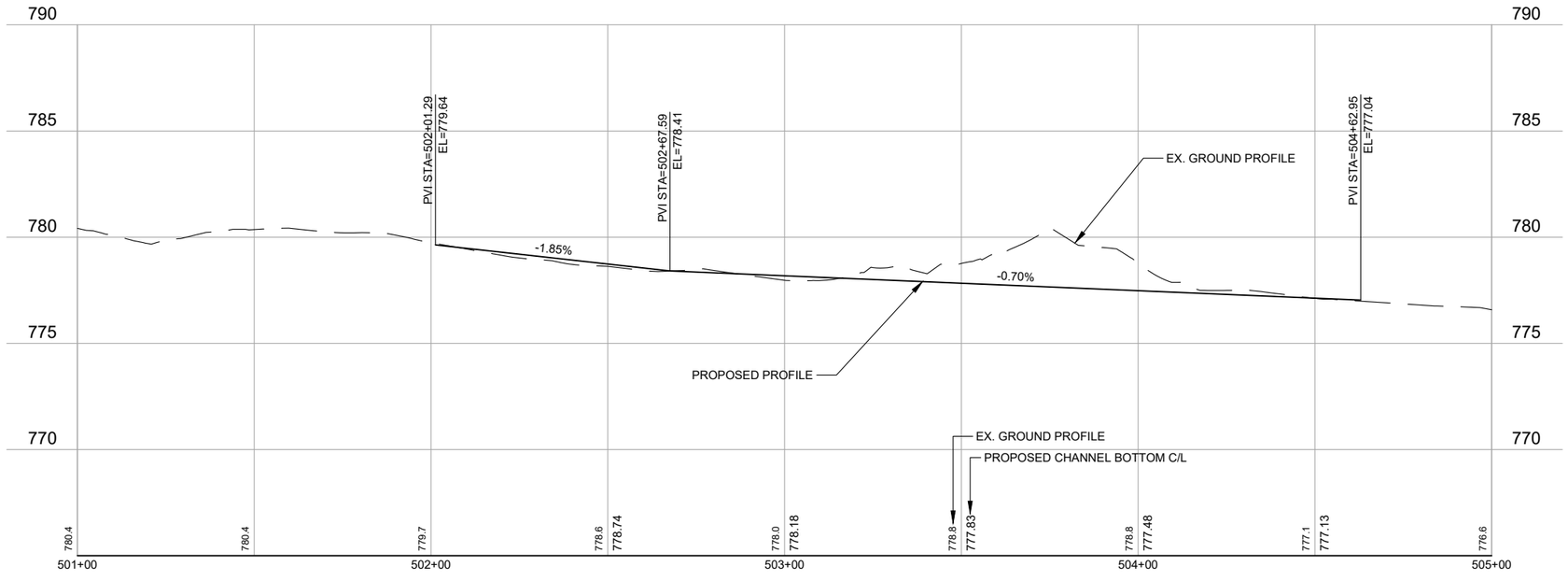
SEH Project	IVC_DA167782	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT	REMOVAL PLANS	13
Drawn By	SS							MARK CHRISTENSON, PE (MN)	DAKOTA COUNTY, MINNESOTA		of 27
Designed By	MC							DATE _____ LICENSE NO. 62963			
Checked By	BH										



INTERSTATE VALLEY CREEK STABILIZATION & WATER QUALITY BMP PROJECT



		Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
SEH Project	167782	.			.		
Drawn By	SS	.			.		
Designed By	MC	.			.		
Checked By	BH	.			.		

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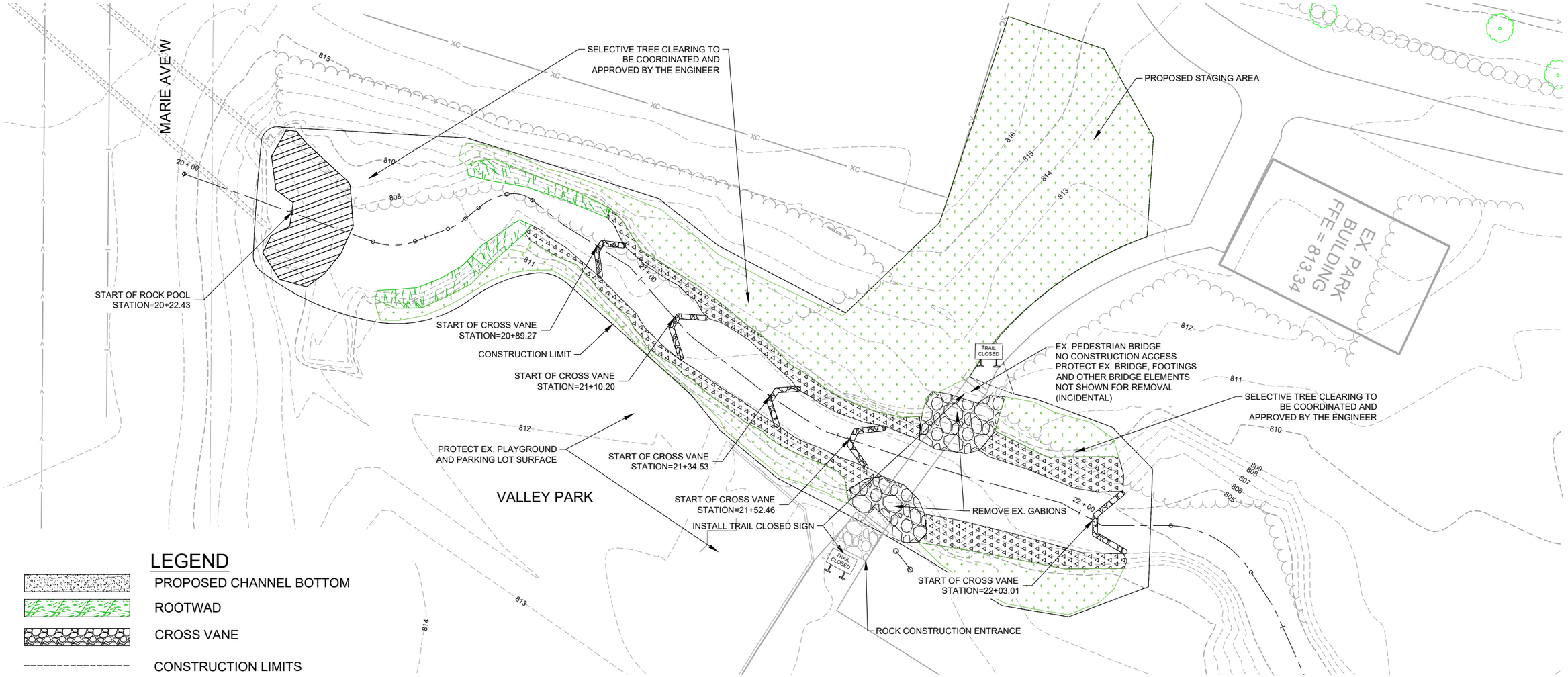
MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

REACH 1 CONSTRUCTION PLAN AND PROFILE



LEGEND

- PROPOSED CHANNEL BOTTOM
- ROOTWAD
- CROSS VANE
- CONSTRUCTION LIMITS
- RIP RAP
- ROCK POOL

REFER TO DETAIL SHEET 3 FOR INFORMATION, ALSO MNDOT STANDARD PLANS AS REQUIRED

- ROOT WRAP
- MID DIVERSITY MESIC TO DRY BUFFER SOUTH & WEST 32.231

NOTE: SEEDING AREA SHOWN IS APPROXIMATE AND FOR DISTURBED AREAS BEYOND REACH 2 CONSTRUCTION IMPROVEMENTS, LIMIT AREA TO MINIMUM POSSIBLE

INTERSTATE VALLEY CREEK STABILIZATION & WATER QUALITY BMP PROJECT

		Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
SEH Project	167782	.			.		
Drawn By	SS	.			.		
Designed By	MC	.			.		
Checked By	BH	.			.		

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MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

REACH 2 CONSTRUCTION PLAN AND EROSION CONTROL

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PROPOSED STAGING AREA

PROPOSED CONTOURS

CONSTRUCT DRAINAGE STRUCTURE DESIGN 48-4020, CONNECT TO EX. 18" STORM PIPE F/L 812.6 RIM 815.9 18" OUTL. ELEV. 812.40 (FIELD VERIFY ELEVATIONS)

CONSTRUCT 24.0 L.F. 18" CL. III RCP STORM SEWER @ 15.8% TIE END SECTION AND ALL 3 PIPE

INSTALL CONCRETE END SECTION W/TRASH GUARD ELEVATION: 808.60

EMERGENCY OVERFLOW OUTFLOW ELEV: 809.90

BASIN BOTTOM ELEVATION: 808.30

4" PVC CLEANOUT

EXISTING CONTOURS

RIPRAP TYPE III PLUNGE POOL (SEE INSET A)

4" PERFORATED PIPE

RANDOM RIPRAP TYPE III

4" KNIFE VALVE

CONSTRUCTION LIMITS

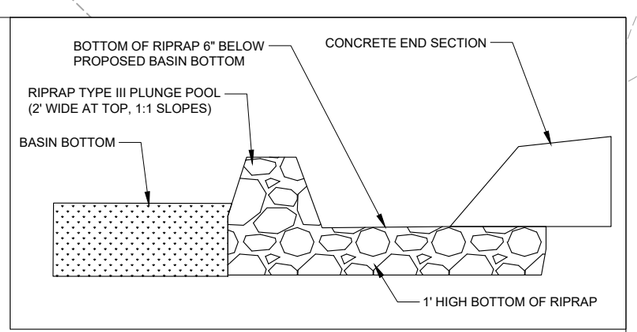
CONSTRUCT 35.0 L.F. 18" CL. III RCP STORM SEWER @ 5.7%

INSTALL OUTLET STRUCTURE TC ELEVATION 809.50 INVERT ELEVATION: 807.60

INSTALL CONCRETE END SECTION W/TRASH GUARD ELEVATION: 807.40

RANDOM RIPRAP TYPE III

10 0 10 20
scale 5 feet



INSET A

SEH Project	167782
Drawn By	SS
Designed By	MC
Checked By	BH

Rev.#	Revision Issue Description	Date

Rev.#	Revision Issue Description	Date

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MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT

DAKOTA COUNTY, MINNESOTA

VALLEY PARK BASIN GRADING PLAN

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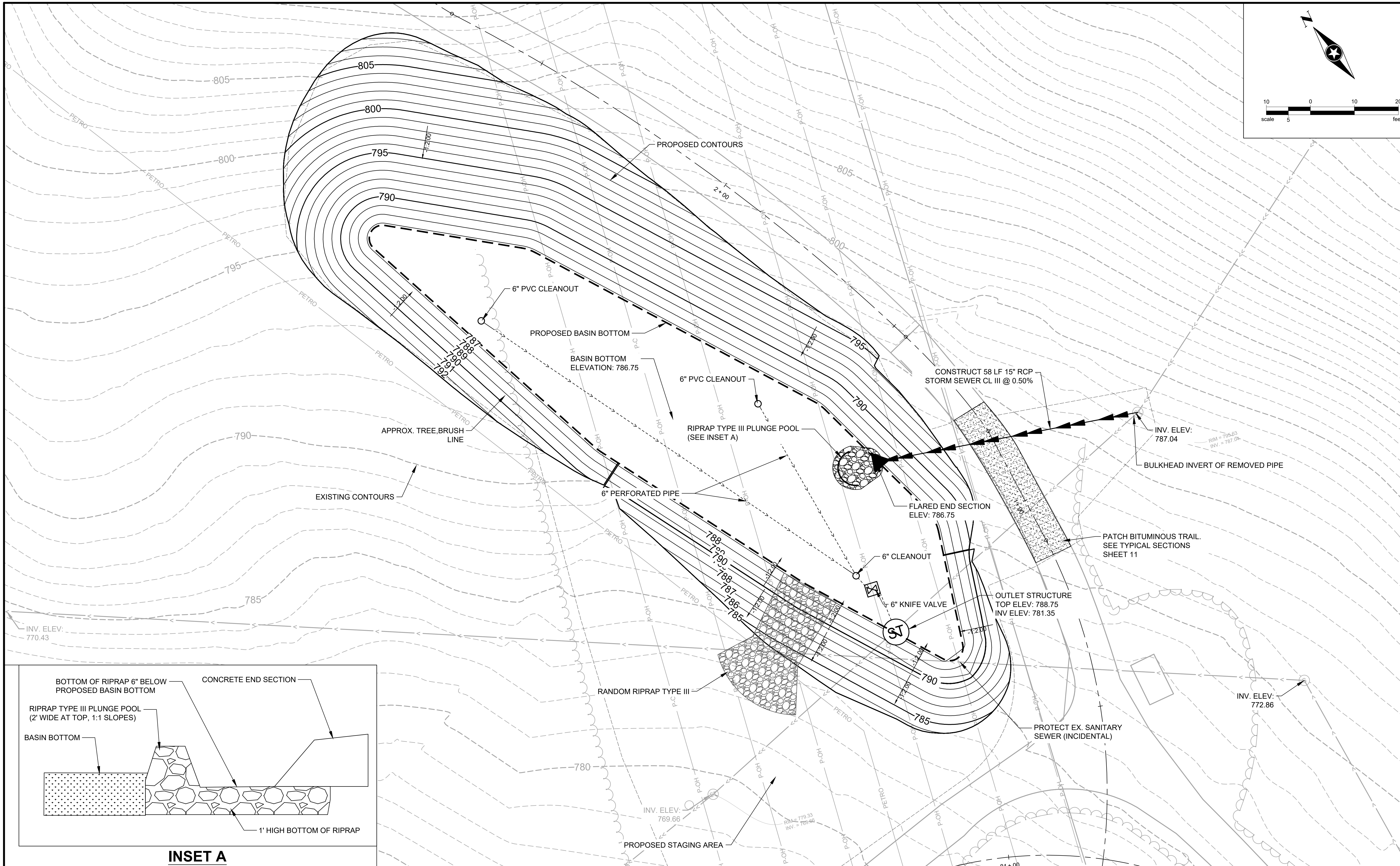

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SEH Project	167782	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	SS						
Designed By	MC						
Checked By	BH						

SEH

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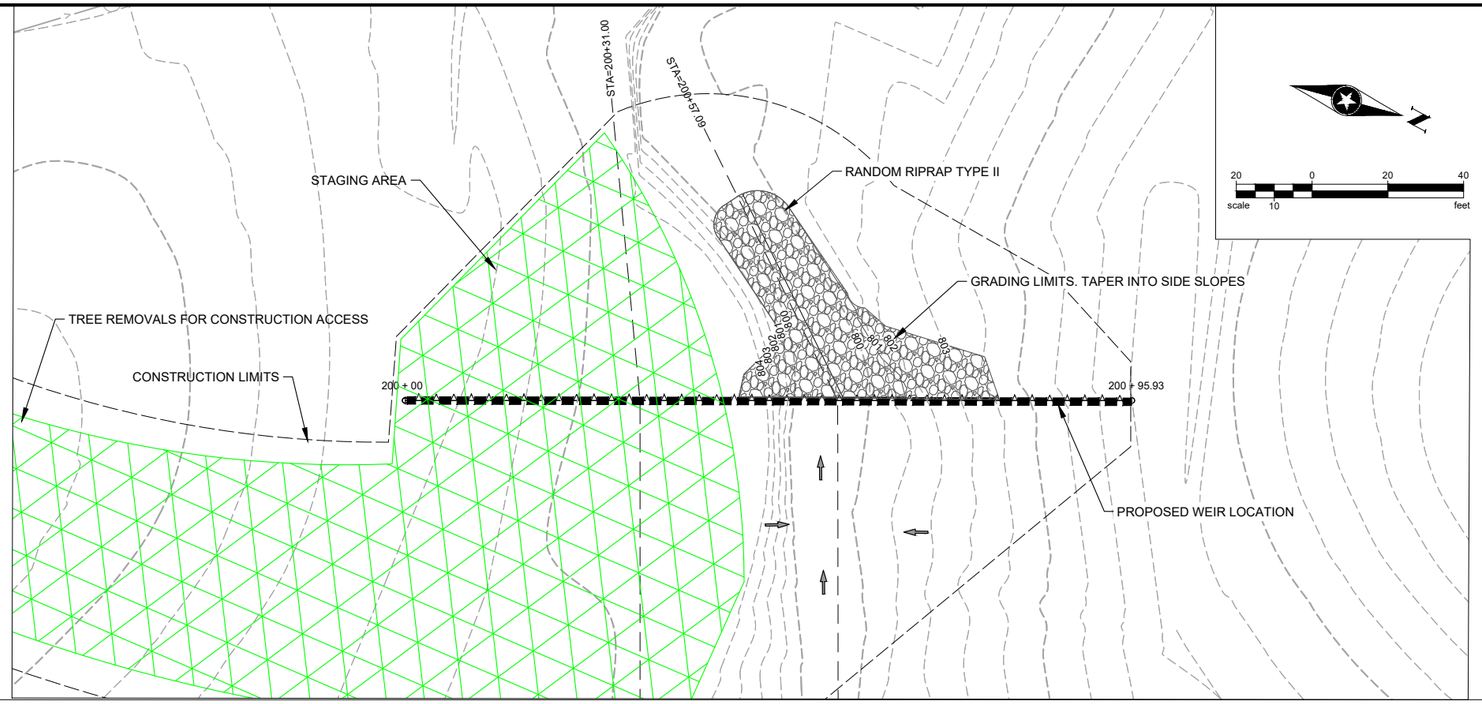
MARK CHRISTENSON, PE (MN)

DATE 9/26/2024 LICENSE NO. 62963

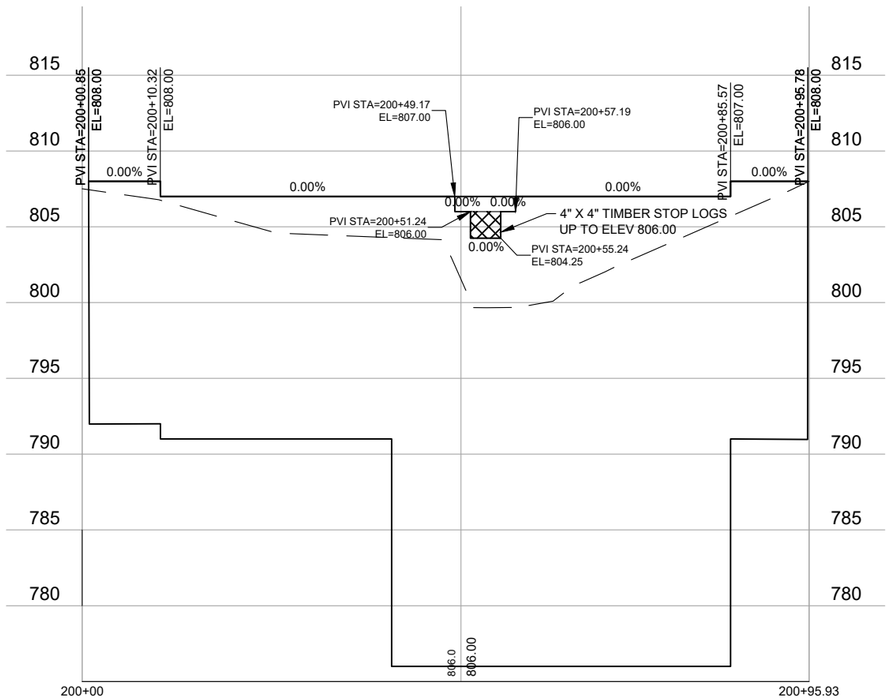
INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT

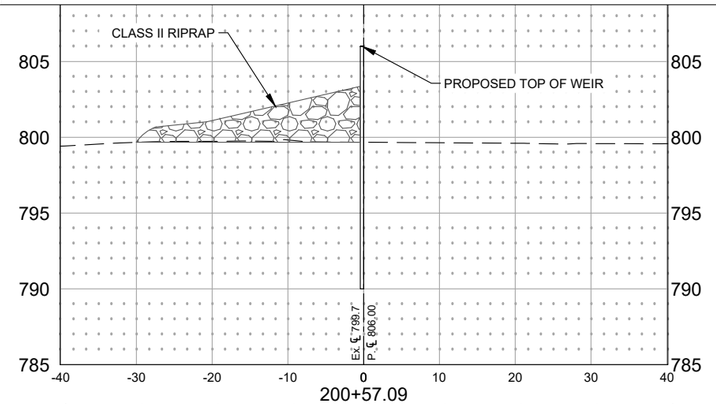
DAKOTA COUNTY, MINNESOTA

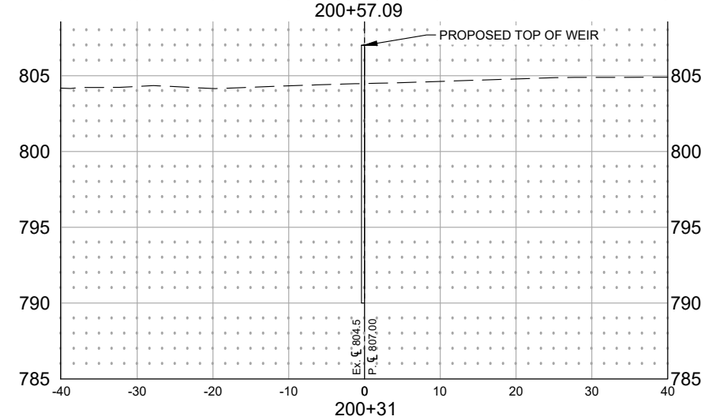
PARK PLACE BASIN GRADING PLAN



WEIR CONSTRUCTION PLAN







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		Rev.#		Plan Revision Issue Description	Date	Rev.#		Sheet Revision Issue Description	Date
SEH Project	IVC_DA167782	#	#		#	#	#		#
Drawn By	SS	#	#		#	#	#		#
Designed By	MC	#	#		#	#	#		#
Checked By	BH	#	#		#	#	#		#

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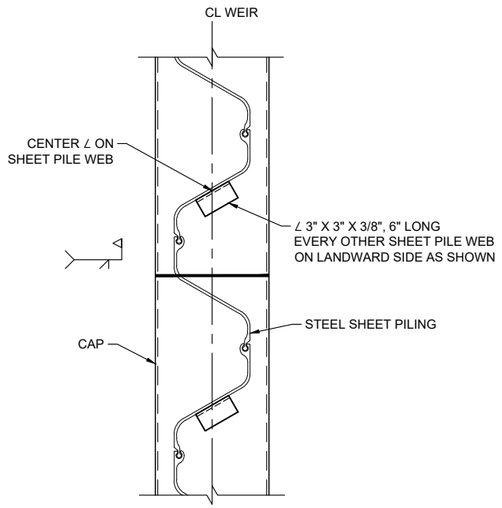
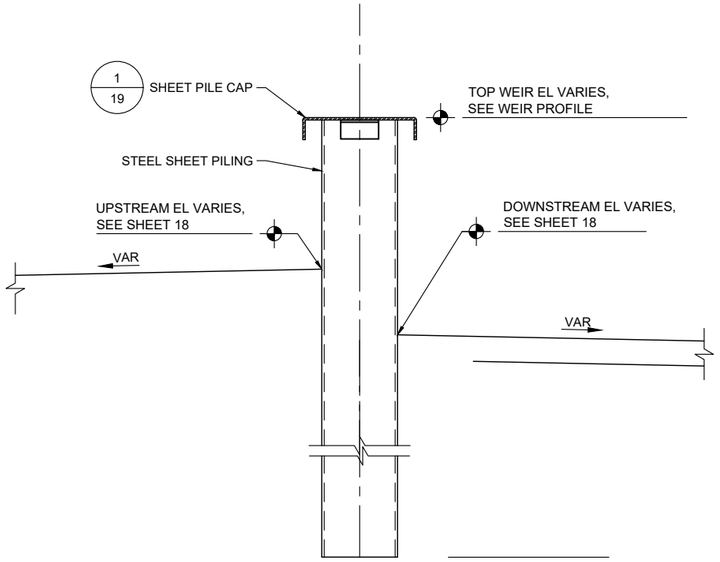
MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

WEIR CONSTRUCTION PLAN

18 of 27

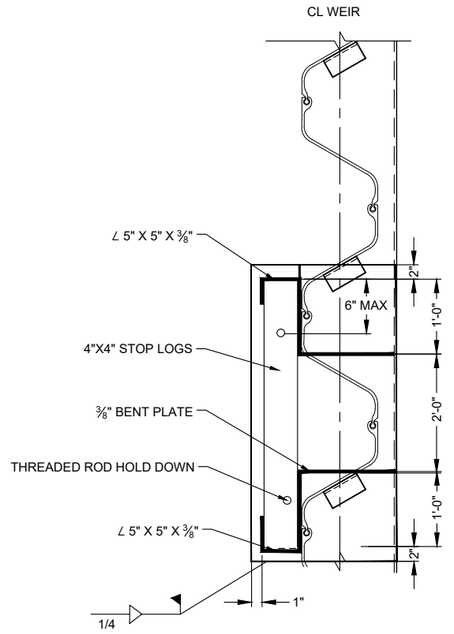


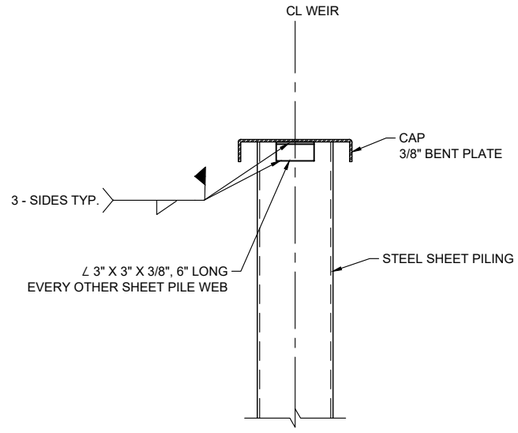


SHEET PILE WEIR TYPICAL SECTION

2
19

NO SCALE





SHEET PILE CAP

1
19

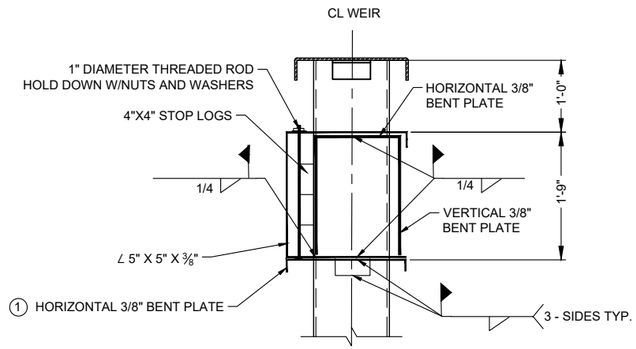
NO SCALE

1. FOR SHEET PILE PROPERTIES, SEE TABLE BELOW AND SPECIFICATION. SHEET PILE TO BE HOT ROLLED MEETING ASTM A328 OR A572 AND THE FOLLOWING:

   MIN WALL THICKNESS 0.375 INCHES

   MIN MOMENT OF INERTIA 187.5 IN⁴/LF

   MIN SECTION MODULUS 31 IN³/LF



(1) USE WIDER BENT PLATE CAP AT OVERFLOW AND EXTEND BEYOND OPENING TO SUPPORT STOP LOGS AS NEEDED.

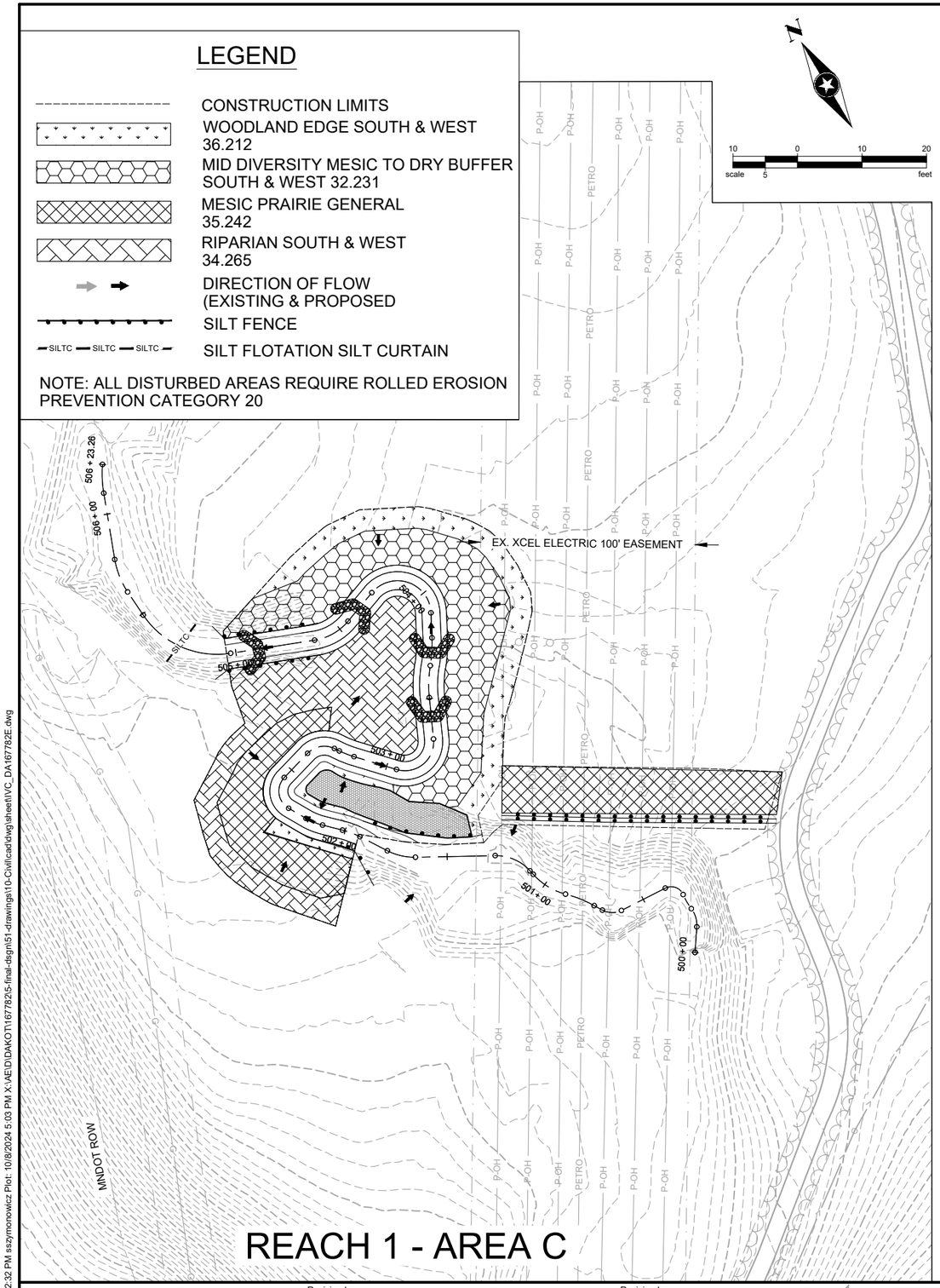
WEIR OVERFLOW AND STOP LOGS

SEH Project	167782	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	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.	INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT	WEIR DETAILS	19
Drawn By	SS	.			.						
Designed By	MC	.			.			MARK CHRISTENSON, PE (MN)	DAKOTA COUNTY, MINNESOTA		of 27
Checked By	BH	.			.			DATE 9/26/2024 LICENSE NO. 62963			

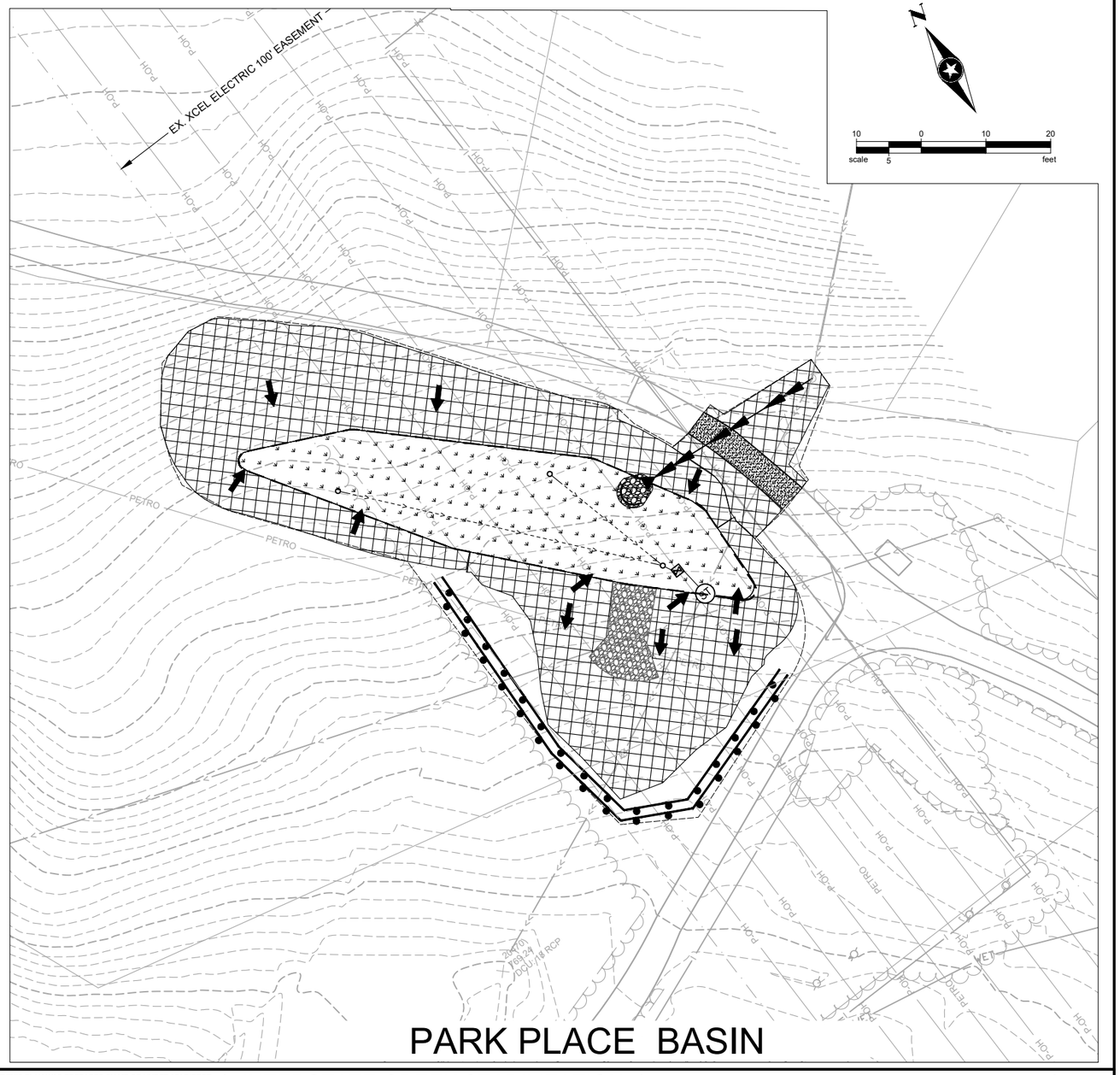
LEGEND

- CONSTRUCTION LIMITS
- WOODLAND EDGE SOUTH & WEST 36.212
- MID DIVERSITY MESIC TO DRY BUFFER SOUTH & WEST 32.231
- MESIC PRAIRIE GENERAL 35.242
- RIPARIAN SOUTH & WEST 34.265
- DIRECTION OF FLOW (EXISTING & PROPOSED
- SILT FENCE
- SILTC SILTC SILTC — SILT FLOTATION SILT CURTAIN

NOTE: ALL DISTURBED AREAS REQUIRE ROLLED EROSION PREVENTION CATEGORY 20



REACH 1 - AREA C



PARK PLACE BASIN

		Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
SEH Project	IVC_DA167782	#	#	#	#	#	#
Drawn By	SS	#	#	#	#	#	#
Designed By	MC	#	#	#	#	#	#
Checked By	BH	#	#	#	#	#	#

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MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

EROSION CONTROL & TURF RESTORATION

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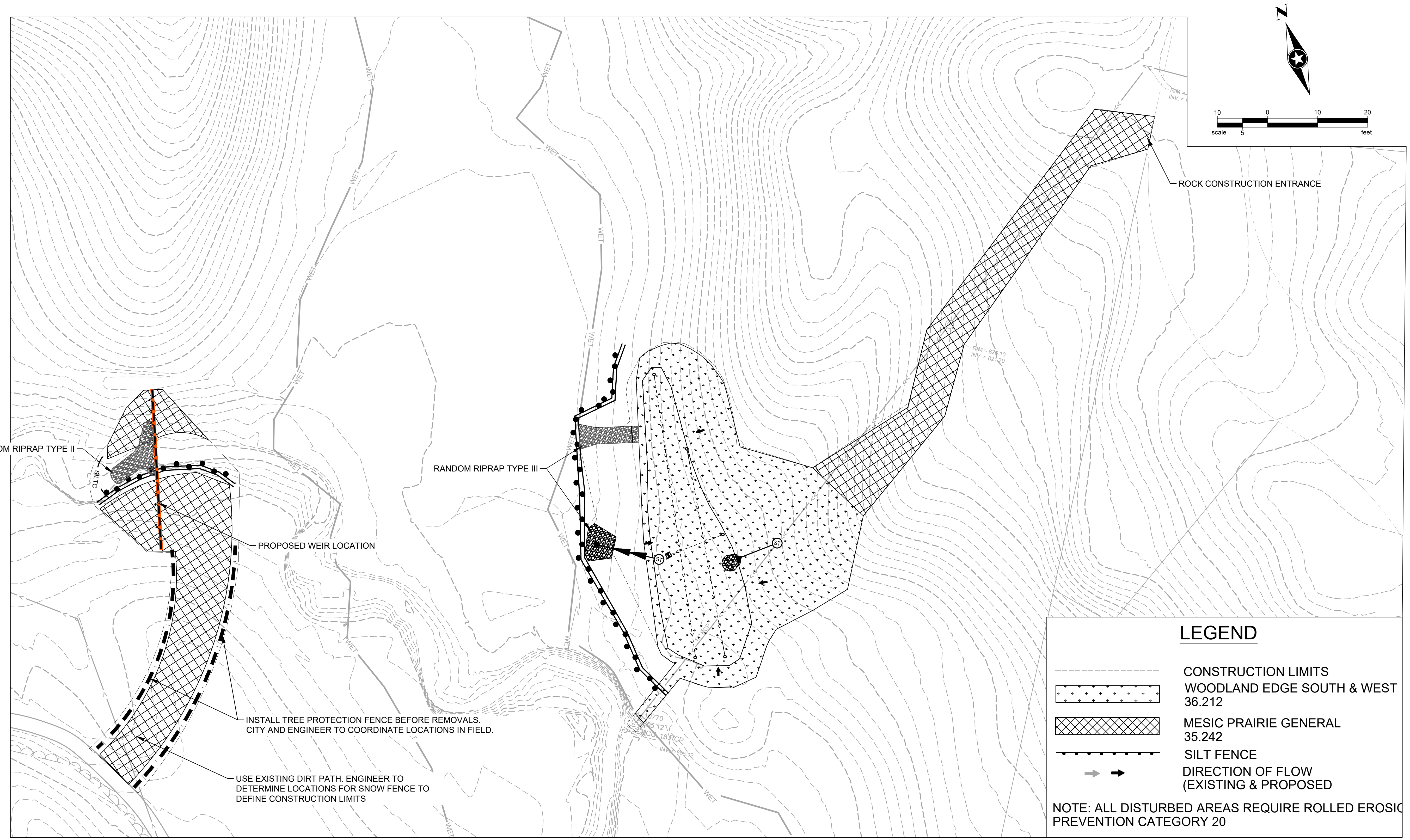


VALLEY PARK BASIN

SWPPP SUMMARY/OVERVIEW:
THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT.

PROJECT INFORMATION:

LOCATION:	MENDOTA HEIGHTS, MN
LATITUDE/LONGITUDE:	44.89 N 93.13 W
PROJECT DESCRIPTION:	STREAM RESTORATION/STABILIZATION, STORMWATER BMPS CREATION, WETLAND WEIR INSTALLATION
SOIL DISTURBING ACTIVITIES:	GRADING, TEMPORARY EXCAVATION

CONTACTS:

OWNER:	Dakota County Forever Wild Parks www.dakotacounty.us
CONTACT:	Mike Adams Greenways Senior Projecr Manager
ADDRESS:	14955 Galaxie Ave, Apple Valley MN 55124
PHONE:	651-554-6538
EMAIL:	mike.adams@co.dakota.mn.us

ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	MARK, CHRISTENSON, PE (MN) Project Manager
PHONE:	Direct 651-765-2938 Mobile 715-222-3377
EMAIL:	mchristenson@sehinc.com
PROJECT NO.:	SEH 167782 (DAKOT)

KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY
THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATORS ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP.

CONTRACTOR	TBD
CONTACT	X
PHONE	X
EMAIL	X

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

GENERAL SWPPP RESPONSIBILITIES:
THE CONTRACTOR SHALL KEEP THE SWPPP, INCLUDING ALL AMENDMENTS AND INSPECTION AND MAINTENANCE RECORDS ON SITE DURING CONSTRUCTION.

THE SWPPP WILL BE AMENDED AS NEEDED AND/OR AS REQUIRED BY PROVISIONS OF THE PERMIT. PERMITTEES MUST AMEND THE SWPPP TO INCLUDE ADDITIONAL OR MODIFIED BMPS AS NECESSARY TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER OR SEASONAL CONDITIONS HAVING A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER. AMENDMENTS WILL BE APPROVED BY BOTH THE OWNER AND CONTRACTOR AND WILL BE ATTACHED OR OTHERWISE INCLUDED WITH THE SWPPP DOCUMENTS. THE SWPPP AMENDMENTS SHALL BE INITIATED, FACILITATED, AND PROCESSED BY THE CONTRACTOR.

ALL SWPPP CHANGES MUST BE DONE BY AN INDIVIDUAL TRAINED IN ACCORDANCE WITH SECTION 21.2. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP MUST INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.

BOTH THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER TERMINATION AND/OR TRANSFER OF THE PERMIT.

LONG TERM OPERATION AND MAINTENANCE
THE OWNER WILL BE RESPONSIBLE OR WILL OTHERWISE IDENTIFY WHO WILL BE RESPONSIBLE FOR THE LONG TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM(S).

THE OWNER WILL PREPARE AND IMPLEMENT A PERMANENT STORMWATER TREATMENT SYSTEM(S) MAINTENANCE PLAN.

TRAINING DOCUMENTATION:

PREPARER/DESIGNER OF SWPPP:	MARK CHRISTENSON
EMPLOYER:	SEH
DATE OBTAINED / REFRESHED	6/1/2024
INSTRUCTOR(S)/ENTITY PROVIDING TRAINING:	UNIVERSITY OF MINNESOTA

CONTENT OF TRAINING AVAILABLE UPON REQUEST.

THE CONTRACTOR (OPERATOR) SHALL ADD TO THE SWPPP TRAINING RECORDS FOR THE FOLLOWING PERSONNEL:

-INDIVIDUALS OVERSEEING THE IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP
-INDIVIDUALS PERFORMING INSPECTIONS
-INDIVIDUALS PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS

TRAINING MUST RELATE TO THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES AND SHALL INCLUDE:

1) DATES OF TRAINING
2) NAME OF INSTRUCTORS
3) CONTENT AND ENTITY PROVIDING TRAINING

THE CONTRACTOR SHALL ENSURE THAT THE INDIVIDUALS ARE TRAINED BY LOCAL, STATE, FEDERAL AGENCIES, PROFESSIONAL ORGANIZATIONS, OR OTHER ENTITIES WITH EXPERTISE IN EROSION PREVENTION, SEDIMENT CONTROL, PERMANENT STORMWATER MANAGEMENT AND THE MINNESOTA NPDES/SDS CONSTRUCTION STORMWATER PERMIT.

PROJECT SUMMARY:

TOTAL DISTURBED AREA:	92174 AC
PRE-CONSTRUCTION IMPERVIOUS AREA:	0.009 AC
POST-CONSTRUCTION IMPERVIOUS AREA:	0.009 AC
IMPERVIOUS AREA ADDED:	0.000 AC

ID	NAME	TYPE	SPECIAL WATER?	IMPAIRED WATER?	CONSTRUCTION RELATED IMPAIRMENT OR SPECIAL WATER CLASSIFICATION	TMDL
19010400	UNNAMED	WETLAND	NO	NO	N/A	N/A
19000599	U.S. LOCK & DAM 2 POOL	PUBLIC WATER BASIN	NO	NO	N/A	N/A
19007900	PICKERAL LAKE	PUBLIC WTER BASIN	NO	NO	N/A	N/A
104280	MINNESOTA RIVER	RIVER	NO	YES	YES	YES
103383	MISSISSIPPI RIVER	RIVER	YES	YES	YES	YES
ADDITIONAL BMPS AND/OR ACTIONS REQUIRED:						
SEE SECTION 23 OF THE PERMIT AND APPLICABLE TMDL WLA'S						

WATERBODY	NO WORK DURING
LAKES	APRIL 1 - JUNE 30
NON-TROUT STREAMS	MARCH 15 - JUNE 15
TROUT STREAMS	SEPTEMBER 1 - APRIL 1

SEE DNR PERMIT FOR MORE INFORMATION

SITE SOIL INFORMATION: (http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx)
(SOIL INFORMATION PROVIDED IS FOR NPDES PERMIT INFORMATION ONLY. SOIL INFORMATION WAS OBTAINED FROM THE USGS WEBSITE. THE CONTRACTOR SHALL NOT RELY ON THIS SOIL INFORMATION FOR CONSTRUCTION PURPOSES.)

PROJECT SPECIFIC NOTES:
XX

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE SWPPP:
PLAN AND PROFILE PLAN SHEETS:
EROSION AND SEDIMENT CONTROL PLAN SHEETS:
TURF ESTABLISHMENT PLAN SHEETS:
STORM SEWER PLAN & PROFILE PLAN SHEETS:
GRADING PLAN SHEETS:
DETAIL PLAN SHEETS:
SWPPP NOTE AND DETAIL SHEETS:
PROJECT SPECIFICATIONS:
PROJECT BID FORM:

SOIL NAME:	HYDROLOGIC CLASSIFICATION:
SPILLVILLE LOAM	B/D
CHETEK SANDY LOAM	B
QUAM SILT LOAM	C/D
UDORTHENTS, WET	NA
HAWICK LOAMY SAND	A
COLO CILT LOAM	B/D
ANTICIPATED RANGE OF PARTICLE SIZES	X

RELATED REVIEWS & PERMITS:
ENVIRONMENTAL, WETLAND, ENDANGERED OR THREATENED SPECIES, ARCHEOLOGICAL, LOCAL, STATE, AND/OF FEDERAL REVIEWS/PERMITS:

AGENCY:	TYPE OF PERMIT:
MNDNR	PUBLIC WATERS PERMIT
USACE	NATIONWIDE 27

IMPLEMENTATION SEQUENCE:
THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SEQUENCE.
THE ENGINEER MAY APPROVE ADJUSTMENTS TO THE SEQUENCE AS NEEDED.

1.	INSTALL ROCK CONSTRUCTION ENTRANCE(S)
2.	INSTALL PERIMETER CONTROL AND STABILIZE DOWN GRADIENT BOUNDARIES
3.	INSTALL INLET PROTECTION ON EXISTING CATCH BASINS
4.	COMPLETE SITE GRADING
5.	INSTALL UTILITIES, STORM SEWER, INLET PROTECTION, CURB & GUTTER, PAVING
6.	COMPLETE FINAL GRADING AND STABILIZE DISTURBED AREAS
7.	AFTER CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ACCUMULATED SEDIMENT, REMOVE BMPS, AND RE-STABILIZE ANY AREAS DISTURBED BY THEIR REMOVAL.
8.	INSTALL FILTRATION MEDIA

EROSION PREVENTION MEASURES AND TIMING:
THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION MEASURES FOR THE PROJECT.

EROSION PREVENTION MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL PLAN AND IMPLEMENT APPROPRIATE CONSTRUCTION PRACTICES AND CONSTRUCTION PHASING TO MINIMIZE EROSION AND RETAIN VEGETATION WHENEVER POSSIBLE.

THE PERMITTEE SHALL DELINEATE AREAS NOT TO BE DISTURBED. PERMITTEE(S) MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES.

THE CONTRACTOR SHALL STABILIZE OF ALL EXPOSED SOILS IMMEDIATELY TO LIMIT SOIL EROSION. IN NO CASE SHALL ANY EXPOSED AREAS, INCLUDING STOCK PILES, HAVE EXPOSED SOILS FOR MORE THAN 14 DAYS WITHOUT PROVIDING TEMPORARY OR PERMANENT STABILIZATION. STABILIZATION MUST BE COMPLETED WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY HAS CEASED. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT CLAY, SILT, OR ORGANIC COMPONENTS DO NOT REQUIRE STABILIZATION.

DRAINAGE PATHS, DITCHES, AND/OR SWALES SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE DITCH/SWALE HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COMPLETE THE STABILIZATION OF ALL EXPOSED SOILS WITHIN 24 HOURS THAT LIE WITHIN 200 FEET OF PUBLIC WATERS PROMULGATED "WORK IN WATER RESTRICTIONS" BY THE MN DNR DURING SPECIFIED FISH SPAWNING TIMES.

THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BMPS AND VELOCITY DISSIPATION DEVICES ALONG CONSTRUCTED STORMWATER CONVEYANCE CHANNELS AND OUTLETS.

THE CONTRACTOR SHALL STABILIZE TEMPORARY AND/OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM PROPERTY EDGE, OR DISCHARGE POINT(S) WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

THE CONTRACTOR SHALL NOT UTILIZE HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES AS A FORM OF STABILIZATION FOR TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.

THE CONTRACTOR SHALL ENSURE PIPE OUTLETS HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITH IN 24 HOURS OF CONNECTION TO A SURFACE WATER.

THE CONTRACTOR SHALL DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. VELOCITY DISSIPATION DEVICES MUST BE USED TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

SEDIMENT CONTROL MEASURES AND TIMING:
THE CONTRACTOR IS RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT.

SEDIMENT CONTROL MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL MEASURES ARE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY IS COMPLETE, PERMITTEE(S) MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL PRACTICES REMOVED OR ADJUSTED FOR SHORT-TERM ACTIVITIES BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE REINSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

THE CONTRACTOR SHALL ENSURE STORM DRAIN INLETS ARE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.

THE CONTRACTOR SHALL PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROL AT THE BASE OF THE STOCKPILES.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROL AROUND ALL STAGING AREAS, BORROW PITS, AND AREAS CONSIDERED ENVIRONMENTALLY SENSITIVE.

THE CONTRACTOR SHALL ENSURE VEHICLE TRACKING BE MINIMIZED WITH EFFECTIVE BMPS. WHERE THE BMPS FAIL TO PREVENT SEDIMENT FROM TRACKING ONTO STREETS THE CONTRACTOR SHALL CONDUCT STREET SWEEPING TO REMOVE ALL TRACKED SEDIMENT.

THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PRACTICES TO MINIMIZE SOIL COMPACTION.

THE CONTRACTOR SHALL ENSURE ALL CONSTRUCTION ACTIVITY REMAIN WITHIN PROJECT LIMITS AND THAT ALL IDENTIFIED RECEIVING WATER BUFFERS ARE MAINTAINED.

RECEIVING WATER	NATURAL BUFFER	IS THE BUFFER BEING ENCROACHED ON?	REASON FOR BUFFER ENCROACHMENT
XX	XX FT		
XX	XX FT		

A 50 FOOT NATURAL BUFFER MUST BE PRESERVED OR PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS IF NATURAL BUFFER IS INFEASIBLE.

THE CONTRACTOR SHALL NOT UTILIZE SEDIMENT CONTROL CHEMICALS ON SITE.

INSPECTION AND MAINTENANCE:
ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF BMPS IS TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

THE PERMITTEE(S) IS RESPONSIBLE FOR COMPLETING SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

THE PERMITTEE(S) SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE PERMITTEE(S) SHALL DOCUMENT A WRITTEN SUMMARY OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES CONDUCTED WITHIN 24 HOURS OF OCCURRENCE. RECORDS OF EACH ACTIVITY SHALL INCLUDE THE FOLLOWING:

-DATE AND TIME OF INSPECTIONS;
-NAME OF PERSON(S) CONDUCTING INSPECTION;
-FINDINGS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS IF NECESSARY;
-CORRECTIVE ACTIONS TAKEN;
-DATE AND AMOUNT OF RAINFALL EVENTS;
-POINTS OF DISCHARGE OBSERVED DURING INSPECTION AND DESCRIPTION OF THE DISCHARGE
-AMENDMENTS MADE TO THE SWPPP.

THE PERMITTEE(S) SHALL SUBMIT A COPY OF THE WRITTEN INSPECTIONS TO THE ENGINEER AND OWNER ON A MONTHLY BASIS. IF MONTHLY INSPECTION REPORTS ARE NOT SUBMITTED, MONTHLY PAYMENTS MAY BE HELD.

THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.

THE CONTRACTOR SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ONSITE. THE CONTRACTOR SHALL DESIGNATE A SPECIFIC ONSITE LOCATION TO KEEP THE RECORDS

THE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY BMP'S, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.

THE CONTRACTOR SHALL INSPECT EROSION PREVENTION AND SEDIMENTATION CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS OF FINDING. THE CONTRACTOR SHALL INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:

PERIMETER CONTROL DEVICES, INCLUDING SILT FENCE SHALL BE REPAIRED, OR REPLACED, WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE DEVICE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS OF DISCOVERY.

TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.

SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE CONTRACTOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. THE CONTRACTOR SHALL RE-STABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL CONSTRAINTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND OBTAIN ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANOR AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

EROSION PREVENTION BMP SUMMARY:
SEE EROSION AND SEDIMENT CONTROL PLAN SHEET AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF EROSION PREVENTION BMPS. SEE BMP NOTES ON SHEET 10

SEDIMENT CONTROL BMP SUMMARY:
SEE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF SEDIMENT CONTROL BMPS.

DEWATERING AND BASIN DRAINING ACTIVITIES:
THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS.

WATER FROM DEWATERING ACTIVITIES SHALL DISCHARGE TO A TEMPORARY AND/OR PERMANENT SEDIMENT BASIN.

IF WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN, IT SHALL BE TREATED WITH OTHER APPROPRIATE BMPS, TO EFFECTIVELY REMOVE SEDIMENT.

DISCHARGE THAT CONTAINS OIL OR GREASE MUST BE TREATED WITH AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE PRIOR TO DISCHARGE.

WATER FROM DEWATERING SHALL BE DISCHARGED IN A MANNER THAN DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS.

BACKWASH WATER USED FOR FILTERING SHALL BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF TREATMENT PROCESS, OR INCORPORATED INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR SHALL REPLACE AND CLEAN FILTER MEDIAS USED IN DEWATERING DEVICES WHEN REQUIRED TO MAINTAIN ADEQUATE FUNCTION.

POLLUTION PREVENTION MANAGEMENT MEASURES:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.

ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL, IN COMPLIANCE WITH MPCA DISPOSAL REQUIREMENTS, OF ALL HAZARDOUS MATERIALS, SOLID WASTE, AND PRODUCTS ON-SITE.

THE CONTRACTOR SHALL ENSURE BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEAK POLLUTANTS ARE KEPT UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS ARE COVERED TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE HAZARDOUS MATERIALS AND TOXIC WASTE IS PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

THE CONTRACTOR SHALL ENSURE ASPHALT SUBSTANCES USED ON-SITE SHALL ARE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL ENSURE PAINT CONTAINERS AND CURING COMPOUNDS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT AND/OR CURING COMPOUNDS SHALL NOT BE DISCHARGED INTO THE STORM SEWER SYSTEM AND SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTION.

THE CONTRACTOR SHALL ENSURE SOLID WASTE BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.

THE CONTRACTOR SHALL ENSURE POTABLE TOILETS ARE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R, CH. 7041.

THE CONTRACTOR SHALL MONITOR ALL VEHICLES ON-SITE FOR LEAKS AND RECEIVE REGULAR PREVENTION MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.

THE CONTRACTOR SHALL ENSURE WASHOUT WASTE MUST CONTACT THE GROUND AND BE PROPERLY DISPOSED OF IN COMPLIANCE WITH MPCA RULES.

THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM WATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

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.

MARK CHRISTENSON, PE (MN)
DATE 9/26/2024 LICENSE NO. 62963

INTERSTATE CREEK STABILIZATION & WATER QUALITY BMP PROJECT
DAKOTA COUNTY, MINNESOTA

STORMWATER POLLUTION PREVENTION PLAN

CONTAMINATION SCREENING CHECKLIST		
This checklist addresses mobilization of contaminants by stormwater infiltration. See Part III.D of the Construction Stormwater permit for additional prohibitions.		
If the site being investigated receives discharges from vehicle fueling or maintenance facilities, STOP - Infiltration is prohibited under the CSW permit		
Box	**Question**	**Criteria or check box**
1	Is the project located in a well head protection area	NO
2	Is the project located in a Drinking Water Supply Management Area (DWSMA)	NO
3	Is the project located in a Karst area	NO
4	If any of the above are checked, what measures will be implemented to ensure protection of drinking water supply	N/A
Assess the site and proposed location of the BMP		
1	Is the site contaminated or does it have a history of soil or groundwater contamination at levels of concern? If Yes, proceed to Box 2; if No, proceed to Box 3.	
2	If the answer to Box 1 is yes, has the contaminated soil or groundwater been remediated to acceptable levels? NOTE: closure letters sent by the MPCA do not assure that a site is not contaminated. Click on the link in Cell E8 for more information. If yes, proceed to Box 3.	If no or unknown, Stop. There is sufficient information to suggest that contaminants may be mobilized by infiltration. For Construction Stormwater permittees, infiltration is prohibited when the infiltration system will be constructed in areas where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater. SEE FOOTNOTE
3	For Boxes 4 through 12, check each box in which the item occurs on the site with the proposed BMP?	
4	Underground storage tank vent(s) or fill port(s)	N/A
5	Monitoring well(s)	N/A
6	Soil pile(s) covered with plastic sheeting or tarp(s)	N/A
7	Staining of soil(s) and/or dead vegetation	N/A
8	Unusual odor(s)	N/A
9	Mismanaged drum(s) or chemical container(s)	N/A
10	Excavation(s) that is/are not backfilled with clean material	N/A
11	Presence of debris that may indicate presence of structure(s) or activity(ies) that could result in contamination	N/A
12	Site is a confirmed stormwater hotspot	N/A
13	Are there any potential sources identified (checked) in Boxes 4 through 12? If Yes, proceed to Box 14; if no proceed to Box 15.	
14	For all potential sources identified (checked) in Boxes 5 through 13, can adequate separation be achieved? If yes, proceed to Box 16.	If no, Stop. There is sufficient information to suggest that contaminants may be mobilized by infiltration. For Construction Stormwater permittees, infiltration is prohibited when the infiltration system will be constructed in areas where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater. SEE FOOTNOTE
Assessing adjacent properties		
15	For Boxes 16 through 25, check each box in which the item occurs within the influence zone of the site property. See Influence zone worksheet (click on tab at bottom of this spreadsheet).	
16	Known groundwater or soil contamination on adjacent property	N/A
17	Underground storage tank vents or fill ports	N/A
18	Monitoring wells	N/A
19	Soil piles covered with plastic sheeting or tarps	N/A
20	Staining of soils and/or dead vegetation	N/A
21	Unusual odors	N/A
22	Mismanaged drums or chemical containers	N/A
23	Excavations that are not backfilled with clean material	N/A
24	Presence of debris that may indicate presence of structures or activities that could result in contamination	N/A
25	Site is a confirmed stormwater hotspot	N/A
26	Are any potential sources identified (checked) in Boxes 16 through 25? If yes, proceed to Box 27	If no, Stop - Infiltration is appropriate
27	For all potential sources identified (checked) in Boxes 16 through 25, can adequate separation be achieved? If no, proceed to Box 28.	If yes, Stop - Infiltration is appropriate
28	If Box 27 is no, Stop. There is sufficient information to suggest that contaminants may be mobilized by infiltration. For Construction Stormwater permittees, infiltration is prohibited when the infiltration system will be constructed in areas where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater. SEE FOOTNOTE	
FOOTNOTE: If infiltration is pursued, additional investigation, such as a Phase 1 or Phase 2 Environmental Site Assessment, is highly recommended. For more information, see Stormwater management guidelines for sites with on-site contamination or Stormwater management guidelines for sites with off-site contamination at http://stormwater.pca.state.mn.us/index.php/Stormwater_infiltration_and_contaminated_soils_and_groundwater.		

PERMIT TERMINATION CONDITIONS:
THE CONTRACTOR IS RESPONSIBLE FOR ENSURING FINAL STABILIZATION OF THE ENTIRE SITE. PERMIT TERMINATION CONDITIONS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

ALL SOIL DISTURBING ACTIVITIES HAVE BEEN COMPLETED.

ALL EXPOSED SOILS HAVE BEEN UNIFORMLY STABILIZED WITH AT LEAST 70% VEGETATION COVERAGE.

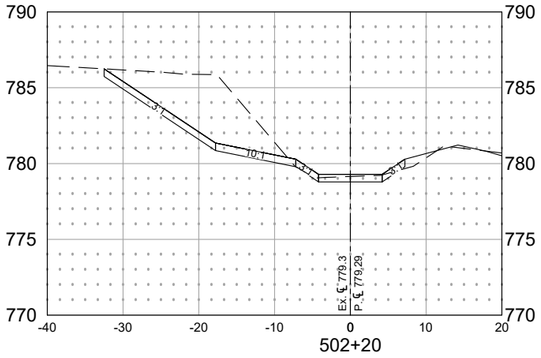
PERMANENT STORM WATER MANAGEMENT SYSTEM(S) ARE CONSTRUCTED AND ARE OPERATING AS DESIGNED.

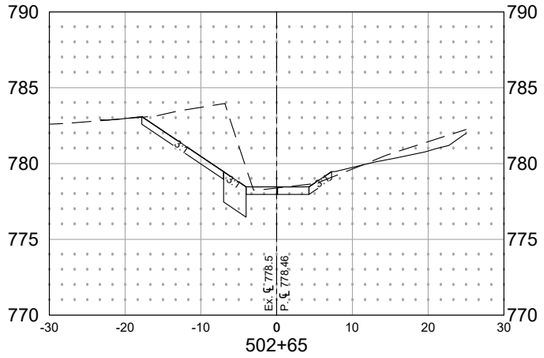
ALL DRAINAGE DITCHES, PONDS, AND ALL STORM WATER CONVEYANCE SYSTEMS HAVE BEEN CLEARED OF SEDIMENT AND STABILIZED WITH PERMANENT COVER TO PRECLUDE EROSION.

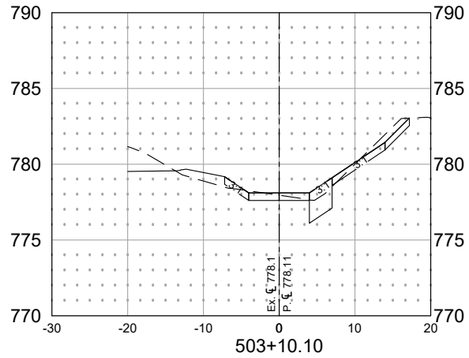
ALL TEMPORARY SYNTHETIC BMPS HAVE BEEN REMOVED AND PROPERLY DISPOSED OF.

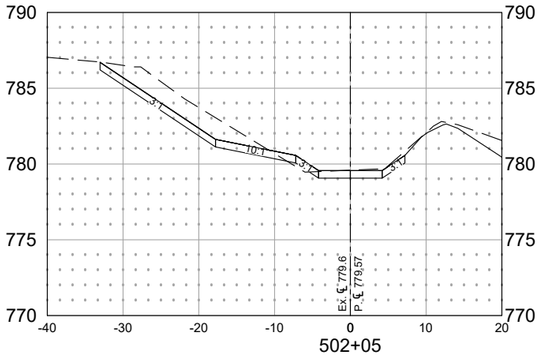
IN RESIDENTIAL CONSTRUCTION, INDIVIDUAL LOTS ARE CONSIDERED FINALLY STABILIZED IF THE STRUCTURE(S) ARE FINISHED AND TEMPORARY EROSION PROTECTION AND DOWNGRADIENT PERIMETER CONTROL HAS BEEN COMPLETED, THE RESIDENCE HAS BEEN SOLD TO THE HOMEOWNER, AND THE HOMEOWNER HAS BEEN PROVIDED A "HOMEOWNER FACT SHEET" BY THE CONTRACTOR.

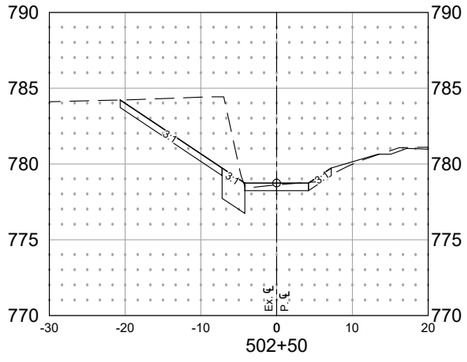
AGRICULTURAL LAND DISTURBED HAS BEEN RETURNED TO ITS PRECONSTRUCTION AGRICULTURAL USE.

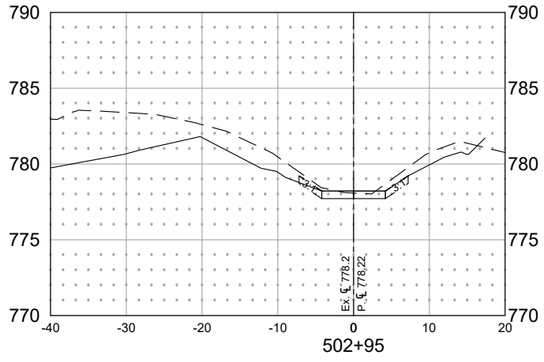


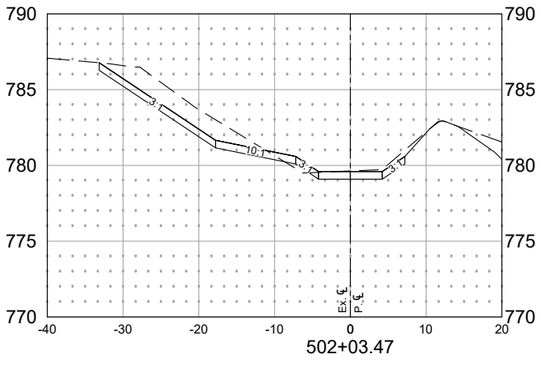


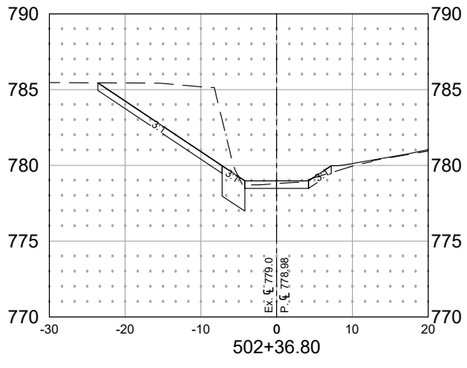


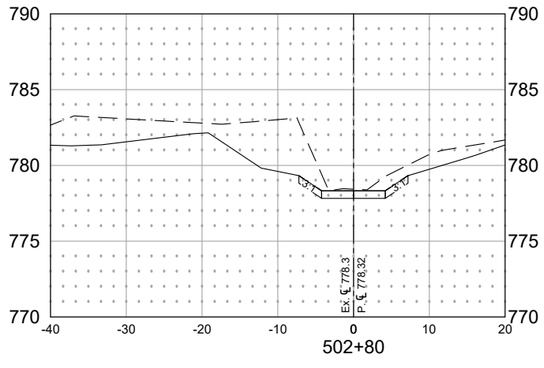












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502+03.47 - 503+10.10

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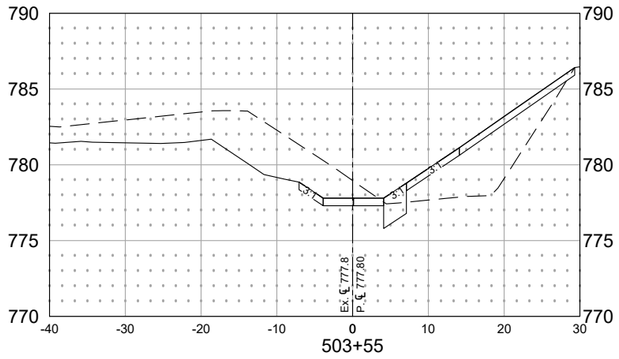

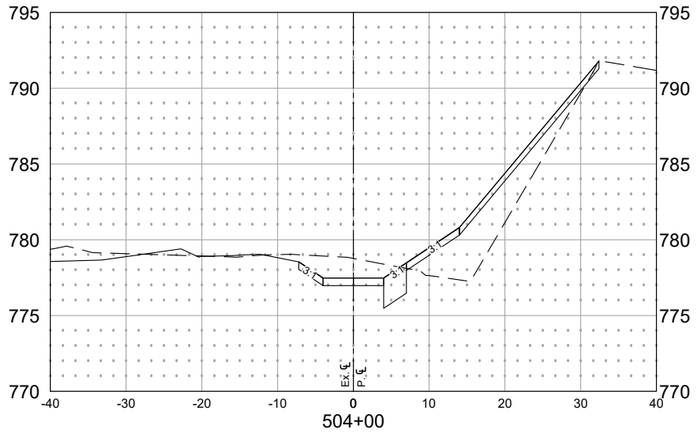

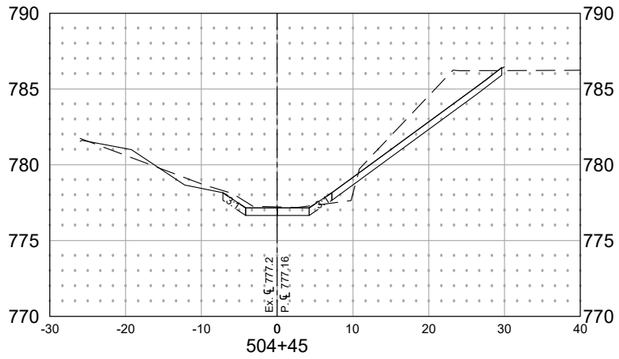

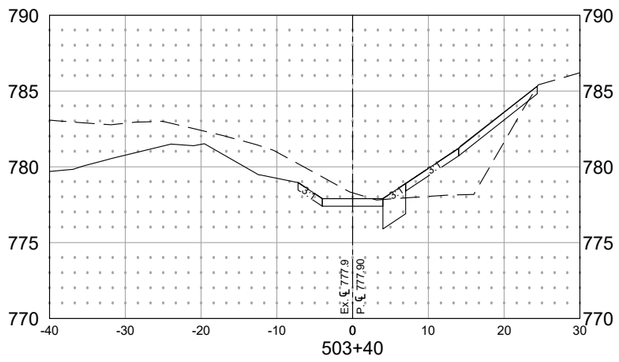

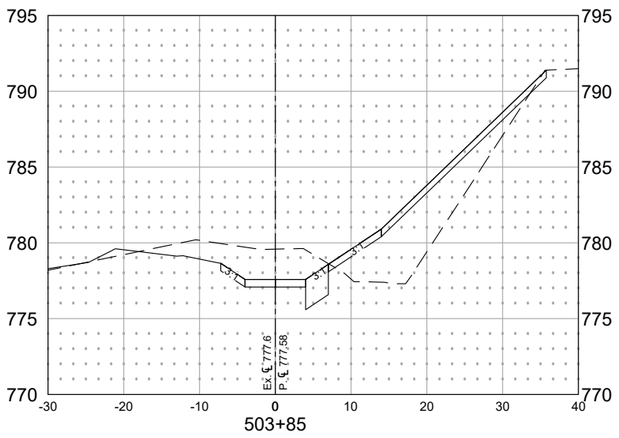

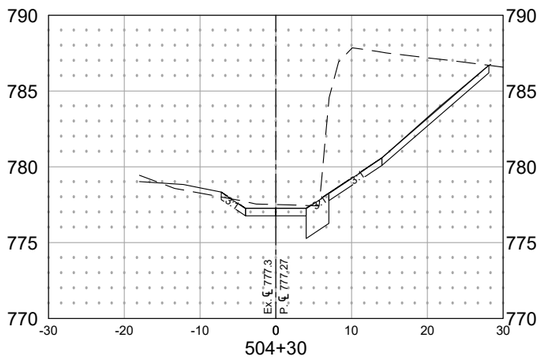

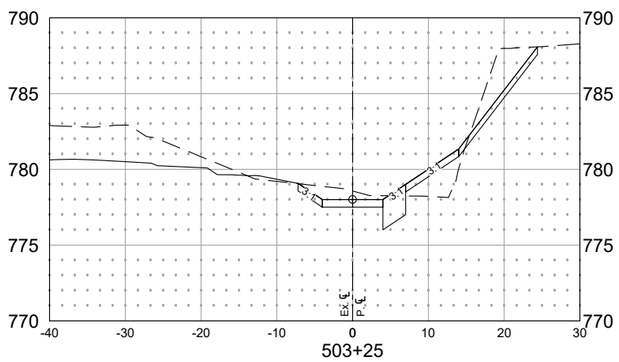

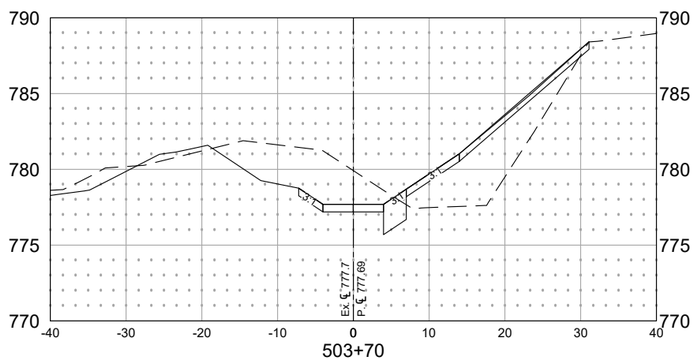

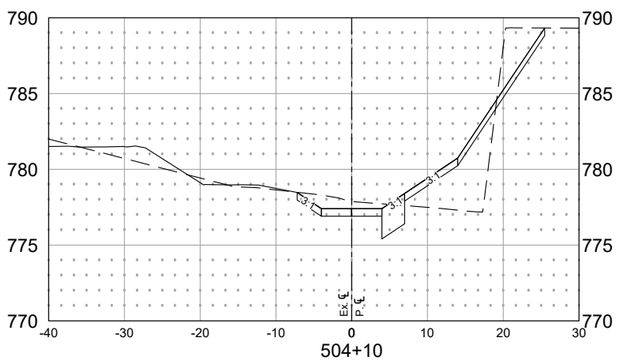

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503+25.00 - 504+45.00

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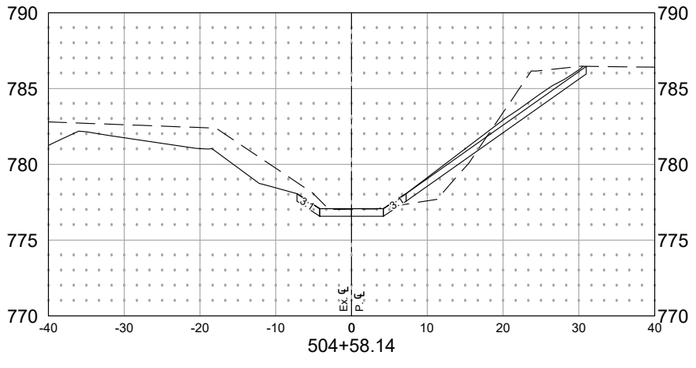

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504+58.14

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