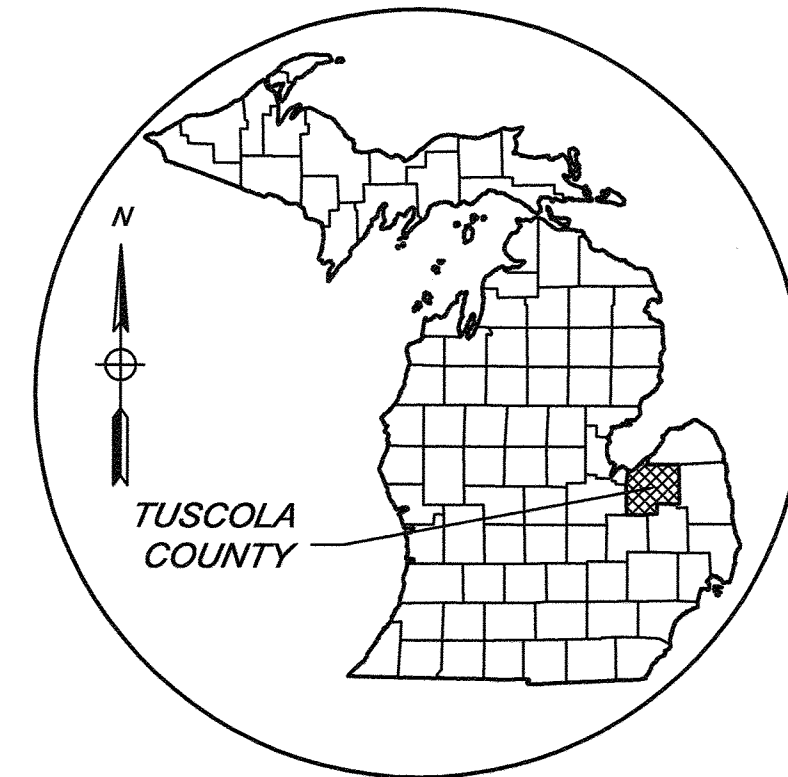
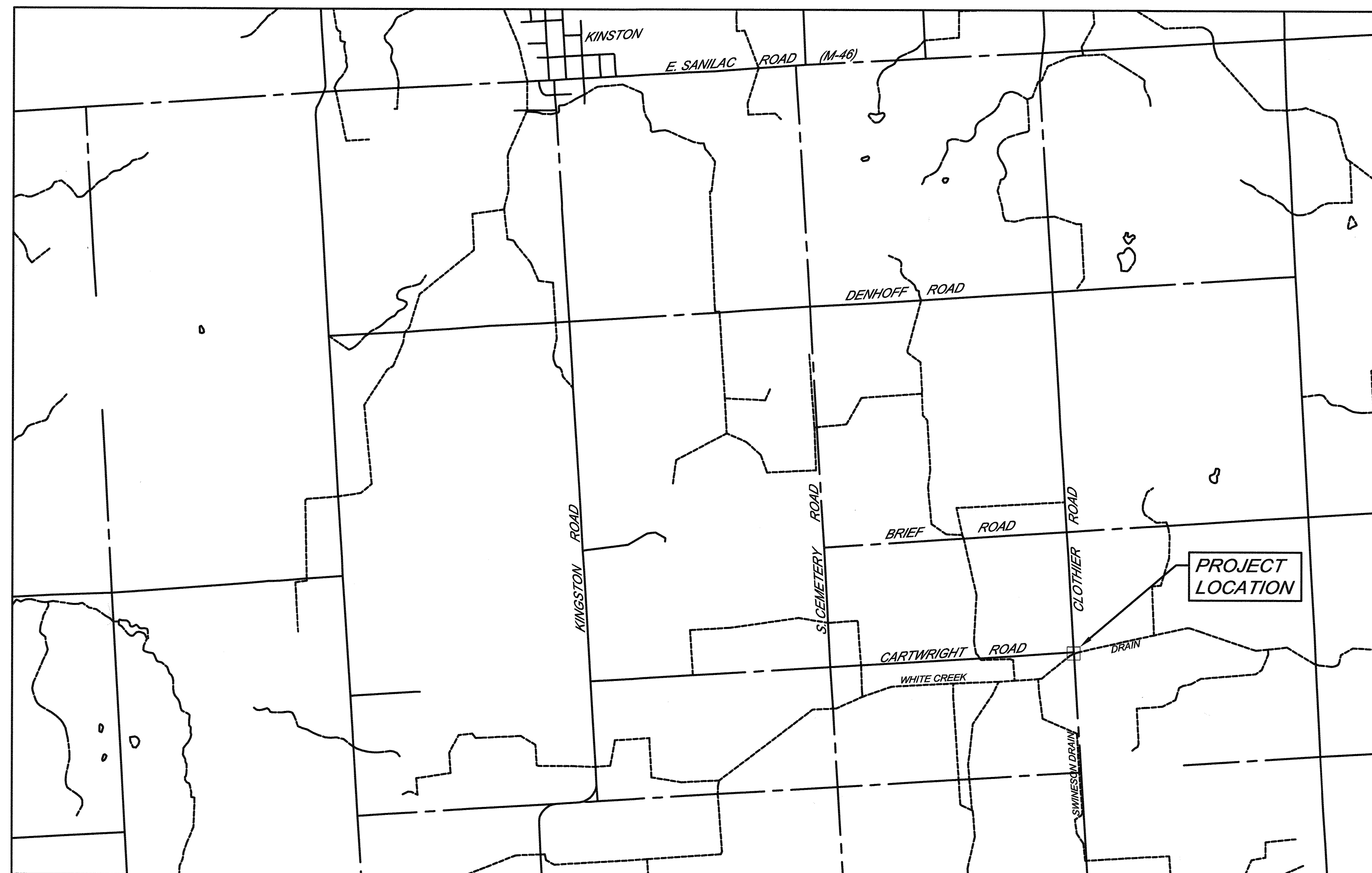


CLOTHIER ROAD STRUCTURE REPLACEMENT WHITE CREEK DRAIN

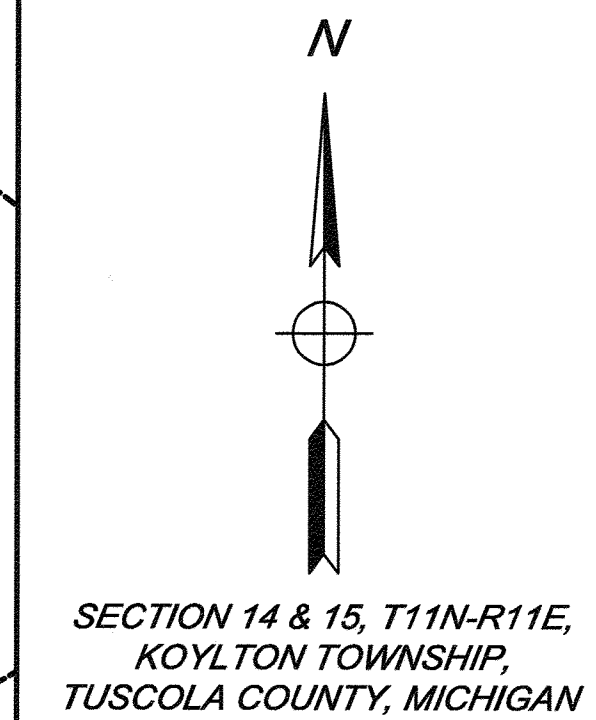
TUSCOLA COUNTY ROAD COMMISSION
STRUCTURE NO. 10627



AREA MAP
NOT TO SCALE

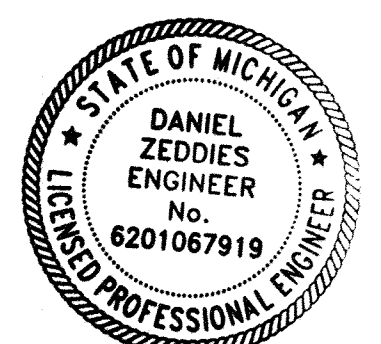


LOCATION MAP
NOT TO SCALE



PLAN INDEX

FILE NO.	DESCRIPTION	NO.
DR-4274-01	COVER SHEET	1
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Daniel Zeddie
2/2/2023

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.			
CLOTHIER ROAD STRUCTURE REPLACEMENT TUSCOLA COUNTY, MICHIGAN			
COVER SHEET			
Spicer group		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel: 989-754-4717 Fax: 989-754-4440 www.SpicerGroup.com	
DE. BY:	MTS/DPZ	CH. BY:	PROJECT NO.
DR. BY:	MTS	APP. BY:	132095SG2022
STDS.		SHEET 01 OF 08	DR
DATE	FEBRUARY, 2023	FILE NO.	DR
SCALE	AS SHOWN	DR-4274-01	01

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 48 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.

COORDINATE DRIVE CLOSURES AND MAIL BOX RELOCATION WITH LANDOWNERS A MINIMUM OF ONE DAY IN ADVANCE.

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 OF MATERIALS ACCORDING TO LOCAL AND STATE REQUIREMENTS.

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 THUS 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 OWNER. CRITICAL DITCH GRADES SHALL BE PROTECTED WITH EITHER SOD, SEED/MULCH, OR SEED/MULCH BLANKET AS DIRECTED BY OWNER.

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 TRAPS/BASINS 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.

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

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 TRAFFIC IS GOING TO BE DETOURED BY TUSCOLA COUNTY ROAD COMMISSION.

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.

CONTACTS

Table with 3 columns: Name, Title, and Contact Information. Includes BRENT J. DANKERT P.E. (OWNER), BOB MANTEY (DRAIN), DANIEL ZEDDIES P.E. (ENGINEER), SARA FORCE (ELECTRIC), JOE RODEA (GAS), and DOUG HOVEY (CABLE/FIBER).

GENERAL NOTES CONT.

ALL WORK SHALL BE CONFINED TO THE RIGHT-OF-WAY OR CONSTRUCTION LIMITS SHOWN ON THE PLANS. ANY WORK OUTSIDE OF THESE LIMITS SHALL BE AGREED TO BY THE CONTRACTOR AND THE LANDOWNER IN WRITING.

RESTORE ALL LAWN AREAS PER SPECIFICATIONS AND PLANS.

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

REMOVE EXISTING FENCES, LANDSCAPING, AND OTHER STRUCTURES IN RIGHT-OF-WAY OR CONSTRUCTION LIMITS AS-NEEDED FOR CONSTRUCTION. COST TO BE INCLUDED IN SITE CLEARING.

REINSTALLATION OF FENCES MUST BE COORDINATED WITH THE LAND OWNER AT THE LAND OWNER'S EXPENSE, UNLESS STATED OTHERWISE IN THE PLANS.

ALL SPRINKLER SYSTEMS DAMAGED SHALL BE REPAIRED BY CONTRACTOR. COST OF THE PAY ITEM BEING INSTALLED, UNLESS OTHERWISE NOTED.

CONTRACTOR TO CLEAR TREES WITHIN THE RIGHT-OF-WAY OR CONSTRUCTION LIMITS AS NECESSARY TO CONSTRUCT PROJECT AND LEVEL SPOILS AS SHOWN IN DETAILS. COORDINATE REMOVALS WITH THE ENGINEER/LANDOWNER.

ROADS, DRIVEWAYS AND SIDEWALKS ALL JOINTS AT INTERSECTION APPROACHES AND DRIVEWAYS SHALL BE SAW-CUT WITH BUTT-JOINTS.

FOR OPEN CUT PAVEMENT REMOVAL, CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT FULL DEPTH PRIOR TO REMOVAL.

ALL DRIVING SURFACES ARE TO BE RESTORED TO IN-KIND DEPTH AND MATERIAL, UNLESS OTHERWISE SPECIFIED ON THE PLANS.

PROTECT ALL ROADS NOT SPECIFIED TO BE REMOVED DURING CONSTRUCTION. REPAIR ANY UNAUTHORIZED DAMAGE AT CONTRACTOR'S 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.

MATCH EXISTING TYPE FOR CONCRETE CURB AND GUTTER RESTORATION.

CONTRACTOR SHALL REMOVE AND REPLACE ALL STREET AND TRAFFIC SIGNAGE AS NECESSARY FOR CONSTRUCTION. ALL COST SHALL BE INCLUDED IN THE BID PRICE FOR SITE CLEARING.

CONTRACTOR SHALL COORDINATE LOCATION OF ANY ACCESS ROADS WITH THE LANDOWNER AND THE ENGINEER. ANY ACCESS ROAD SHALL BE REPAIRED TO THE OWNER'S SATISFACTION.

ALL WORK WITHIN THE ROAD RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND GENERAL SPECIFICATIONS OF THE AGENCY WITH JURISDICTION OVER THE ROAD.

MAIL BOXES CONTRACTOR SHALL REMOVE AND TEMPORARILY RELOCATE ALL EXISTING MAIL BOXES AS NEEDED FOR CONSTRUCTION. COSTS TO BE INCLUDED IN THE UNIT PRICE BID FOR SITE CLEARING.

ALL TEMPORARILY RELOCATED MAIL BOXES, STREET AND TRAFFIC SIGNS TO BE REINSTALLED TO ORIGINAL LOCATIONS AS CONSTRUCTION ALLOWS. COSTS TO BE INCLUDED IN THE UNIT PRICE BID FOR CLEANUP AND RESTORATION.

UTILITIES UTILITIES LOCATED IN THE ROAD AND DRAIN RIGHTS-OF-WAY WILL BE RELOCATED BY OTHERS, UNLESS OTHERWISE NOTED ON THE PLANS.

THE DRAIN COMMISSIONER'S MINIMUM CLEARANCE STANDARDS SHALL BE MET WHENEVER RELOCATING EXISTING UTILITIES WITHIN THE DRAIN RIGHT-OF-WAY.

ALL WATER VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE. COST SHALL BE INCLUDED IN THE PAY ITEM BEING INSTALLED.

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

ALL MANHOLE RIMS IN ROADWAYS AND DRIVES SHALL BE ADJUSTED PRIOR TO FINAL PAVING TO BE FLUSH WITH FINISHED GRADE.

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

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.

CONTRACTOR SHALL CONNECT ANY AND ALL FIELD TILE OUTLETS AND OTHER STORM LEADS TO PROPOSED STORM SEWER WITH PREMANUFACTURED TEES, WYES, GASKETS, SEALS, COUPLERS, BOOTS, ETC. PER SPECIFICATIONS.

SOIL EROSION SEDIMENT CONTROL ALL RIPRAP MATERIAL SHALL BE APPROVED BY THE ENGINEER. OWNER AND ENGINEER RESERVES THE RIGHT TO REJECT ANY AND ALL RIPRAP.

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

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
FES = FLARED END SECTION
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
NTS = 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
TOB = TOP OF BANK
TOS = TOE OF SLOPE
TELE = TELEPHONE
TRW = TOP OF RETAINING WALL
TW = TOP OF WALK
UG = UNDERGROUND
UNO = UNLESS NOTED OTHERWISE
VERT = VERTICAL
WM = WATER MAIN
WSEL = WATER SURFACE ELEVATION

MISCELLANEOUS QUANTITIES table with 3 columns: Quantity, Unit, Description. Includes 1 LSUM Mobilization Max, 270 Ft Erosion Control, Silt Fence, 950 Syd Slope Restoration, Type D, Modified, 25 Ton Maintenance Gravel.

LINE TYPE LEGEND

- EXISTING ROAD CENTERLINE
EXISTING WATER MAIN
EXISTING SANITARY SEWER OR FORCEMAIN
EXISTING STORM SEWER
EXISTING TELEPHONE CABLE
EXISTING GAS MAIN
EXISTING ELECTRIC
EXISTING DRAINS (OTHER)
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

SYMBOL LEGEND EXISTING SYMBOLS

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

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

PROJECT DATUM table with HORIZONTAL and VERTICAL datum information. Includes PROJECT NO. 132095SG2022, SHEET 02 OF 08, DATE JANUARY 2023, and SCALE NOT TO SCALE.



DE. BY: MTS/DPZ, CH. BY: MTS, DR. BY: MTS, SHEET 02 OF 08, PROJECT NO. 132095SG2022, DATE JANUARY 2023, SCALE NOT TO SCALE, FILE NO. DR-4274-02, DR 02

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 forces from wind and or water on flat areas, mild slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles.
2	Mulch		On flat areas, slopes, grassed waterways and spillways, diversion ditches and dikes, borrow and stockpile areas, and spoil piles when areas are subject to raindrop impact, and erosive forces 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.
A	Debris Removal		
B	Sediment Removal		
D	Drain Crossing Maintenance		

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

SYMBOLGY FOR INSERTION INTO CONSTRUCTION DRAWINGS:

- PERMANENT MEASURE
- TEMPORARY MEASURE

MAINTENANCE PROGRAM FOR SESC MEASURES

GENERAL MAINTENANCE

- CONTRACTOR SHALL MAINTAIN ALL PERMANENT SESC MEASURES FOR A PERIOD OF 1 YEAR FOLLOWING THEIR INSTALLATION.
- TEMPORARY SESC MEASURES MUST BE INSTALLED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.
- TEMPORARY MEASURES MUST BE MAINTAINED AND IN PLACE UNTIL AREAS ARE PERMANENTLY STABILIZED.
- PERMANENT MEASURES MUST BE INSTALLED AND MAINTAINED BY THE CONTRACTOR UNTIL FINAL COMPLETION.
- DAILY MAINTENANCE IS THE CONTRACTOR'S RESPONSIBILITY.
- TEMPORARY SESC MEASURES MUST BE REMOVED AT THE END OF THE PROJECT ONCE PERMANENT MEASURES ARE ESTABLISHED.
- TEMPORARY SESC MEASURES MUST BE INSTALLED PRIOR TO OR AT THE TIME OF EARTH DISTURBANCE.
- INSPECT WEEKLY AND AFTER EACH RAIN EVENT UNTIL VEGETATION HAS BEEN ESTABLISHED.
- IF NECESSARY, REPAIR AND RE-SEED OR REPLANT ERODED AREAS IMMEDIATELY.

SEEDING AND MULCHING

- SEEDING PRACTICES INCLUDE TOPSOIL (AS DIRECTED BY ENGINEER), SEED, POLYMER, AND MULCH OR MULCH MATTING (AS DIRECTED BY ENGINEER OR WHERE SHOWN ON PLANS).
- WHERE NECESSARY, APPROPRIATE MULCH MUST BE APPLIED BASED ON SLOPE AND GROWING CONDITIONS AS APPROVED BY THE PROJECT ENGINEER.
- ALL SLOPES AND HIGHLY ERODIBLE AREAS MUST BE SEEDED, POLYMER APPLIED AND MULCHED AS NEEDED WHEN CONSTRUCTION ACTIVITY IS NOT TAKING PLACE.
- SEED AND MULCH IS TO BE INSPECTED DAILY FOLLOWING EACH RAIN EVENT TO DETERMINE IF CONCENTRATED FLOWS ARE PRESENT.
- IN THE EVENT THAT SEED AND MULCH ARE REMOVED BY ERODIBLE RUNOFF, REPAIRS ARE TO BE MADE IMMEDIATELY.
- ALL AREAS DURING CONSTRUCTION MUST BE PERMANENTLY STABILIZED WITHIN 72 HOURS OF FINAL GRADE (GRADE LISTED ON PLAN).

SILT FENCE

- SILT FENCE IS TO BE TRENCHED IN NO LESS THAN 6 INCHES BELOW THE GROUND SURFACE.
- INSPECT SILT FENCE DAILY AND IMMEDIATELY FOLLOWING EACH RAINFALL.
- REPAIR WHEN SILT FENCE IS SAGGING OR HAS BEEN REMOVED/TORN DOWN.
- WHEN SILT COLLECTS TO HALF THE HEIGHT OF THE FENCE ALL SILT IS TO BE REMOVED AND FENCE REPAIRED.
- REMOVE SILT FENCE WHEN PERMANENT SESC MEASURES ARE IN PLACE AND VEGETATION IS ESTABLISHED.

COMPLIANCE WITH PART 91 OF PA 451

- RESPOND IMMEDIATELY TO STORMWATER OPERATOR AND/OR SOIL EROSION AND SEDIMENTATION CONTROL INSPECTOR CONCERNS. MAKE CORRECTIVE MEASURES AS REQUIRED IMMEDIATELY AS DETAILED BY THE APPROVED APA MANUAL(S).

SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. INSTALL AND MAINTAIN ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH THE APPROVED PLAN PRIOR TO COMMENCEMENT OF CONSTRUCTION OR MASS GRADING. ALL SESC MEASURES MUST BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE BELL CREEK DRAIN SESC PLAN AND PROJECT SPECIFICATIONS.
2. SOIL EROSION CONTROL MEASURES MUST BE INSPECTED BY A STATE CERTIFIED INSPECTOR AFFILIATED WITH THE COUNTY DRAIN COMMISSIONER'S OFFICE PRIOR TO COMMENCEMENT OF CONSTRUCTION OR MASS GRADING.
3. DAILY INSPECTION AND MAINTENANCE MUST BE MADE TO ENSURE ALL EROSION CONTROL MEASURES ARE FUNCTIONING PROPERLY AND INTACT. NECESSARY REPAIRS MUST BE PERFORMED WITHIN 24 HOURS.
4. ADDITIONAL SOIL EROSION CONTROL MEASURES MUST BE PROVIDED THROUGHOUT CONSTRUCTION ACTIVITY AS NEEDED AND DETERMINED BY THE AP/ENGINEER. THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN IS TO BE AMENDED TO INCLUDE ADDITIONAL EROSION CONTROL MEASURES IMPLEMENTED ON-SITE.
5. SEDIMENT FROM WORK ON THIS SITE IS TO BE CONTAINED ON THE SITE AND IS NOT TO BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MANMADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, PONDS, AND WETLANDS.
6. ALL VISUAL TRACKING INCLUDING MUD, DIRT, AND DEBRIS TRACKED ONTO EXISTING ROADWAYS MUST BE IMMEDIATELY REMOVED NO LESS THAN ON A DAILY BASIS BY SCRAPING AND SWEEPING AND/OR AS DIRECTED BY THE ENGINEER.
7. DUST CONTROL MUST BE EXERCISED AT ALL TIMES DURING THE PROJECT AND AS DIRECTED BY THE ENGINEER OR APA. APPLY DUST SUPPRESSANT TO SURFACES USING A PRESSURE TYPE WATER DISTRIBUTOR TRUCK EQUIPPED WITH A SPRAY SYSTEM.
8. ALL PERMANENT SOIL EROSION CONTROL MEASURES MUST BE IN PLACE WITHIN 24 HOURS OF FINAL GRADING (GRADE LISTED ON PLANS). THIS INCLUDES ALL VEGETATIVE STABILIZATION, VEGETATIVE STABILIZATION WILL BE ONGOING. TOPSOIL, FERTILIZER, SEED, POLYMER, SILT STOP (OR EQUAL), MULCH AND OR RIPRAP MUST BE IN PLACE BEFORE PROCEEDING TO THE NEXT WORK AREA. ALL TEMPORARY MEASURES SUCH AS SILT FENCE AND INLET PROTECTION BAGS ARE TO BE REMOVED ONCE PERMANENT SESC MEASURES ARE IN PLACE AND VEGETATION IS ESTABLISHED. REMOVAL OF TEMPORARY MEASURES, FOLLOWING ACCEPTANCE OF THE PROJECT IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. PRIOR TO WINTER CONSTRUCTION, ALL EXPOSED SOILS MUST BE STABILIZED WITH A COMBINATION OF SILT STOP 705 POLYMER BLEND, NORTH AMERICAN GREEN EROSION CONTROL BLANKETS, MULCH, OR OTHER APPROVED METHOD IF VEGETATION COULD NOT BE ESTABLISHED DURING THE GROWING SEASON AS DETERMINED BY THE APA OR ENGINEER.
10. WORK AREAS MUST BE STABILIZED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH WITHIN 24 HOURS FOLLOWING CONSTRUCTION. VEGETATIVE STABILIZATION IS ONGOING THROUGHOUT THE PROJECT.
11. ALL SOIL EROSION CONTROL MEASURES MUST BE INSPECTED DAILY. THE STORM WATER OPERATOR IS TO MAKE A WEEKLY INSPECTION OR INSPECT AFTER EACH RAIN EVENT THAT RESULTED IN A DISCHARGE TO ENSURE PROPER MAINTENANCE OF THE SOIL EROSION CONTROL MEASURES. ANY DEFICIENCIES OR REPAIRS TO SOIL EROSION CONTROL MEASURES MUST BE CORRECTED IMMEDIATELY. INLET PROTECTION MEASURES, DANDY BAG II (OR EQUAL), FLEX STORM (OR EQUAL), MUST BE INSTALLED IN CATCHBASINS BEFORE ANY STORMWATER RUNOFF IS ALLOWED TO ENTER THE TOP OF THE STRUCTURES. THE SILT AND SEDIMENT MUST BE REMOVED FROM INLET PROTECTION MEASURES AS NEEDED TO ENSURE PROPER FUNCTION OF THE BAGS.
12. THE NEED FOR TEMPORARY MEASURES SUCH AS SILT FENCE AND DANDY BAG II (OR EQUAL), FLEX STORM (OR EQUAL) FOR EXISTING OR NEW CATCHBASINS MUST BE ASSESSED ON A DAILY BASIS. PIPES ARE TO BE CAPPED AT THE END OF EACH WORKDAY. AT NO TIME SHOULD SEDIMENT COLLECT IN A CATCHBASIN OR AN OFF-SITE AREA. TEMPORARY MEASURES MUST BE REMOVED ONCE PERMANENT MEASURES ARE IN PLACE AND VEGETATION IS ESTABLISHED.
13. IF DEWATERING IS NECESSARY, CONTRACTOR SHALL SUBMIT A DEWATERING PLAN TO THE APA FOR APPROVAL.
14. THE NOTICE OF COVERAGE (IF REQUIRED), SOIL EROSION AND SEDIMENTATION CONTROL PLAN, AND STORMWATER OPERATOR LOGS MUST BE LOCATED ON SITE AT ALL TIMES.
15. ALL RESTORATION TO OCCUR WITHIN 24 HOURS OF FINAL GRADING.

SOIL EROSION & SEDIMENTATION CONTROL PLAN

IN COMPLIANCE WITH SECTION 323.1703 OF PART 91, SOIL EROSION AND SEDIMENTATION CONTROL OF THE NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT, 1994 PA 451, AS AMENDED.

BY	MARK	REVISIONS	DATE

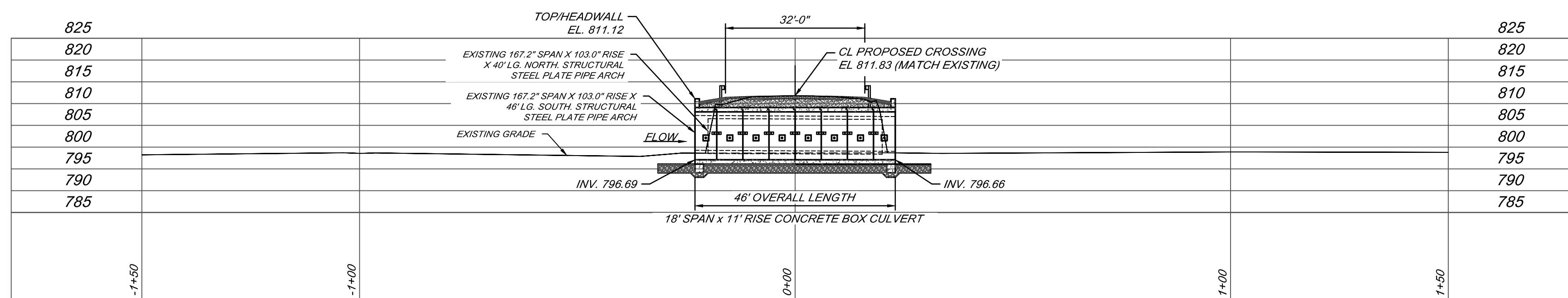
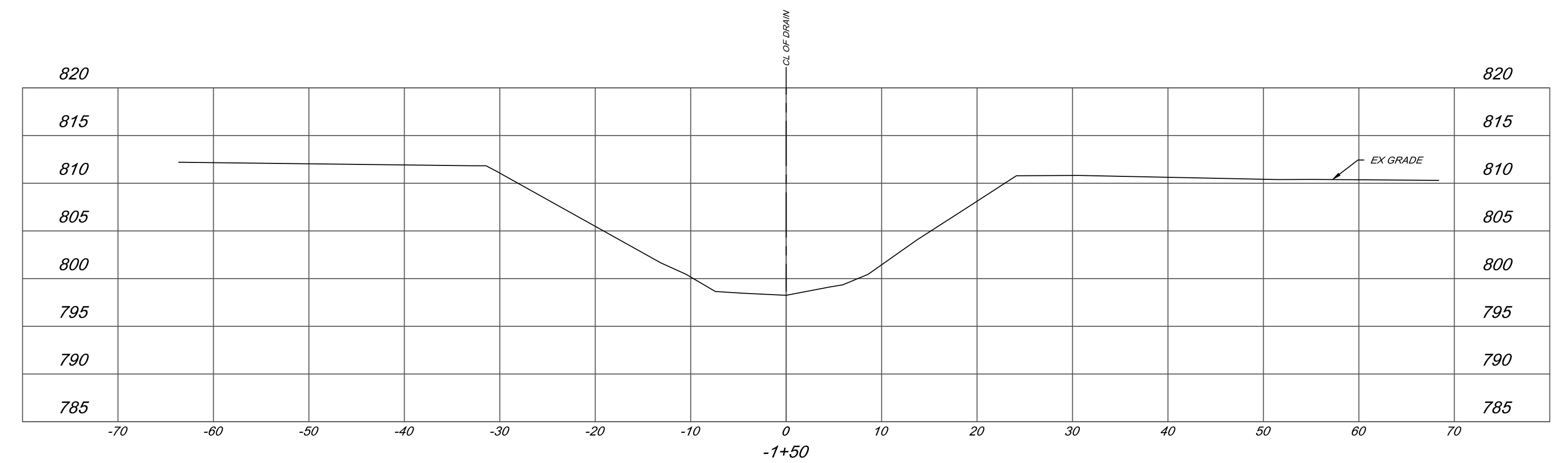
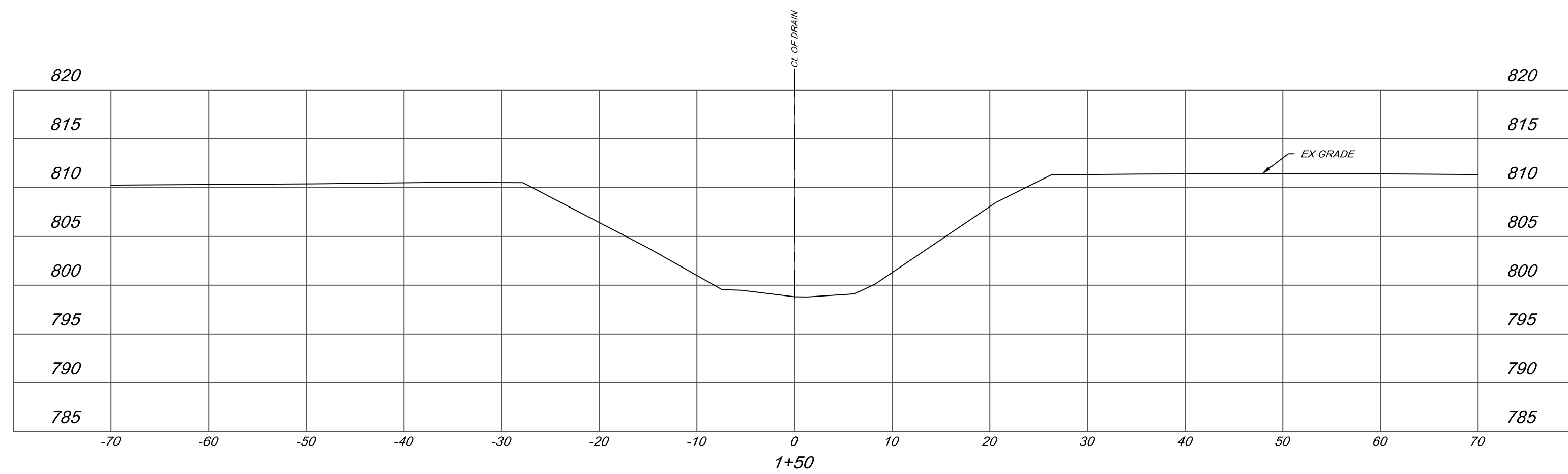
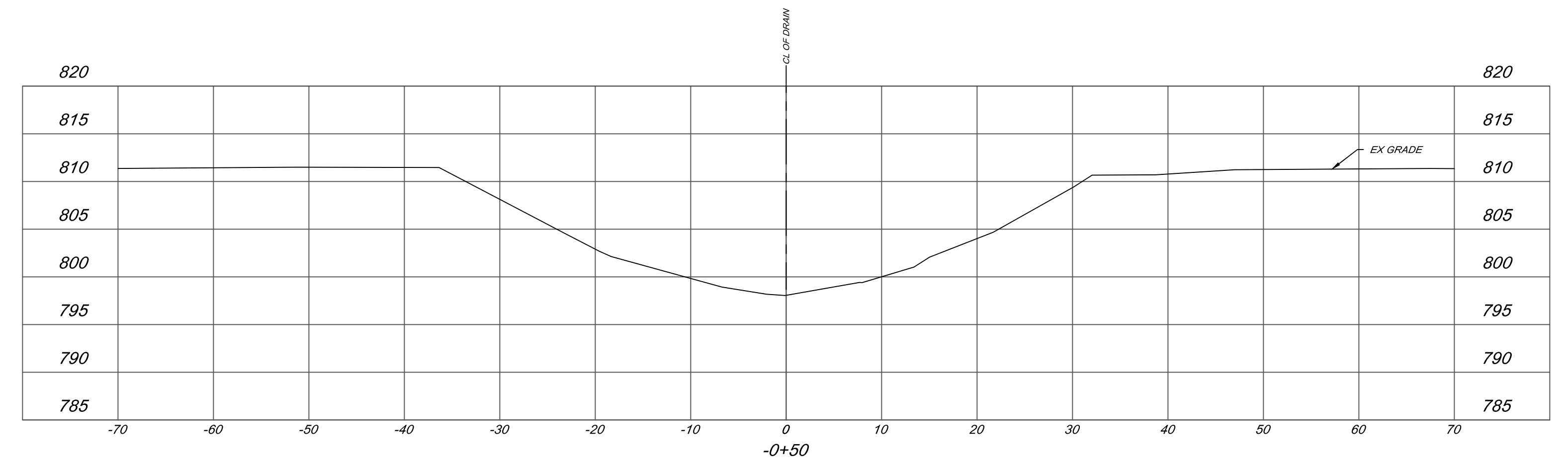
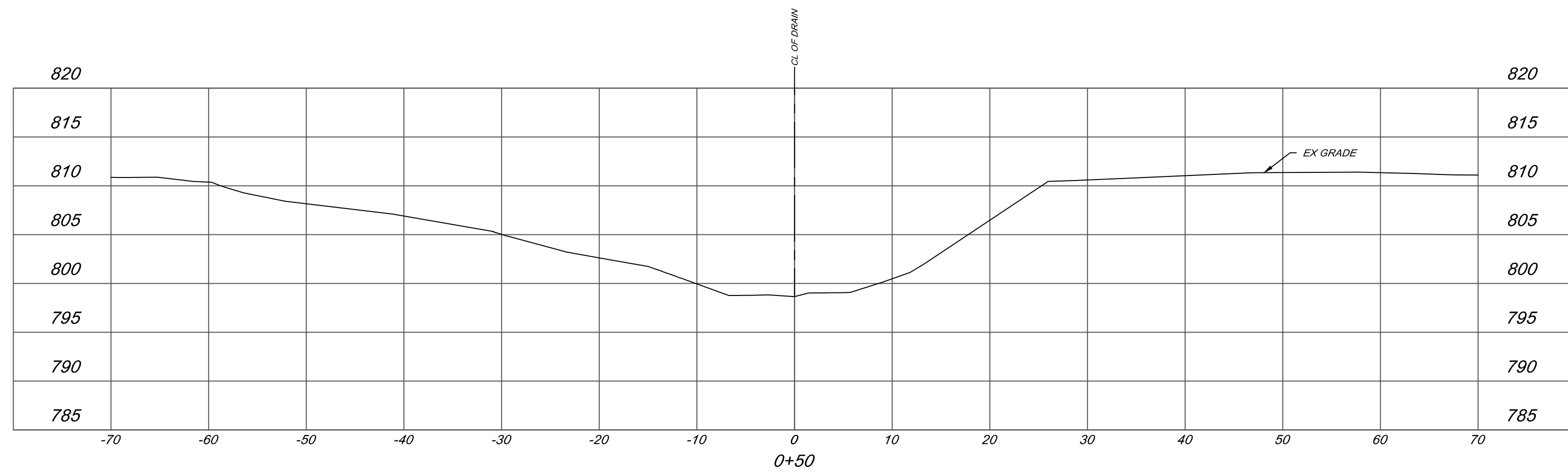
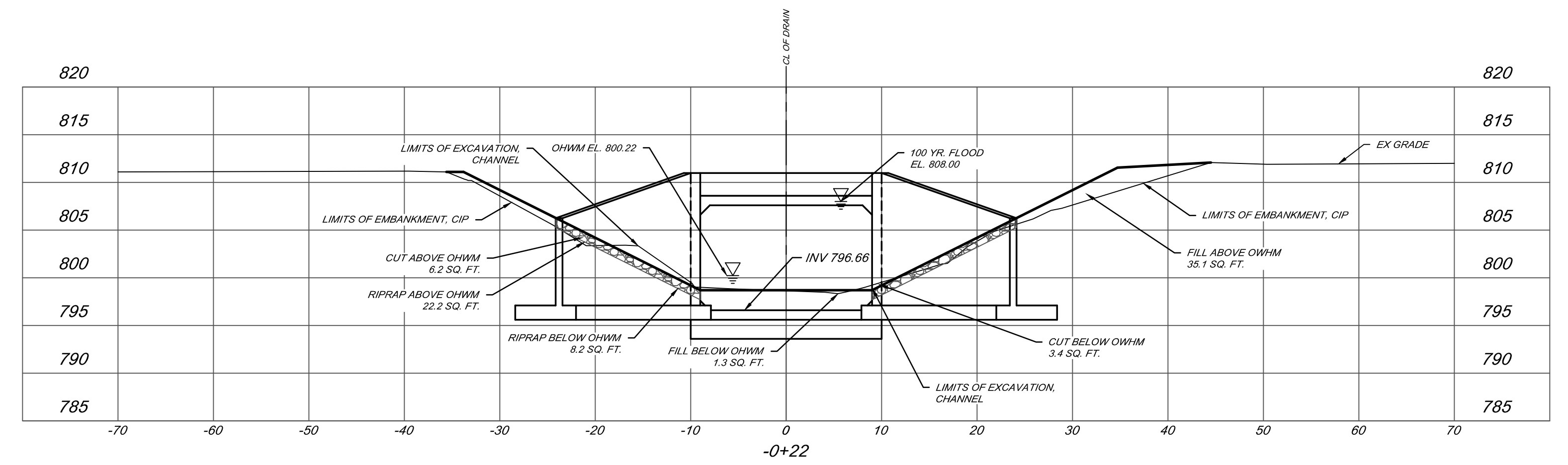
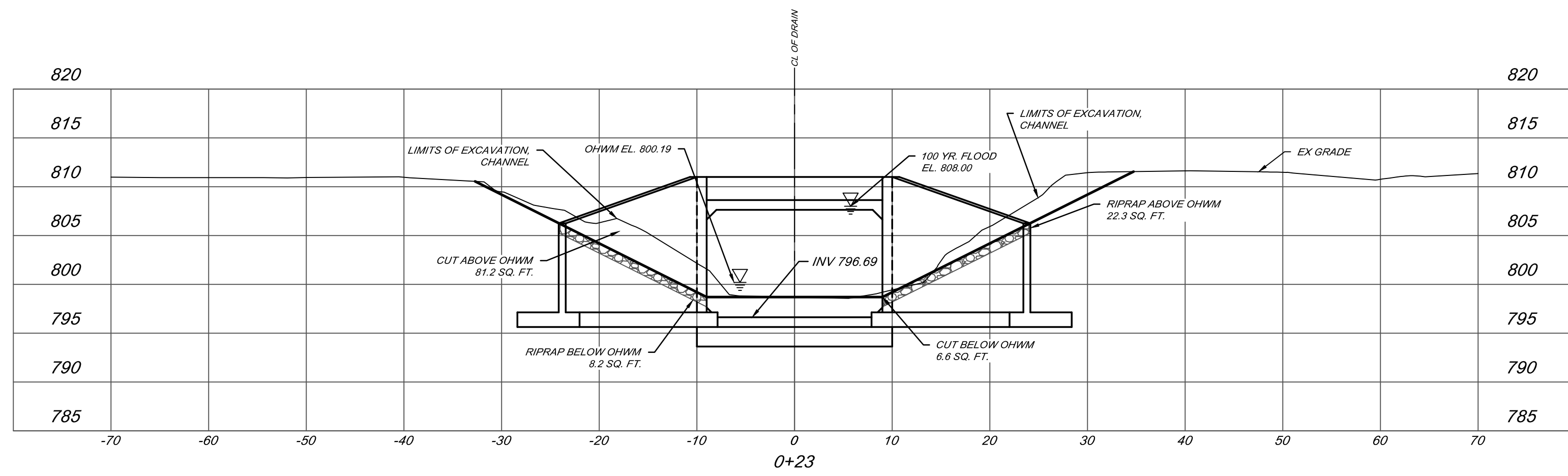
THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREON IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THE ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION,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

CLOTHIER ROAD STRUCTURE REPLACEMENT
TUSCOLA COUNTY, MICHIGAN

SOIL EROSION AND SEDIMENTATION CONTROL PLAN

	SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 989-754-4717 Fax 989-754-4440 www.SpicerGroup.com
	DE. BY: MTS/DPZ CH. BY: PROJECT NO. DR. BY: MTS APP. BY: 132095SG2022

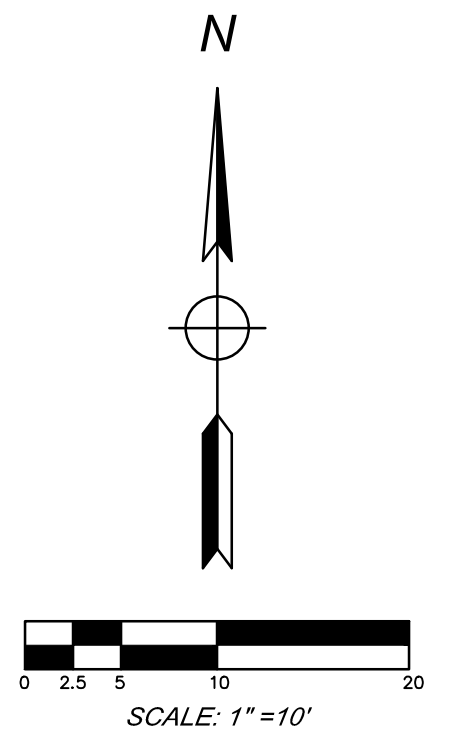
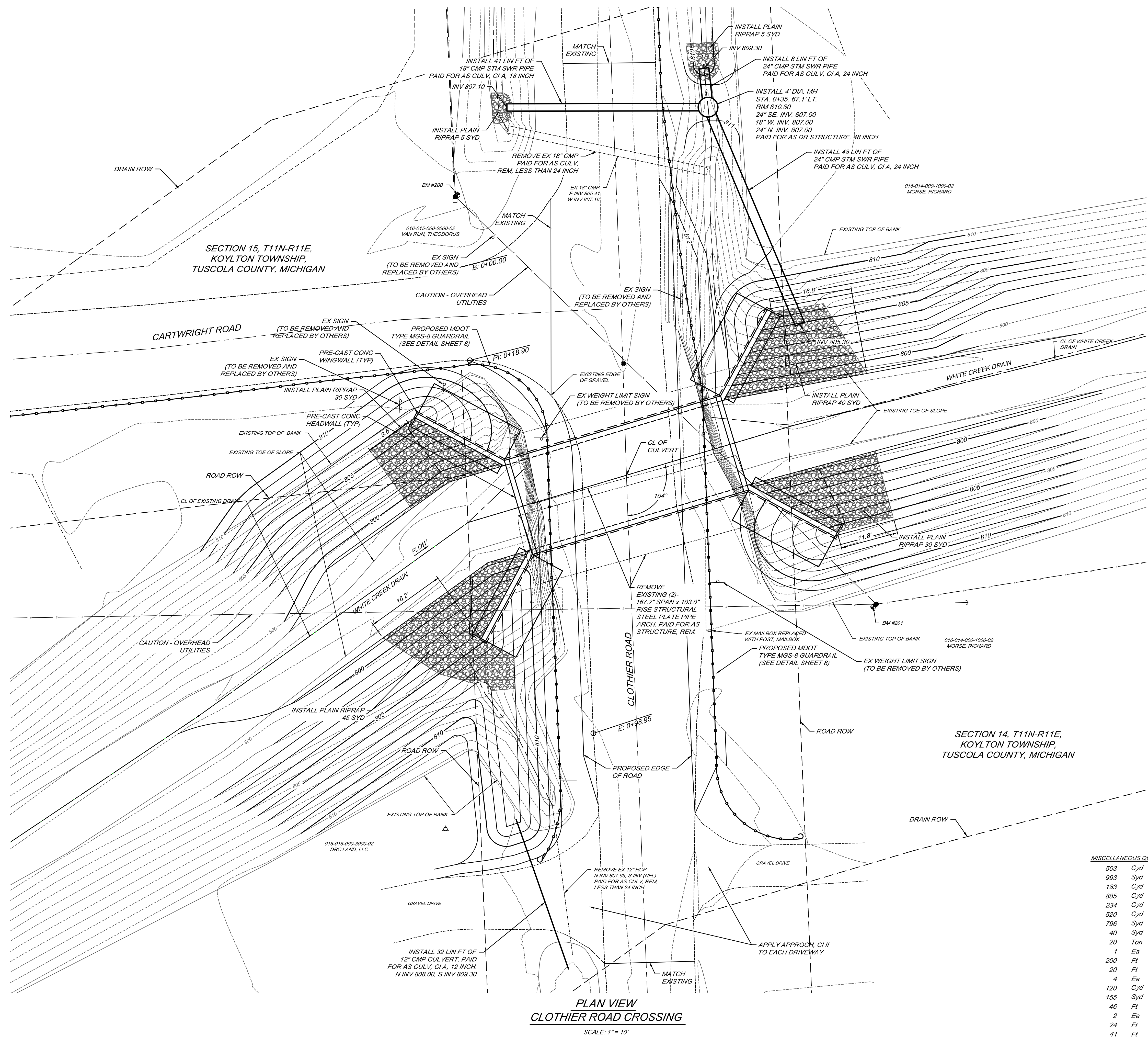
STDS.	SHEET 03 OF 08	DR 03
DATE: JANUARY, 2023 SCALE: NOT TO SCALE	FILE NO. DR-4274-03	



PROFILE VIEW
CLOTHIER ROAD CROSSING
SCALE: 1" = 20'

BY	MARK	REVISIONS	DATE
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CLOTHIER ROAD STRUCTURE REPLACEMENT TUSCOLA COUNTY, MICHIGAN			
CLOTHIER ROAD CROSS SECTIONS			
Spicer Group		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel: 989-754-4111 Fax: 989-754-4440 www.SpicerGroup.com	
DE. BY:	MTS/DPZ	CH. BY:	PROJECT NO.
DR. BY:	MTS	APP. BY:	132095SG2022
STDS.		SHEET 04 OF 08	DR
DATE	JANUARY, 2023	FILE NO.	04
SCALE	AS SHOWN	DR-4274-04	

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EROSION CONTROL TABLE				
KEY*	FROM STATION	TO STATION	DESCRIPTION	QTY
1 P			SEEDING	950 SYD
2 T			MULCHING	980 SYD
15 P			CROSSING	156 SYD

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

CONSTRUCTION NOTES

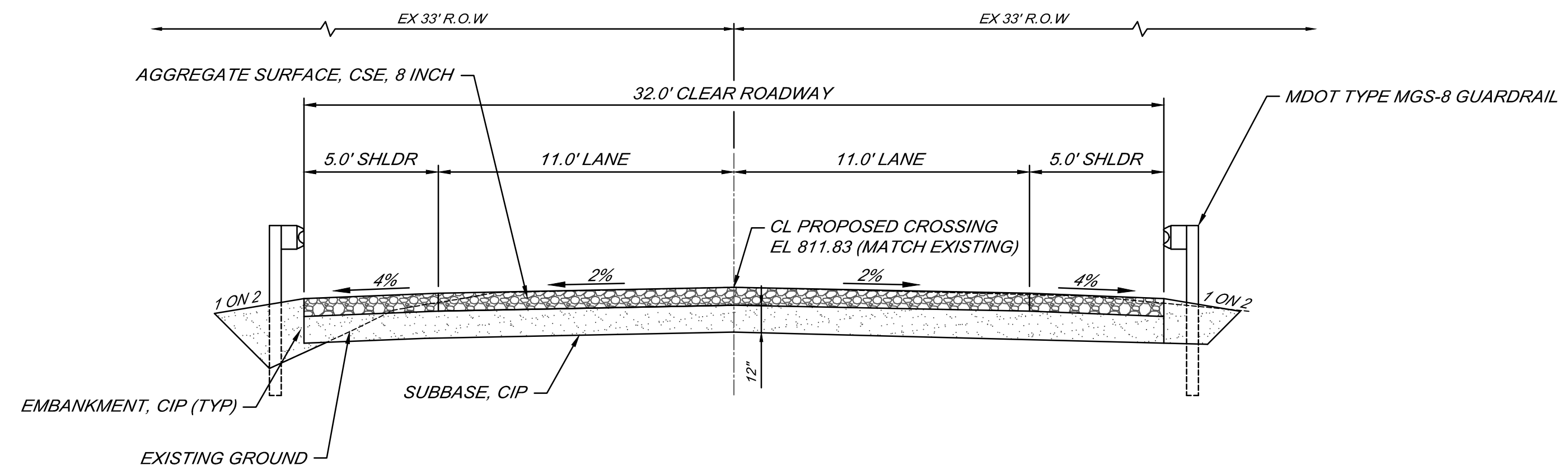
- ALL JOINTS SHALL BE SEALED ACROSS THE TOP AND 2 FEET VERTICALLY DOWN THE SIDES WITH MDOT APPROVED JOINT WATER PROOFING. INCLUDED IN CULV. PRECAST CONC BOX, 18 FOOT BY 11 FOOT.
- LOAD RATING TO BE SUBMITTED WITH SHOP DRAWINGS BY PRE-CAST MANUFACTURER. CULVERT MUST MEET ALL MICHIGAN LEGAL LOADS AND OVERLOAD CLASS A.
- FOOTING DESIGN AND STRUCTURE DESIGN OF ALL PRE-CAST COMPONENTS TO BE VERIFIED BY MANUFACTURER.
- FOOTING SHALL BE CONNECTED TO BOX WITH GROUT AND PIN CONNECTION. USING NO. 5 BAR PINS @ 12" SPACING.
- CULVERT SHALL BE COMPLETELY BACKFILLED WITH MDOT CLASS II SAND. ALL COSTS FOR SAND BACKFILL AND SAND SUBBASE ARE INCLUDED IN THE UNIT PRICE FOR BACKFILL, STRUCTURE, CIP.
- BOX CULVERT AND PRE-CAST WINGWALL FOOTINGS SHALL HAVE 3" OF 3/4" GRAVEL AND 24" OF MDOT 6A CRUSHED LIMESTONE BEDDING. ALL COST FOR BEDDING MATERIALS ARE INCLUDED IN THE UNIT PRICE FOR CULV BEDDING, BOX CULVERT.

MISCELLANEOUS QUANTITIES

503	Cyd	Excavation, Earth
993	Syd	Excavation, Fdn
183	Cyd	Excavation, Channel
885	Cyd	Backfill, Structure, CIP
234	Cyd	Embankment, CIP
520	Cyd	Subbase, CIP
796	Syd	Aggregate Surface, CSE, 8 inch
40	Syd	Shield, CI II, 4 inch
20	Ton	Approach, CI II
1	Ea	Post, Mailbox
200	Ft	Undertrain, Fdn, 4 inch
2	Ft	Undertrain Outlet, 4 inch
4	Ea	Undertrain, Outlet Ending, 4 inch
120	Cyd	Culv Bedding, Box Culvert
155	Syd	Riprap, Plain
46	Ft	Culv, Precast Conc Box, 18 foot by 11 foot
2	Ea	Culv, Rem, Less than 24 inch
24	Ft	Culv, CI A, 12 inch
41	Ft	Culv, CI A, 18 inch
56	Ft	Culv, CI A, 24 inch
264	Sft	Joint Waterproofing
1	LSUM	Structure, Rem

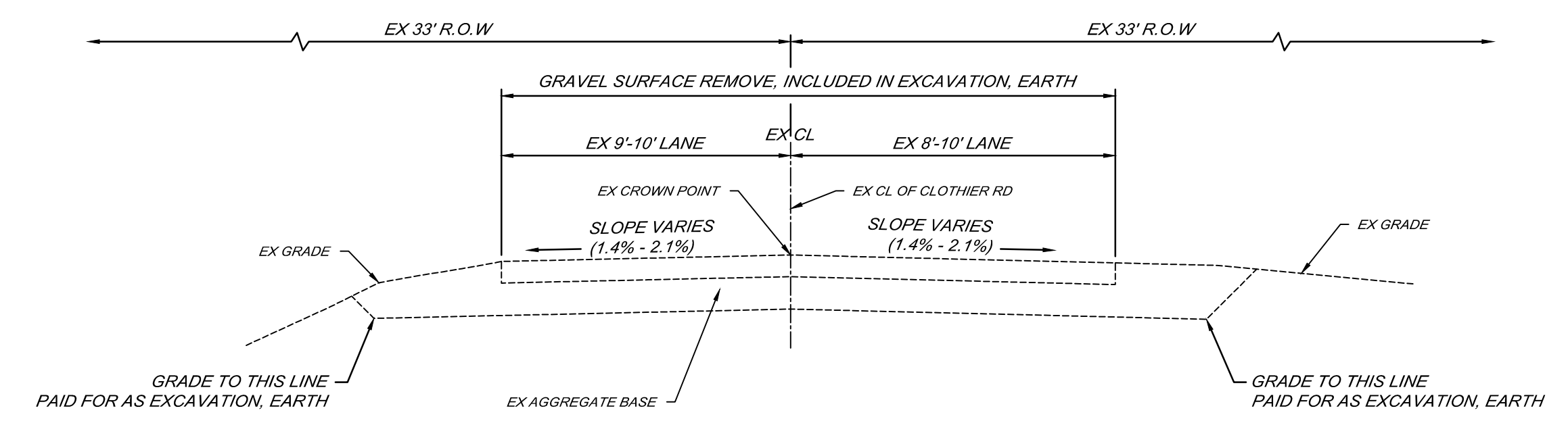
**PLAN VIEW
CLOTHIER ROAD CROSSING**
SCALE: 1" = 10'

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>			
CLOTHIER ROAD STRUCTURE REPLACEMENT TUSCOLA COUNTY, MICHIGAN			
PLAN VIEW			
		<small>SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel: 989-754-4111 Fax: 989-754-4440 www.SpicerGroup.com</small>	
DE. BY:	MITS/DPZ	CH. BY:	
DR. BY:	MITS	APP. BY:	
			PROJECT NO. 132095SG2022
STDS.		SHEET 05 OF 08	DR
DATE	JANUARY, 2023	FILE NO.	05
SCALE	AS SHOWN	DR-4274-05	



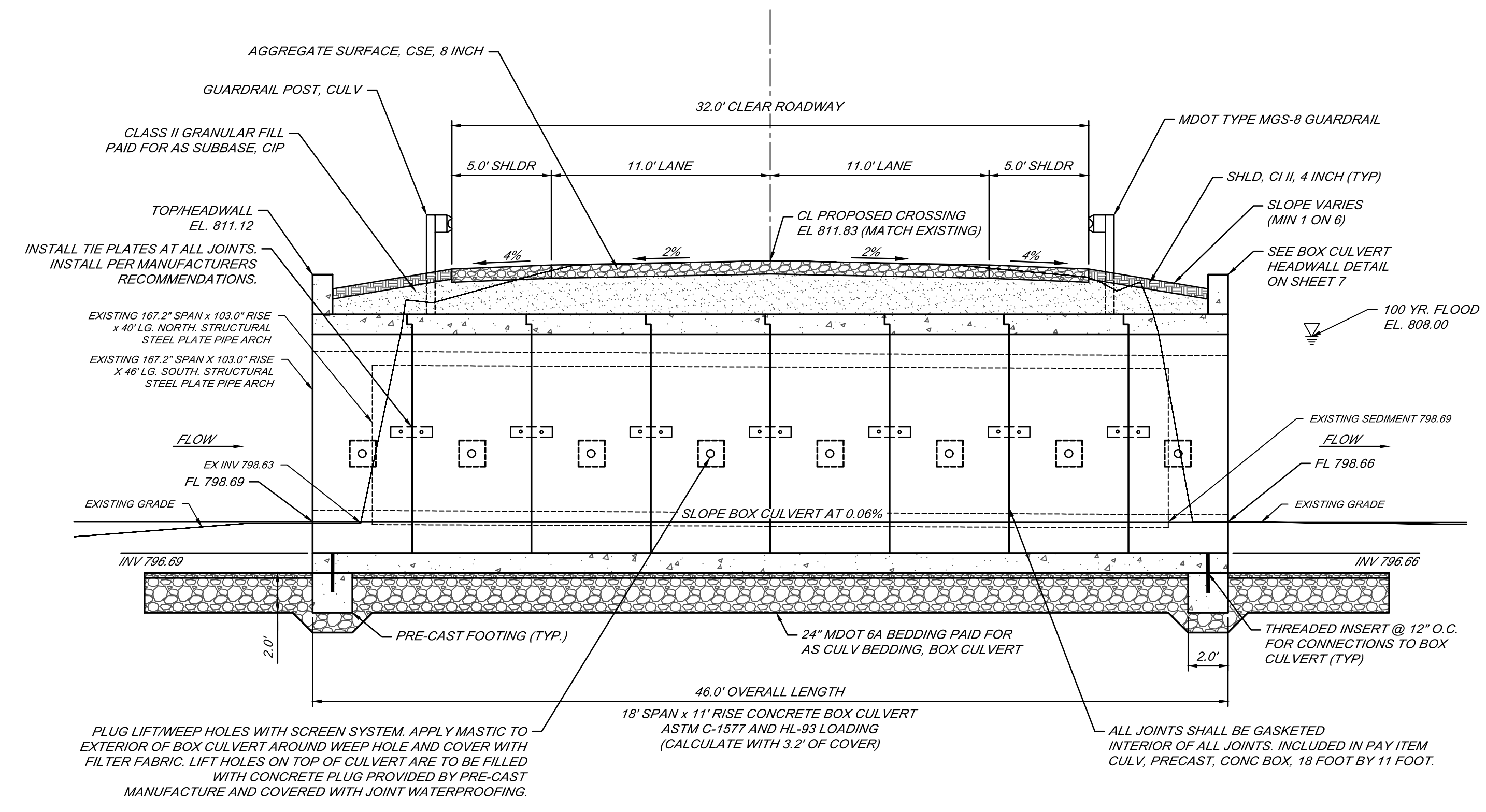
PROPOSED CROSS SECTION OF CLOTHIER ROAD CROSSING

SCALE: 1" = 4'



EXISTING CROSS SECTION OF CLOTHIER ROAD CROSSING

SCALE: 1" = 4'



PROFILE VIEW CLOTHIER ROAD CROSSING

SCALE: 1" = 5'

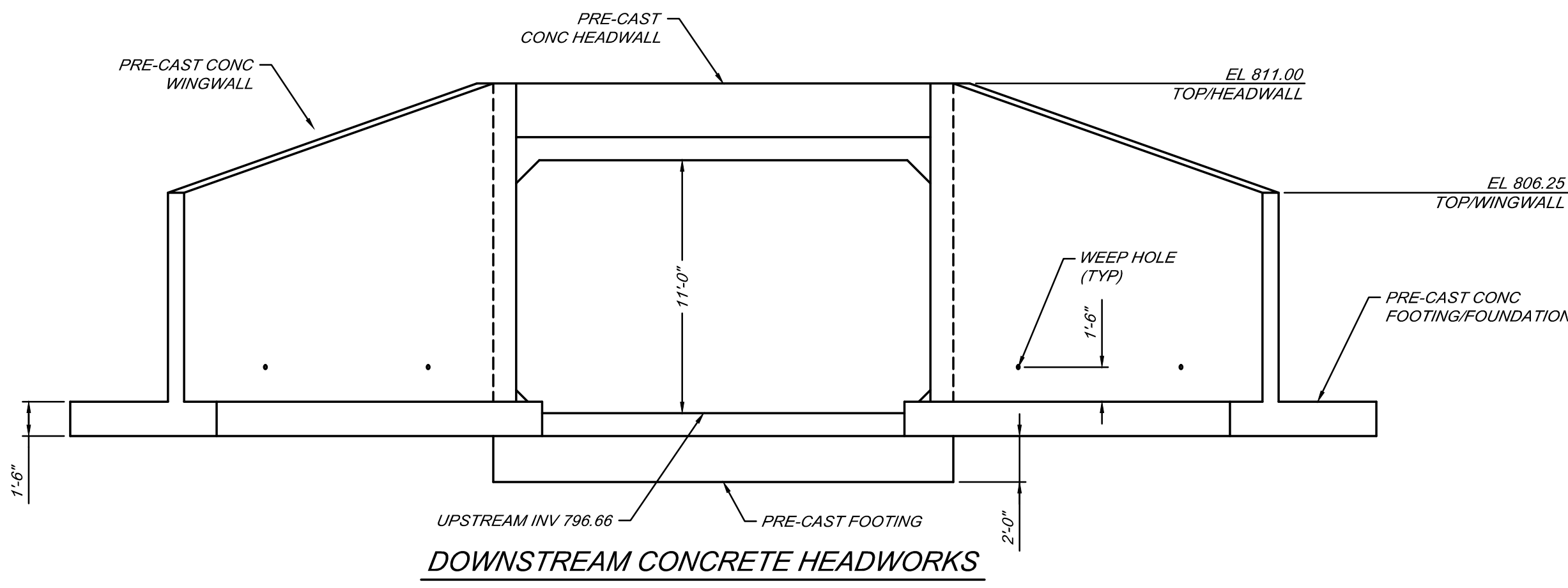
820		820
815	TOP OF BANK	815
810		810
805		805
800		800
795		795

EL 811.00 PROPOSED FILL 15.3 SQ YD

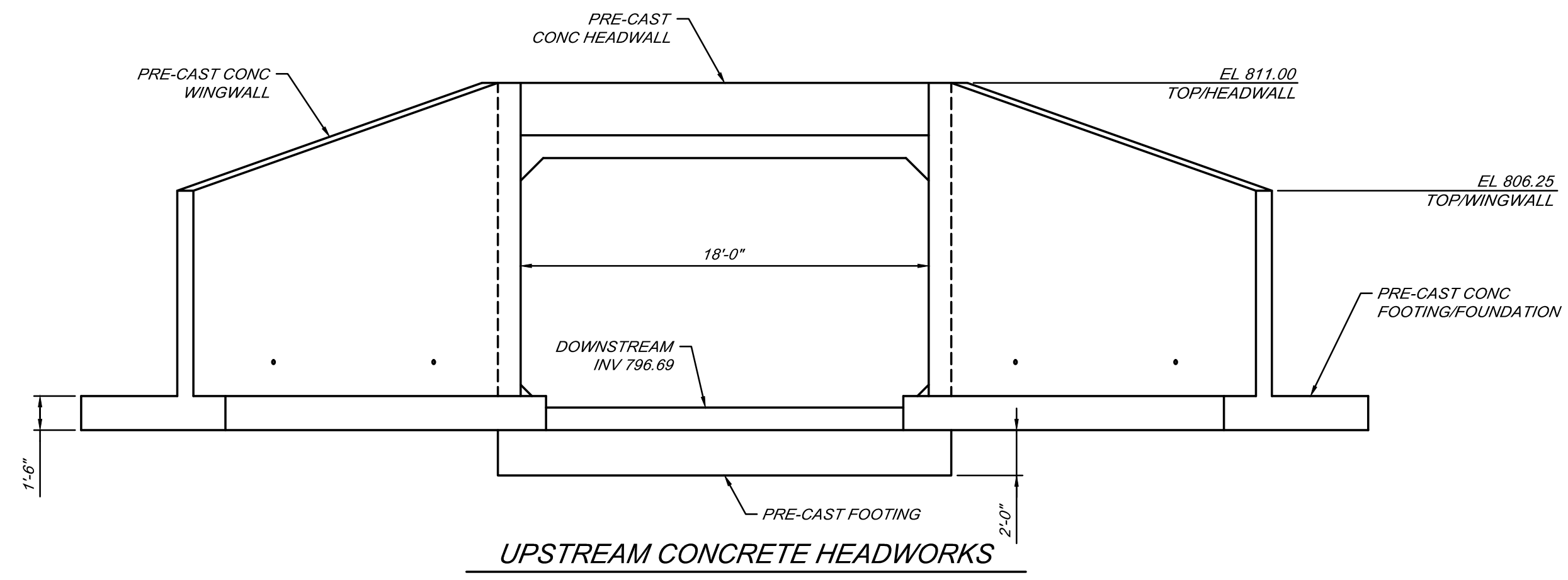
TYPICAL CROSS SECTION DETAIL PROPOSED FILL GRADING

NOT TO SCALE

BY	MARK	REVISIONS	DATE
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<p>CLOTHIER ROAD STRUCTURE REPLACEMENT TUSCOLA COUNTY, MICHIGAN</p>			
<p>PROFILE VIEW</p>			
		<p>SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel: 989-754-4111 Fax: 989-754-4440 www.SpicerGroup.com</p>	
DE. BY:	MTS/DPZ	CH. BY:	PROJECT NO.
DR. BY:	MTS	APP. BY:	132095SG2022
STDS.		SHEET 06 OF 08	DR
DATE	JANUARY, 2023	FILE NO.	06
SCALE	AS SHOWN	DR-4274-06	



DOWNSTREAM CONCRETE HEADWORKS



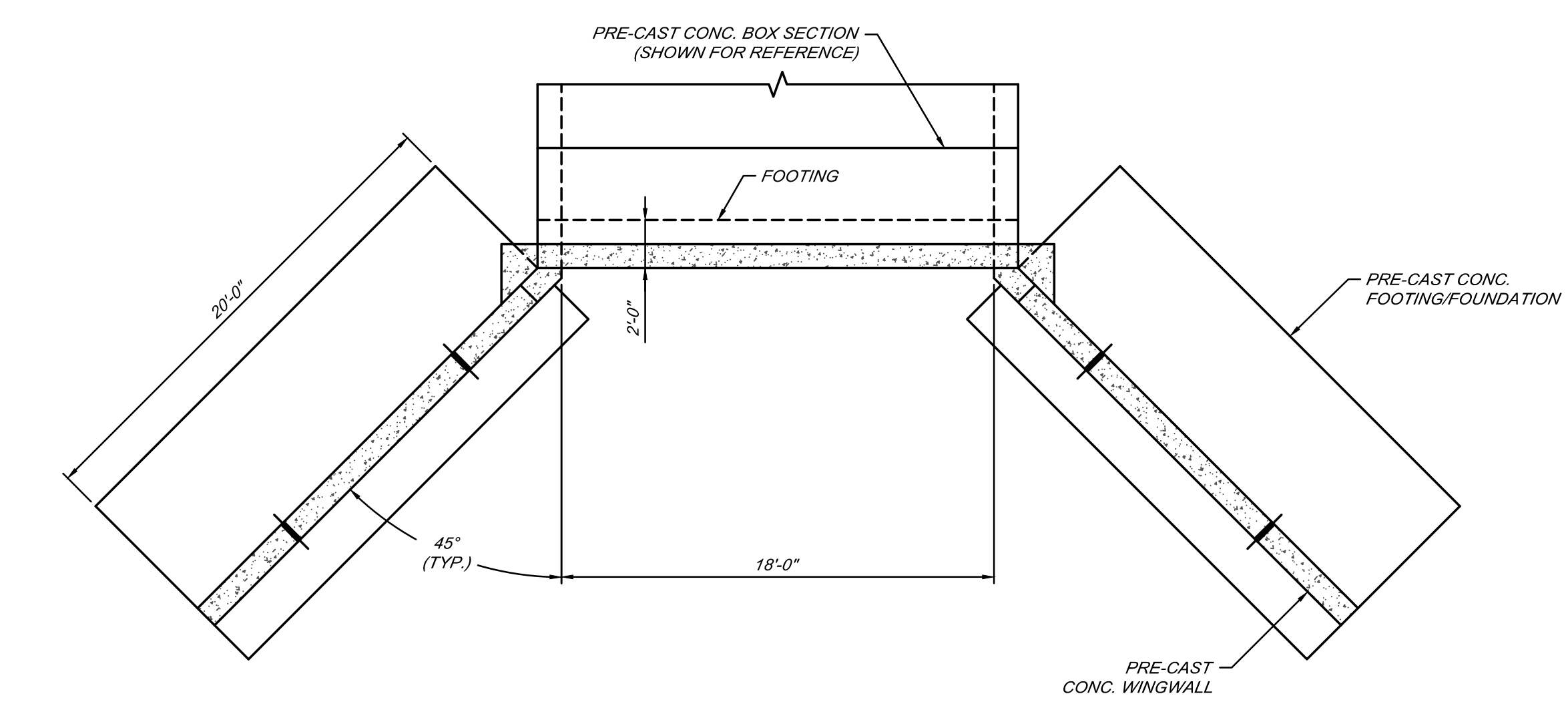
UPSTREAM CONCRETE HEADWORKS

WINGWALL/HEADWALL ELEVATION VIEW

NOT TO SCALE
** FINAL DESIGN/DETAILS BY PRE-CAST CONCRETE MANUFACTURER

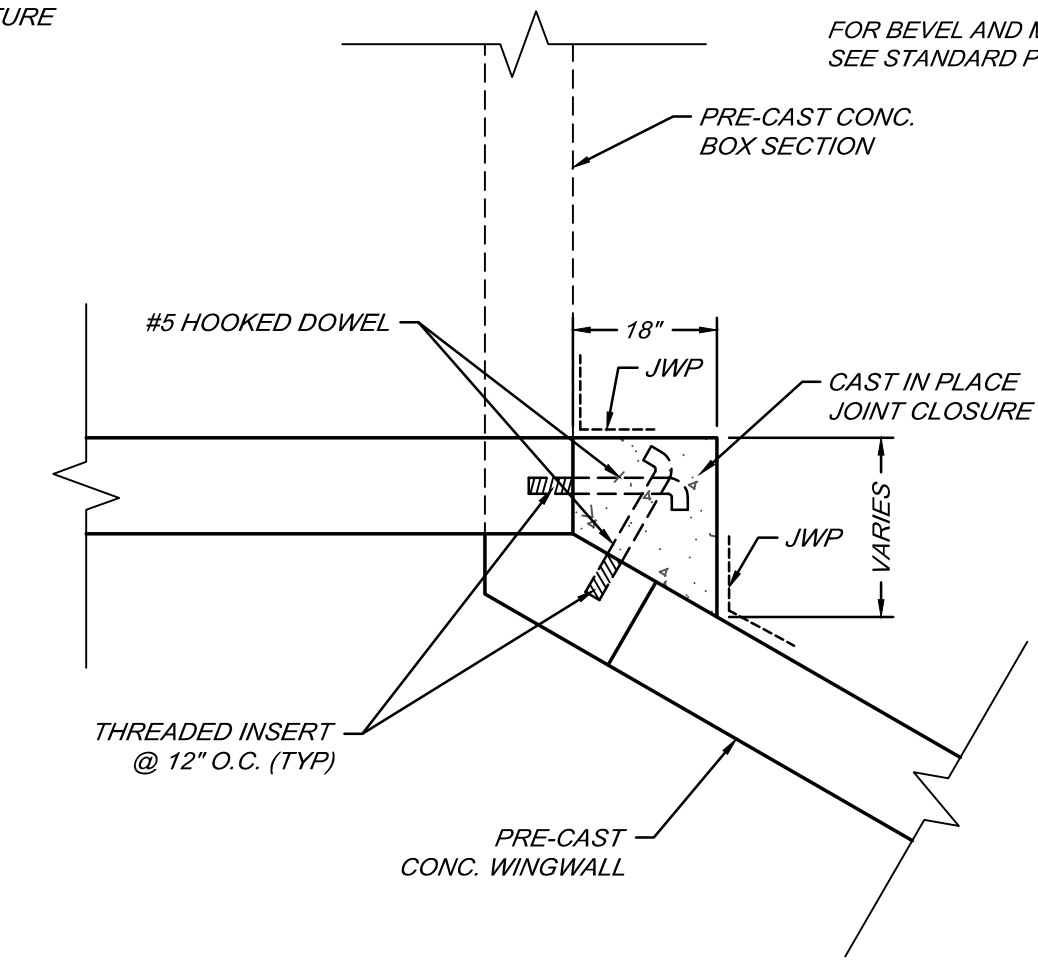
GENERAL NOTES

JWP DENOTES JOINT WATERPROOFING
FOR BEVEL AND MOLDING DETAILS, SEE STANDARD PLAN B-103 SERIES



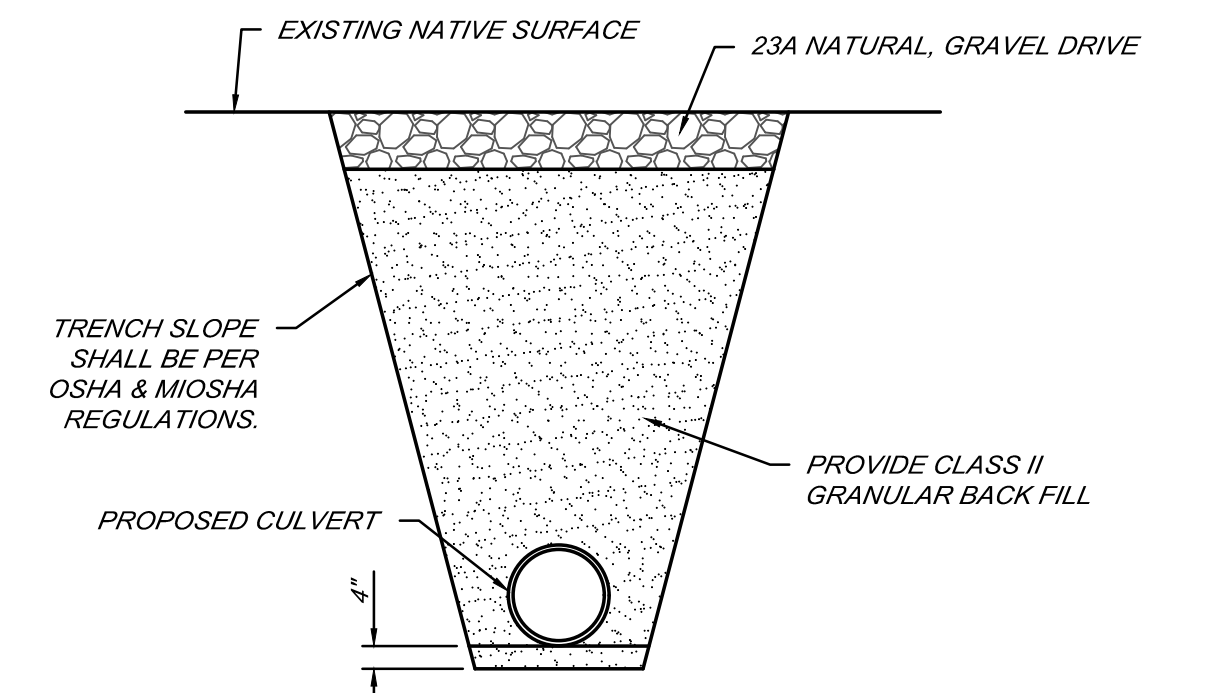
TYPICAL CONCRETE HEADWORKS WINGWALL/HEADWALL PLAN VIEW

NOT TO SCALE
** FINAL DESIGN/DETAILS BY PRE-CAST CONCRETE MANUFACTURER
* WINGWALLS, HEADER AND FOOTINGS INCLUDED IN CULV, PRECAST, CONC BOX, 18 FOOT BY 11 FOOT



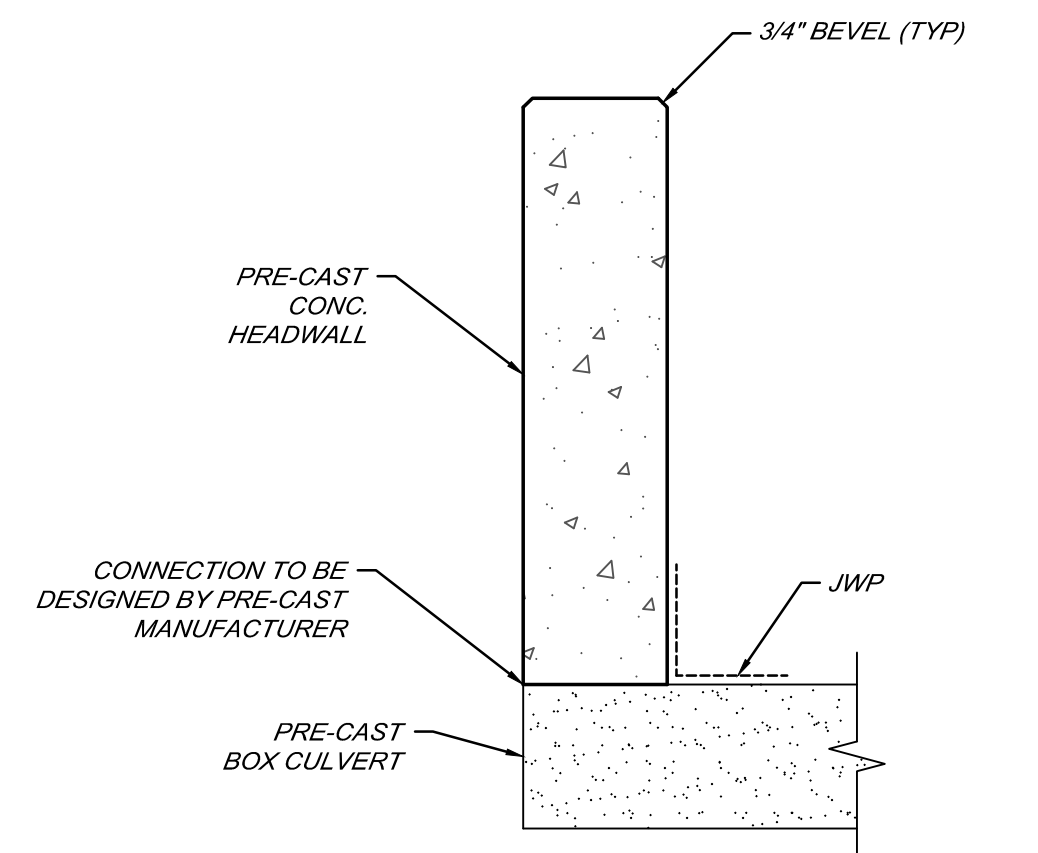
CONNECTION DETAIL

NOT TO SCALE
* JOINT CLOSURE POUR AND DOWELS INCLUDED IN CULV, PRECAST, CONC BOX, 18 FOOT BY 11 FOOT
** FINAL DESIGN/DETAILS BY PRE-CAST CONCRETE MANUFACTURER



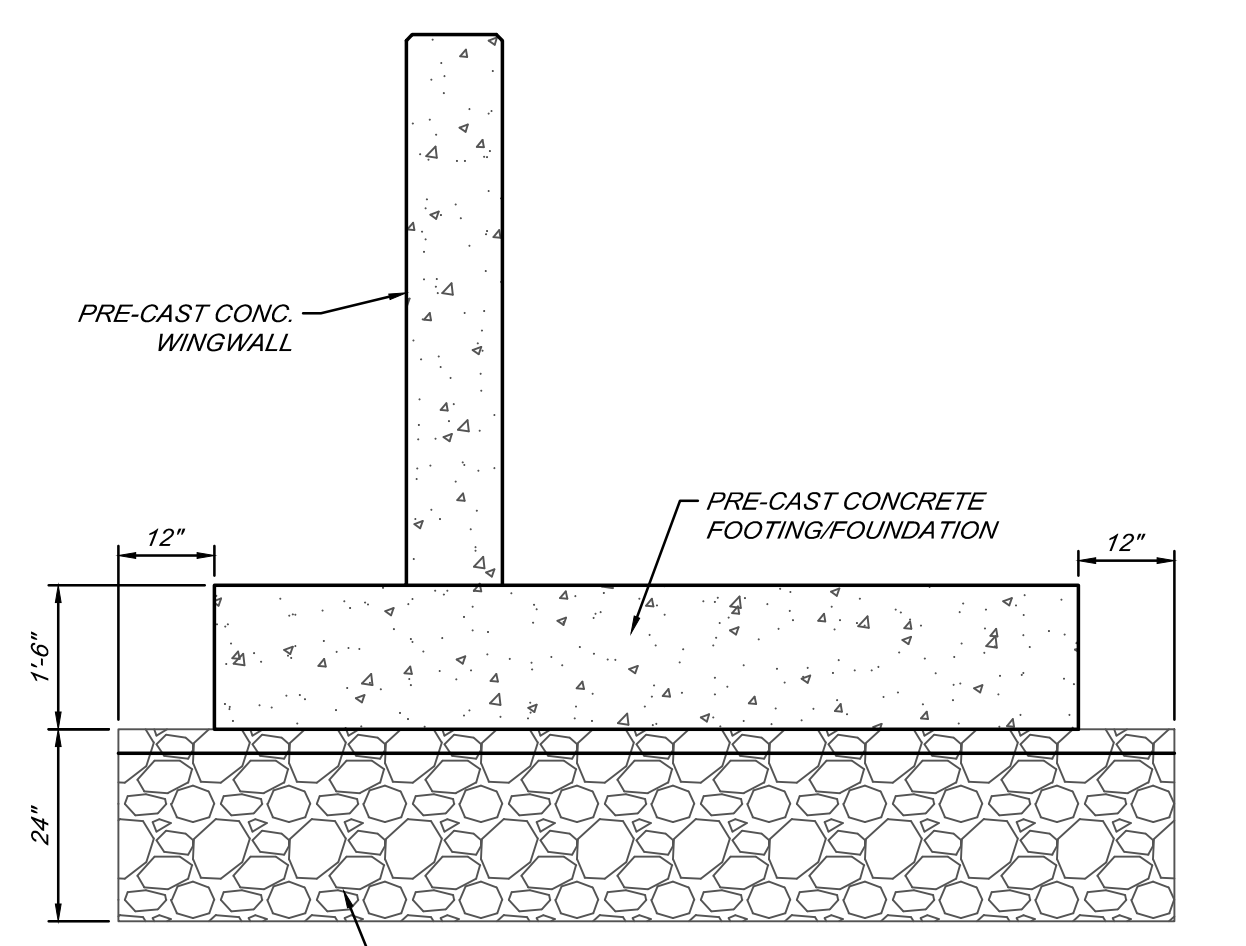
TYPICAL GRAVEL DRIVE CROSSING DETAIL

NOT TO SCALE
INCLUDED IN CULV, CL A PAY ITEM



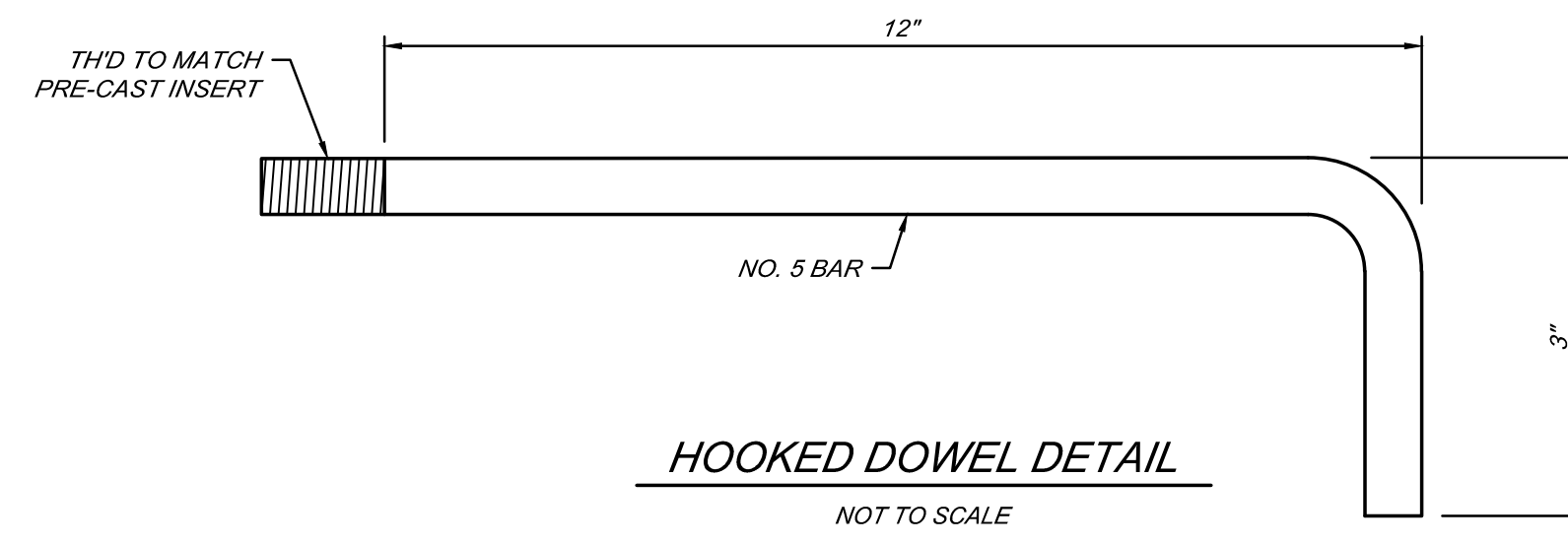
BOX CULVERT HEADWALL DETAIL

NOT TO SCALE
* HEADWALL INCLUDED IN CULV, PRECAST, CONC BOX



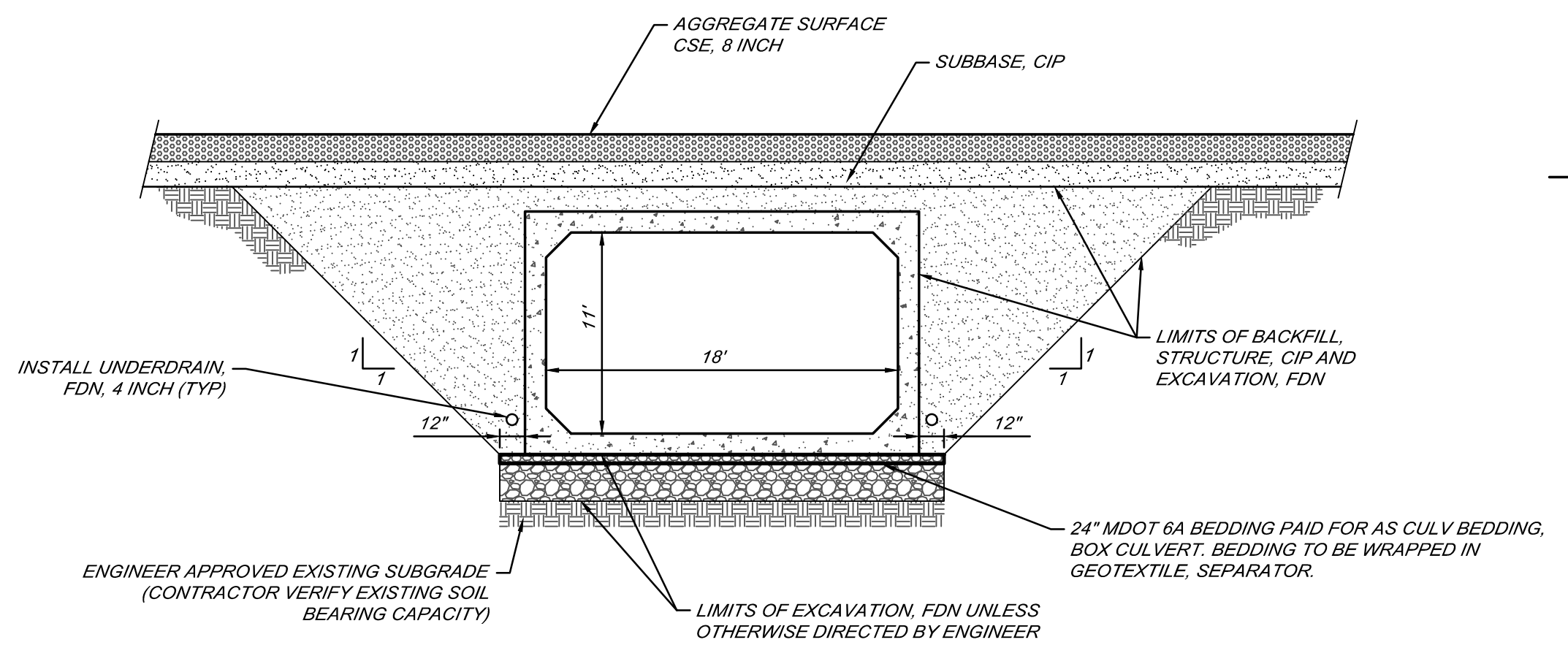
WINGWALL DETAIL

NOT TO SCALE



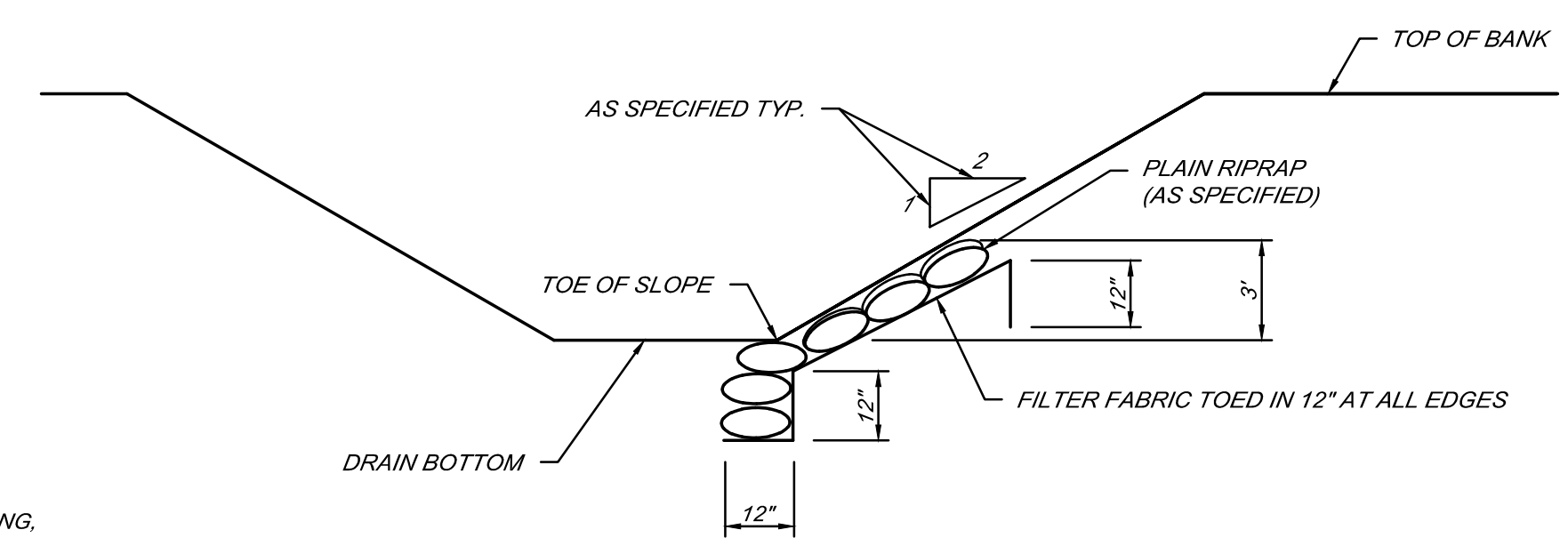
HOOKED DOWEL DETAIL

NOT TO SCALE



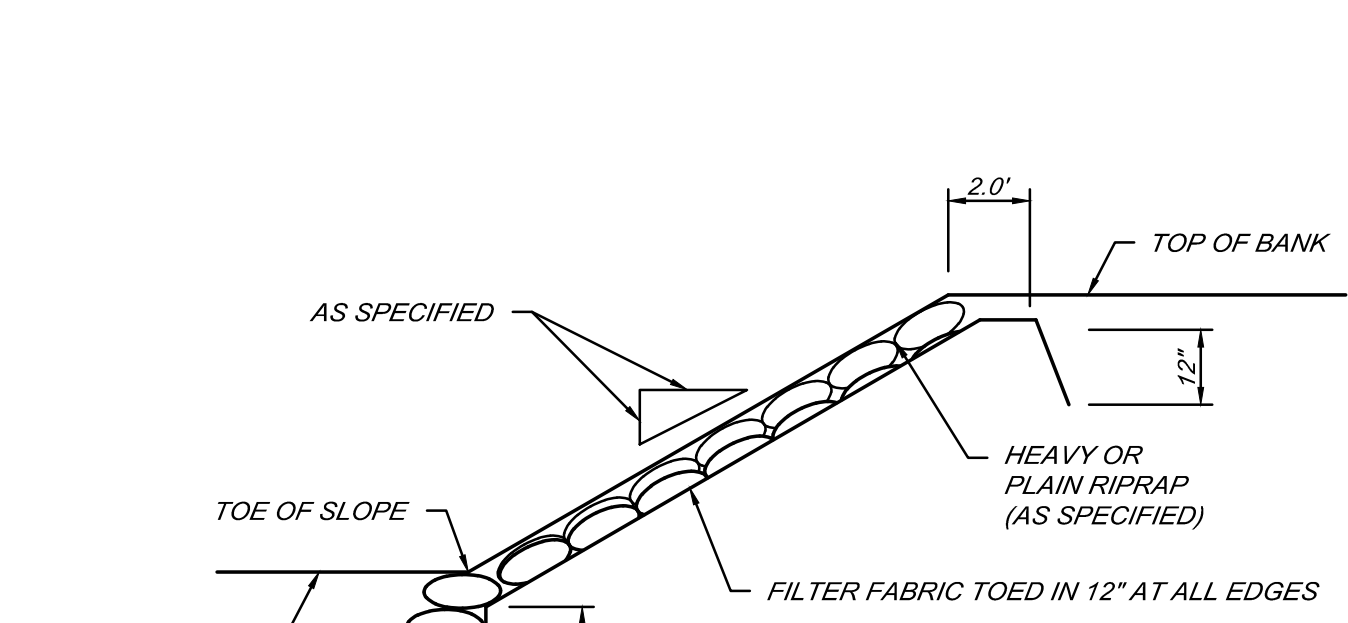
TYPICAL BOX CULVERT TRENCH DETAIL

NOT TO SCALE



RIPRAP TOE OF SLOPE PROTECTION TYPICAL CROSS-SECTION

NOT TO SCALE

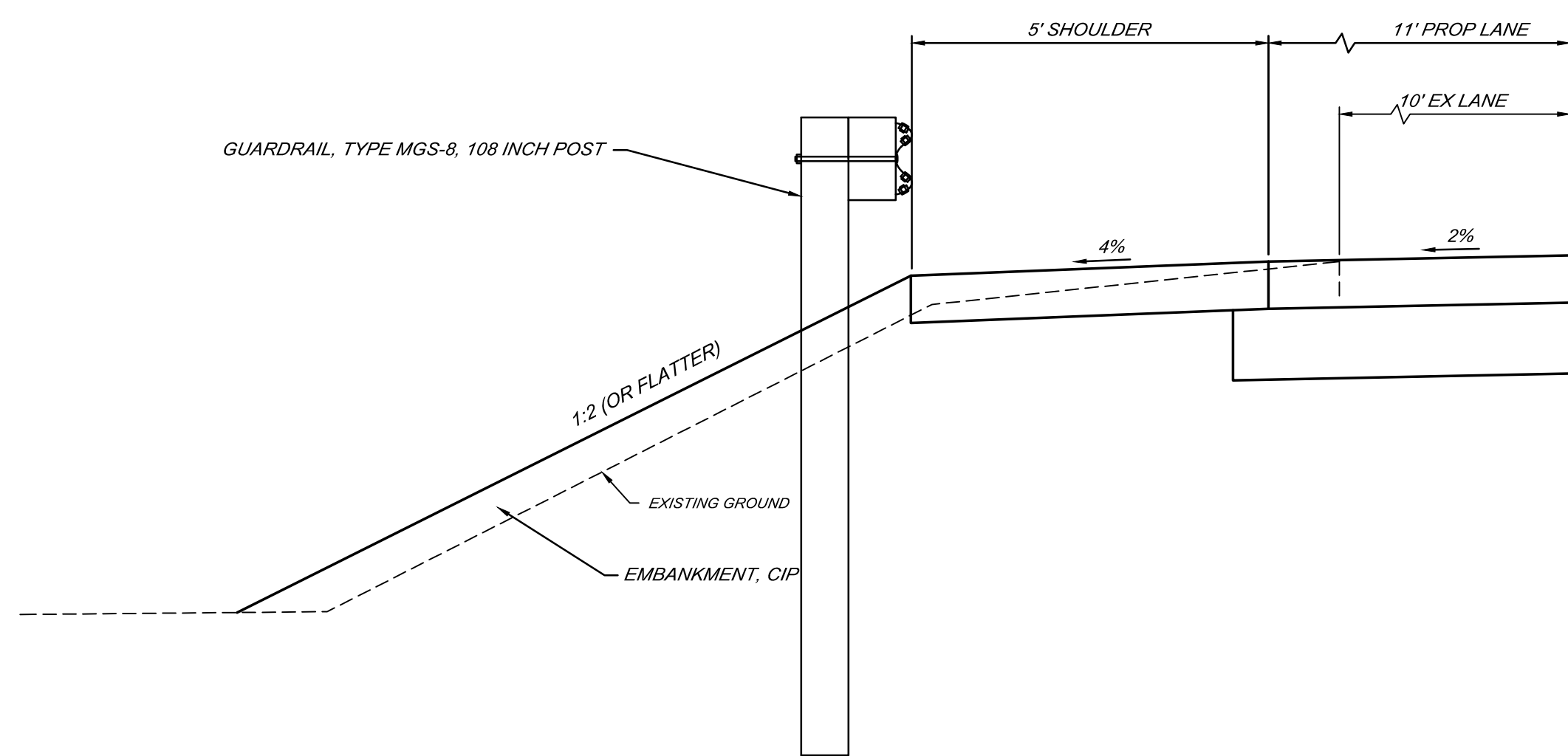


RIPRAP BANK PROTECTION

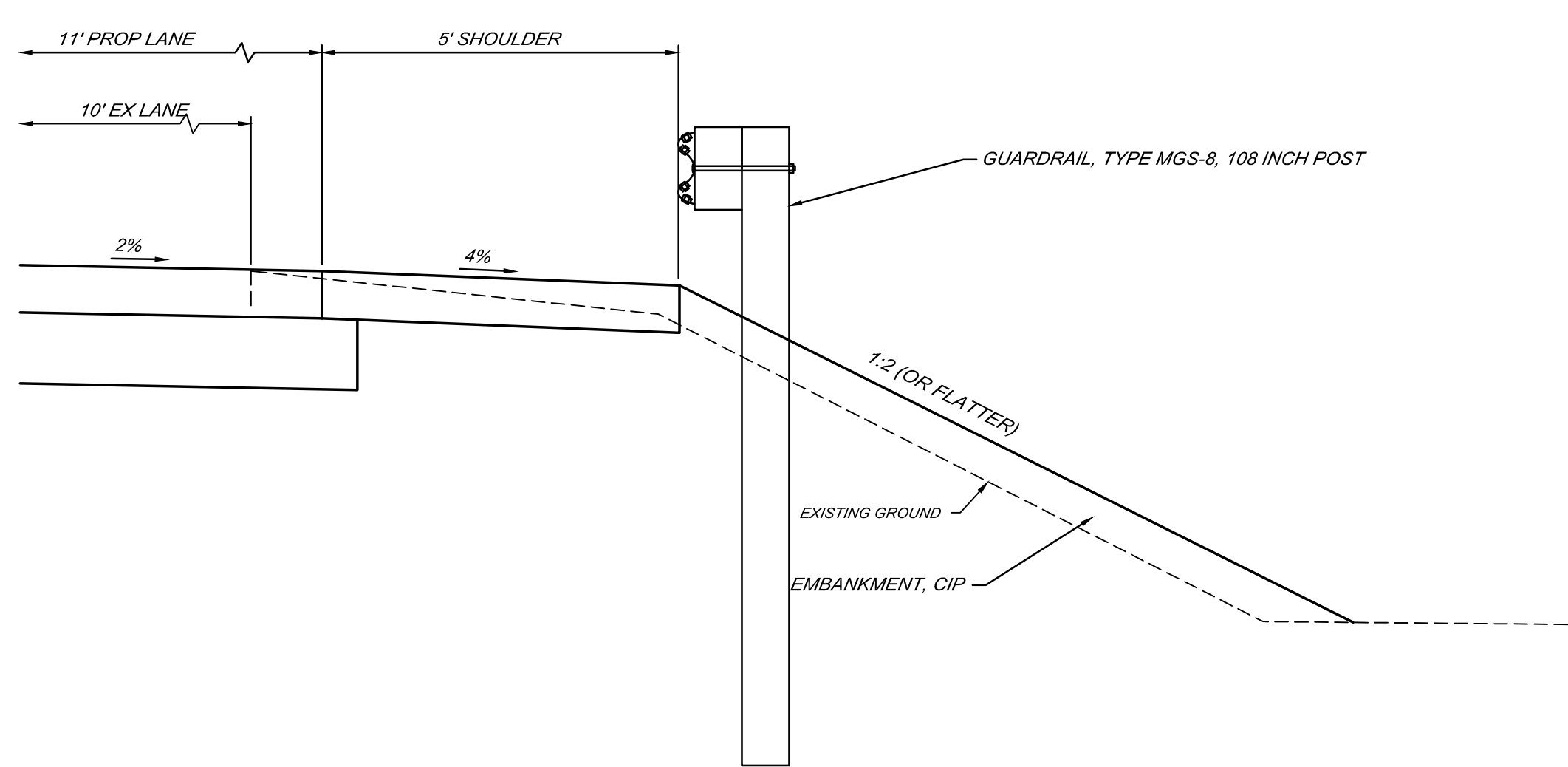
NOT TO SCALE

BY	MARK	REVISIONS	DATE
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<p>CLOTHIER ROAD STRUCTURE REPLACEMENT TUSCOLA COUNTY, MICHIGAN</p>			
<p>WINGWALL/HEADWALL DETAILS AND STANDARD DETAILS</p>			
<p>DE. BY: MTS/DPZ DR. BY: MTS</p>		<p>CH. BY: APP. BY:</p>	
<p>STDS.</p>		<p>PROJECT NO. 132095SG2022</p>	
<p>DATE: JANUARY, 2023 SCALE: AS SHOWN</p>		<p>SHEET 07 OF 08 FILE NO. DR-4274-07</p>	
		<p>DR 07</p>	

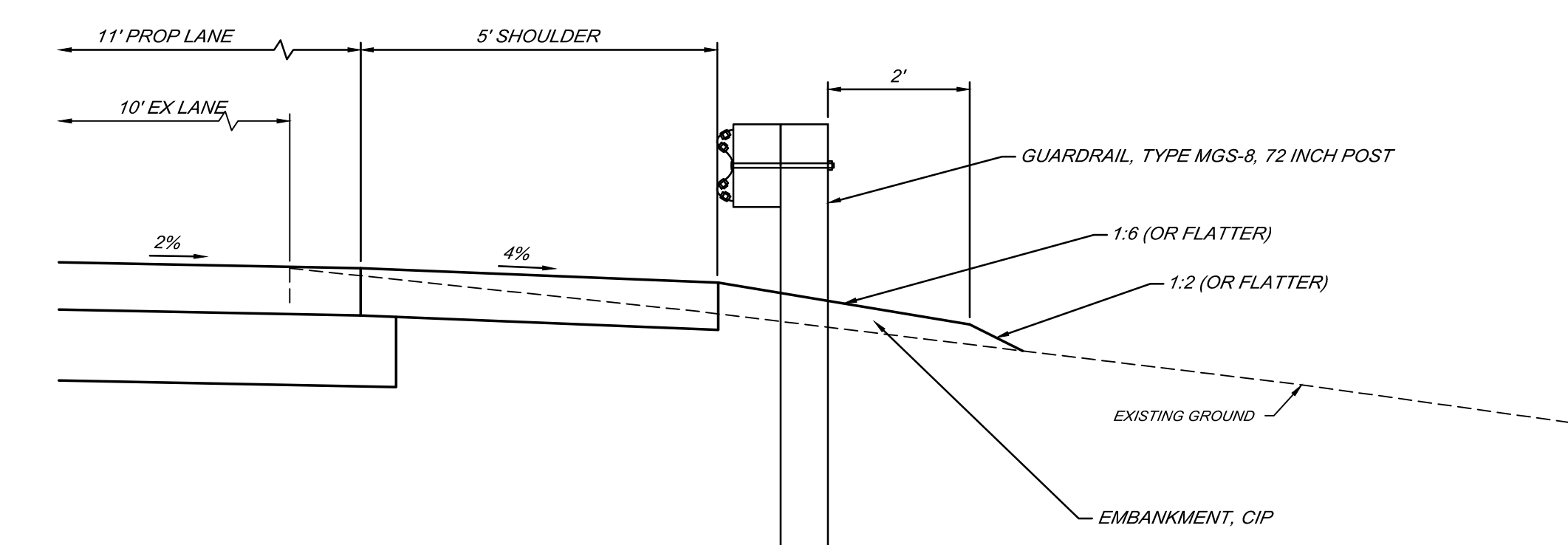




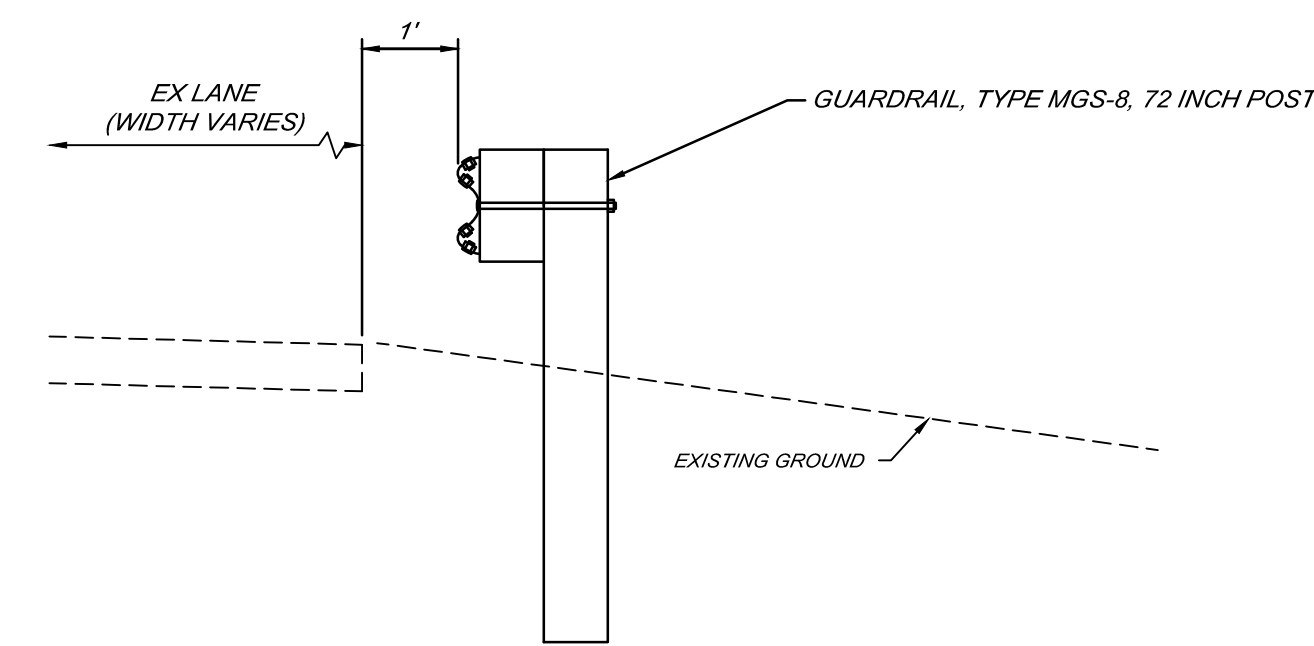
GUARDRAIL EMBANKMENT SECTION
CLOTHIER ROAD - WEST GUARDRAIL SOUTH OF CROSSING
NOT TO SCALE



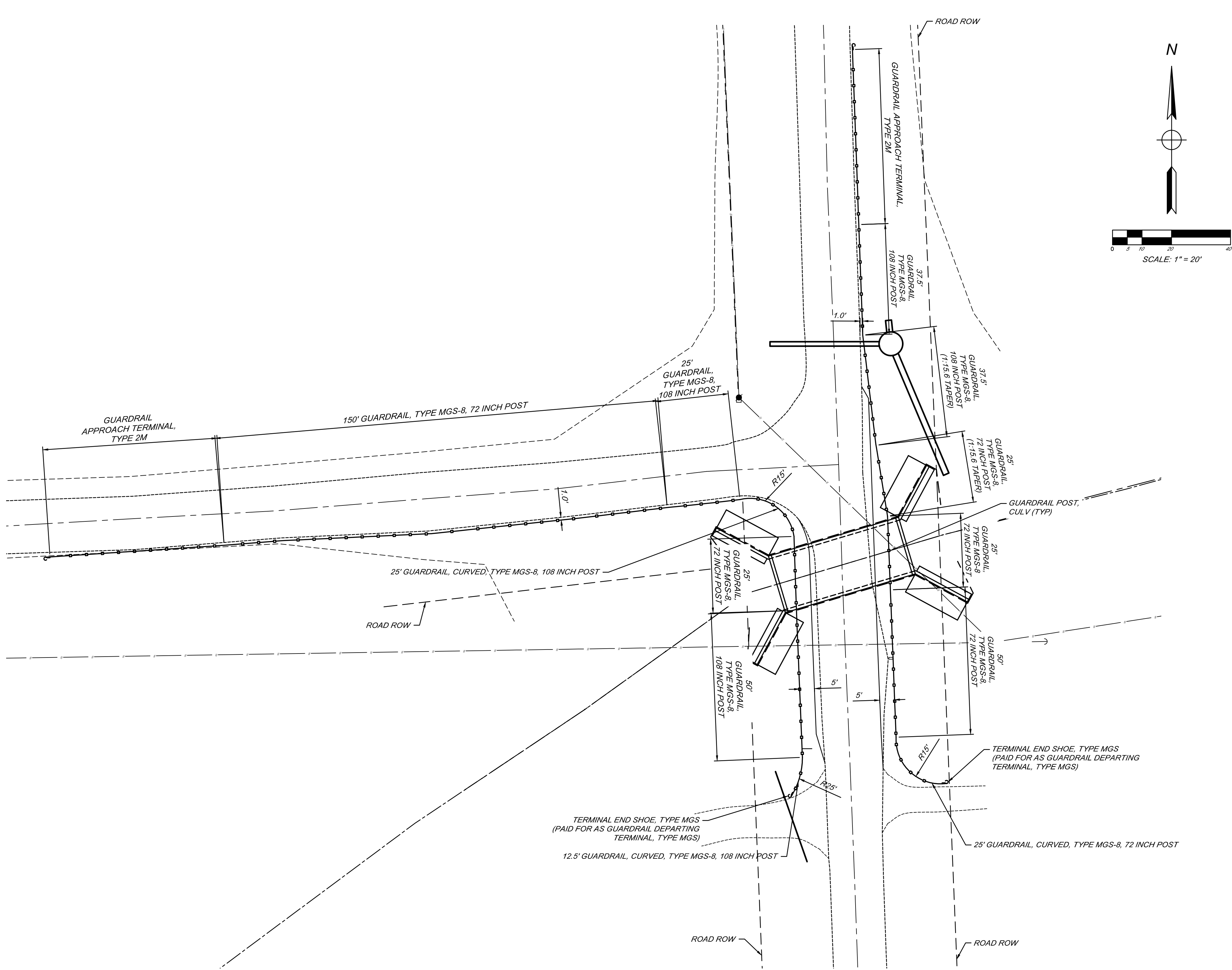
GUARDRAIL EMBANKMENT SECTION
CLOTHIER ROAD - EAST GUARDRAIL NORTH OF CROSSING
NOT TO SCALE



GUARDRAIL EMBANKMENT SECTION
CLOTHIER ROAD - EAST GUARDRAIL SOUTH OF CROSSING
NOT TO SCALE



GUARDRAIL EMBANKMENT SECTION
CARTWRIGHT ROAD - SOUTH GUARDRAIL - NOT TO SCALE



GUARDRAIL DETAIL

QUANTITIES THIS SHEET

2	Ea	Guardrail Approach Terminal, Type 2M
2	Ea	Guardrail Departing Terminal, Type MGS
8	Ea	Guardrail Post, Culv
26	Ea	Guardrail Reflector
25	Ft	Guardrail, Curved, Type MGS-8, 72 inch Post
37.5	Ft	Guardrail, Curved, Type MGS-8, 108 inch Post
275	Ft	Guardrail, Type MGS-8, 72 inch Post
150	Ft	Guardrail, Type MGS-8, 108 inch Post
2	Ea	Delineator Reflector, Green
2	Ea	Post, Rigid, Delineator

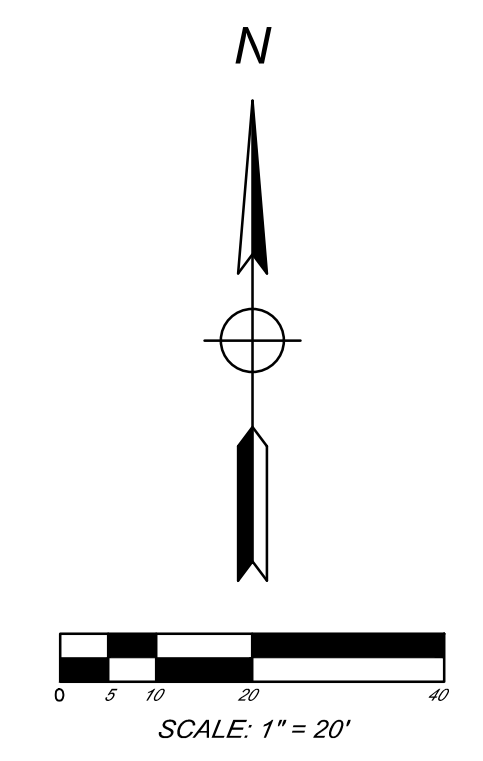
MDOT ROAD STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE MDOT STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

- GUARDRAIL TYPES A, B, BD, T, TD, MGS-8, & MGS-8D
- GUARDRAIL APPROACH TERMINAL TYPE 2M
- GUARDRAIL OVER BOX OR SLAB CULVERTS
- GUARDRAIL AT INTERSECTIONS

- R-60-J*
- R-62-H*
- R-73-F*
- 21*

*SPECIAL DETAILS INCLUDED IN PROPOSAL



BY	MARK	REVISIONS	DATE
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CLOTHIER ROAD STRUCTURE REPLACEMENT TUSCOLA COUNTY, MICHIGAN			
GUARDRAIL DETAILS			
		<small>SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel: 989-754-4111 Fax: 989-754-4440 www.SpicerGroup.com</small>	
DE. BY: NJM	CH. BY: NJM	PROJECT NO. 132095SG2022	
DR. BY: KIP	APP. BY: MGN		
STDS.	SHEET 08 OF 08	DR 08	
DATE: JANUARY, 2023	FILE NO. DR-4274-08		
SCALE: AS SHOWN			