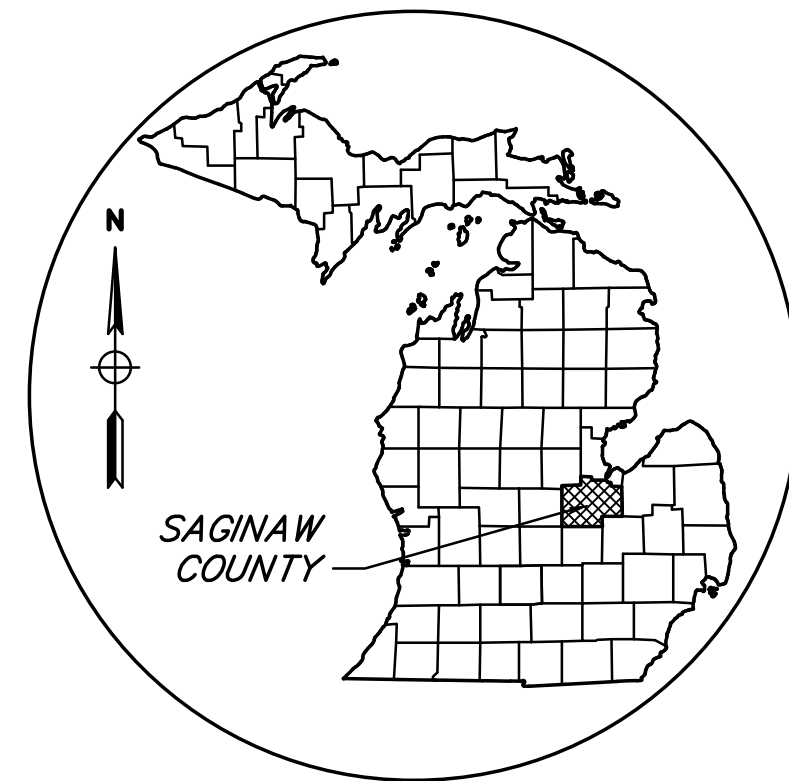


# SAVAGE DRAIN

SAGINAW COUNTY DRAIN COMMISSIONER - BRIAN J. WENDLING



AREA MAP  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE

SECTIONS 02-04, T.10N.-R.04E.,  
ALBEE TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN

## PLAN INDEX

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DR-3971-03	DRAINAGE DISTRICT MAP	3	I & II
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BY	MARK	REVISIONS	DATE

THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.

SAVAGE DRAIN  
SAGINAW COUNTY, MICHIGAN

COVER SHEET



SAGINAW OFFICE  
230 S. Washington Ave.  
Saginaw, MI 48607  
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DE. BY: LDO/POC CH. BY: LDO PROJECT NO. 126999SG2019  
DR. BY: POC APP. BY: NDC

STDS. SHEET 01 OF 12 DIV I/II  
DATE APRIL, 2023 FILE NO. DR-3971-01  
SCALE NOT TO SCALE



**GENERAL NOTES**

NO WORK SHALL BE PERFORMED BEFORE 7:00 AM OR AFTER 7:00 PM MONDAY THROUGH SATURDAY. NO WORK SHALL HAPPEN ON SUNDAYS OR HOLIDAYS. UNLESS AUTHORIZED BY THE OWNER.

CONTRACTOR SHALL NOTIFY ENGINEER 72 HOURS PRIOR TO START OF CONSTRUCTION, CONSTRUCTION STAKING AND INSPECTION.

CONTRACTOR SHALL MAINTAIN ACCESS FOR MAIL DELIVERY AND GARBAGE PICKUP AT ALL PARCELS. IF THESE SERVICES CANNOT BE PERFORMED CONTRACTOR IS RESPONSIBLE FOR TAKING THE NECESSARY MEASURES TO CARRY THEM OUT.

CONTRACTOR TO PROVIDE DUST CONTROL AND SWEEP ROADS DAILY.

ALL EXCAVATED MATERIAL NOT TO BE REUSED OR DISPOSED OF ON SITE SHALL BE REMOVED FROM SITE. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSING MATERIALS ACCORDING TO LOCAL AND STATE REQUIREMENTS.

ALL WORK SHALL BE WITHIN DRAIN RIGHT-OF-WAY. WORK OUTSIDE RIGHT-OF-WAY MUST BE AGREED UPON BY LANDOWNER AND ENGINEER WITH A SIGNED LANDOWNER AGREEMENT PRIOR TO WORK ON THAT PROPERTY.

CONTRACTOR TO RESTORE INCIDENTAL DAMAGES ON THE PROJECT AS DIRECTED BY OWNER AND ENGINEER AT CONTRACTORS EXPENSE.

ALL DRAIN SIDE SLOPES SHALL BE 2H:1V OR FLATTER, UNLESS SPECIFIED OTHERWISE.

THE WORDS "RIGHT SIDE" OR "LEFT SIDE" IMPLY A REFERENCE TO THE DRAIN FACING UPSTREAM.

CLEAR AND GRUB TREES AS INDICATED FOR CONSTRUCTION WITHIN DRAIN RIGHT-OF-WAY. REMOVE ALL TREES, STUMPS AND DEBRIS FROM SITE.

REMOVE EXISTING FENCES, LANDSCAPING, AND OTHER STRUCTURES IN DRAIN RIGHT-OF-WAY AS NEEDED FOR CONSTRUCTION. REINSTALLATION OF FENCES MUST BE COORDINATED WITH THE LAND OWNER AT THE LAND OWNER'S EXPENSE, UNLESS STATED OTHERWISE IN THE PLANS. COST TO BE INCLUDED IN SITE CLEARING.

**UNDERGROUND UTILITIES/MISS DIG**

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1-800-482-7171 OR 811 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THIS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE EXISTING UTILITIES ON THESE DRAWINGS HAVE BEEN SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER AS TO WHERE POSSIBLE CONFLICT EXISTS.

ALL CONSTRUCTION UNDER EXISTING UTILITIES, INCLUDING HOUSE SERVICES, SHALL BE COMPLETELY BACKFILLED WITH SAND, IN 12" LAYERS, AND COMPACTED TO NOT LESS THAN 95% OF THE MAXIMUM UNIT WEIGHT.

ANY UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE SUPPORTED, PER THE SPECIFICATIONS OF THE INDIVIDUAL UTILITY COMPANY CLAIMING OWNERSHIP OF THE UTILITY.

**SOIL EROSION AND SEDIMENTATION CONTROL MEASURES**

APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH-DISTURBING ACTIVITIES. PLACE TURF ESTABLISHMENT ITEMS AS SOON AS POSSIBLE ON POTENTIAL ERODABLE SLOPES AS DIRECTED BY THE ENGINEER. CRITICAL DITCH GRADES SHALL BE PROTECTED WITH EITHER SOD OR SEED/MULCH OR MULCH BLANKET AS DIRECTED BY THE ENGINEER.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE AND MAINTAINED UNTIL THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MEASURES SHALL ONLY BE PAID FOR ONCE.

ALL CATCHBASINS AND SEDIMENTATION TRAP/BASIN SHALL BE CLEANED OUT UPON COMPLETION OF THE PROJECT.

CONTRACTOR SHALL CONFORM TO SOIL EROSION AND SEDIMENTATION CONTROL ACT, PART 91 OF ACT 451 OF 1994.

**SOIL EROSION SEDIMENT CONTROL**

GROUNDWATER SEEPAGE AND STORMWATER RUNOFF IS ANTICIPATED TO BE A FACTOR DURING CONSTRUCTION. WATER CONTROL AND DEWATERING METHODS MAY BE NECESSARY. ALL WATER CONTROL AND DEWATERING REQUIRED IS THE CONTRACTOR'S RESPONSIBILITY AND COST SHALL BE INCLUDED IN THE PAY ITEM BEING INSTALLED. THE METHODS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

ALL DEWATERING REQUIRED FOR CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR UTILITY BEING INSTALLED.

ALL RIPRAP MATERIAL SHALL BE APPROVED BY THE ENGINEER UNLESS OTHERWISE DIRECTED. SUBMIT SAMPLES TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. OWNER AND ENGINEER RESERVES THE RIGHT TO REJECT ANY AND ALL RIPRAP.

CONTRACTORS SHALL FINISH GRADE, SEED, FERTILIZE, AND MULCH DAILY ON ALL DISTURBED AREAS AS DESCRIBED IN THE SPECIFICATIONS.

HAND SEED, FERTILIZE, AND MULCH DITCH BANKS AND SPOILS DAILY.

ALL DISTURBED WETLAND AREA SHALL BE SEEDED WITH NATIVE WETLAND SEED AS SPECIFIED BY ENGINEER.

**PROPERTY OWNERS**

PROPERTY OWNERS' NAMES AND PARCEL LINES, WHERE SHOWN, ARE FOR INFORMATION ONLY, AND THEIR ACCURACY IS NOT GUARANTEED.

PROPERTY CORNER MONUMENT VISIBILITY OBSERVED ON SITE SHALL BE PROTECTED. DAMAGED PROPERTY CORNER WILL BE RESET AT CONTRACTORS EXPENSE.

**ADJUSTING MONUMENT BOXES**

ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED, WHETHER SHOWN OR NOT. IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES, AS REQUIRED.

**TRAFFIC**

THE CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES. SIGNAGE MUST BE IN ACCORDANCE WITH THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND SHALL BE COORDINATED WITH THE ENGINEER AND GOVERNING ROAD AGENCY. PERMITS MAY BE REQUIRED.

**PERMITS**

PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY THE APPROPRIATE AGENCIES.

CONSTRUCTION PROCEDURES SHALL CONFORM TO THE REQUIREMENTS OF THE APPROPRIATE AGENCIES.

**GENERAL NOTES**

**ROADS, DRIVEWAYS AND SIDEWALKS**  
COORDINATE DRIVEWAY CLOSURES WITH LANDOWNERS A MINIMUM OF ONE DAY IN ADVANCE.

ALL DRIVING SURFACES ARE TO BE RESTORED TO IN KIND DEPTH AND MATERIAL UNLESS OTHERWISE SPECIFIED ON THE PLANS. COST TO BE INCLUDED IN THE BID PRICE FOR WORK PERTAINING TO EACH CROSSING.

PROTECT ALL BITUMINOUS ROADS NOT SPECIFIED TO BE REMOVED DURING CONSTRUCTION. REPAIR ANY UNAUTHORIZED DAMAGE AT CONTRACTORS EXPENSE.

BROKEN CONCRETE AND DEBRIS SHALL BE CONSIDERED WASTE AND SHALL BE DISPOSED OF BY THE CONTRACTOR OFF SITE. COST SHALL BE INCLUDED IN THE OTHER PAY ITEMS OF THE PROJECT.

CONTRACTOR SHALL REMOVE ALL STREET AND TRAFFIC SIGNAGE AS NECESSARY FOR CONSTRUCTION. ALL COSTS TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE CLEARING. REPLACE SIGNAGE AS CONSTRUCTION ALLOWS. COST TO BE INCLUDED IN THE UNIT PRICE FOR CLEANUP AND RESTORATION.

CONTRACTOR SHALL COORDINATE LOCATION OF ANY ACCESS ROADS WITH THE LANDOWNER AND THE ENGINEER. ANY ACCESS ROAD SHALL BE REPAIRED TO THE LANDOWNERS AND OWNERS APPROVAL.

ALL WORK WITHIN THE ROAD RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS OF THE COUNTY ROAD COMMISSION, CITY, VILLAGE, AND MDOT.

**UTILITIES**

ELECTRIC, GAS AND TELEPHONE UTILITIES LOCATED IN THE ROAD AND DRAIN RIGHT-OF-WAYS REQUIRING RELOCATION WILL BE RELOCATED BY OTHERS.

WHEN RELOCATING UTILITIES AS REQUIRED FOR CONSTRUCTION OF DRAIN IMPROVEMENTS A MINIMUM CLEARANCE OF 36" BELOW THE BOTTOM OF PROPOSED DRAIN CROSSING MUST BE ACHIEVED UNLESS OTHERWISE SPECIFIED.

ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

GRADING AROUND MANHOLES/CATCHBASINS, FLARED END SECTIONS, AND OTHER INLETS DETERMINED BY THE ENGINEER SHALL BE SMOOTH AND SHAPED TO PROVIDE POSITIVE DRAINAGE INTO THE INLETS.

ALL CORRUGATED METAL PIPE SHALL BE TYPE II ALUMINIZED UNLESS OTHERWISE NOTED.

DEMOLISH EXISTING STRUCTURE(S) AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. COST TO BE INCLUDED WITH THE ITEM BEING INSTALLED AS DIRECTED BY OWNER/ENGINEER.

**PROJECT NOTES**

1. THE PROJECT IS BEING BID IN TWO (2) DIVISIONS. CONTRACTORS WILL BE REQUIRED TO COORDINATE AND WORK TOGETHER AS NECESSARY TO COMPLETE THE PROJECT.
2. DIVISION I HAS TWO DESIGN OPTIONS - A AND B. CONTRACTORS MAY BID ON EITHER OR BOTH OPTIONS. THE OWNER WILL SELECT THE DESIRED OPTION FOLLOWING THE BID AND AWARD THE CONTRACT ACCORDINGLY.
3. DIVISION II MAY OR MAY NOT BE COMPLETED BASED ON THE OUTCOME OF THE DIVISION I BIDS.

**LINE TYPE LEGEND**

	- EXISTING ROAD CENTERLINE
	- EXISTING WATER MAIN
	- EXISTING SANITARY SEWER OR FORCEMAIN
	- EXISTING STORM SEWER
	- EXISTING TELEPHONE
	- EXISTING GAS MAIN
	- EXISTING ELECTRIC
	- EXISTING FIBER OPTIC
	- EXISTING CABLE/TV
	- PROPOSED UTILITY
	- EXISTING CURB & GUTTER
	- PROPOSED CURB & GUTTER
	- FENCE LINE
	- OVERHEAD UTILITY
	- RAILROAD TRACKS
	- STATION LINE
	- LIMITS OF RIGHT OF WAY
	- EASEMENT
	- SILT FENCE
	- REVERSE PAN CURB & GUTTER
	- TREE LINE
	- EXISTING CONTOURS
	- PROPOSED CONTOURS

**ABBREVIATIONS**

- BC = BACK OF CURB
- BM = BENCH MARK
- CB = CATCH BASIN
- C/C = CENTER TO CENTER
- CJ = CONSTRUCTION JOINT
- CL = CENTERLINE
- CMP = CORRUGATED METAL PIPE
- CONC = CONCRETE
- CORR = CORRUGATED
- CSP = CORRUGATED STEEL PIPE
- DI = DUCTILE IRON PIPE
- EF = EACH FACE
- ELEC = ELECTRIC
- EL OR ELEV = ELEVATION
- EOM = EDGE OF METAL
- EOP = EDGE OF PAVEMENT
- EQ/SP = EQUALLY SPACED
- ESMT = EASEMENT
- EW = EACH WAY
- EX OR EXIST = EXISTING
- FF = FINISH FLOOR
- FG = FINISH GROUND
- FL = FLOW LINE
- FS = FINISH SURFACE
- FT = FEET
- GALV = GALVANIZED
- G = GUTTER
- GA = GAUGE
- HDG = HOT DIP GALVANIZED
- HDPE = HIGH DENSITY POLYETHYLENE
- HMA = HOT MIX ASPHALT
- HOR = HORIZONTAL
- HP = HIGH POINT
- HYD = HYDRANT
- INV = INVERT
- LP = LOW POINT
- OC = ON CENTER
- OH = OVERHEAD
- MH = MANHOLE
- MIN = MINIMUM
- MON = MONUMENT
- NFL = NOT FIELD LOCATED
- N/S = NOT TO SCALE
- PROP = PROPOSED
- PVC = POLYVINYL CHLORIDE
- RCP = REINFORCED CONCRETE PIPE
- ROW = RIGHT OF WAY
- SAN = SANITARY
- SB = SOIL BORING
- SS = STAINLESS STEEL
- STA = STATION
- STM = STORM
- SWR = SEWER
- T/B = TOP AND BOTTOM
- TC = TOP OF CURB
- TOS = TOP OF BANK
- TBS = TOE OF SLOPE
- TELE = TELEPHONE
- TRW = TOP OF RETAINING WALL
- TW = TOP OF WALK
- UNO = UNLESS NOTED OTHERWISE
- WM = WATER MAIN
- WS = WATER SURFACE ELEVATION

**SYMBOL LEGEND**

**EXISTING SYMBOLS**

	- MANHOLE		- SPRINKLER
	- CATCH BASIN		- RAILROAD SIGNAL
	- CURB CATCH BASIN		- ANTENNA
	- FIRE HYDRANT		- SATELLITE DISH
	- GAS VALVE		- AIR CONDITIONING UNIT
	- WATER VALVE		- SOIL BORING
	- TELEPHONE PEDESTAL		- BENCH MARK
	- POWER POLE		- FOUND SURVEY CORNER
	- TELEPHONE POLE		- SET 1/2" IRON ROD
	- POWER AND TELEPHONE POLE		- 1/4 SECTION CORNER
	- LIGHT POLE		- BREAK IN LINE
	- GUY ANCHOR AND POLE		- EXISTING SIGN-1 POST
	- MAIL BOX		- EXISTING SIGN-2 POST
	- WATER METER		- STUMP
	- TELEPHONE MANHOLE		- WETLANDS
	- ELECTRIC MANHOLE		- PINE
	- MONITORING WELL		- BUSH
	- HAND HOLE		- TREE
	- TRANSFORMER		
	- ELECTRICAL PEDESTAL		
	- BARRIER FREE PARKING		

**PROPOSED SYMBOLS**

	- MANHOLE
	- CATCHBASIN
	- FIRE HYDRANT
	- WATER VALVE
	- BARRIER FREE PARKING
	- LIGHT POLES
	- DRAINAGE FLOW
	- SPOT ELEVATION LABELS
	G = GUTTER
	TW = WALK
	TC = TOP OF CURB
	FS = FINISH SURFACE

**WATERSHED LINE TYPE LEGEND**

	- EXISTING PROJECT DRAIN
	- EXISTING DRAINS (OTHER)
	- EXISTING DRAINAGE DISTRICT LINE
	- PROPOSED DRAINAGE DISTRICT LINE
	- PROPOSED SUB-DRAINAGE DISTRICT LINE

**MICHIGAN ASSOCIATION OF COUNTY DRAIN COMMISSIONERS SOIL EROSION AND SEDIMENTATION CONTROL KEYING SYSTEM**

KEY	SESC MEASURE	SYMBOL	WHERE USED
1	SEEDING		When bare soil is exposed, temporarily or permanently, to erosive force from wind and or water on flat areas, mid slopes, grassed waterways and spillways, diversion ditches and dikes, barrow and stockpile areas, and spoil piles.
2	MULCH		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, barrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive force from wind or water.
15	RIPRAP		Riprap and toe of slope protection is used in areas where velocities are causing drain bank erosion and are too high to stabilize using other methods
16	RIPRAP TOE OF SLOPE		Along drain banks, shorelines, or where concentrated flows occur. Slows velocity, reduces erosion and sediment load.
19	ARMORED SPILLWAY		When concentrated flow must be conveyed down a drain bank or slope or discharge into another drain. Where slope failure or channel scour is observed or is likely to occur, or when runoff must be redirected around work in the drain.
23	OUTFALL STABILIZATION		In the stream or drain bank usually above the ordinary high water marker where an enclosed drain or tile discharges to an open drain.
26	DUST CONTROL		As a temporary measure on exposed and unstabilized areas that must be protected from wind or water erosion.
A	DEBRIS REMOVAL		
B	SEDIMENT REMOVAL		

DETAILED DRAWINGS AND SPECIFICATIONS ARE LOCATED IN THE MICHIGAN ASSOCIATION OF COUNTY DRAIN COMMISSIONERS SOIL EROSION AND SEDIMENTATION CONTROL AUTHORIZED PUBLIC AGENCY PROCEDURES MANUAL.

SYMBOLY FOR INSERTION INTO CONSTRUCTION DRAWINGS:

= PERMANENT MEASURE

= TEMPORARY MEASURE

**CONTACTS**

SAGINAW COUNTY PUBLIC WORKS COMMISSIONER  
BRIAN WENDLING  
111 S MICHIGAN AVENUE  
SAGINAW, MI 48602  
(989) 790-5258

OWNER

SPICER GROUP, INC.  
LUKE O'BRIEN, P.E.  
230 S. WASHINGTON AVENUE  
SAGINAW, MI 48605  
(989) 280-2109

ENGINEER

SAGINAW COUNTY ROAD COMMISSION  
DAN ARMENTROUT, P.E.  
3020 SHERIDAN AVENUE  
SAGINAW, MI 48601  
(989) 752-6140

ROAD COMMISSION

CONSUMERS ENERGY  
NATHAN GOFFNET  
2400 WEISS STREET  
SAGINAW, MI 48602  
(989) 791-5869

ELECTRIC

PROJECT DATUM		
HORIZONTAL:	STATE PLANE SOUTH M '83 2113	
VERTICAL:	NORTH AMERICAN VERTICAL DATUM '88	
BY	MARK	REVISIONS
		DATE

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SAVAGE DRAIN  
SAGINAW COUNTY, MICHIGAN

**CONTACTS, GENERAL NOTES, LINE TYPES, LEGEND AND SESC MEASURE LEGEND**



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DE. BY: LDO/POC CH. BY: LDO PROJECT NO.  
DR. BY: POC APP. BY: NDC 126999SG2019

STDS. SHEET 02 OF 12 DIV  
DATE APRIL 2023 FILE NO. DR-3971-02 I/II  
SCALE NOT TO SCALE

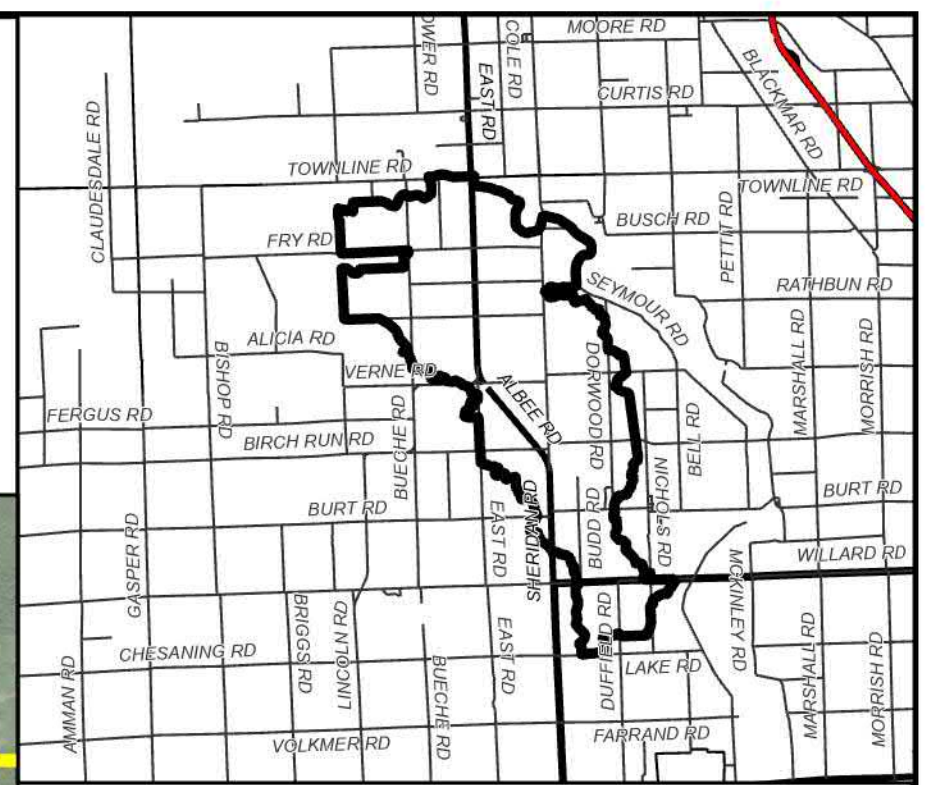
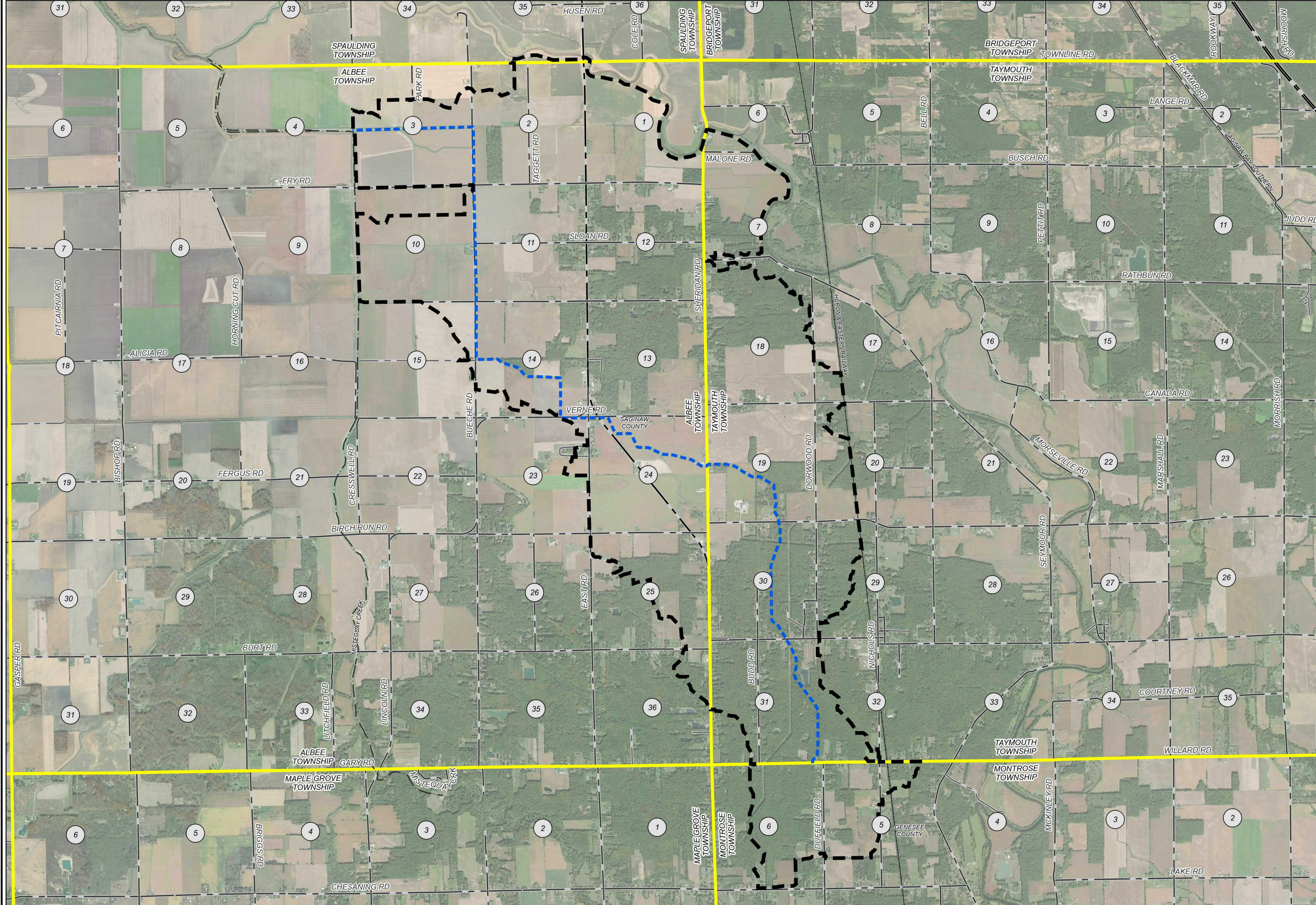




# SAVAGE DRAIN

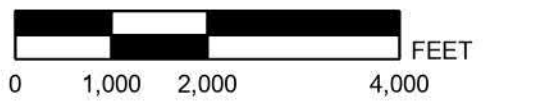
## SAGINAW COUNTY, MICHIGAN

BRIAN J. WENDLING. - SAGINAW COUNTY PUBLIC WORKS COMMISSIONER



AREA MAP  
NOT TO SCALE

N



### LEGEND

- APPROXIMATE DRAIN LOCATION
- APPROXIMATE LOCATION OF OUTLET WATERCOURSE
- DRAINAGE DISTRICT BOUNDARY
- STATE ROADS
- COUNTY ROADS
- LOCAL ROADS
- MUNICIPALITY BOUNDARY

BY	MARK	REVISIONS	DATE
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SAGINAW COUNTY, MICHIGAN

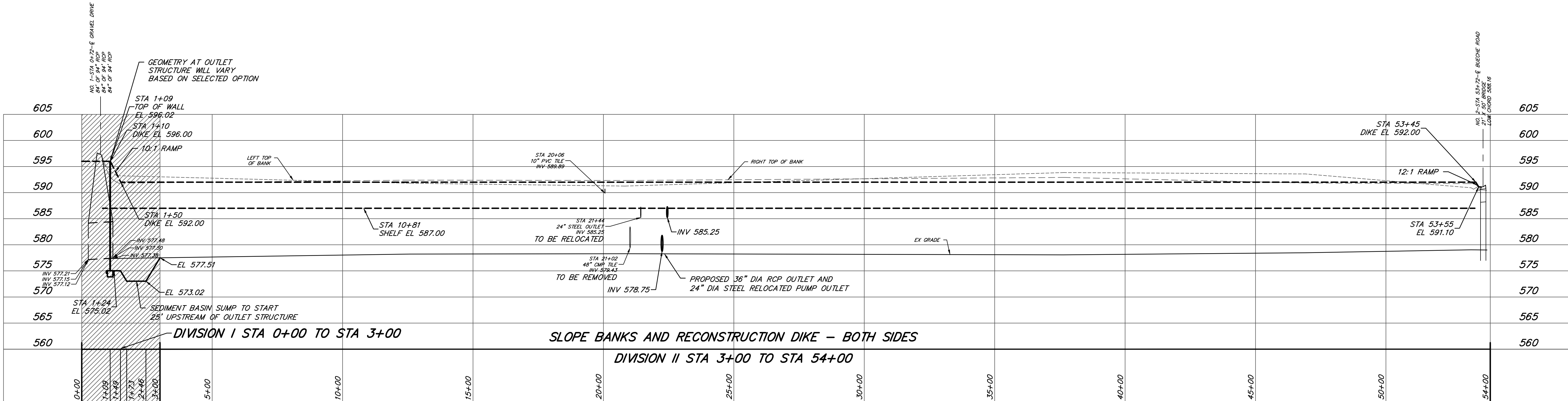
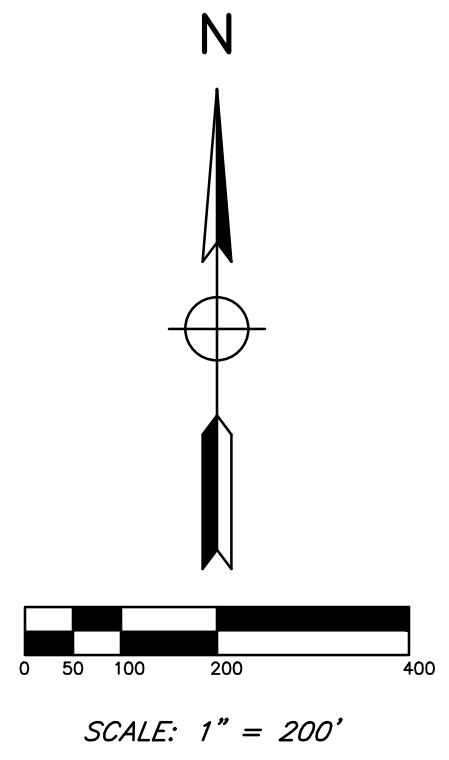
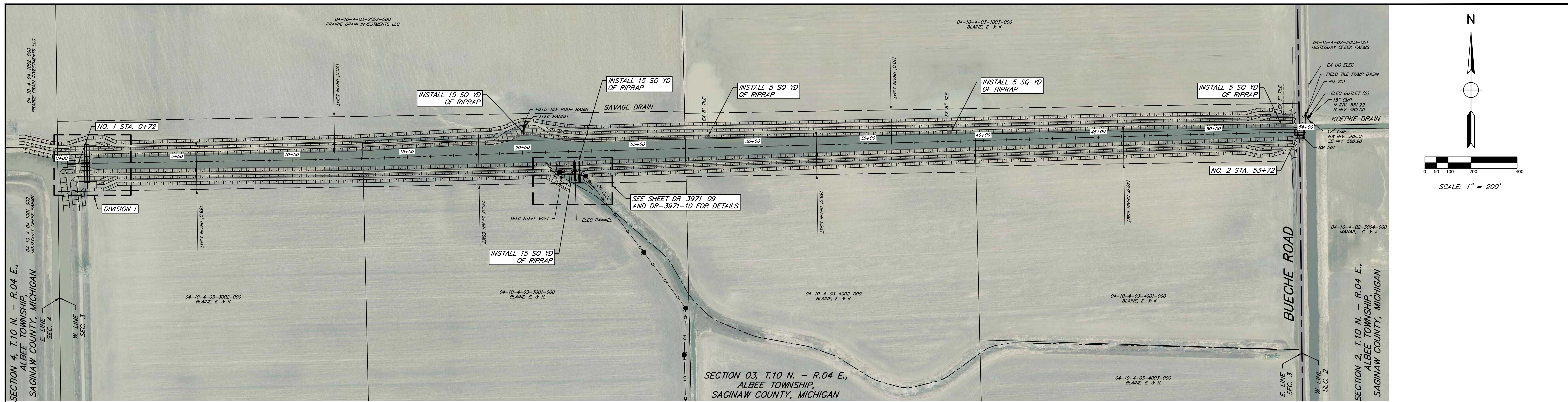
### DRAINAGE DISTRICT MAP



DE. BY: LDO/POC	CH. BY: NDC	PROJECT NO. 126999SG2019
DR. BY: MKB	APP. BY: NDC	
STDS.	SHEET 3 OF 12	DIV III
DATE: APRIL 2023	FILE NO. DR-3971-03	
SCALE: 1" = 2,000'		

PATH: C:\USERS\MACKENZIE.BEYER\WORKSPACE\SPICER GROUP\INCDISTOPMASTER 197\BASEMAP.PRC, PRINTED ON 4/25/2023, BY: MACKENZIE.BEYER





NO. 1 - STA 0+72 - BLAINE, E. & K. REMOVE EXISTING CULVERTS AND INSTALL CONCRETE FLAPGATE STRUCTURE. (SEE SHEETS DR-3971-05 THRU DR-3971-09 FOR DETAILS.)

NO. 2 - STA 53+72 - BUECHE ROAD. NO WORK

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
1 P	0+00	54+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
2 T	0+00	54+00	BOTH	MULCHING OF ALL DISTURBED AREAS	LUMP SUM
15 P			BOTH	MISC RIPRAP	60 SQ YD

NOTE: COORDINATE INSTALLATION OF EROSION CONTROL STRUCTURES WITH ENGINEER PRIOR TO CONSTRUCTION. LOCATIONS, QUANTITIES, OR TYPES MAY VARY BASED ON FIELD DECISIONS.

- CONSTRUCTION NOTES**
- SEE CROSS SECTIONS ON SHEET DR-3971-11 FOR PROPOSED DIKE GEOMETRY.
  - ALL SPOILS SHALL BE LEVELED AND COMPACTED TO A MINIMUM OF 80% MAXIMUM DENSITY TO CREATE PROPOSED DIKE AS SHOWN IN CROSS SECTIONS.
  - CONTRACTOR IS RESPONSIBLE TO MONITOR WEATHER AND COORDINATE WITH ENGINEER AND OWNER PRIOR TO LEAVING ANY UNATTENDED OPENINGS IN THE DIKE. NO OPENINGS SHALL BE UNATTENDED FOR MORE THAN 36 HOURS.
  - STA 20+00 CONTRACTOR TO GRADE DIKES ON LEFT SIDE AS NEEDED TO ACCOMMODATE EXISTING PUMP STATION AND CONSTRUCT RAMPS AS SHOWN.
  - CONSTRUCT NEW TILE OUTLETS WITH 8" SDR-26 PVC, PRE-CAST HEADWALL, AND 8" FLAPGATES ANCHORED TO HEADWALL. FONTAINE SERIES N FLAPGATE SHALL BE USED.

- BENCHMARKS**
- BM 200 - CHISELED SQUARE ON NORTHEAST CORNER OF SOUTHEAST HEADWALL. EL 590.62
- BM 201 - CHISELED "+" TOP OF WEST END I-BEAM IN 84" INVERT STEEL PIPE TO PUMP, 50± NORTH OF BRIDGE, 25± EAST OF C/L BUECHE ROAD. EL 589.09

**RIGHT OF WAY**  
SAVAGE DRAIN - DRAIN RIGHT-OF-WAY AS SHOWN ON PLANS

BY	MARK	REVISIONS	DATE

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SAVAGE DRAIN  
SAGINAW COUNTY, MICHIGAN

**PLAN AND PROFILE  
MAIN DRAIN  
STA 0+00 TO STA 54+00**

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DE. BY: LDO/POC CH. BY: LDO PROJECT NO. 126999SG2019  
DR. BY: POC APP. BY: MDC

STDS. SHEET 04 OF 12 DIV II  
DATE APRIL 2023 FILE NO. DR-3971-04  
SCALE H: 1"=200' V: 1"=10'



04-10-4-04-1002-000  
PRAIRIE GRAIN INVESTMENTS LLC

04-10-4-03-2002-000  
PRAIRIE GRAIN INVESTMENTS LLC

INSTALL 600 SQ YD  
OF RIPRAP

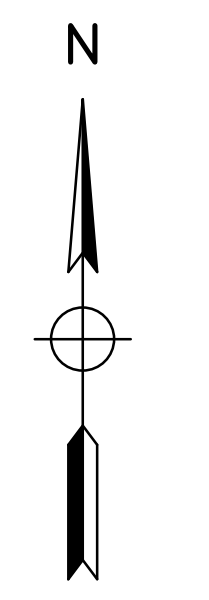
REMOVE EXISTING RCP  
CULVERTS AND  
CONCRETE WALL

INSTALL 600 SQ YD  
OF RIPRAP

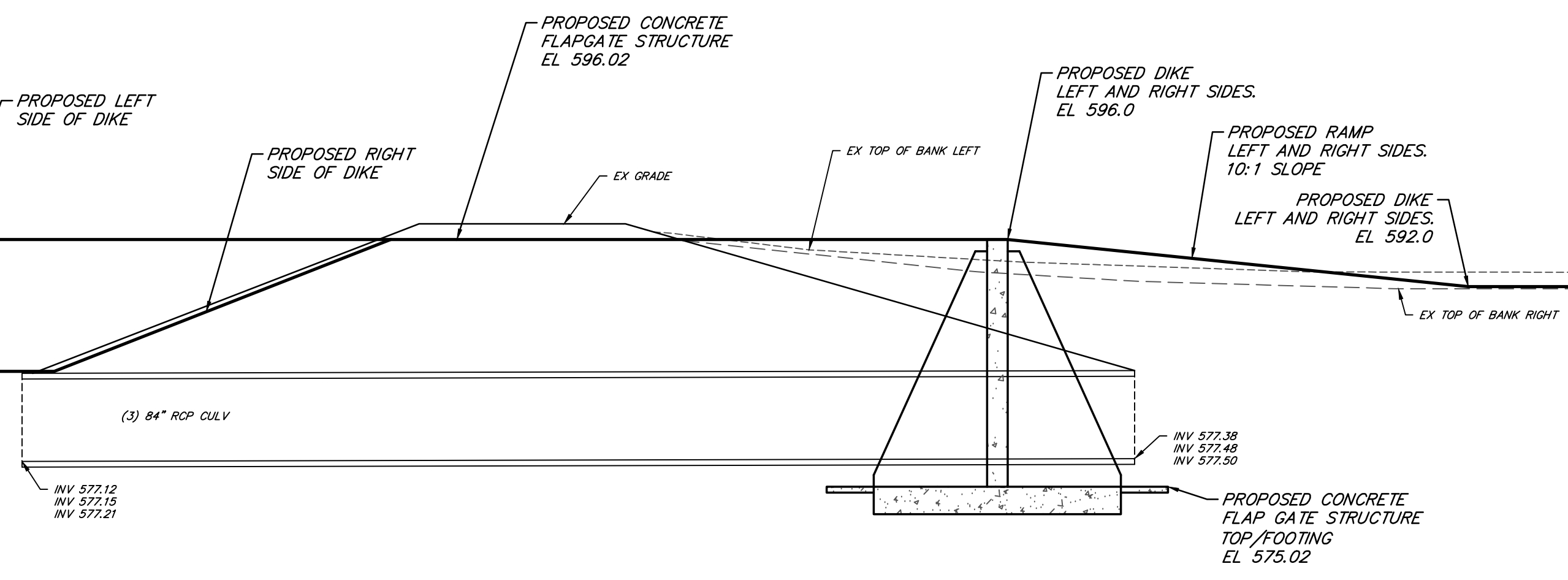
MISTEGUAY CREEK

04-10-4-04-1001-002  
MISTEGUAY CREEK FARMS

**PLAN VIEW  
SAVAGE DRAIN STRUCTURE**  
SCALE: 1" = 20'



SCALE: 1" = 20'  
SECTION 3, T.10 N. - R.04 E.,  
ALBEE TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN



**PROFILE VIEW  
SAVAGE DRAIN CONCRETE FLAP GATE STRUCTURE**  
SCALE: 1" = 10'

NOTES:  
MINIMUM ALLOWABLE SOIL BEARING PRESSURE SHALL BE 1000 PSF  
IF EXCAVATION SHOULD INDICATE AN ALLOWABLE SOIL BEARING CAPACITY  
LESS THAN THE DESIGN CRITERIA SOIL BEARING CAPACITY AT THE FOOTING  
DEPTH INDICATED ON PLANS THE OWNER, ENGINEER, AND GENERAL  
CONTRACTOR (OR C.M.) SHALL BE NOTIFIED IMMEDIATELY AND FOUNDATION  
REVISED TO MEET THIS CONDITION

DIKE WORK INCLUDED  
IN DIVISION I

DIKE WORK INCLUDED  
IN DIVISION II

**CONSTRUCTION NOTES**

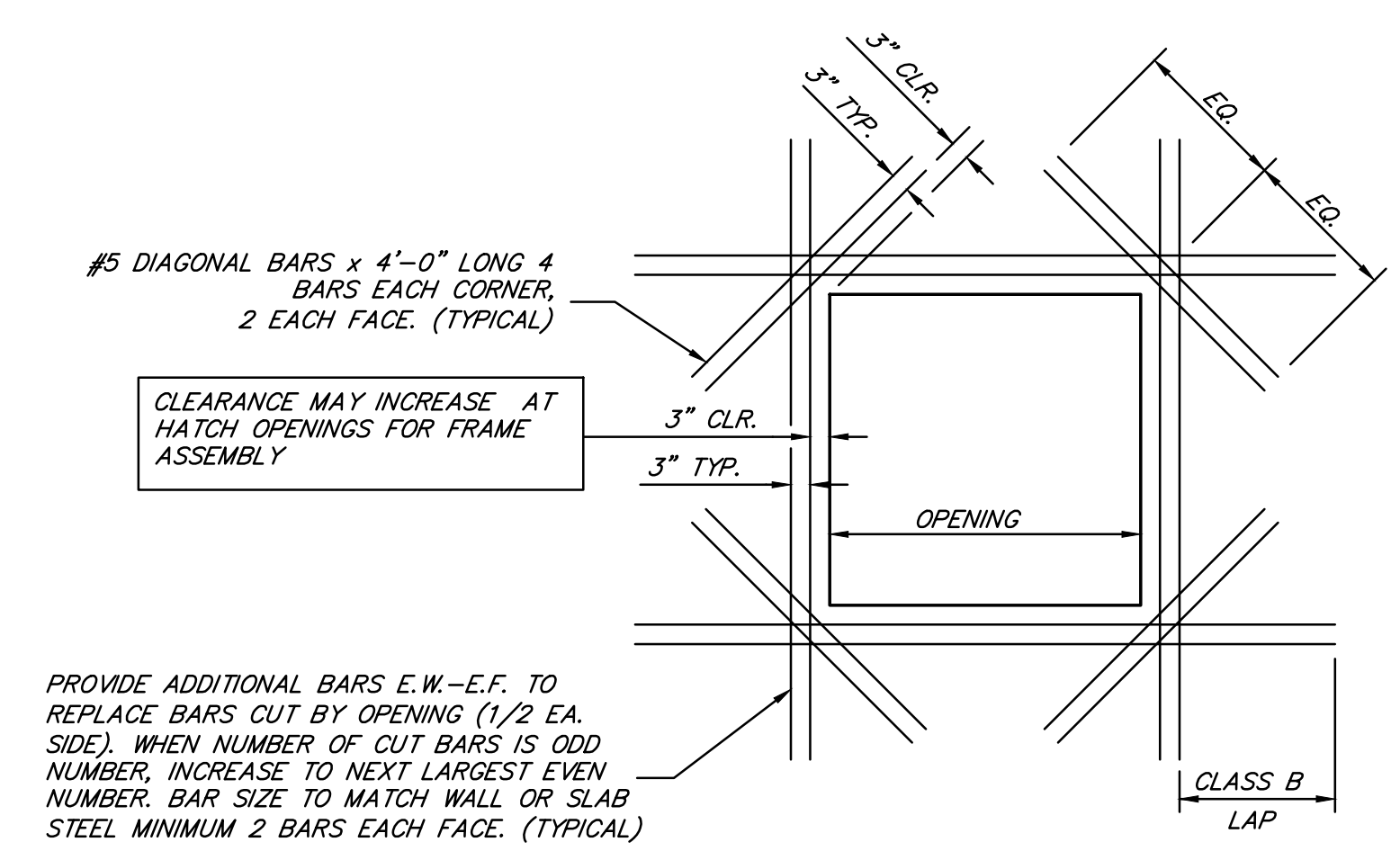
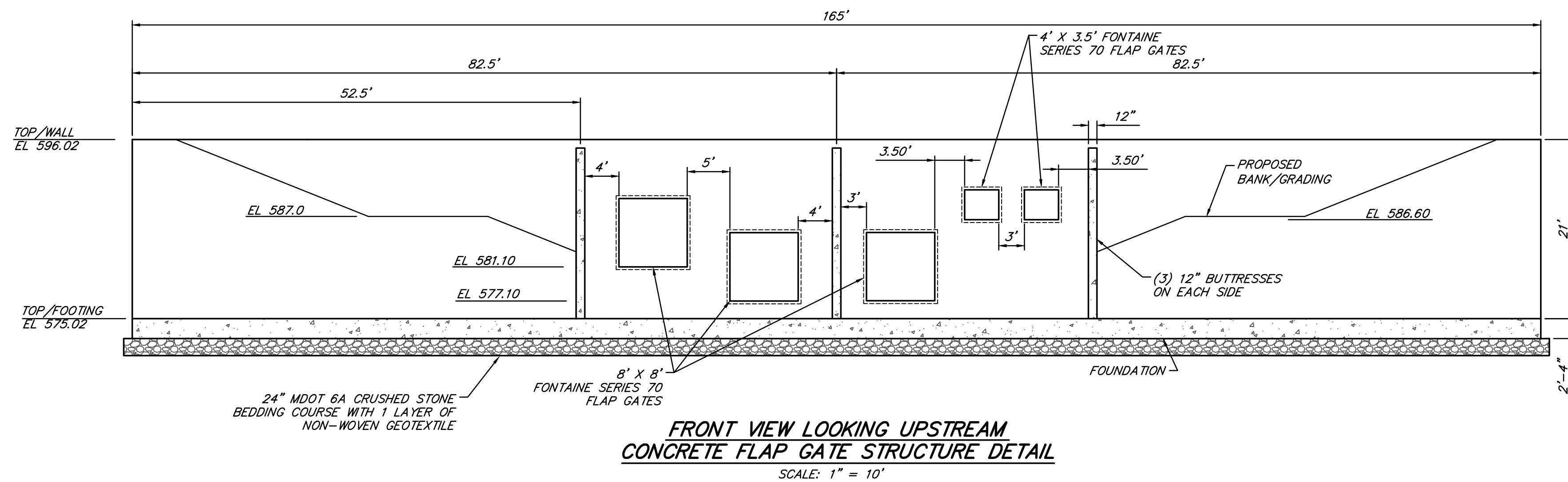
- DIVISION I CONTRACTOR TO CONSTRUCT DIKES AS SHOWN ON SAVAGE DRAIN UP TO STA 3+00.
- DIVISION I CONTRACTOR TO CONSTRUCT DIKES ON MISTEGUAY CREEK AS SHOWN AND TRANSITION TO EXISTING GEOMETRY APPROXIMATELY 150' UPSTREAM AND DOWNSTREAM OF PROPOSED FLAP GATE STRUCTURE.
- FLAP GATE ANCHORS NOT SUPPLIED BY MANUFACTURER. CONTRACTOR TO SUPPLY AND INSTALL ANCHORS AS RECOMMENDED BY FLAP GATE MANUFACTURER.
- COST FOR REMOVAL OF EXISTING FLAP GATE STRUCTURE IS INCLUDED IN BID PRICES OF PROPOSED STRUCTURE.
- ALL UNDERCUTTING AND BEDDING SHOWN ON PLAN IS INCLUDED IN THE BID PRICE FOR THE FLAP GATE STRUCTURE. SUB GRADE UNDERCUTTING WILL ONLY BE PAID FOR EXCAVATION AND FILLING OUTSIDE OF WHAT IS SHOWN ON DRAWINGS.

BY	MARK	REVISIONS	DATE
<p>THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.</p>			
<p>SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN</p>			
<p><b>OVERALL SITE PLAN CONCRETE STRUCTURE FLAP GATE - OPTION A</b></p>			
<p>DE. BY: LDO/POC DR. BY: POC</p>		<p>CH. BY: LDO APP. BY: NDC</p>	
<p>STDS.</p>		<p>PROJECT NO. 126999SG2019</p>	
<p>DATE: APRIL, 2023 SCALE: AS SHOWN</p>		<p>SHEET 05 OF 12 FILE NO. DR-3971-05</p>	
		<p>DIV I-A</p>	



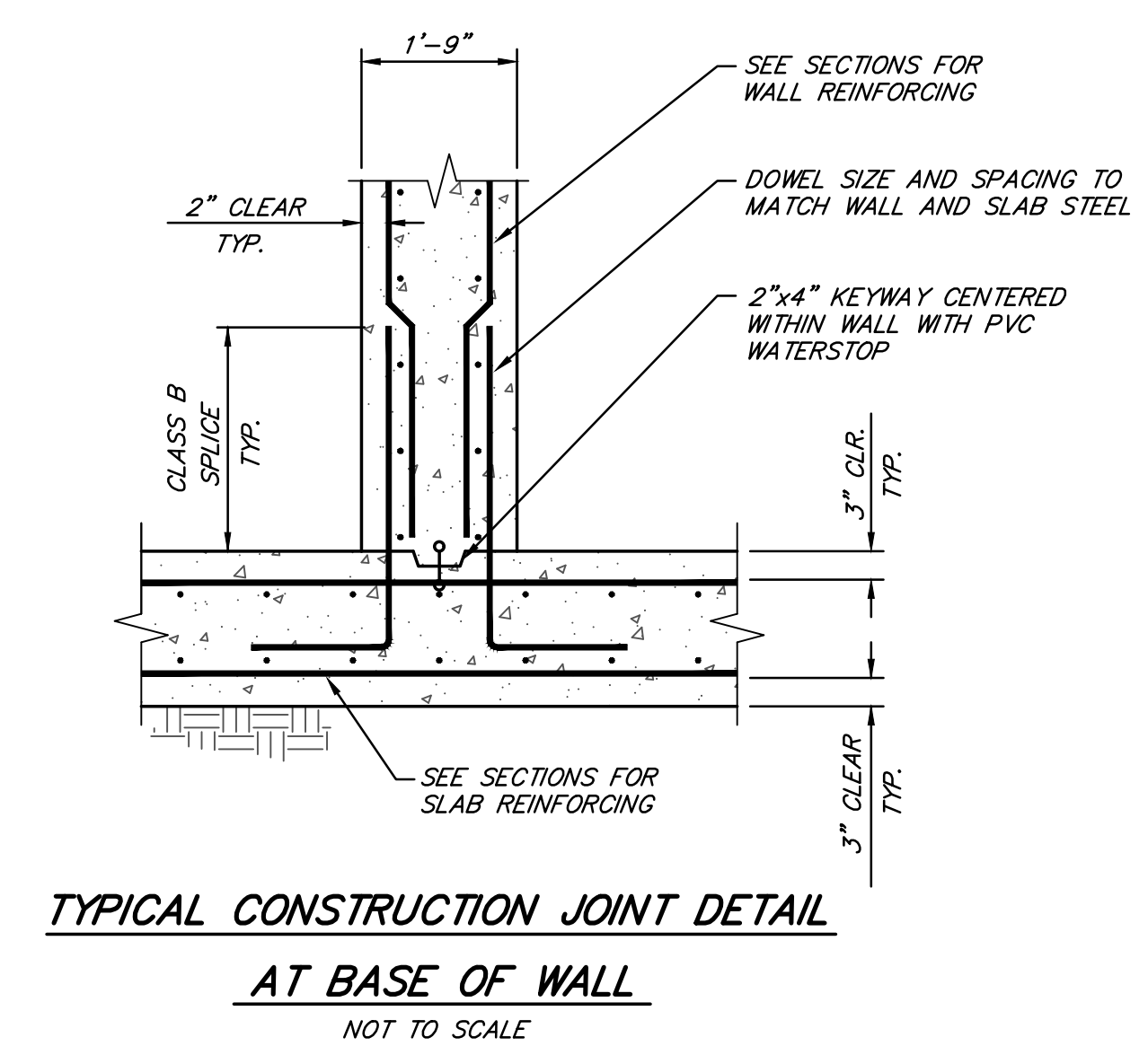
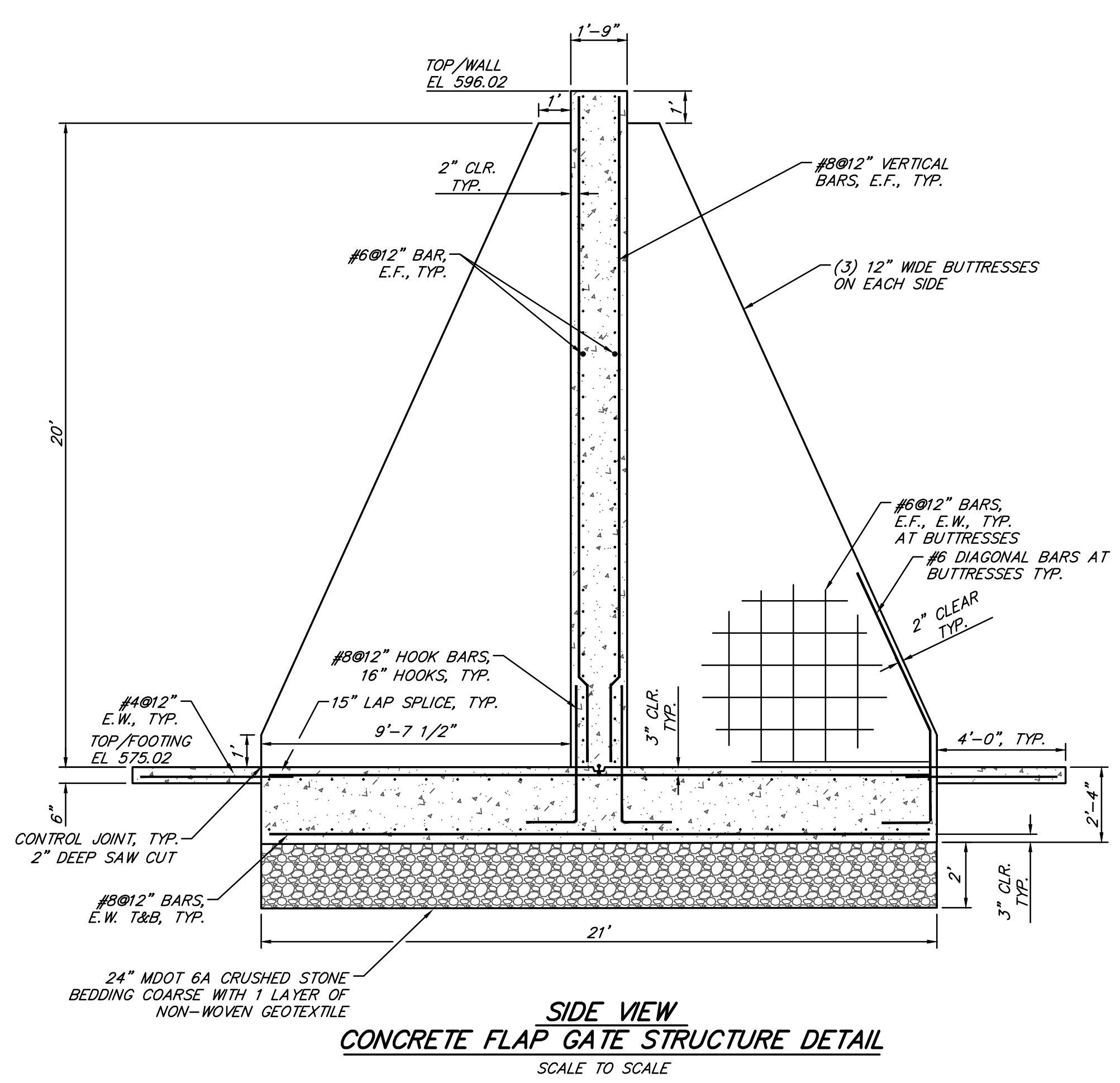
SAGINAW OFFICE  
230 S. Washington Ave.  
Saginaw, MI 48607  
TEL 989-754-4717  
Fax 989-754-4440  
www.SpicerGroup.com

C:\p04\11\2019\05\02\11 - Savage Drain\dwg\DR-3971-05.dwg, P:\Proj\_4\_25\2023\7.27.23 AM, 6/28/2023



PROVIDE ADDITIONAL BARS E-W-E.F. TO REPLACE BARS CUT BY OPENING (1/2 EA. SIDE). WHEN NUMBER OF CUT BARS IS ODD NUMBER, INCREASE TO NEXT LARGEST EVEN NUMBER. BAR SIZE TO MATCH WALL OR SLAB STEEL MINIMUM 2 BARS EACH FACE. (TYPICAL)

NOTE:  
PROVIDE STANDARD HOOK FOR BARS IF LAP LENGTH EXTENSION CANNOT BE OBTAINED AT JOINTS OR OTHER STRUCTURES



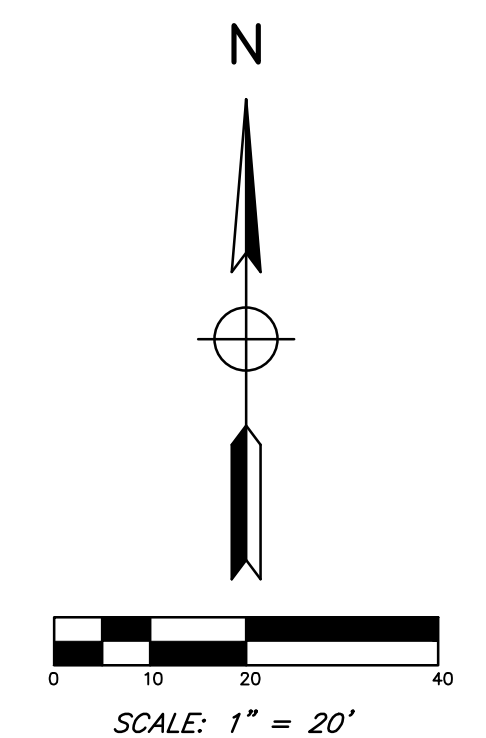
BY	MARK	REVISIONS	DATE
<p>THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.</p>			
<p>SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN</p>			
<p><b>CONCRETE FLAP GATE STRUCTURE DETAILS - OPTION A</b></p>			
<p>DE. BY: LDO/POC CH. BY: LDO DR. BY: POC APP. BY: NDC</p>		<p>PROJECT NO. <b>126999SG2019</b></p>	
<p>STDS.</p>		<p>SHEET <b>06</b> OF <b>12</b></p>	
<p>DATE <b>APRIL, 2023</b> SCALE <b>AS SHOWN</b></p>		<p>FILE NO. <b>DR-3971-06</b></p>	
		<p>DIV <b>I-A</b></p>	

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Fax 989-754-4440  
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04-10-4-04-1002-000  
PRAIRIE GRAIN INVESTMENTS LLC

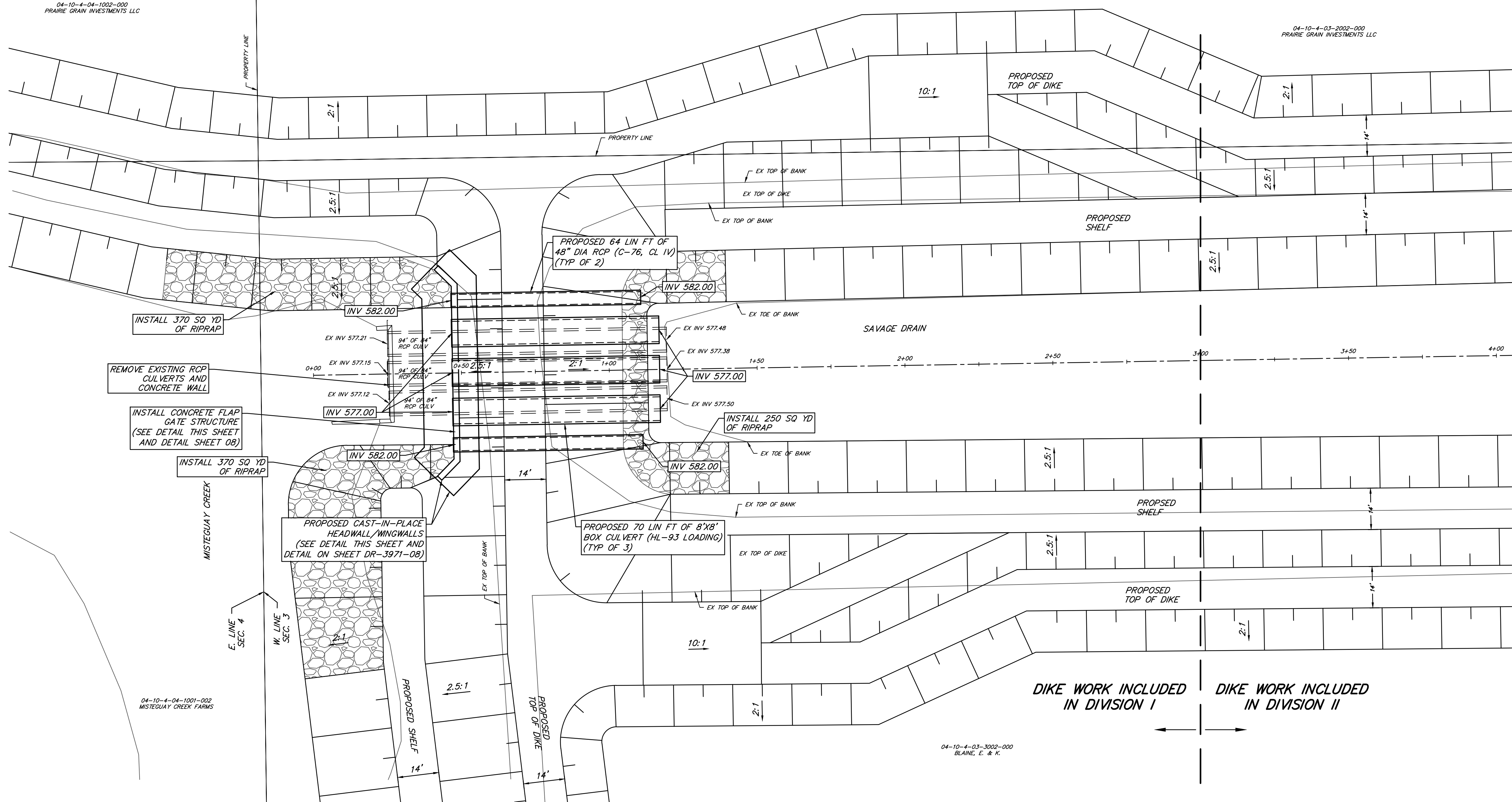
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PRAIRIE GRAIN INVESTMENTS LLC



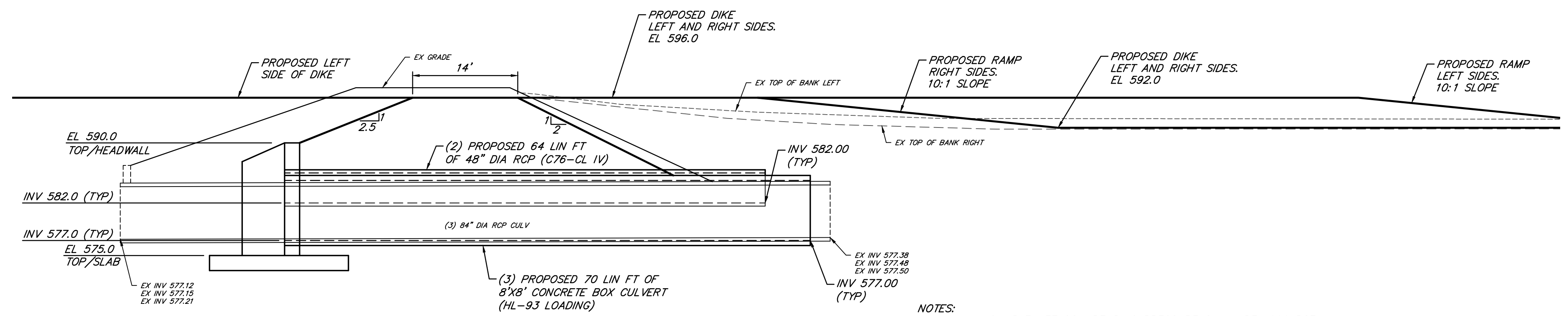
SECTION 3, T.10 N. - R.04 E.,  
ALBEE TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN

**CONSTRUCTION NOTES**

- DIVISION I CONTRACTOR TO CONSTRUCT DIKES AS SHOWN ON SAVAGE DRAIN UP TO STA 3+00.
- DIVISION I CONTRACTOR TO CONSTRUCT DIKES ON MISTEGUAY CREEK AS SHOWN AND TRANSITION TO EXISTING GEOMETRY APPROXIMATELY 150' UPSTREAM AND DOWNSTREAM OF PROPOSED FLAP GATE STRUCTURE.
- FLAPGATE ANCHORS NOT SUPPLIED BY MANUFACTURER. CONTRACTOR TO SUPPLY AND INSTALL ANCHORS AS RECOMMENDED BY FLAP GATE MANUFACTURER.
- COST FOR REMOVAL OF EXISTING FLAP GATE STRUCTURE IS INCLUDED IN BID PRICES OF PROPOSED STRUCTURE.
- ALL LIFTING AND HANDLING HOLES SHALL BE FILLED WITH CONCRETE PLUG AND MASTIC PER MANUFACTURING RECOMMENDATION.
- ALL BOX CULVERT JOINTS SHALL HAVE MASTIC AND BUTYL RUBBER ROPE TO SEAL INTERIOR OF JOINT. ALL JOINTS SHALL HAVE TIE PLATES AS PROVIDED BY MANUFACTURER. ALL JOINTS SHALL HAVE MASTIC APPLIED TO EXTERIOR OF BOX ON EACH SIDE OF JOINT AND WRAPPED WITH FILTER FABRIC (MIN. 2' WIDE).
- ALL BOX CULVERT JOINTS SHALL BE SEALED ACROSS THE TOP WITH PREFORMED JOINT WATERPROOFING WHICH SHALL EXTEND 2' DOWN EACH SIDE VERTICALLY.
- ALL UNDERCUTTING AND BEDDING SHOWN ON PLAN IS INCLUDED IN THE BID PRICE FOR CULVERTS. SUB GRADE UNDERCUTTING WILL ONLY BE PAID FOR EXCAVATION AND FILLING OUTSIDE OF WHAT IS SHOWN ON DRAWINGS.
- ALL RCP PIPE JOINTS SHALL HAVE JOINT TIES AT TWO POINTS. TIES SHALL BE 3" X 18" X 3/8" WITH 3/4" ANCHOR BOLTS EMBEDDED 2.5'.



**PLAN VIEW**  
**SAVAGE DRAIN OUTLET STRUCTURE ALTERNATE**  
SCALE: 1" = 20'



**PROFILE VIEW**  
**SAVAGE DRAIN OUTLET STRUCTURE ALTERNATE**  
SCALE: 1" = 10'

NOTES:  
MINIMUM ALLOWABLE NET SOIL BEARING PRESSURE SHALL BE 1000 PSF  
IF EXCAVATION SHOULD INDICATE AN ALLOWABLE NET SOIL BEARING CAPACITY LESS THAN THE DESIGN CRITERIA SOIL BEARING CAPACITY AT THE FOOTING DEPTH INDICATED ON PLANS THE OWNER, ARCHITECT, ENGINEER, AND GENERAL CONTRACTOR (OR C.M.) SHALL BE NOTIFIED IMMEDIATELY AND FOUNDATION REVISED TO MEET THIS CONDITION

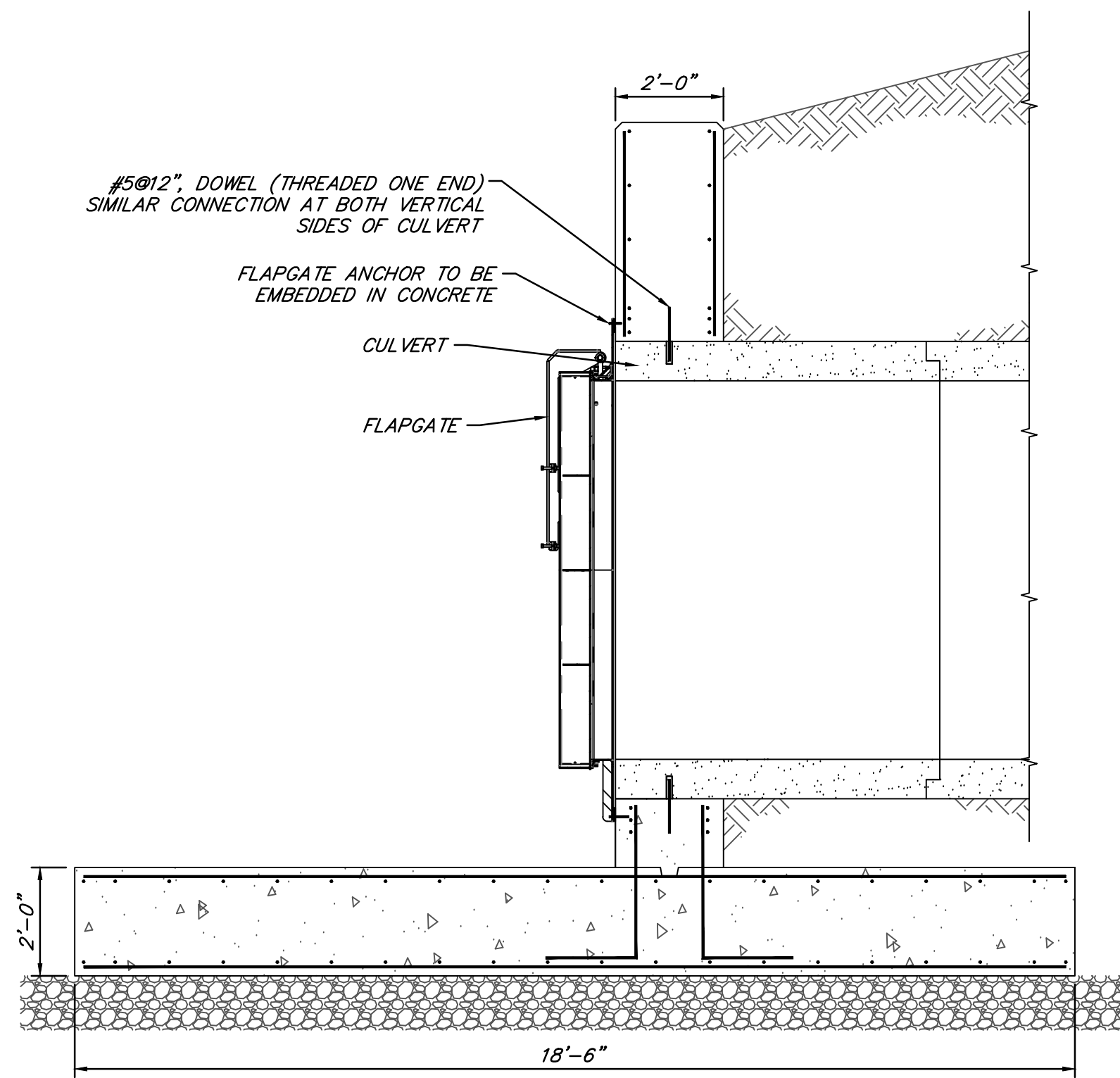
BY	MARK	REVISIONS	DATE
THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.			
SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN			
<b>OVERALL SITE PLAN CONCRETE STRUCTURE FLAP GATE - OPTION B</b>			
DE. BY: LDO/POC DR. BY: POC		CH. BY: LDO APP. BY: NDC	
STDS.		PROJECT NO. 126999SG2019	
DATE: APRIL, 2023 SCALE: AS SHOWN		SHEET 07 OF 12 FILE NO. DR-3971-07	
		DIV I-B	



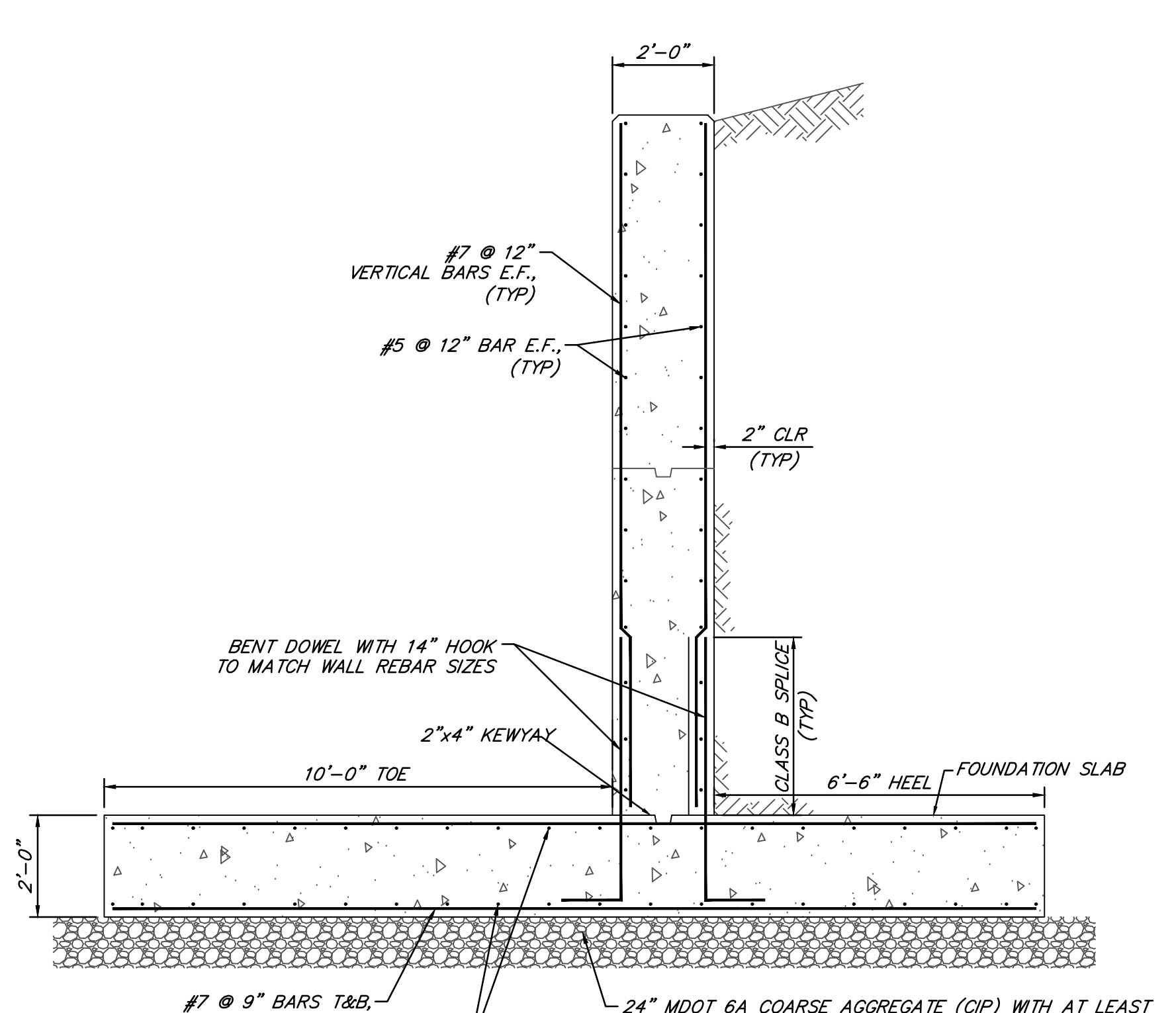
SAGINAW OFFICE  
230 S. Washington Ave.  
Saginaw, MI 48607  
TEL 989-754-4717  
Fax 989-754-4440  
www.SpicerGroup.com

C:\p0411\126999SG2019\1 - Savage Drain Outlet Structure Alternate.dwg, PLOT, AL, T, App, 4/20/2023 7:52:41 AM, p0411

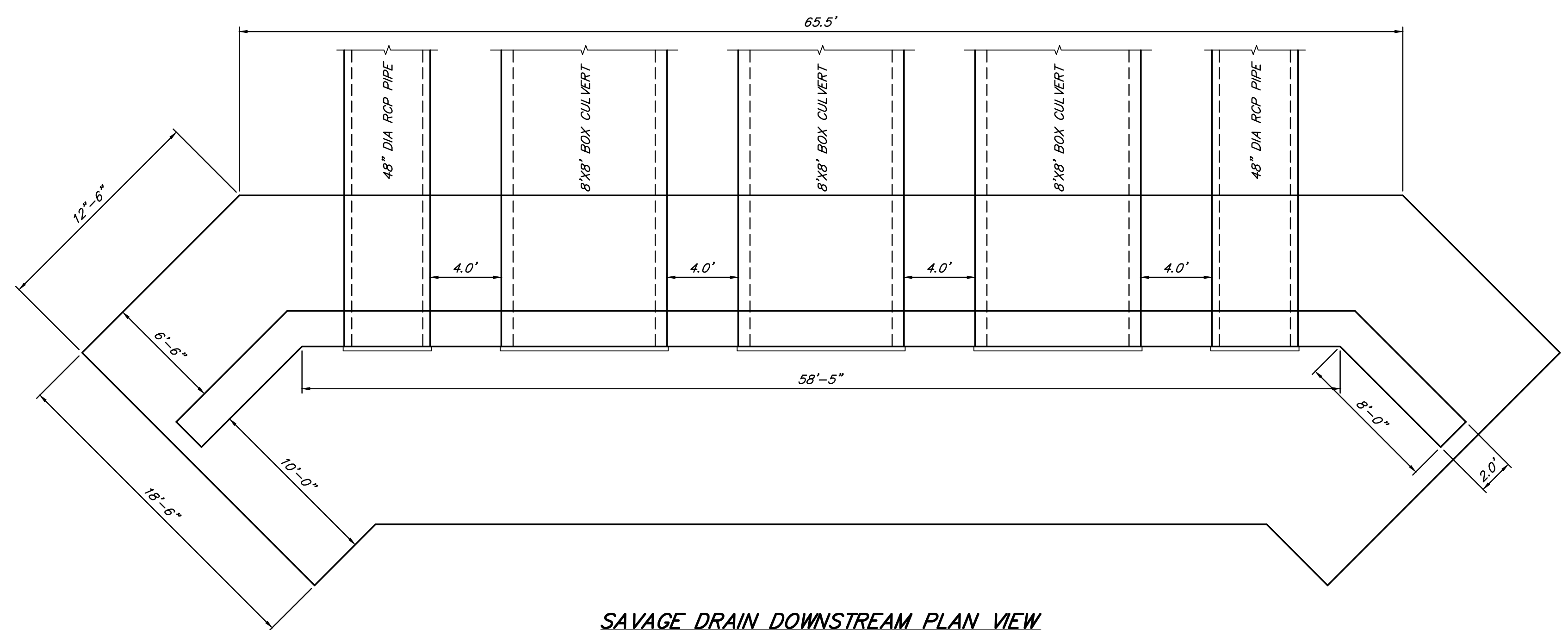
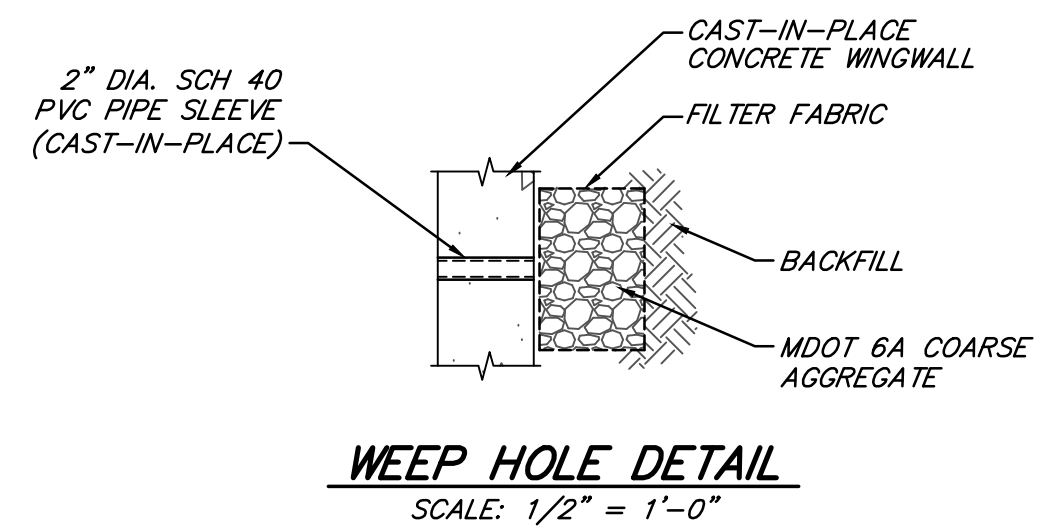
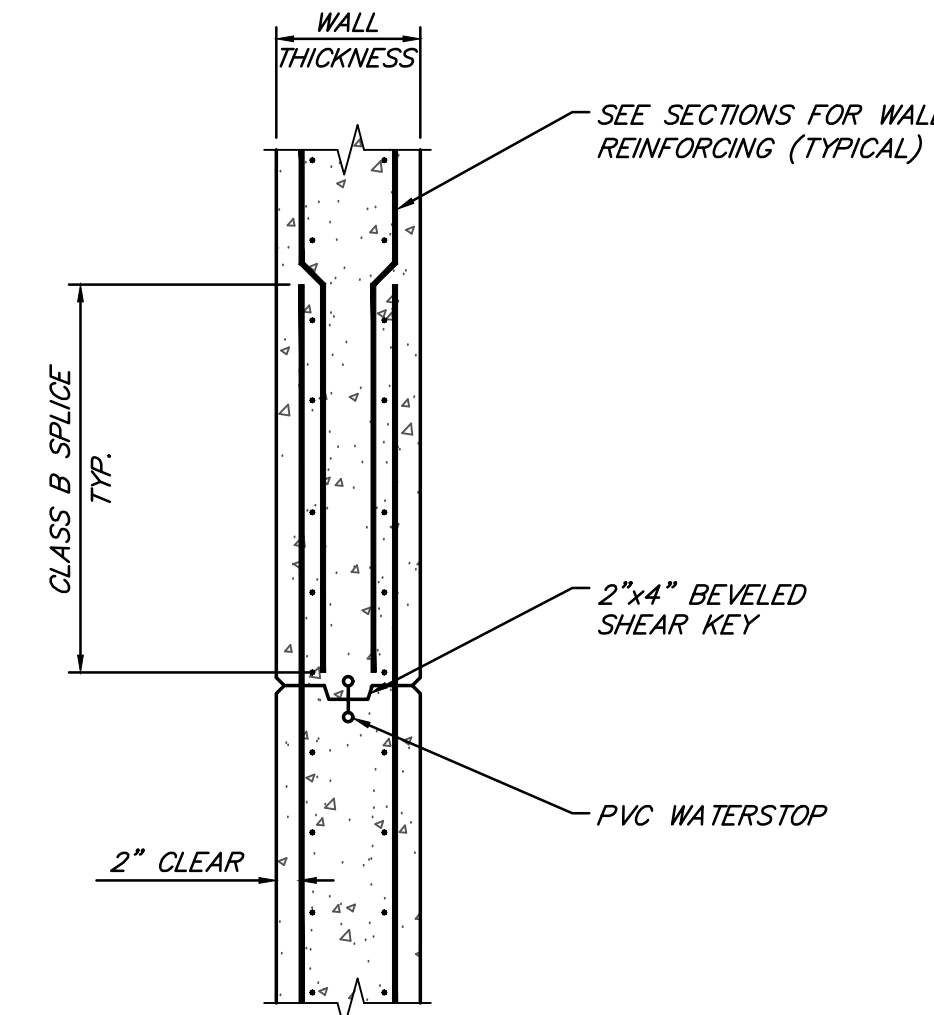
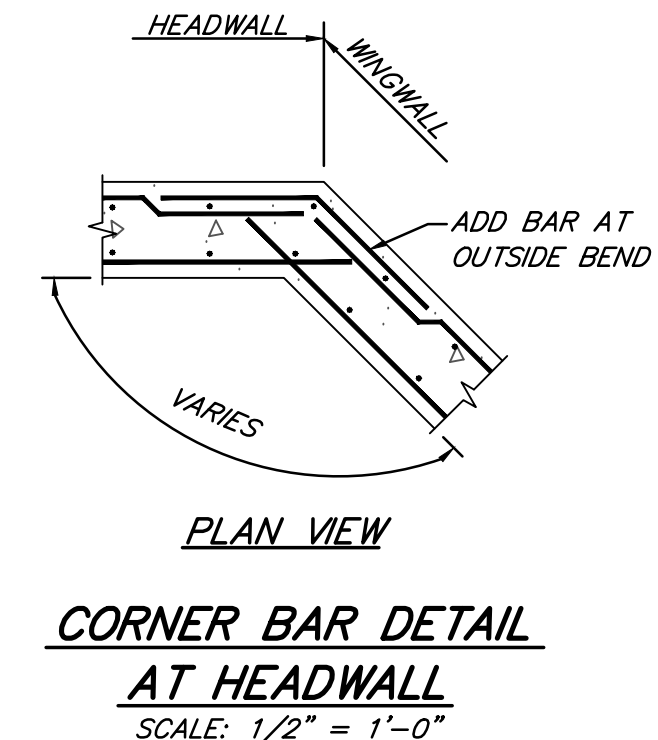
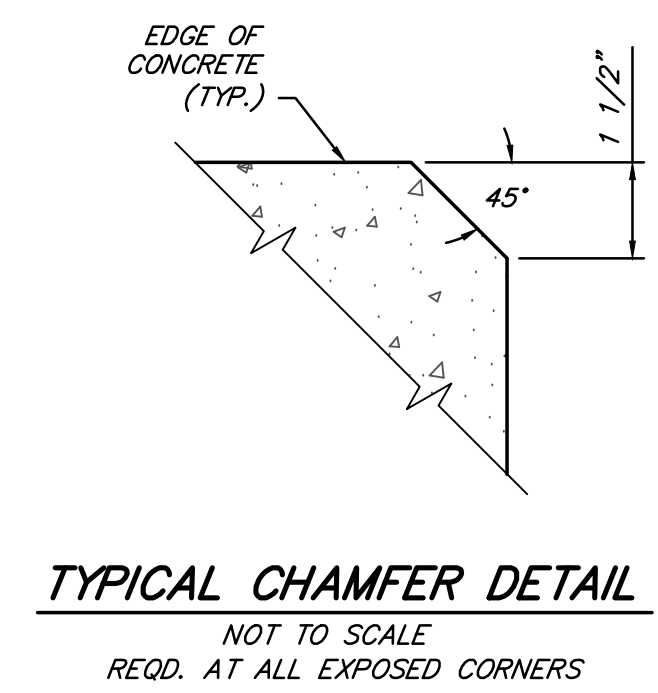




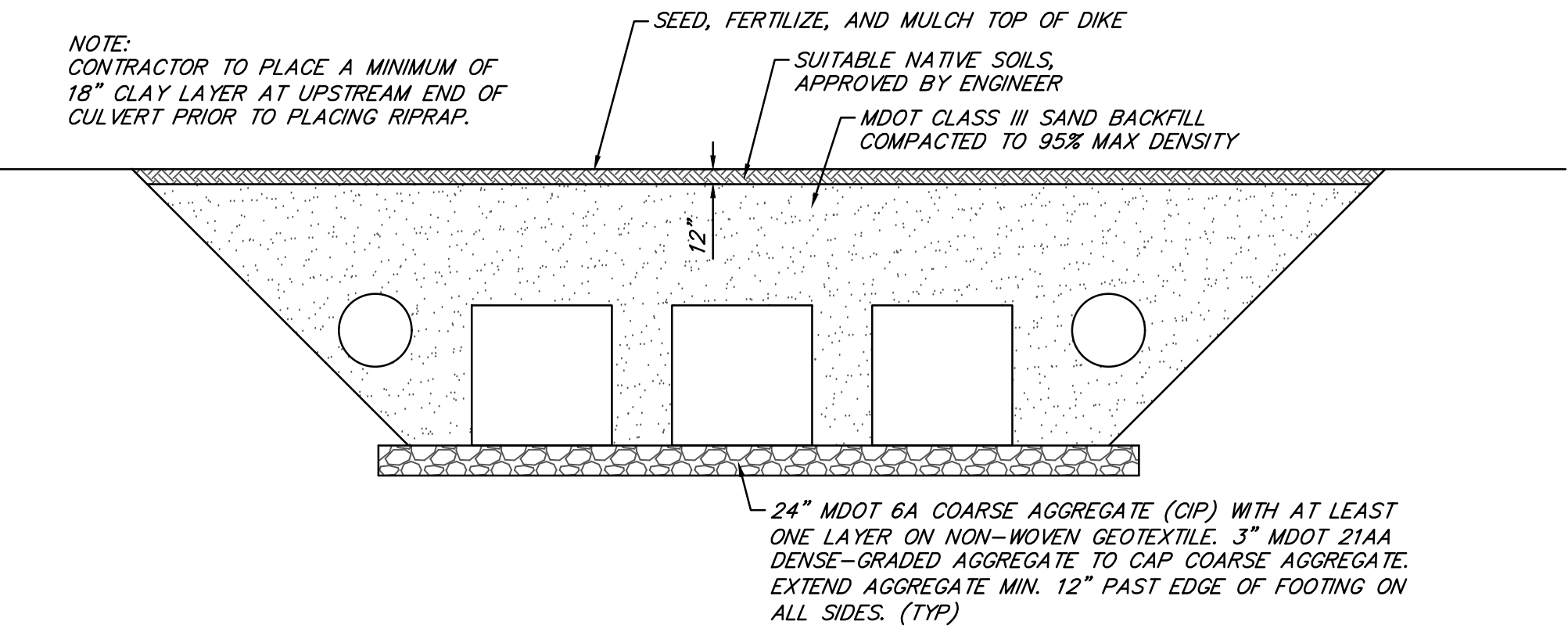
**TYPICAL SECTION THROUGH HEADWORKS AT CULVERT**  
NOT TO SCALE



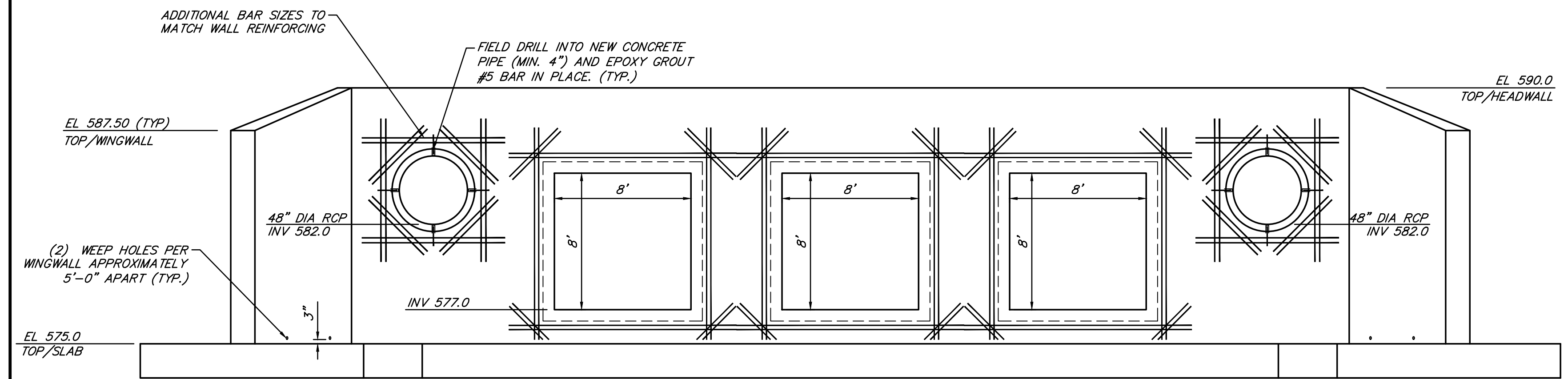
**TYPICAL SECTION THROUGH HEADWALL**  
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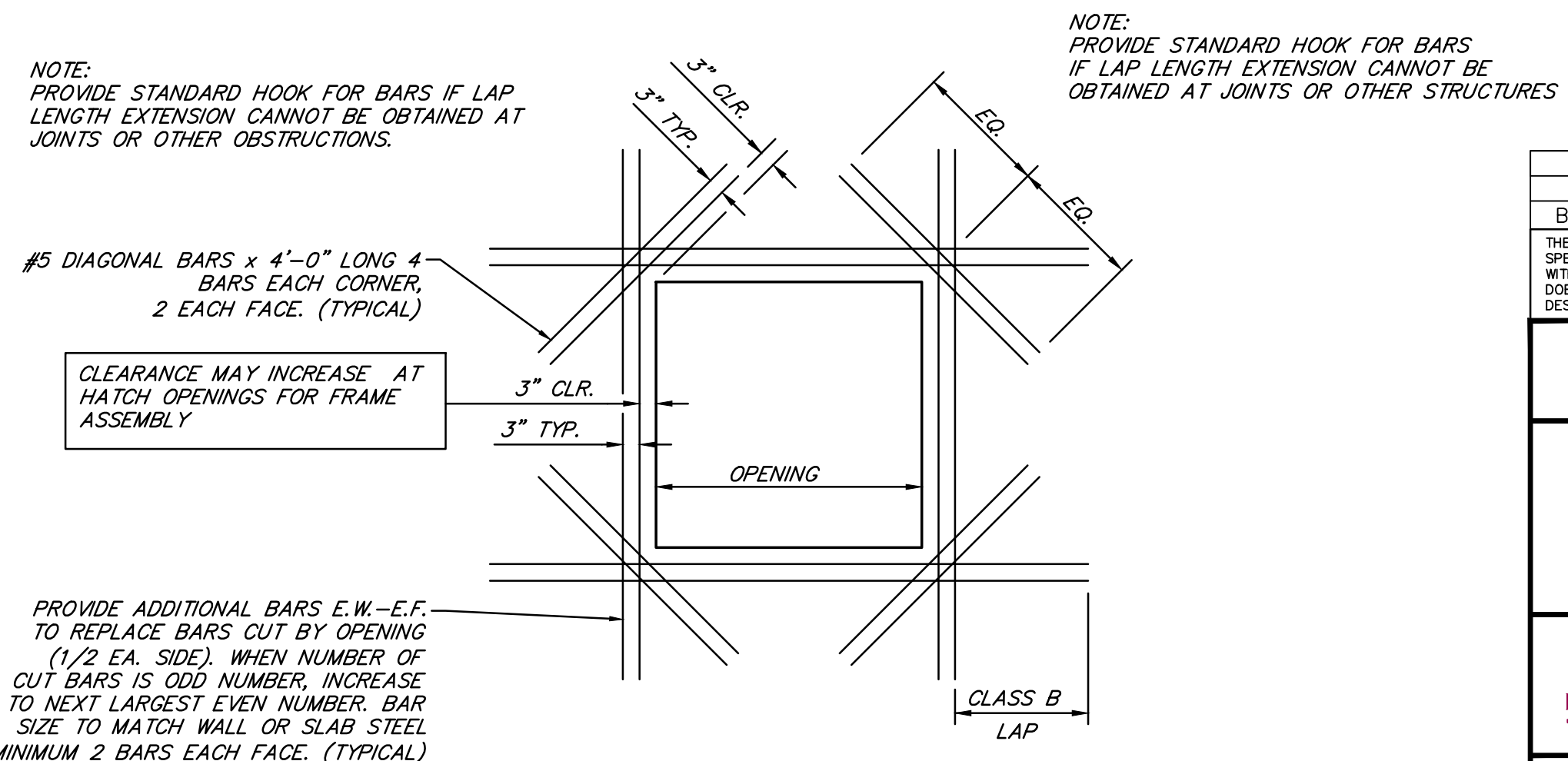
**SAVAGE DRAIN DOWNSTREAM PLAN VIEW**  
SCALE: 1" = 5'



**SAVAGE DRAIN DOWNSTREAM ELEVATION**  
NOT TO SCALE



**SAVAGE DRAIN DOWNSTREAM ELEVATION**  
SCALE: 1" = 5'

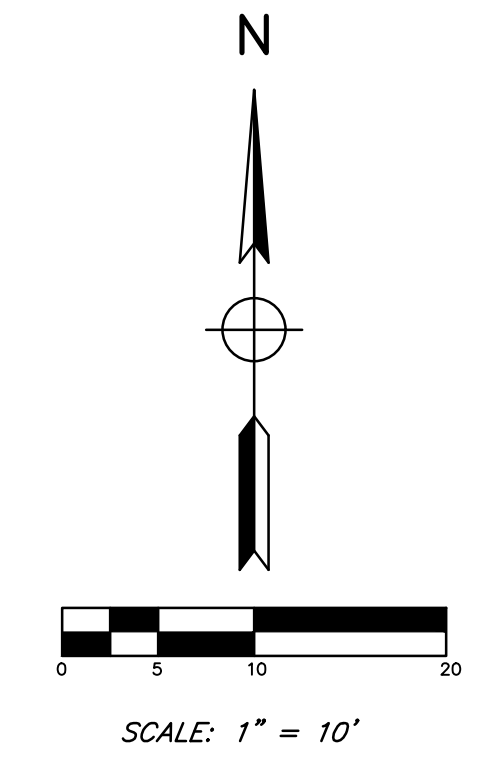
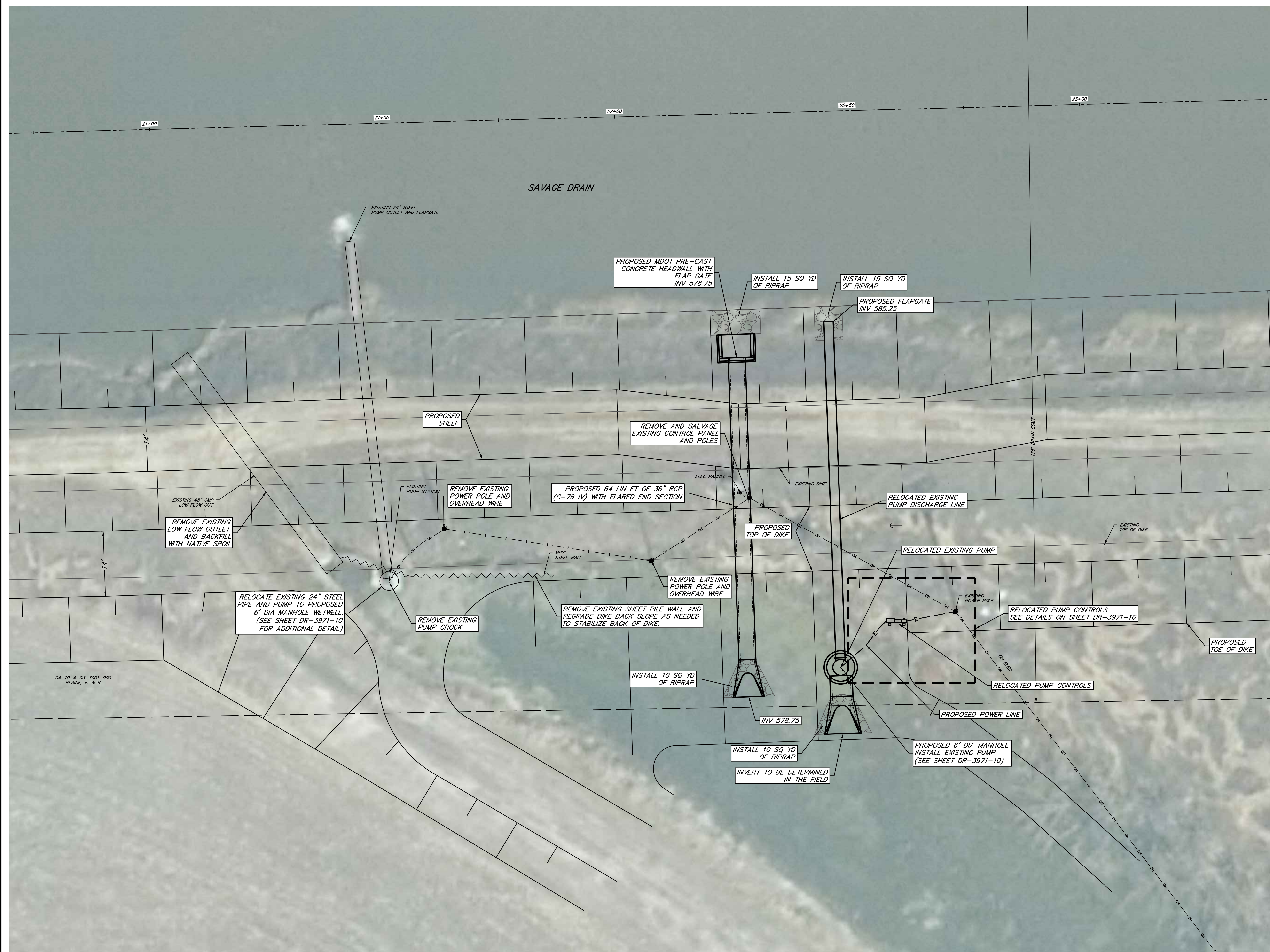


**TYPICAL REINFORCING AT OPENINGS**  
NOT TO SCALE

BY	MARK	REVISIONS	DATE
<p>THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.</p>			
<p>SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN</p>			
<p><b>CONCRETE FLAP GATE DETAILS - OPTION B</b></p>			
<p>DE. BY: LDO/POC DR. BY: POC</p>		<p>CH. BY: LDO APP. BY: MDC</p>	
<p>PROJECT NO. 126999SG2019</p>		<p>SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 TEL 989-754-4717 Fax 989-754-4440 www.SpicerGroup.com</p>	
STDS.	SHEET 08 OF 12	DIV	
DATE SCALE	APRIL, 2023 AS SHOWN	FILE NO. DR-3971-08	I-B

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SECTION 03, T.10 N. - R.04 E.,  
ALBEE TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN

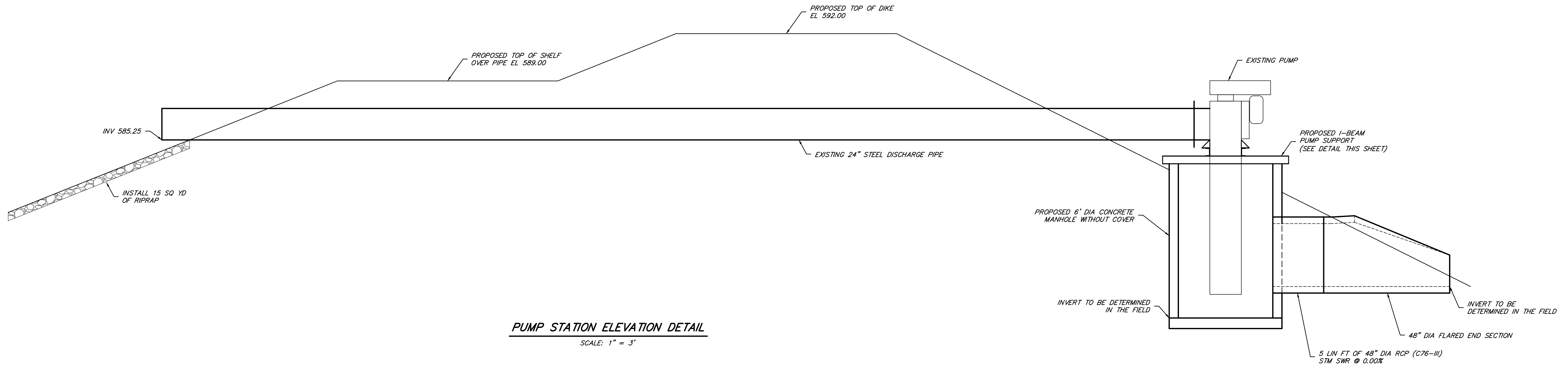
**CONSTRUCTION NOTES**

1. CONTRACTOR TO LIFT OUT EXISTING PUMP AND ALLOW ENGINEER TO INSPECT EXISTING WETWELL PRIOR TO ORDERING PROPOSED MANHOLE FOR NEW WETWELL. COST TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR PUMP RELOCATION.
2. ALL RCP PIPE JOINTS SHALL HAVE JOINTS TIES AT TWO POINTS. TIES SHALL BE 3" X 18" X 3/8" WITH 3/4" ANCHOR BOLTS EMBEDDED 2.5".
3. PRE-CAST CONCRETE HEADWALL SHALL BE MDOT STANDARD WITH KNEE-WALL AND CONSTRUCTED WITHOUT BAFFLE.
4. CONTRACTOR TO REMOVE SEDIMENT IMMEDIATELY UPSTREAM OF PROPOSED PUMP INTAKE AND PROPOSED LOW FLOW PIPE TO BE PROVIDED IN THE LUMP SUM PRICE BID FOR SITEWORK AND GRADING.
5. ALL COSTS FOR REMOVAL OF EXISTING LOW FLOW OUTLET PIPE, EXISTING SHEET PILE WALL AND ALL EXISTING PUMP STATION COMPONENTS CALLED OUT FOR REMOVAL, ARE TO BE INCLUDED IN BID PRICE FOR DEMOLITION.

BY	MARK	REVISIONS	DATE
<small>THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.</small>			
SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN			
<b>RELOCATION OF EXISTING PUMP STATION PLAN</b>			
		<small>SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com</small>	
DE. BY: LDO/POC	CH. BY: LDO	PROJECT NO.	
DR. BY: POC	APP. BY: NDC	126999SG2019	
STDS.	SHEET 09 OF 12	DIV	
DATE: APRIL, 2023	FILE NO. DR-3971-09	II	
SCALE: NOT TO SCALE			

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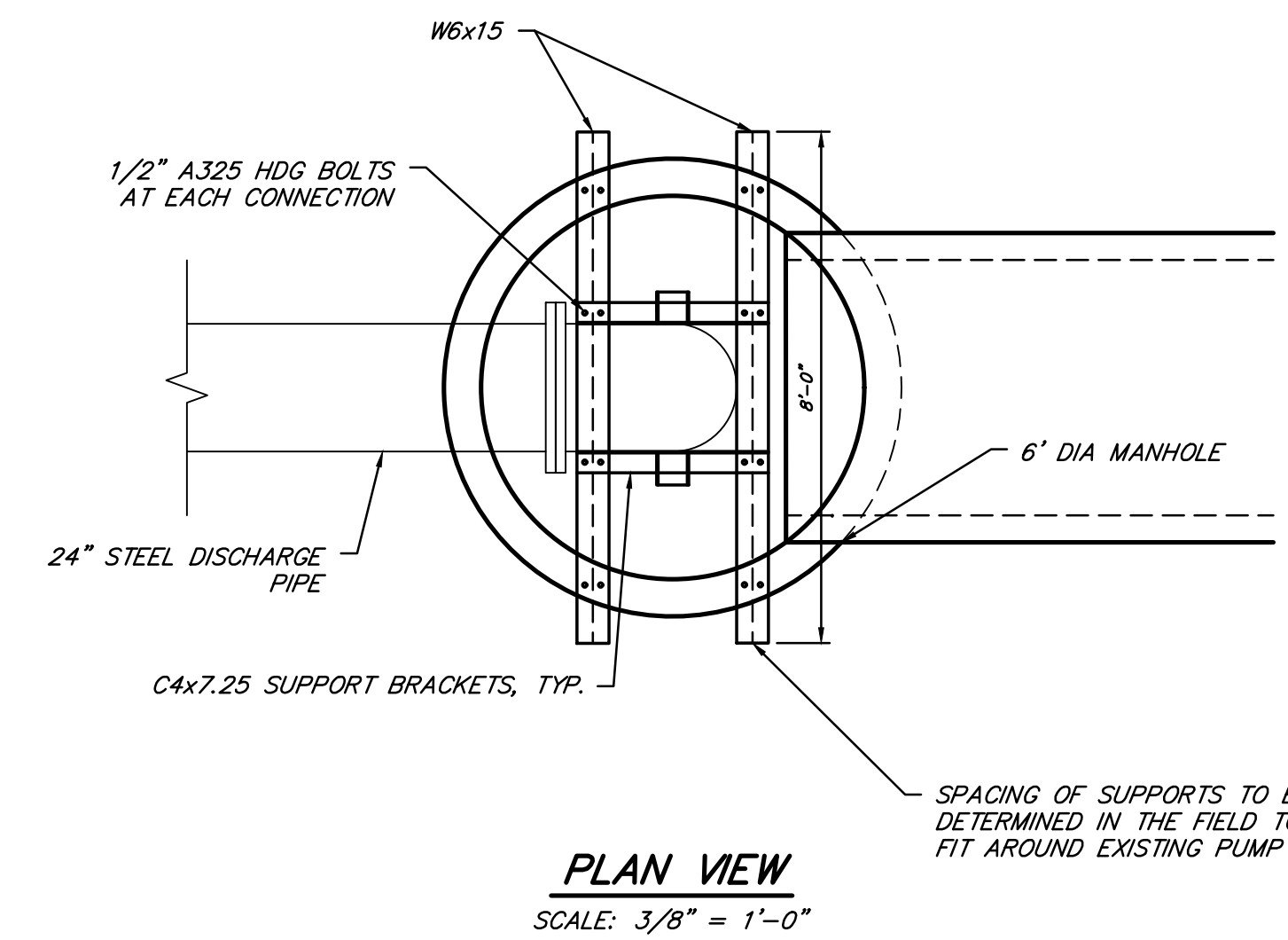
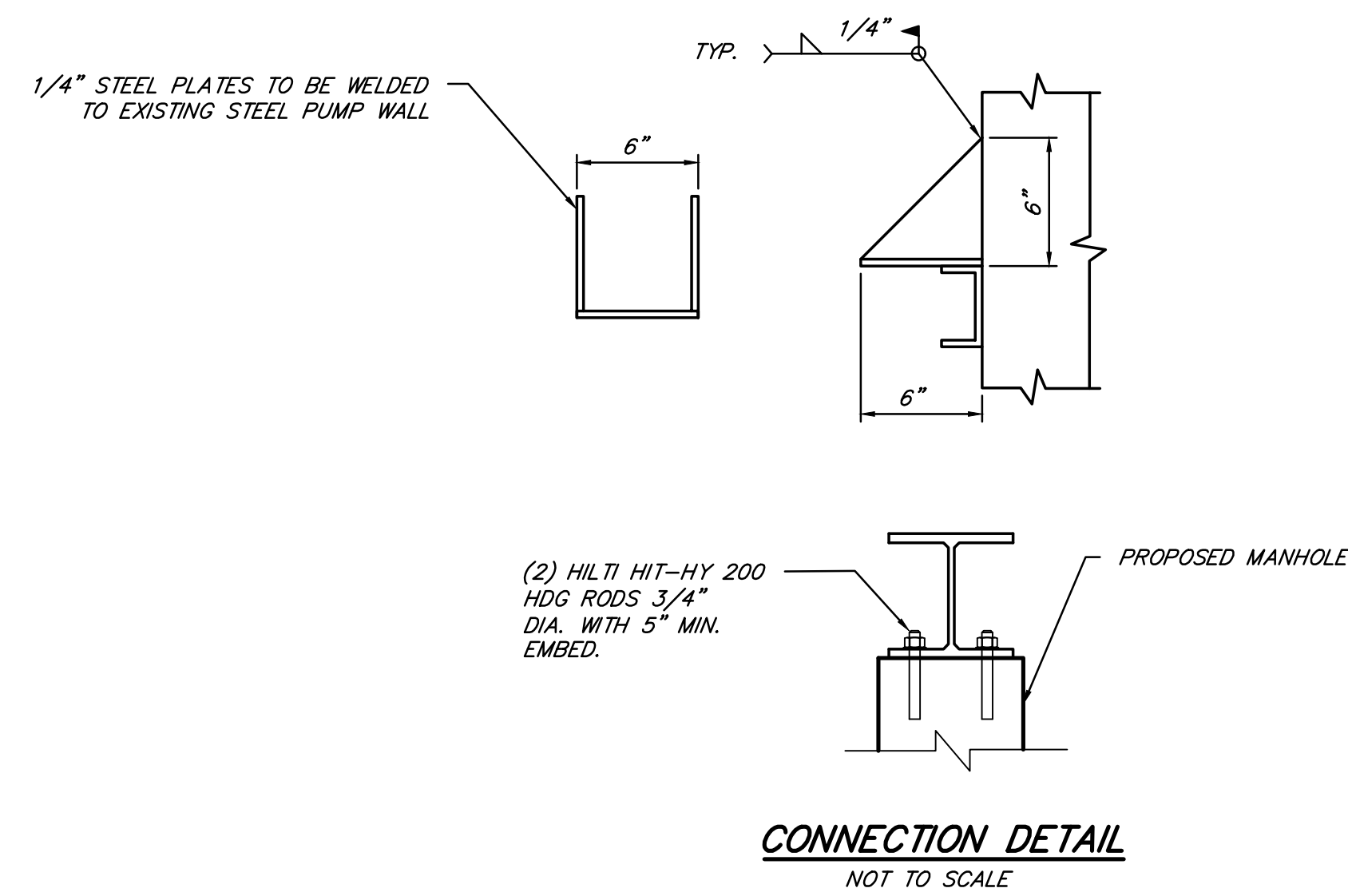




**PUMP STATION ELEVATION DETAIL**  
SCALE: 1" = 3'

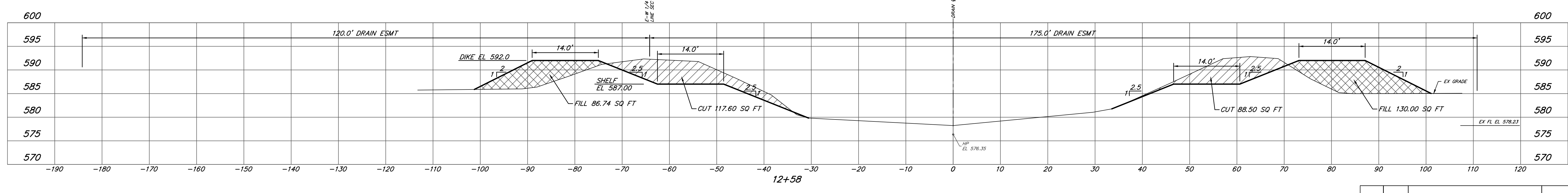
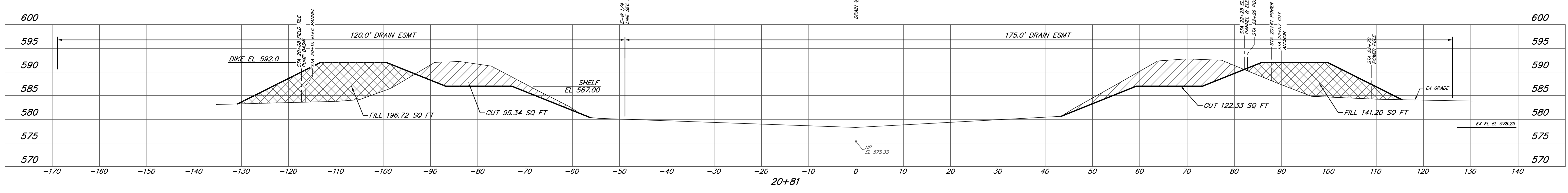
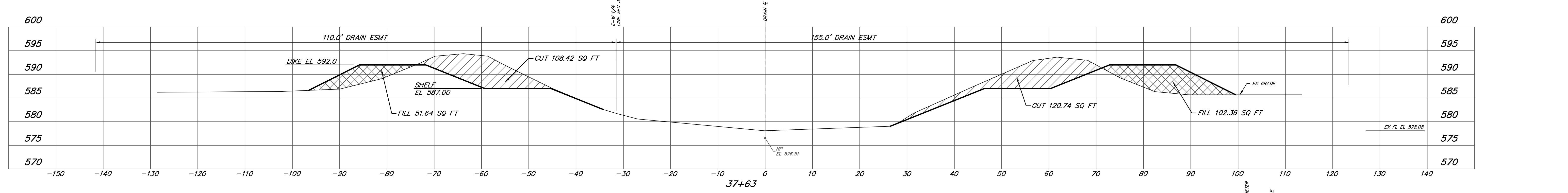
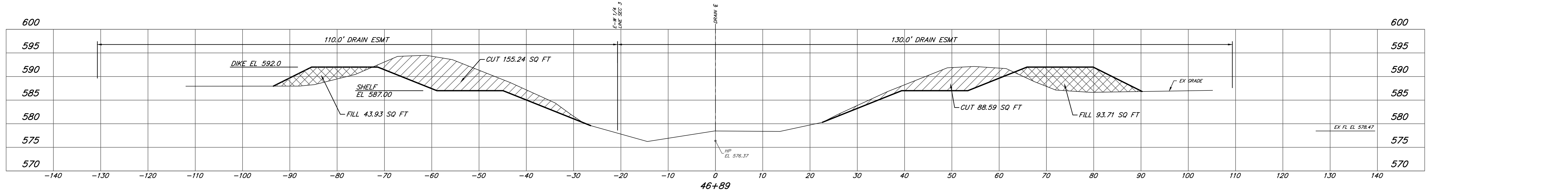
**CONSTRUCTION NOTES**

1. CONTRACTOR TO LIFT OUT EXISTING PUMP AND ALLOW ENGINEER TO INSPECT EXISTING WETWELL PRIOR TO ORDERING PROPOSED MANHOLE FOR NEW WETWELL. COST TO BE INCLUDED ON THE LUMP SUM PRICE BID FOR PUMP RELOCATION.



BY	MARK	REVISIONS	DATE
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<p>SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN</p>			
<p><b>PUMP STATION RELOCATION DETAILS</b></p>			
		<p>SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com</p>	
DE. BY: LDO/POC	CH. BY: LDO	PROJECT NO.	
DR. BY: POC	APP. BY: NDC	126999SG2019	
STDS.	SHEET 10 OF 12	DIV	
DATE	APRIL, 2023	FILE NO.	DR-3971-10
SCALE	AS SHOWN		II





BY	MARK	REVISIONS	DATE

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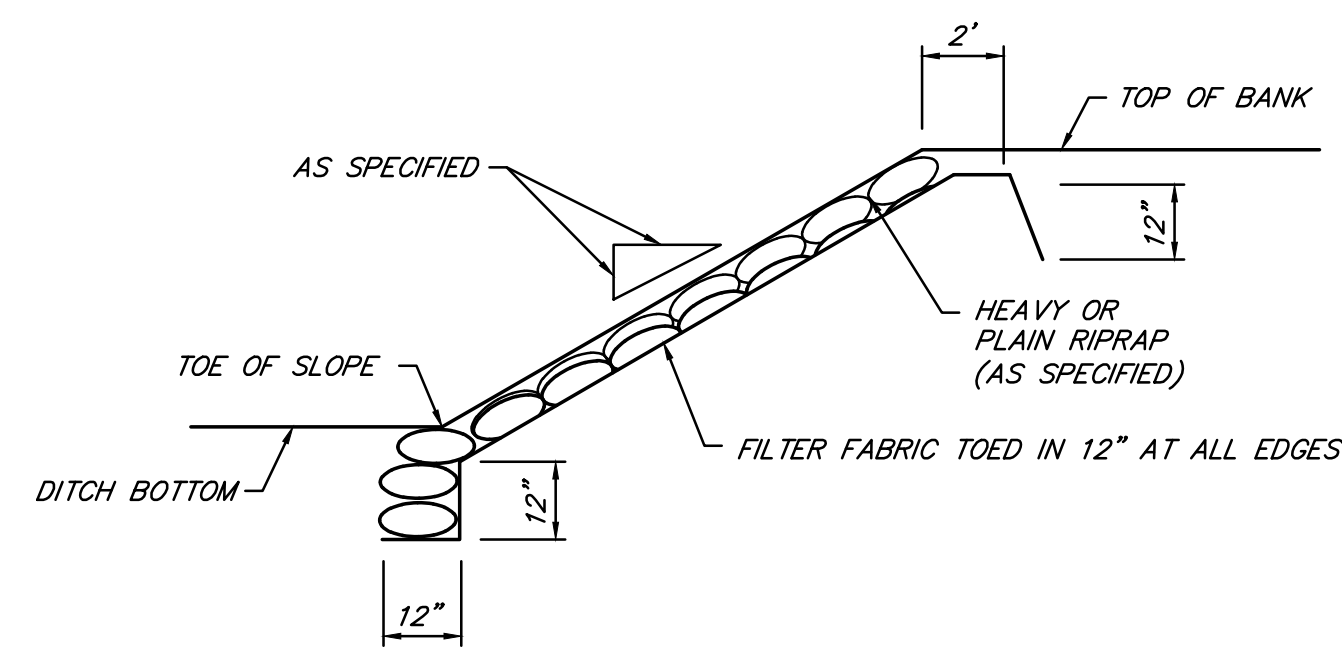
SAVAGE DRAIN  
SAGINAW COUNTY, MICHIGAN

**CROSS SECTIONS  
MAIN DRAIN  
STA 12+58 TO STA 46+89**

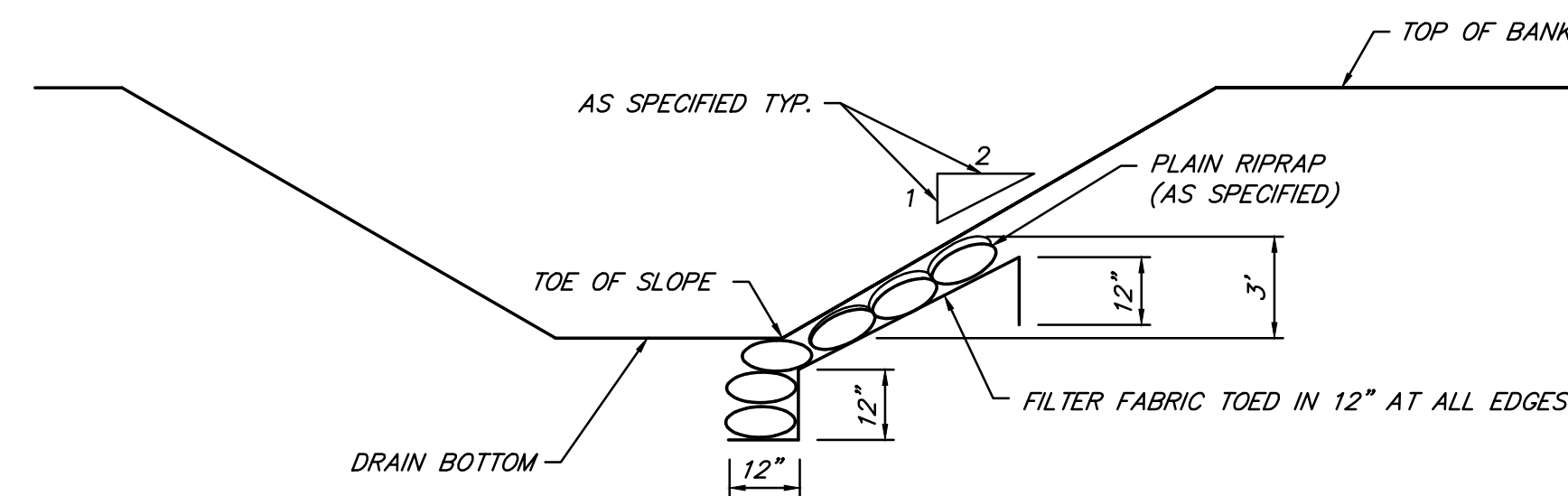
**Spicer Group** SAGINAW OFFICE  
230 S. Washington Ave.  
Saginaw, MI 48607  
Tel. 989-754-4717  
Fax. 989-754-4440  
www.SpicerGroup.com

DE. BY: LDO/POC	CH. BY: LDO	PROJECT NO.
DR. BY: POC	APP. BY: NDC	126999SG2019
STDS.	SHEET 11 OF 12	DIV
DATE: APRIL, 2023	FILE NO.	II
SCALE: 1"=10'	DR-3971-11	

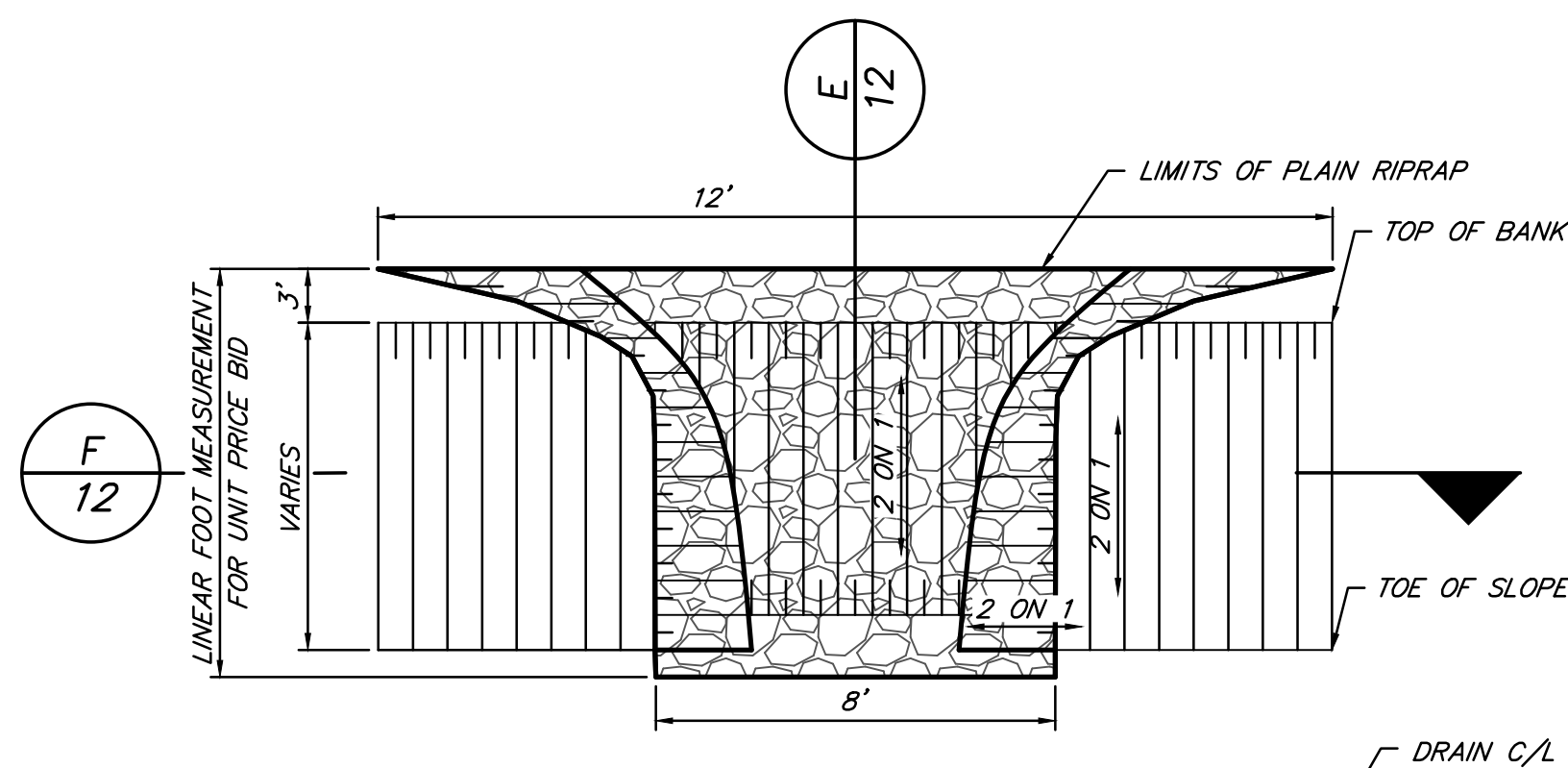




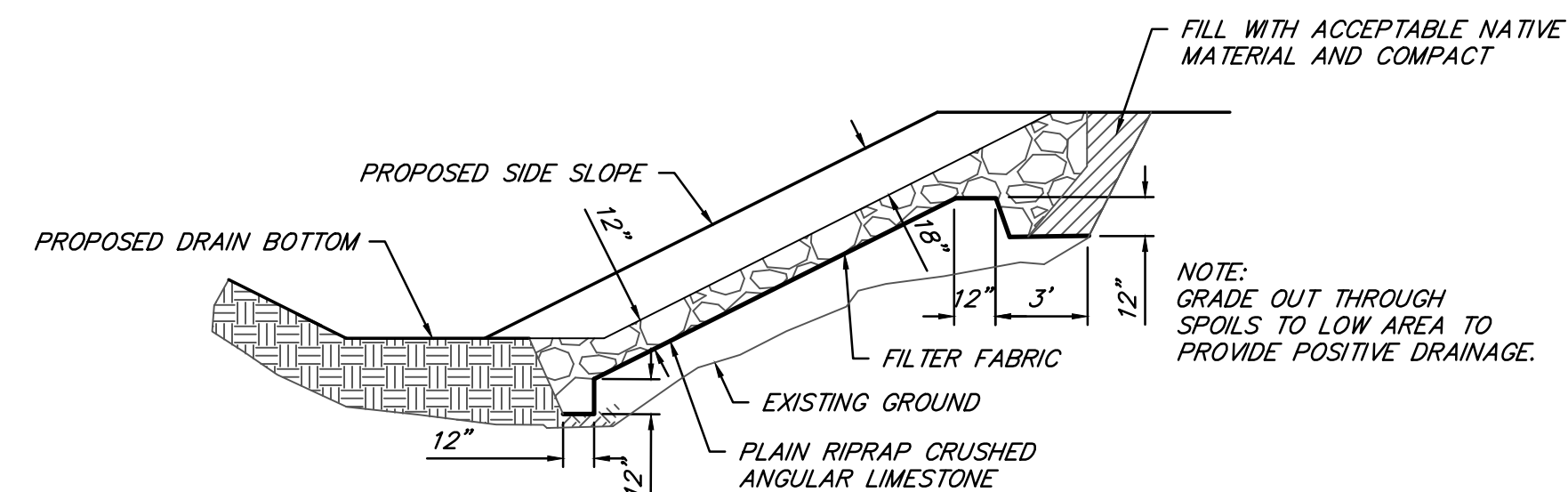
**RIPRAP INSTALLATION DETAIL**  
NOT TO SCALE



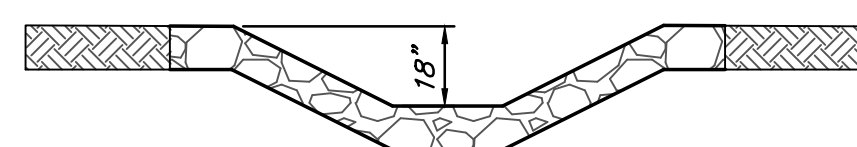
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NOT TO SCALE



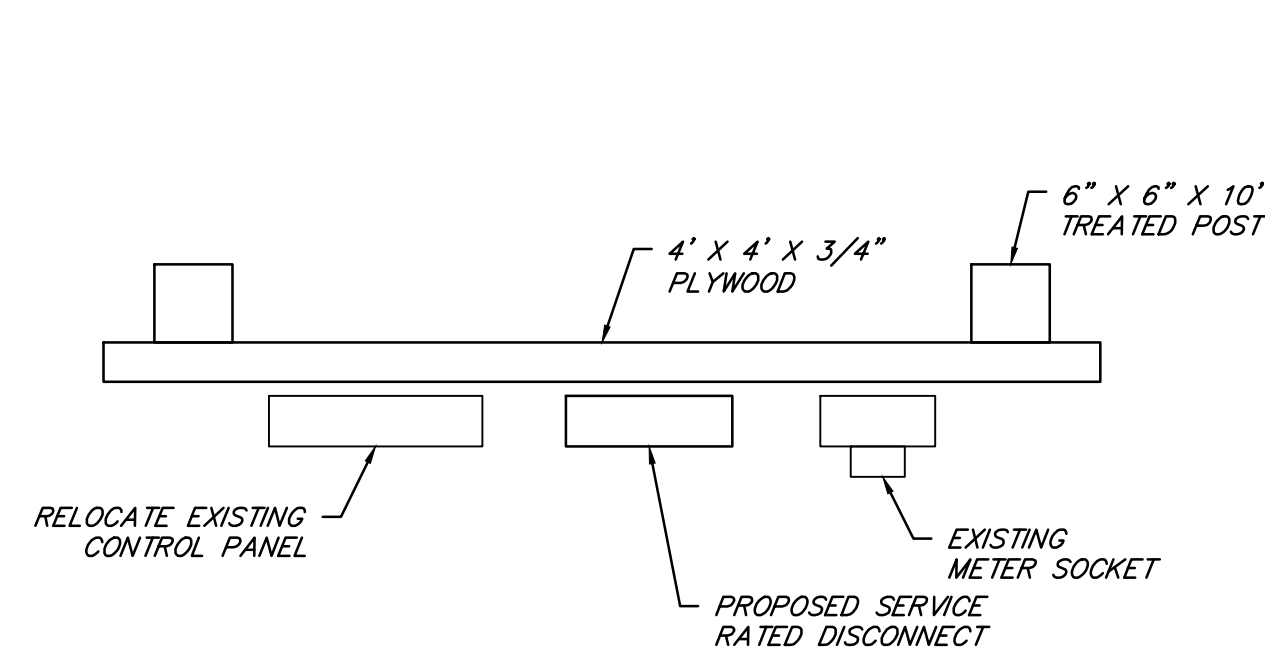
**PLAIN RIPRAP SPILLWAY PLAN VIEW**  
NOT TO SCALE



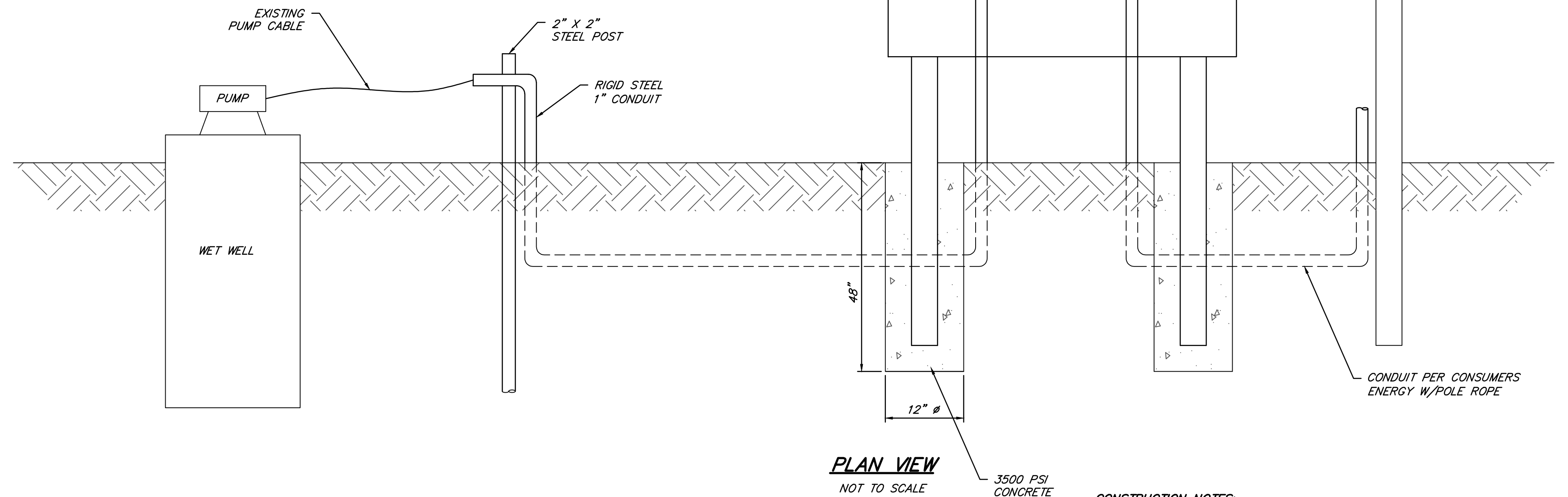
**PLAIN RIPRAP SPILLWAY CROSS SECTION**  
NOT TO SCALE



**PLAIN RIPRAP SPILLWAY CROSS SECTION**  
NOT TO SCALE



**TOP VIEW**  
NOT TO SCALE



**PLAN VIEW**  
NOT TO SCALE

**ELECTRICAL CONTROL PANEL DETAIL**  
NOT TO SCALE

**CONSTRUCTION NOTES:**

- SERVICE RATED DISCONNECT SHALL BE LOCKABLE.
- ACTUAL LAYOUT MAY VARY.
- ATTACH ALL EXTERIOR EQUIPMENT WITH STAINLESS STEEL HARDWARE.
- NOT ALL CONDUITS AND HANDHOLES ARE SHOWN, CONTRACTOR REQUIRED TO INSTALL ALL CONDUITS AND HANDHOLES AS NECESSARY FOR A COMPLETE AND OPERABLE SYSTEM.
- CONTRACTOR RESPONSIBLE FOR GROUNDING THE ELECTRICAL SERVICE, PANEL AND LIGHT POLE/FIXTURE AS REQUIRED PER NEC.
- ALL WORK SHALL MEET THE REQUIREMENTS OF NEC.
- EXISTING PUMP CONTROL PANEL, PUMP, PUMP CORD SHALL BE SALVAGED AND REUSED.
- CONDUIT AT PUMP SHALL BE SEALED WITH A CORD GRIP FITTING.
- METER SOCKET AND UNDERGROUND CONDUIT SHALL BE INSTALLED PER CONSUMER ENERGY.
- CONTRACTOR TO COORDINATE DISCONNECT AND RECONNECT OF ELECTRICAL SERVICE.
- CONTROL PANEL LOCATION AND LAYOUT SHALL BE FIELD DETERMINED.

BY	MARK	REVISIONS	DATE
<p>THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.</p>			
<p>SAVAGE DRAIN SAGINAW COUNTY, MICHIGAN</p>			
<p><b>ELECTRICAL PLAN AND PROJECT DETAILS</b></p>			
<p>DE. BY: LDO/POC DR. BY: POC</p>		<p>CH. BY: LDO APP. BY: NDC</p>	
<p>STDS.</p>		<p>PROJECT NO. 126999SG2019</p>	
<p>DATE: APRIL, 2023 SCALE: NOT TO SCALE</p>		<p>SHEET 12 OF 12 FILE NO. DR-3971-12</p>	
		<p>DIV I/II</p>	



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