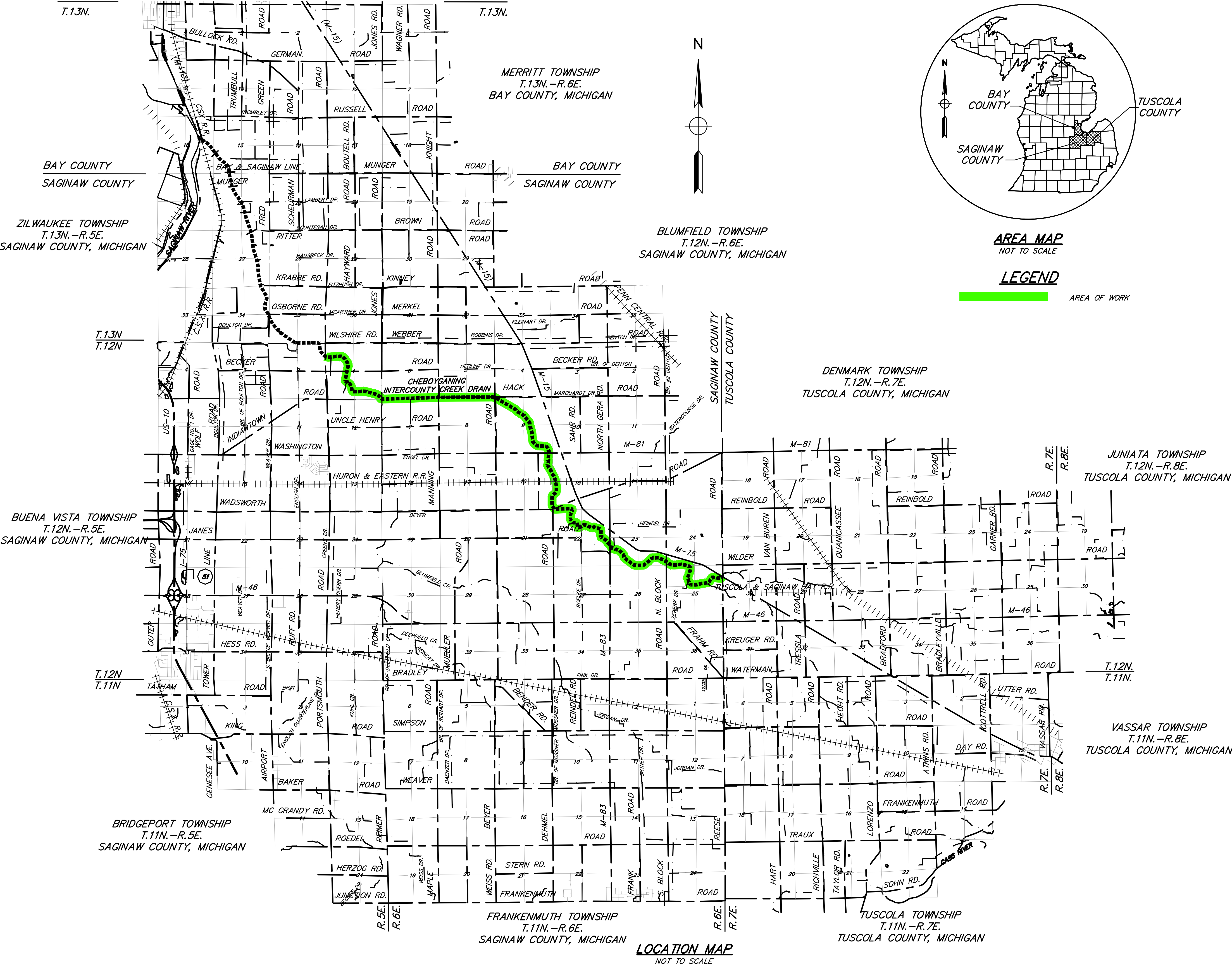


# CHEBOYGANING CREEK INTERCOUNTY DRAIN

MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT - BRADEN L. HARRINGTON P.E.  
BAY COUNTY DRAIN COMMISSIONER - MICHAEL G. RIVARD  
SAGINAW COUNTY PUBLIC WORKS COMMISSIONER - BRIAN J. WENDLING  
TUSCOLA COUNTY DRAIN COMMISSIONER - DARA HOOD



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\* NOT INCLUDED IN CONSTRUCTION PLANS

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. THIS ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.							
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES							
COVER SHEET							
				SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com			
DE. BY: POC/LDO		CH. BY: LDO		PROJECT NO.		127970SG2019	
DR. BY: CBS		APP. BY: NDC		SHEET 01 OF 25		DR 01	
STDs.		DATE: APRIL, 2025		FILE NO.		DR-3797-01	
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 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

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

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 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 LANDOWNER AT THE LANDOWNER'S EXPENSE, UNLESS STATED OTHERWISE IN THE PLANS.

ALL SPRINKLER SYSTEMS DAMAGED SHALL BE REPAIRED BY CONTRACTOR. COST TO BE INCLUDED IN AMOUNT BID FOR 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 COUNTY PUBLIC WORKS / DRAIN COMMISSIONER'S / WATER RESOURCES 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 = WATERMAIN  
WSEL = WATER SURFACE ELEVATION

PROPOSED SYMBOLS

○ - MANHOLE  
☒ - CATCHBASIN  
☒ - FIRE HYDRANT  
● - WATER VALVE  
⦿ - BARRIER FREE PARKING  
■ - LIGHT POLES  
⇒ - DRAINAGE FLOW  
⊕ 800.00 LABEL - SPOT ELEVATION LABELS  
G - GUTTER  
TW = WALK  
TC = TOP OF CURB  
FS = FINISH SURFACE

LINE TYPE LEGEND

— — — — — EXISTING ROAD CENTERLINE  
— BL — — — — — EXISTING BRINE LINE  
— — — — — EXISTING WATERMAIN  
- - - - - 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  
- - - - - 100 YEAR FLOODPLAIN  
- - - - - ORDINARY HIGH WATER MARK  
- - - - - 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  
☒ - WELL  
☒ - WATER MANHOLE  
☒ - ELECTRIC MANHOLE  
☒ - TELEPHONE MANHOLE  
☒ - UTILITY 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

CONTACTS




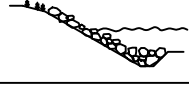
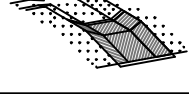


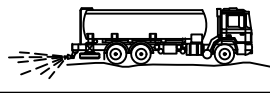
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2590 EAST WILDER ROAD  
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MDOT

PROJECT NOTES

- ALL RIPRAP MUST MEET MDOT SPECIFICATIONS FOR PLAIN RIPRAP. ANY RIPRAP NOT MEETING SPECIFICATIONS WILL NOT BE ACCEPTED.
- EASEMENTS BOUNDARY LINES SHOWN ON PLANS ARE FOR REFERENCE DURING CONSTRUCTION. CONTRACTOR IS EXPECTED TO STAY WITHIN LIMITS OF EASEMENTS LINES TO COMPLETE PROPOSED WORK. ADDITIONAL AREAS HAVE BEEN IDENTIFIED FOR ACCESS ONLY WHICH ARE LOCATED OUTSIDE OF THE EASEMENT LIMITS SHOWN ON THE PLANS BUT INCLUDED ON THE ACCESS ROUTE PLANS SHEETS. ADDITIONAL EASEMENT WIDTH EXIST FOR SOME PARCELS BEYOND WHAT IS DEPICTED ON THE PLANS.
- CONTRACTOR TO ESTABLISH MAINTENANCE LANES AS SHOWN ON PLANS REGARDLESS OF ABILITY TO COMPLETE WORK FROM A SINGLE SIDE OF THE DRAIN. THE MAINTENANCE LANE IS BEING ESTABLISHED FOR LONG TERM DRAIN MAINTENANCE PURPOSES.



PROJECT DATUM			
HORIZONTAL:	STATE PLANE SOUTH MI 83 2113		
VERTICAL:	NORTH AMERICAN VERTICAL DATUM '88		
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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
CONTACTS, GENERAL NOTES, LINE TYPE LEGENDS			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: POC/LDO DR. BY: CBS		CH. BY: LDO APP. BY: NDC	
		PROJECT NO. 127970SG2019	
STDS.		SHEET 02 OF 25	
DATE MONTH, YR SCALE: 1"=200' V: 1"=10'		FILE NO. DR-3797-02	
		DR 02	



EROSION CONTROL MEASURES			
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		Along drain banks, shorelines, or where concentrated flows occur. Slows velocity, reduces erosion and sediment load.
16	Riprap Toe of Slope		Riprap toe of slope protection is used in areas where velocities are causing drain bank erosion and are too high to stabilize using other methods.
18	Reinforced Vegetated Spillway		When slope failure at eroded outfalls are observed or are likely to occur from concentrated runoff on very shallow slopes (where flow velocities will be low enough not to undermine the reinforced grass root structure).
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 mark 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.

ROUTINE MAINTENANCE ACTIVITIES		
KEY	BEST MANAGEMENT PRACTICE	SESC PLAN
A	Debris Removal	NO
B	Sediment Removal	> 100 FEET
C	Stormwater Basin Maintenance	NO
D	Drain Crossing Maintenance	NO
E	Enclosed Drain Maintenance	NO

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

GENERAL TIMING & SEQUENCE
INSTALL TEMPORARY CONTROL MEASURES
SITE CLEARING
OPEN CHANNEL CONSTRUCTION
RESTORATION
INSTALL AND ESTABLISH PERMANENT CONTROL MEASURES
REMOVE TEMPORARY CONTROL MEASURES

SAGINAW COUNTY	
SOIL CLASS	SOIL COMPOSITION
12	Corunna sandy loam
13	Belleville fine sand
17B	Frankenmuth very fine sandy loam, 0 to 4 percent slopes
19	Tappan loam, 0 to 1 percent slopes
33	Granby fine sand
44	Sloan—Ceresco complex, frequently flooded
61A	Tappan—Poseyville complex, 0 to 3 percent slopes
69	Sloan silt loam, rarely flooded
71	Udorthents, loamy, nearly level to steep
72	Aquents, ponded
75C2	Strawn silt loam, 6 to 12 percent slopes, eroded
76A	Londo loam, 0 to 3 percent slopes
89	Roundhead muck
95	Sloan—Ceresco complex, rarely flooded
98A	Poseyville loamy fine sand, 0 to 3 percent slopes
124A	Selfridge loamy sand, 0 to 3 percent slopes
158B	Guelph—Londo loams, 0 to 6 percent slopes
158C	Guelph loam, 6 to 12 percent slopes
160A	Tappan—Londo loams, 0 to 3 percent slopes
ZwkaaA	Zilwaukee and Misteguy silty clays, 0 to 1 percent slopes, rarely flooded

## 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 MANAGER.
- ALL SLOPES AND HIGHLY EROSIIVE ARES 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 EROSIIVE 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).

### STABILIZED CONSTRUCTION ACCESS

- INSPECT WEEKLY AND AFTER EACH RAINFALL.
- WHEN CONSTRUCTION ACCESS IS NO LONGER EFFECTIVE, SCRAPE THE TOP LAYER AND ADD 2" OF AGGREGATE.


### COMPLIANCE WITH PART 91 OF PA 451

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

## SOIL EROSION AND SEDIMENTATION CONTROL NOTES

- 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 CHEBOYGANING CREEK ICD SESC PLAN AND PROJECT SPECIFICATION.
- SOIL EROSION CONTROL MEASURES MUST BE INSPECTED BY A STATE CERTIFIED INSPECTOR AFFILIATED WITH THE COUNTY PUBLIC WORKS / COUNTY DRAIN COMMISSIONER'S OFFICE PRIOR TO COMMENCEMENT OF CONSTRUCTION OR MASS GRADING.
- 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.
- ADDITIONAL SOIL EROSION CONTROL MEASURES MUST BE PROVIDED THROUGHOUT CONSTRUCTION ACTIVITY AS NEEDED AND DETERMINED BY THE APA/ENGINEER. THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN IS TO BE AMENDED TO INCLUDE ADDITIONAL EROSION CONTROL MEASURES IMPLEMENTED ON-SITE.
- 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.
- 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 OR APA.
- 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.
- 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.
- 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.
- WORK AREAS MUST BE STABILIZED WITH TOPSOIL, SEED, FERTILIZER, AND MULCH WITHIN 24 HOURS FOLLOWING CONSTRUCTION. VEGETATIVE STABILIZATION IS ONGOING THROUGHOUT THE PROJECT.
- 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.
- 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.
- IF DEWATERING IS NECESSARY, CONTRACTOR SHALL SUBMIT A DEWATERING PLAN TO THE ENGINEER OR APA FOR APPROVAL.
- THE NOTICE OF COVERAGE (IF REQUIRED), SOIL EROSION AND SEDIMENTATION CONTROL PLAN, AND STORMWATER OPERATOR LOGS MUST BE LOCATED ON SITE AT ALL TIMES.
- ALL RESTORATION TO OCCUR WITHIN 24 HOURS OF FINAL GRADING.

CONTINUED MAINTENANCE PROGRAM FOR PERMANENT SESC MEASURES	
RESPONSIBLE PARTY:	MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT, BAY COUNTY DRAIN COMMISSIONER, AND SAGINAW COUNTY PUBLIC WORKS COMMISSIONER, AND TUSCOLA COUNTY DRAIN DRAIN COMMISSIONER
PERMANENT SESC MEASURE	MAINTENANCE PROCEDURE
SEEDING:	REPAIR BARE AREAS, APPLYING SUPPLEMENTAL SEED, MULCH, AND WATER AS NEEDED. MOWING CAN BE USED PERIODICALLY TO DISCOURAGE WEEDS.
RIPRAP:	REPAIR AREAS WHERE ROCK HAS BEEN DISPLACED. EXPAND RIPRAP AREA IF NEEDED.

BY:	MARK:	REVISIONS:	DATE:
THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREIN 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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
SOIL EROSION AND SEDIMENT CONTROL			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: POC/LDO	CH. BY: LDO	PROJECT NO. 127970SG2019	
DR. BY: CBS	APP. BY: NDC		
STDs.	SHEET 03 OF 25	DR 03	
DATE: MONTH, YR	FILE NO.		
SCALE: 1"=200' V: 1"=10'	DR-3797-03		

### 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.



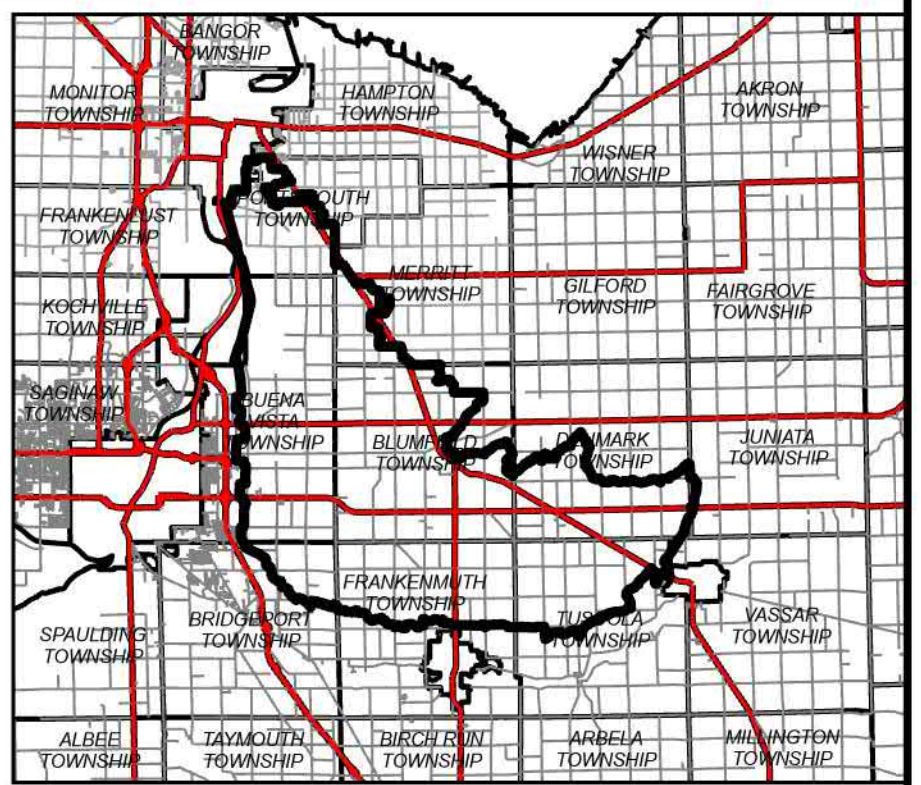
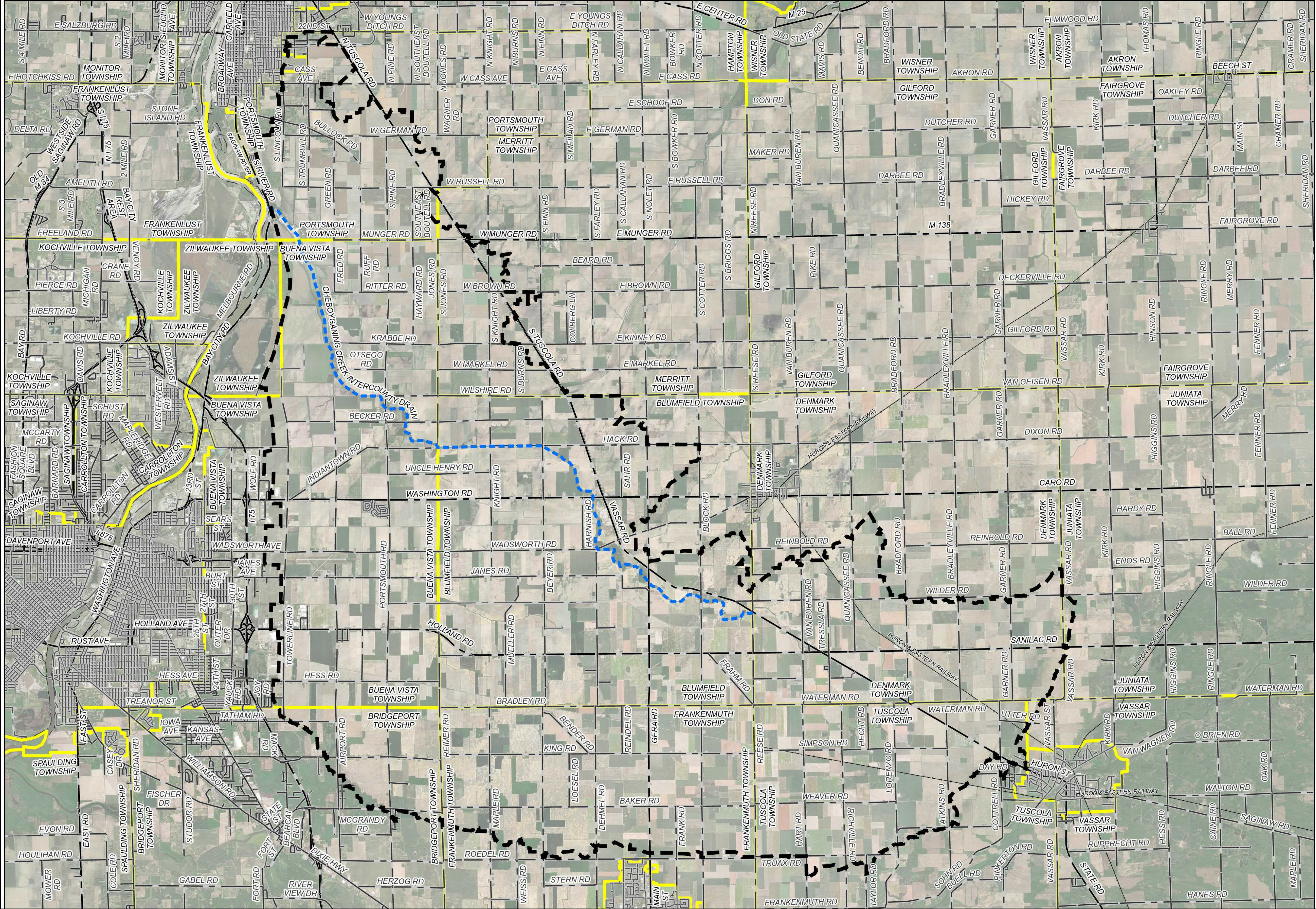
# CHEBOYGANING CREEK INTERCOUNTY DRAIN

MICHIGAN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT - BRADEN L. HARRINGTON, P.E.

BAY COUNTY DRAIN COMMISSIONER - MICHAEL RIVARD

SAGINAW COUNTY PUBLIC WORKS COMMISSIONER - BRIAN J. WENDLING

TUSCOLA COUNTY DRAIN COMMISSIONER - DARA HOOD



AREA MAP  
NOT TO SCALE

N

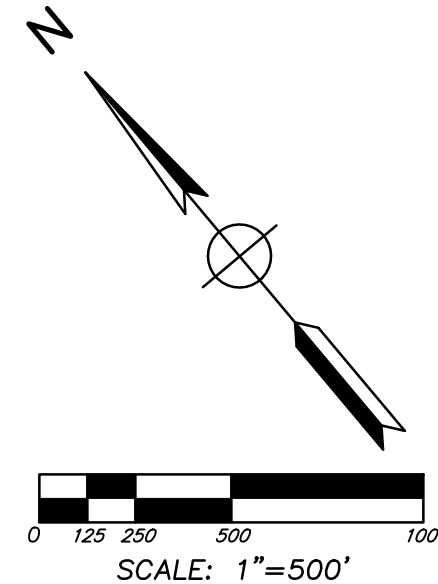


LEGEND


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

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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN BAY, SAGINAW, AND TUSCOLA COUNTIES, MICHIGAN			
DRAINAGE DISTRICT MAP			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel: 989-754-4171 www.SpicerGroup.com	
DE BY: LDO	CH BY: LDO	PROJECT NO.	
DR BY: LLG	APP BY: NDC	127970SG2019	
STDS.	SHEET 04 OF 25	DR 04	
DATE	MAY 2025	FILE NO.	DR-3797-04
SCALE	1:54,000		





- LEGEND**
- DRAIN ROW
  - PROJECT DRAIN
  - EX PARCELS
  - CL ROAD
  - OTHER DRAINS
  - PROPOSED ACCESS ROUTE
  - PROPOSED ACCESS ROUTE TURNAROUND

BY	MARK	REVISIONS	DATE
THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREIN IN ACCORDANCE WITH THE CONDITIONS PREVALENT AT THE TIME THE DESIGN WAS DONE. THIS ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
DRAIN ACCESS ROUTE PORTSMOUTH ROAD TO BEYER ROAD			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: POC/LDO	CH. BY: LDO	PROJECT NO. 127970SG2019	
DR. BY: CBS	APP. BY: NDC		
STDs.	SHEET 05 OF 25	DR 05	
DATE: APRIL, 2025	FILE NO.		
SCALE: NOT TO SCALE	DR-3797-05		

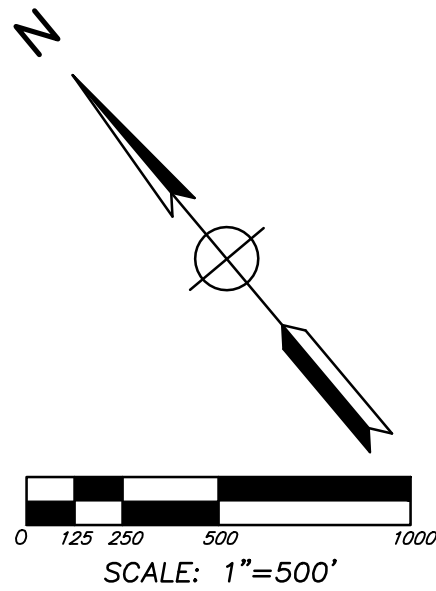
MATCH LINE STA 448+00




MATCH LINE STA 448+00



MATCH LINE STA 620+00



- LEGEND**
- — — — — DRAIN ROW
  - - - - - PROJECT DRAIN
  - — — — — EX PARCELS
  - — — — — CL ROAD
  - - - - - OTHER DRAINS
  - — — — — PROPOSED ACCESS ROUTE
  - — — — — — PROPOSED ACCESS ROUTE TURNAROUND


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. THIS ENGINEER DOES NOT GUARANTEE AND WILL NOT BE LIABLE FOR ANY OTHER LOCATION, CONDITION, DESIGN OR PURPOSE.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
DRAIN ACCESS ROUTE BEYER ROAD TO M-83			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: POC/LDO	CH. BY: LDO	PROJECT NO. 127970SG2019	
DR. BY: CBS	APP. BY: NDC	SHEET 06 OF 25	
STDs.	DATE: APRIL, 2025	FILE NO.	DR
SCALE: NOT TO SCALE		DR-3797-06	06



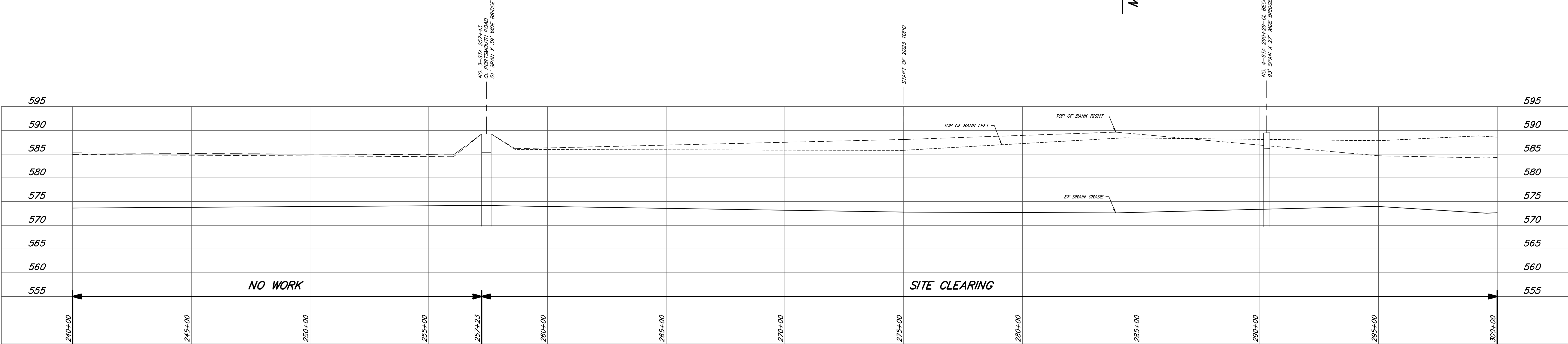


MATCH LINE STA 620+00

- LEGEND**
- DRAIN ROW
  - - - PROJECT DRAIN
  - - - EX PARCELS
  - CL ROAD
  - - - OTHER DRAINS
  - PROPOSED ACCESS ROUTE
  - PROPOSED ACCESS ROUTE TURNAROUND

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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
DRAIN ACCESS ROUTE M-83 TO M-15			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: POC/LDO	CH. BY: LDO	PROJECT NO. 127970SG2019	
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STDs.	SHEET 07 OF 25	DR 07	
DATE: APRIL, 2025	FILE NO.		
SCALE: NOT TO SCALE	DR-3797-07		





NO. 3 - STA 257+43 - PORTSMOUTH ROAD  
NO WORK

NO. 4 - STA 290+29 - BECKER ROAD  
NO WORK

BERM REPAIR TABLE			
STATION START	STATION END	SIDE	APPROXIMATE FILL HEIGHT (FT)
259+75	260+25	LEFT	2

MAINTENANCE ACCESS			
STATION	SIDE	SIZE/TYPE	LENGTH
258+10	LEFT	15" CULVERT	40 LIN FT
COORDINATE INSTALLATION OF ACCESS CULVERTS WITH ENGINEER PRIOR TO CONSTRUCTION.			

BANK REPAIR TABLE		
STATION FROM	STATION TO	SIDE TO EXCAVATE FROM
297+25	298+25	RIGHT

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
(P)	257+23	300+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
(T)	257+23	300+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM

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

- CONSTRUCTION NOTES**
- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LANE ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE INCLUDED IN THE SITE CLEARING PAY ITEMS.
  - CONTRACTOR TO REMOVE FALLEN TREES, LOG JAMS AND BEAVER DAMS AND ANY OTHER OBSTRUCTIONS FROM DRAIN BOTTOM. COSTS ARE TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE CLEARING.
  - CONTRACTOR TO CLEAR TREES TO ESTABLISH ACCESS ROUTE ALONG TRIBUTARY COUNTY DRAINS AND AS NEEDED TO CONSTRUCT BERM REPAIRS. TREE CLEARING COST TO BE INCLUDED IN SITE CLEARING BID PRICE FOR EACH TRIBUTARY DRAIN.
  - CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF PROJECT WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID PRICE FOR CLEANUP AND RESTORATION.
  - CONTRACTOR TO COMPLETE BERM REPAIRS AT LOCATIONS AS SHOWN ON PLANS. SEE SHEET 24 FOR TYPICAL BERM REPAIR DETAIL. COST FOR BERM REPAIR TO BE PAID AS UNIT PRICE AS STATED ON BID FORM.

**BENCHMARKS**

BM 200 - SET PK NAIL ON TOP OF SOUTHWEST BRIDGE WING WILL SOUTH END OF BRIDGE.

EL 589.84

BM 201 - SET SPICER GEAR SPIKE IN SOUTHWEST FACE OF POWER POLE ±50' NORTH OF CL BAKER ±45' NORTHEAST OF END GUARD RAIL.

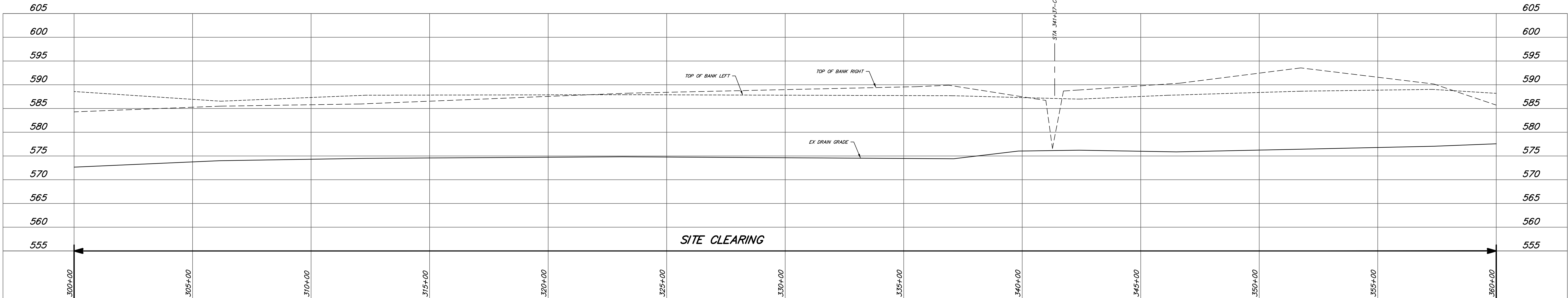
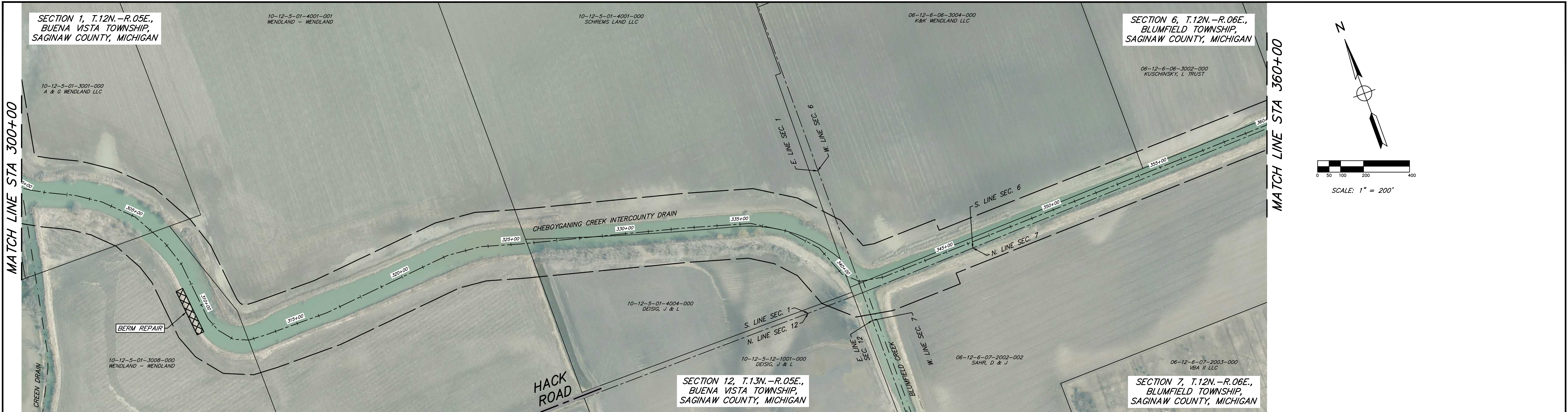
EL 597.73

**RIGHT-OF-WAY**

STA. 240+00 TO 300+00 - RIGHT-OF-WAY IS 150 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.

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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 240+00 TO STA 300+00			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com			
DE. BY: POC/LDO	CH. BY: LDO	PROJECT NO. 127970SG2019	
DR. BY: CBS	APP. BY: NDC	SHEET 12 OF 25	
STDs.	DATE: APRIL, 2025	FILE NO.	DR-3797-12
SCALE: 1"=200'	1/2"=10'	12	





BERM REPAIR TABLE			
STATION START	STATION END	SIDE	APPROXIMATE FILL HEIGHT (FT)
309+00	311+50	RIGHT	2

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
	300+00	360+00	BOTH	SEEDING OF ALL DISTURBED AREAS	LUMP SUM
	300+00	360+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM

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

#### CONSTRUCTION NOTES

- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LANE ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE INCLUDED IN THE SITE CLEARING PAY ITEMS.
- CONTRACTOR TO REMOVE FALLEN TREES, LOG JAMS AND BEAVER DAMS AND ANY OTHER OBSTRUCTIONS FROM DRAIN BOTTOM. COSTS ARE TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE CLEARING.
- CONTRACTOR TO CLEAR TREES TO ESTABLISH ACCESS ROUTE ALONG TRIBUTARY COUNTY DRAINS AND AS NEEDED TO CONSTRUCT BERM REPAIRS. TREE CLEARING COST TO BE INCLUDED IN SITE CLEARING BID PRICE FOR EACH TRIBUTARY DRAIN.
- CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF PROJECT WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID PRICE FOR CLEANUP AND RESTORATION.
- CONTRACTOR TO COMPLETE BERM REPAIRS AT LOCATIONS AS SHOWN ON PLANS. SEE SHEET 24 FOR TYPICAL BERM REPAIR DETAIL. COST FOR BERM REPAIR TO BE PAID AS UNIT PRICE AS STATED ON BID FORM.

#### RIGHT-OF-WAY

STA. 300+00 TO 345+00 - RIGHT-OF-WAY IS 150 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.

STA. 345+00 TO 360+00 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.

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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 300+00 TO STA 360+00			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com			
DE. BY: POC/LDO DR. BY: CBS		CH. BY: LDO APP. BY: NDC	
PROJECT NO. 127970SG2019			
STDS.		SHEET 13 OF 25	
DATE: APRIL, 2025 SCALE: 1"=200' V. 1"=10'		FILE NO. DR-3797-13	
		DR 13	



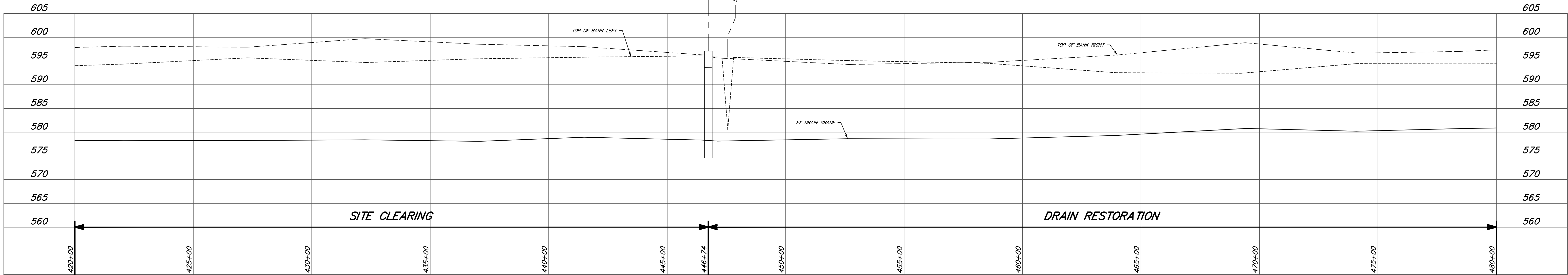
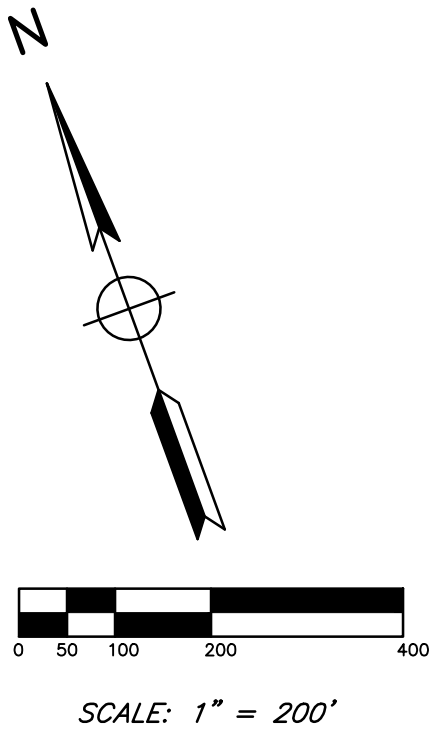




SECTION 5, T.12N.-R.06E.,  
BLUMFIELD TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN

SECTION 8, T.12N.-R.06E.,  
BLUMFIELD TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN

SECTION 9, T.12N.-R.06E.,  
BLUMFIELD TOWNSHIP,  
SAGINAW COUNTY, MICHIGAN



NO. 6 - STA 446+74 - BEYER ROAD  
INSTALL SCOUR PROTECTION AS SHOWN ON  
SHEET 22

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
1 P	420+00	480+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
2 T	480+00	480+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM
16 P	469+00	470+30	LEFT	RIPRAP TOE OF SLOPE PROTECTION	130 LIN FT
16 P	471+00	471+70	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	70 LIN FT
16 P	479+00	480+10	LEFT	RIPRAP TOE OF SLOPE PROTECTION	110 LIN FT
19 P	479+00	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
23 P	ALL EX FIELD TILE OUTLETS AND S.O.T.		BOTH	OUTFALL STABILIZATION	13 EA

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

SPOIL LEVELING TABLE			
STATION FROM	STATION TO	DETAIL	SIDE TO EXCAVATE FROM
447+00	464+50	A	BOTH
464+50	470+50	B	BOTH
470+50	478+50	A	RIGHT
		B	LEFT
478+50	480+00	A	BOTH

NOTE:  
USE: SPOIL LEVELING DETAIL "A" THROUGH FIELD AREA.  
USE: SPOIL LEVELING DETAIL "B" THROUGH WOODED AREA.  
SPOILS TO BE HAULED IN LAWN AREAS.

CONSTRUCTION NOTES

- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LANE ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE INCLUDED IN THE SITE CLEARING PAY ITEMS.
- CONTRACTOR TO REMOVE FALLEN TREES, LOG JAMS AND BEAVER DAMS AND ANY OTHER OBSTRUCTIONS FROM DRAIN BOTTOM. COSTS ARE TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE CLEARING.
- DRAIN RESTORATION INCLUDES REMOVAL OF SEDIMENT BARS, GRADING OF SLOPES TO A 2H:1V, MINOR FILLING OF ERODED AREAS, AND LEVELING OR HAULING OF SPOILS.
- CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF PROJECT. WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID PRICE FOR CLEANUP AND RESTORATION.

BENCHMARKS

BM 203 - SET GEAR SPIKE IN EAST FACE OF POWER POLE, ±40' EAST OF CL BEYER ROAD.

EL 596.94

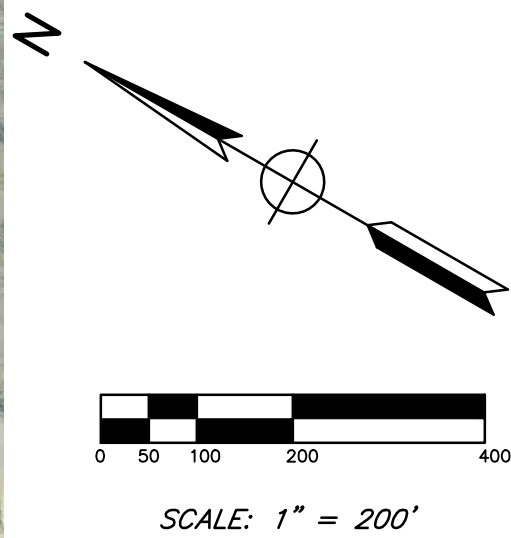
RIGHT-OF-WAY

STA. 420+00 TO 480+00 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.

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.			
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 420+00 TO STA 480+00			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com		PROJECT NO. 127970SG2019	
DE. BY: POC/LDO DR. BY: CBS	CH. BY: LDO APP. BY: NDC	SHEET 15 OF 25	
DATE: APRIL, 2025 SCALE: 1"=200' V. 1"=10'		FILE NO. DR-3797-15	
		DR 15	



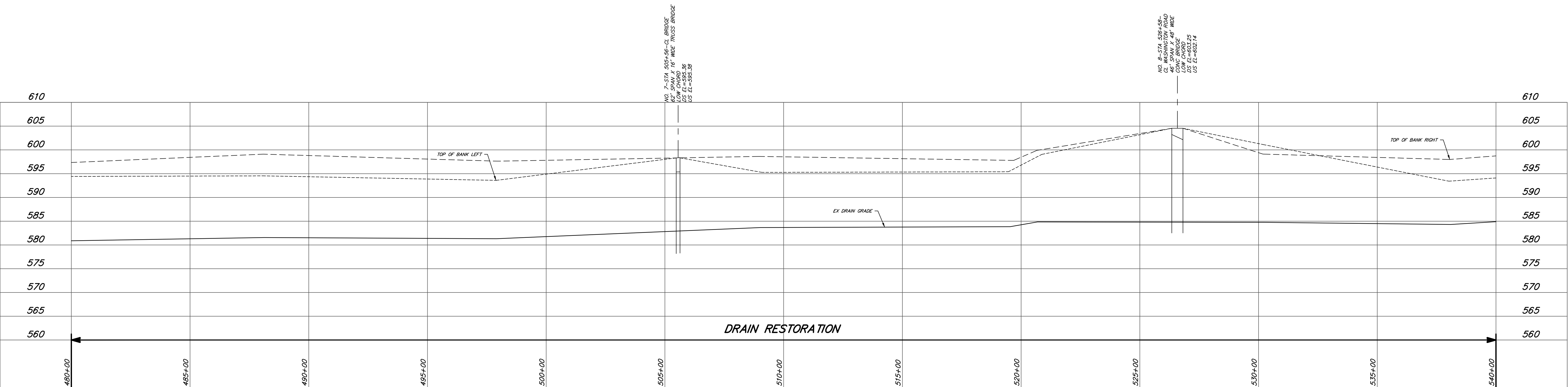
MATCH LINE STA 480+00



MATCH LINE STA 540+00

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
1 P	480+00	540+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
2 T	480+00	540+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM
16 P	483+50	484+20	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	70 LIN FT
16 P	486+50	487+80	LEFT	RIPRAP TOE OF SLOPE PROTECTION	130 LIN FT
16 P	489+75	490+75	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	100 LIN FT
16 P	508+50	510+00	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	150 LIN FT
16 P	519+50	520+90	LEFT	RIPRAP TOE OF SLOPE PROTECTION	140 LIN FT
16 P	529+00	530+00	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	100 LIN FT
16 P	531+50	533+00	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	150 LIN FT
16 P	534+00	535+00	LEFT	RIPRAP TOE OF SLOPE PROTECTION	100 LIN FT
16 P	537+50	538+70	LEFT	RIPRAP TOE OF SLOPE PROTECTION	120 LIN FT
19 P	489+50	-	LEFT	RIPRAP SPILLWAY	25 LIN FT
19 P	517+60	-	RIGHT	RIPRAP SPILLWAY	25 LIN FT
23 P	ALL EX FIELD TILE OUTLETS AND S.O.T.		BOTH	OUTFALL STABILIZATION	15 EA

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



DRAIN RESTORATION

NO. 7A - STA 493+60 - MOSSNER, J & C AND REIF ACRES LLC  
REMOVE EXISTING CROSSING.

NO. 7 - STA 505+56 - MOSSNER, J & C AND REIF ACRES LLC  
REMOVE EXISTING CROSSING.

NO. 8 - STA 526+58 - WASHINGTON ROAD  
CLEANOUT EXISTING CROSSING.

SPOIL LEVELING TABLE			
STATION FROM	STATION TO	DETAIL	SIDE TO EXCAVATE FROM
480+00	511+75	A	BOTH
511+75	526+58	HAUL	RIGHT
		A	LEFT
526+58	531+50	A	RIGHT
531+50	540+00	A	BOTH

NOTE:  
USE SPOIL LEVELING DETAIL "A" THROUGH FIELD AREA.  
USE SPOIL LEVELING DETAIL "B" THROUGH WOODED AREA.  
SPOILS TO BE HAULED IN LAWN AREAS.

BANK REPAIR TABLE		
STATION FROM	STATION TO	SIDE TO EXCAVATE FROM
493+00	493+75	BOTH

#### CONSTRUCTION NOTES

- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LANE ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE INCLUDED IN THE SITE CLEARING PAY ITEMS.
- CONTRACTOR TO REMOVE FALLEN TREES, LOG JAMS AND BEAVER DAMS AND ANY OTHER OBSTRUCTIONS FROM DRAIN BOTTOM. COSTS ARE TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE CLEARING.
- DRAIN RESTORATION INCLUDES REMOVAL OF SEDIMENT BARS, GRADING OF SLOPES TO A 2H:1V, MINOR FILLING OF ERODED AREAS, AND LEVELING OR HAULING OF SPOILS.
- CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF PROJECT, WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID PRICE FOR CLEANUP AND RESTORATION.
- STA 526+78 TO STA 531+50 - LEFT SIDE - CONTRACTOR TO HAND CLEAR TREES AND BRUSH FROM DRAIN SLOPE. ONCE CUT TREES AND BRUSH TO BE MOVED TO RIGHT SIDE OF DRAIN AND DISPOSED. TREES ALONG TOP OF BANK ON LEFT SIDE ARE TO REMAIN IN PLACE.

#### BENCHMARKS

BM 204 - SET PK NAIL ON TOP OF BRIDGE EAST SIDE WING WALL CENTER OF EAST SIDE OF SOUTH WING WALL.

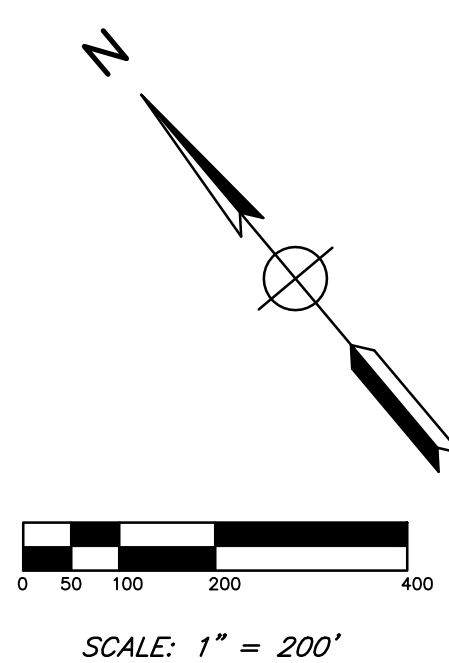
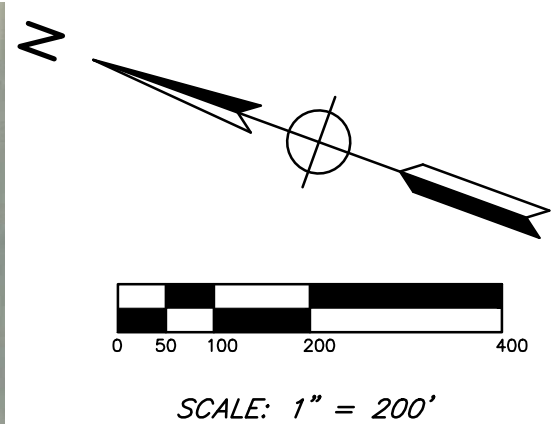
EL 604.80

#### RIGHT-OF-WAY

STA. 480+00 TO 540+00 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.








BY		MARK	REVISIONS	DATE
THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREIN 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.				
CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES				
PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 480+00 TO STA 540+00				
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com				
DE. BY: POC/LDO		CH. BY: LDO		PROJECT NO.
DR. BY: CBS		APP. BY: NDC		127970SG2019
STDs.		SHEET 16 OF 25		DR
DATE: APRIL, 2025		FILE NO.		16
SCALE: 1"=200' V. 1"=10'		DR-3797-16		





NOTE:  
USE SPOIL LEVELING DETAIL "A" THROUGH FIELD AREA.  
USE SPOIL LEVELING DETAIL "B" THROUGH WOODED AREA.  
SPOILS TO BE HAULED IN LAWN AREAS.



	543+00	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
	544+50	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
	545+75	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
	555+20	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
	556+50	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
	572+60	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
	ALL EX FIELD TILE OUTLETS AND SOT.	BOTH	OUTFALL STABILIZATION		25 EA

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

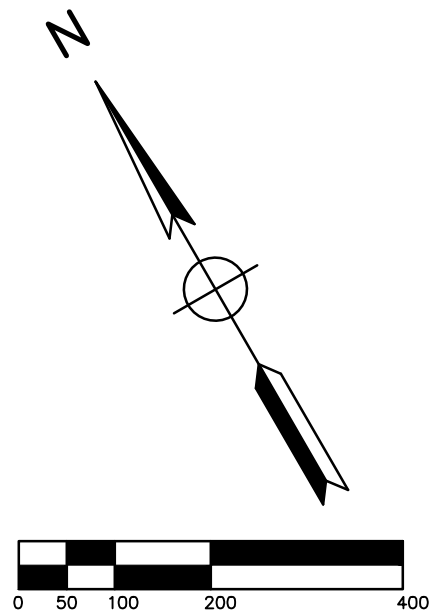
**BENCHMARKS**

**BM 205 - FOUND SPIKE IN EAST FACE OF POWER POLE  $\pm 60'$  SOUTH OF THE CL WARDSWORTH ROAD  $\pm 40'$  SOUTHWEST OF EM GUARD RAIL.**

**RIGHT-OF-WAY**  
STA. 540+00 TO 600+00 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE  
OF THE DRAIN CENTERLINE.

- |  |    |      |   |       |      |
|--|----|------|---|-------|------|
|  |    |      |   |       |      |
|  | BY | MARK | REVISIONS   |       | DATE |
| THE WORK REPRESENTED BY THIS DRAWING WAS DESIGNED BY THE ENGINEER FOR THIS SPECIFIC APPLICATION AND SPECIFIC LOCATION DESCRIBED HEREIN 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. |    |      |   |       |      |
| <i>CHEBOYGANING CREEK<br/>INTERCOUNTRY DRAIN<br/>SAGINAW, BAY, AND TUSCOLA COUNTIES</i>  |    |      |   |       |      |
| <i>PLAN AND PROFILE<br/>CHEBOYGANING CREEK<br/>INTERCOUNTRY DRAIN<br/>STA 540+00 TO STA 600+00</i>   |    |      |   |       |      |
|   |    |      | SAGINAW OFFICE<br>230 S. Washington Ave.<br>Saginaw, MI 48607<br>Tel. 989-754-4717<br>Fax: 989-754-4440<br><a href="http://www.SpicerGroup.com">www.SpicerGroup.com</a> |       |      |
| DE. BY: CGS/LDO  |    |      | PROJECT NO. 127970SG2019  |       |      |
| DR. BY: PCB APP. BY: NDC   |    |      |   |       |      |
| STDS.  |    |      | SHEET 17 OF 25  | DR 17 |      |
| DATE APRIL 2025  |    |      | FILE NO. DR - 3797-17   |       |      |
| SCALE/H: V'=200' V.L'=10'  |    |      |   |       |      |



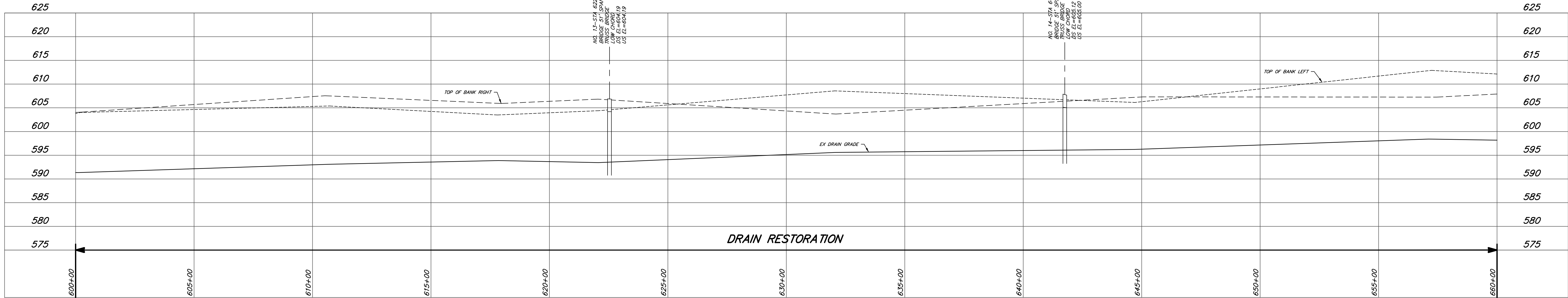


SCALE: 1" = 200'

SURVEY DATA USED FROM 2000 STUDY AND REPORT

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
1 P	600+00	660+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
2 T	600+00	660+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM
16 P	611+00	613+00	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	200 LIN FT
16 P	613+60	616+30	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	270 LIN FT
16 P	616+75	619+25	LEFT	RIPRAP TOE OF SLOPE PROTECTION	250 LIN FT
16 P	621+00	622+5	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	150 LIN FT
16 P	634+75	636+75	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	200 LIN FT
16 P	637+25	638+50	LEFT	RIPRAP TOE OF SLOPE PROTECTION	125 LIN FT
16 P	644+00	645+50	LEFT	RIPRAP TOE OF SLOPE PROTECTION	150 LIN FT
16 P	651+25	652+75	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	150 LIN FT
19 P	623+65	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
19 P	629+75	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
19 P	630+10	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
19 P	649+00	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
19 P	667+25	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
23 P	ALL EX FIELD TILE OUTLETS AND SOT.		BOTH	OUTFALL STABILIZATION	15 EA

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



CONSTRUCTION NOTES

- DRAIN RESTORATION INCLUDES REMOVAL OF SEDIMENT BARS, GRADING OF SLOPES TO A 2H:1V, MINOR FILLING OF ERODED AREAS, AND LEVELING OR HAULING OF SPOILS.
- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LAINE ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE INCLUDED IN THE SITE CLEARING PAY ITEMS.
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- CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF PROJECT, WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID PRICE FOR CLEANUP AND RESTORATION.

BENCHMARKS

BM 205 - FOUND SPIKE IN EAST FACE OF POWER POLE ±60' SOUTH OF THE CL WARDSWORTH ROAD ±40' SOUTHWEST OF END GUARD RAIL.

EL 601.86

RIGHT-OF-WAY

STA. 600+00 TO 660+00 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.

SPOIL LEVELING TABLE			
STATION FROM	STATION TO	DETAIL	SIDE TO EXCAVATE FROM
600+00	617+50	A	RIGHT
		B	LEFT
617+50	623+50	A	BOTH
623+50	634+00	B	BOTH
634+00	641+75	A	BOTH
641+75	644+00	HAUL	LEFT
		A	RIGHT
644+00	651+00	A	RIGHT
		B	LEFT
651+00	658+00	B	BOTH
658+00	660+00	A	RIGHT
		B	LEFT

NOTE:  
USE SPOIL LEVELING DETAIL "A" THROUGH FIELD AREA.  
USE SPOIL LEVELING DETAIL "B" THROUGH WOODED AREA.  
SPOILS TO BE HAULED IN LAWN AREAS.

MAINTENANCE ACCESS

STATION	SIDE	SIZE/TYPE	LENGTH
613+00	RIGHT	ROCK FORD	NA

COORDINATE INSTALLATION OF ACCESS CULVERTS WITH ENGINEER PRIOR TO CONSTRUCTION.

TRIBUTARY MAINTENANCE ACCESS

DRAIN	SIDE	SIZE/TYPE	LENGTH
BOELKE	RIGHT	15" CMP	40 LIN FT

COORDINATE INSTALLATION OF ACCESS CULVERTS WITH ENGINEER PRIOR TO CONSTRUCTION.

NO. 12 - STA 622+53 - RUPP, G  
CLEANOUT EXISTING CROSSING.

NO. 13 - STA 641+75 - BIERLEIN, B & J  
CLEANOUT EXISTING CROSSING.

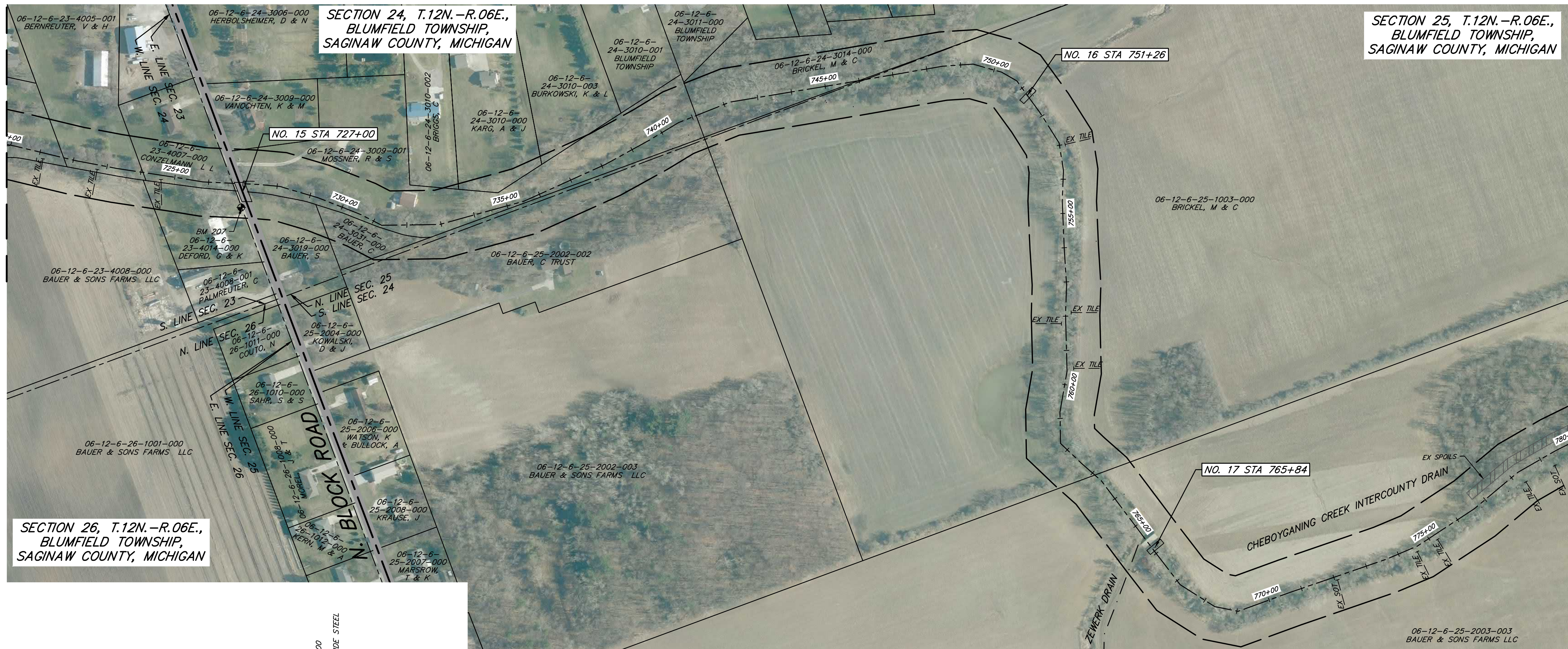
BY	MARK	REVISIONS	DATE
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CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 600+00 TO STA 660+00			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com		PROJECT NO. 127970SG2019	
DE. BY: POC/LDO DR. BY: CBS		CH. BY: LDO APP. BY: NDC	
STDS.		SHEET 18 OF 25	
DATE: APRIL, 2025 SCALE: 1"=200' V.1"=10'		FILE NO. DR-3797-18	
		DR 18	



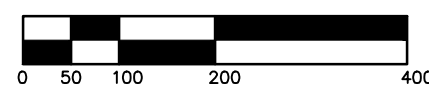
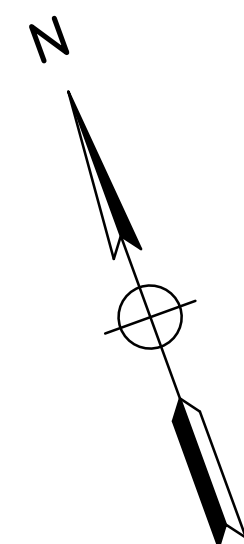




MATCH LINE STA 720+00



MATCH LINE STA 780+00



SCALE: 1" = 200'

SPOIL LEVELING TABLE			
STATION FROM	STATION TO	DETAIL	SIDE TO EXCAVATE FROM
720+00	724+00	HAUL	LEFT
		A	RIGHT
724+00	729+00	HAUL	BOTH
729+00	734+00	HAUL	LEFT
		B	RIGHT
734+00	741+00	B	BOTH
741+00	749+00	A	RIGHT
		B	LEFT
749+00	776+50	A	BOTH
		A	RIGHT
776+50	780+00	B	LEFT

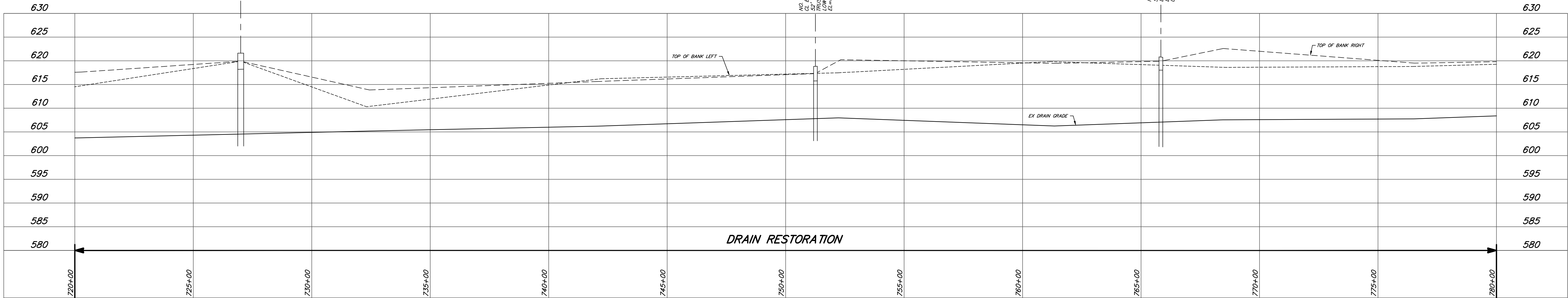
NOTE:  
USE SPOIL LEVELING DETAIL "A" THROUGH FIELD AREA.  
USE SPOIL LEVELING DETAIL "B" THROUGH WOODED AREA.  
SPOILS TO BE HAULED IN LAWN AREAS.

MAINTENANCE ACCESS			
STATION	SIDE	SIZE/TYPE	LENGTH
741+42	LEFT	24" CULVERT	40 LIN FT
777+42	LEFT	24" CULVERT	40 LIN FT

COORDINATE INSTALLATION OF ACCESS CULVERTS WITH ENGINEER PRIOR TO CONSTRUCTION.

CONSTRUCTION NOTES

- DRAIN RESTORATION INCLUDES REMOVAL OF SEDIMENT BARS, GRADING OF SLOPES TO A 2H:1V, MINOR FILLING OF ERODED AREAS, AND LEVELING OR HAULING OF SPOILS.
- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LANE ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE INCLUDED IN THE SITE CLEARING PAY ITEMS.
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- CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF PROJECT, WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID PRICE FOR CLEANUP AND RESTORATION.



NO. 15 - STA 727+00 - NORTH BLOCK ROAD  
CLEANOUT EXISTING CROSSING.

NO. 16 - STA 751+26 - BRICKEL, M & C  
CLEANOUT EXISTING CROSSING.

NO. 17 - STA 765+84 - BAUER & SONS FARMS LLC  
CLEANOUT EXISTING CROSSING.

EROSION CONTROL TABLE					
KEY**	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
1 P	720+00	780+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
2 T	720+00	780+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM
16 P	720+00	721+00	LEFT	RIPRAP TOE OF SLOPE PROTECTION	100 LIN FT
16 P	731+00	731+25	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	125 LIN FT
16 P	749+00	751+25	LEFT	RIPRAP TOE OF SLOPE PROTECTION	225 LIN FT
16 P	761+00	762+25	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	125 LIN FT
16 P	767+50	569+50	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	200 LIN FT
19 P	724+50	-	LEFT	RIPRAP SPILLWAY	20 LIN FT

(19) P	735+60	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
(19) P	736+20	-	RIGHT	RIPRAP SPILLWAY	15 LIN FT
(19) P	738+45	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
(19) P	741+70	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
(19) P	762+75	-	RIGHT	RIPRAP SPILLWAY	25 LIN FT
(19) P	762+75	-	RIGHT	RIPRAP SPILLWAY	15 LIN FT
(19) P	765+20	-	LEFT	RIPRAP SPILLWAY	20 LIN FT
(19) P	767+10	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
(19) P	771+25	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT

(19) P	774+20	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
(19) P	778+40	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
(23) P	ALL EX FIELD TILE OUTLETS AND SOT.	BOTH	OUTFALL STABILIZATION	25 EA	

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

BENCHMARKS

BM 207 - SET SPICER GEAR SPIKE IN POWER POLE SOUTHEAST  
FACE ±25' NORTH OF HOUSE NUMBER 1039 DRIVEWAY.  
EL 620.92

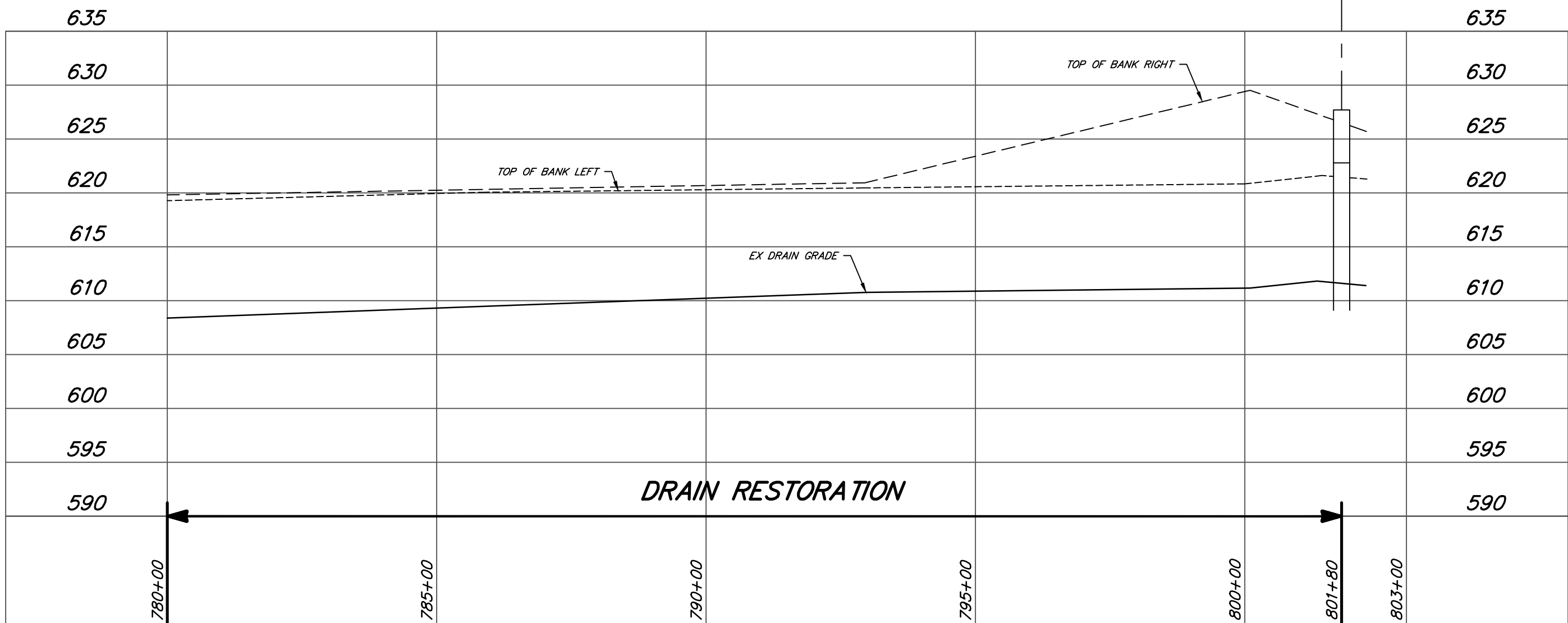
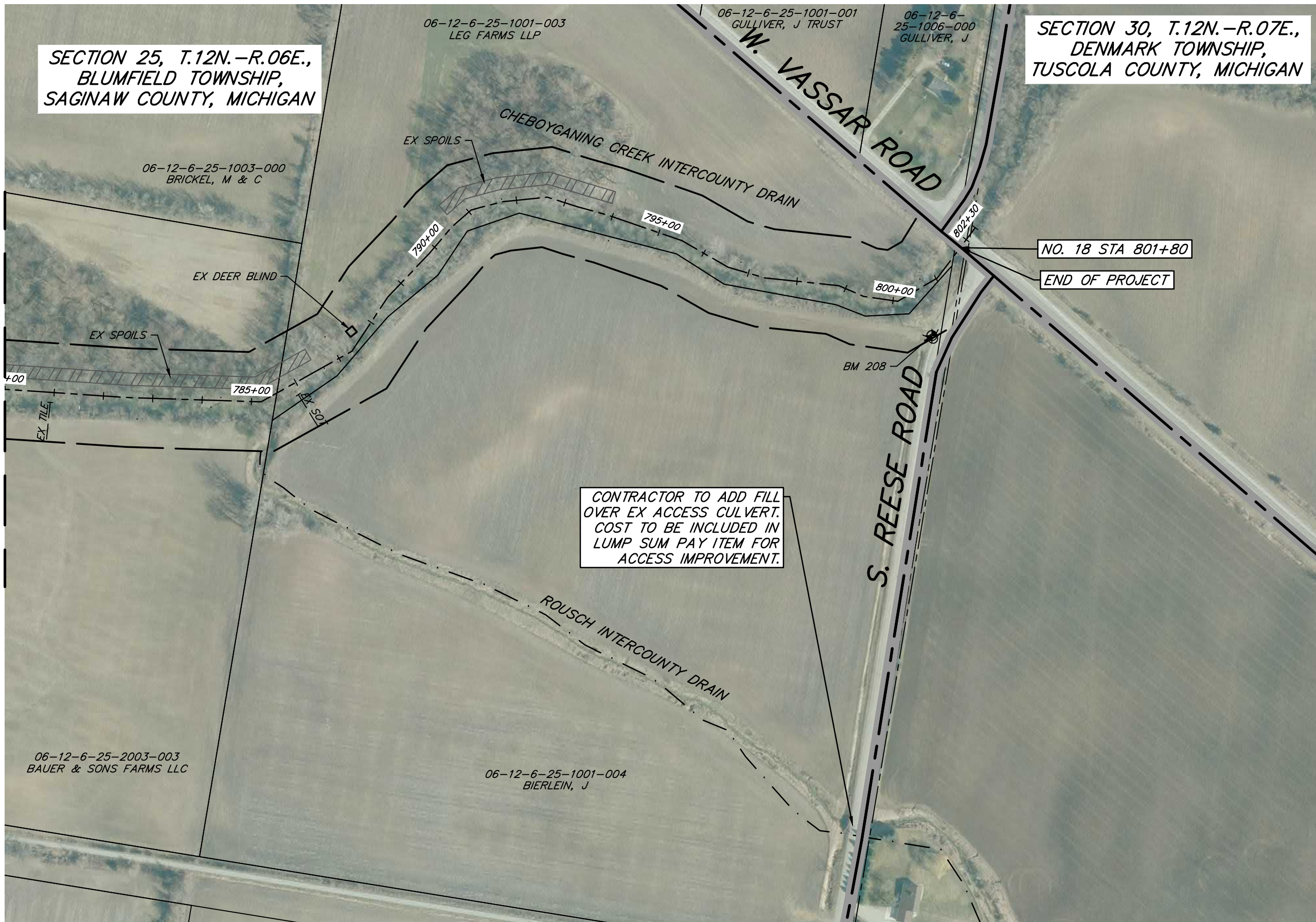
RIGHT-OF-WAY

STA. 720+00 TO 780+00 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE OF THE DRAIN CENTERLINE.

BY	MARK	REVISIONS	DATE
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CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 720+00 TO STA 780+00			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com		PROJECT NO. 127970SG2019	
DE. BY: POC/LDO CH. BY: LDO DR. BY: CBS APP. BY: NDC		SHEET 20 OF 25	
DATE: APRIL, 2025 SCALE: 1"=200' V. 1"=10'		FILE NO. DR-3797-20	
		DR 20	



MATCH LINE STA 780+00



NO. 18 - STA 801+80 - WEST VASSAR ROAD  
NO WORK.

MAINTENANCE ACCESS			
STATION	SIDE	SIZE/TYPE	LENGTH
791+50	LEFT	15" CULVERT	40 LIN FT
COORDINATE INSTALLATION OF ACCESS CULVERTS WITH ENGINEER PRIOR TO CONSTRUCTION.			

SPOIL LEVELING TABLE			
STATION FROM	STATION TO	DETAIL	SIDE TO EXCAVATE FROM
780+00	785+00	A	RIGHT
785+00	790+75	B	LEFT
785+00	790+75	A	BOTH
790+75	794+00	A	RIGHT
790+75	794+00	B	LEFT
794+00	801+80	A	BOTH

NOTE:  
USE SPOIL LEVELING DETAIL "A" THROUGH FIELD AREA.  
USE SPOIL LEVELING DETAIL "B" THROUGH WOODED AREA.  
SPOILS TO BE HAULED IN LAWN AREAS.

EROSION CONTROL TABLE					
KEY*	FROM STATION	TO STATION	SIDE	DESCRIPTION	QTY
1 P	780+00	800+00	BOTH	SEEDING OF ALL DISTURBED	LUMP SUM
2 T	780+00	800+00	BOTH	MULCH OF ALL DISTURBED AREAS	LUMP SUM
16 P	790+50	792+60	LEFT	RIPRAP TOE OF SLOPE PROTECTION	210 LIN FT
16 P	799+50	800+75	RIGHT	RIPRAP TOE OF SLOPE PROTECTION	125 LIN FT
19 P	784+60	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
19 P	788+25	-	LEFT	RIPRAP SPILLWAY	25 LIN FT
19 P	797+25	-	RIGHT	RIPRAP SPILLWAY	20 LIN FT
23 P	ALL EX FIELD TILE OUTLETS AND SOT.		BOTH	OUTFALL STABILIZATION	12 EA

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

#### CONSTRUCTION NOTES

- DRAIN RESTORATION INCLUDES REMOVAL OF SEDIMENT BARS GRADING  
OF SLOPES TO A 2H:1V SLOPES, MINOR FILLING OF ERODED AREAS,  
AND LEVELING OR GRADING OF SOILS.
- CONTRACTOR TO CLEAR TREES AND BRUSH FROM DRAIN BANKS AND  
A PATH ALONG TOP OF DRAIN TO ESTABLISH A MAINTENANCE LANE  
ON BOTH SIDES OF DRAIN. SEE SHEET 24 FOR CLEARING DETAILS  
AND SHEETS 5-7 FOR MAINTENANCE ACCESS ROUTE. COSTS FOR  
SITE CLEARING AND CONSTRUCTION OF MAINTENANCE PATH ARE  
INCLUDED IN THE SITE CLEARING PAY ITEMS.
- CONTRACTOR TO REMOVE REMOVE FALLEN TREES, LOG JAMS AND  
BEAVER DAMS AND ANY OTHER OBSTRUCTIONS FROM DRAIN BOTTOM.  
COSTS ARE TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR SITE  
CLEARING.
- CONTRACTOR TO RESTORE ACCESS ROUTES UPON COMPLETION OF  
PROJECT. WITH IN-KIND MATERIALS. COST TO BE INCLUDED IN BID  
PRICE FOR CLEANUP AND RESTORATION.


#### BENCHMARKS

BM 208 - SET ON TOP OF SOUTHWEST FLANGE BOLT OF RED FIRE  
HYDRANT ±25' NORTH OF CL REESE ROAD AND ±20'  
WEST OF ARROW SIGN AND ±8' NORTH OF EDGE OF BIT.

EL 633.41

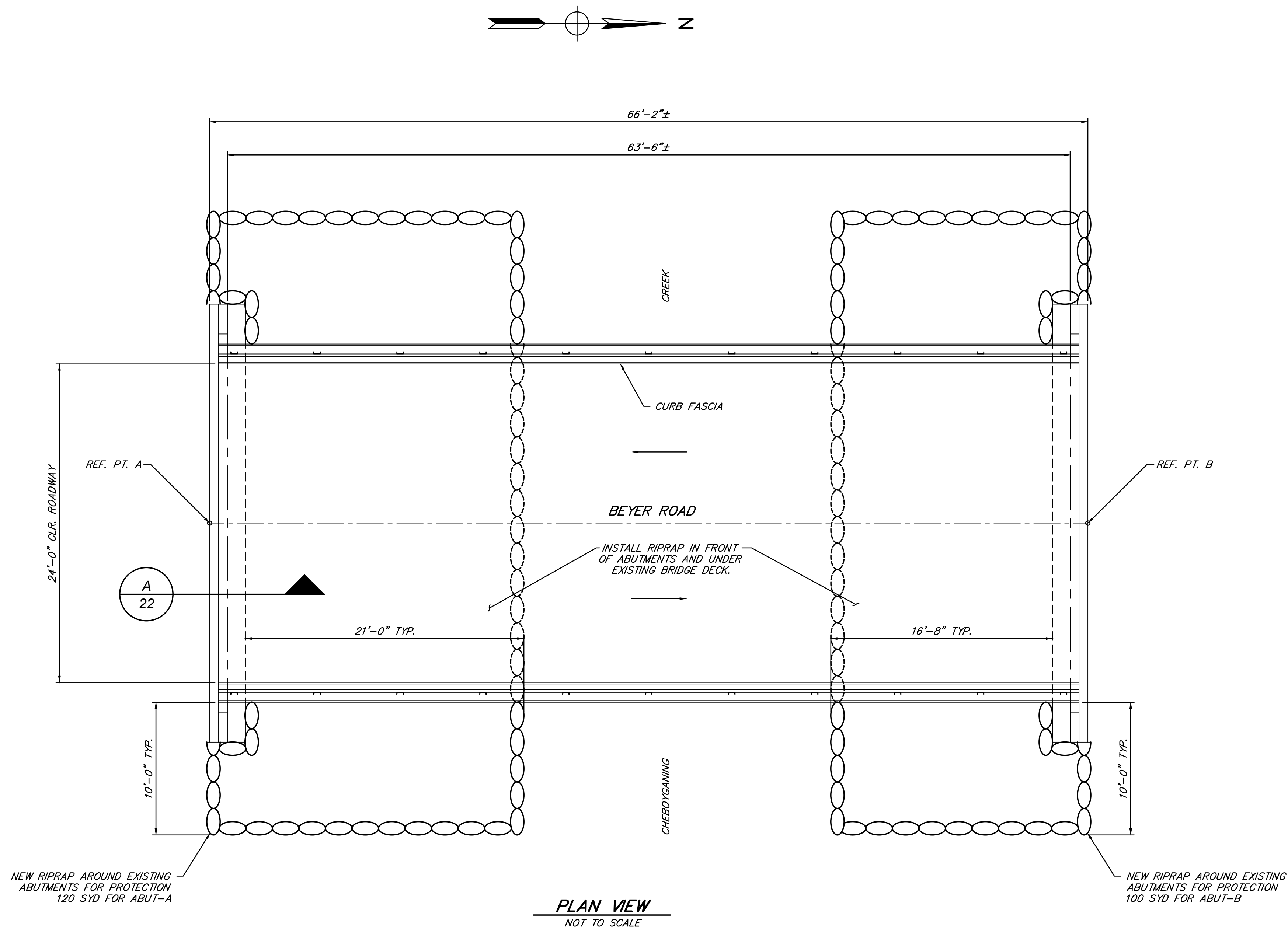
#### RIGHT-OF-WAY

STA. 780+00 TO 801+80 - RIGHT-OF-WAY IS 100 FEET ON EACH SIDE  
OF THE DRAIN CENTERLINE.

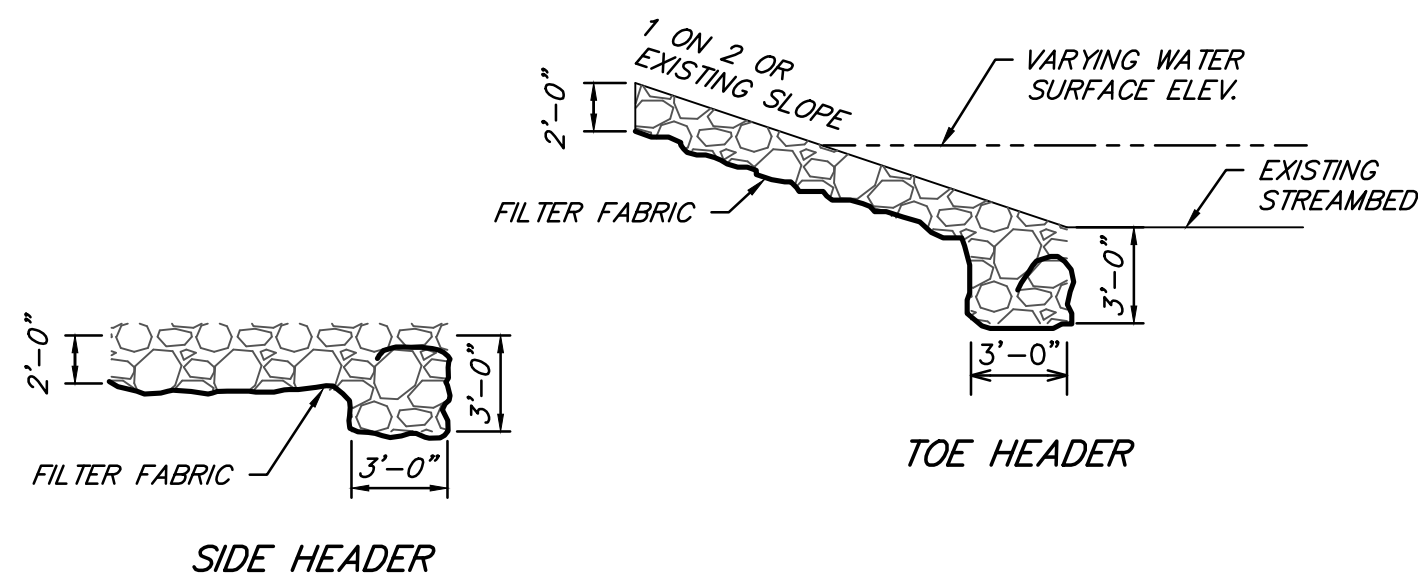
BY	MARK	REVISIONS	DATE
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PLAN AND PROFILE CHEBOYGANING CREEK INTERCOUNTY DRAIN STA 780+00 TO STA 801+80			
			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 <a href="http://www.SpicerGroup.com">www.SpicerGroup.com</a>			
DE. BY: POC/LDO DR. BY: CBS		CH. BY: LDO APP. BY: NDC	
PROJECT NO. 127970SG2019			
STDs.		SHEET 21 OF 25	
DATE APRIL, 2025 SCALE: 1"=200' 1/2"=10'		FILE NO. DR-3797-21	
		DR 21	



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PLAN VIEW  
NOT TO SCALE

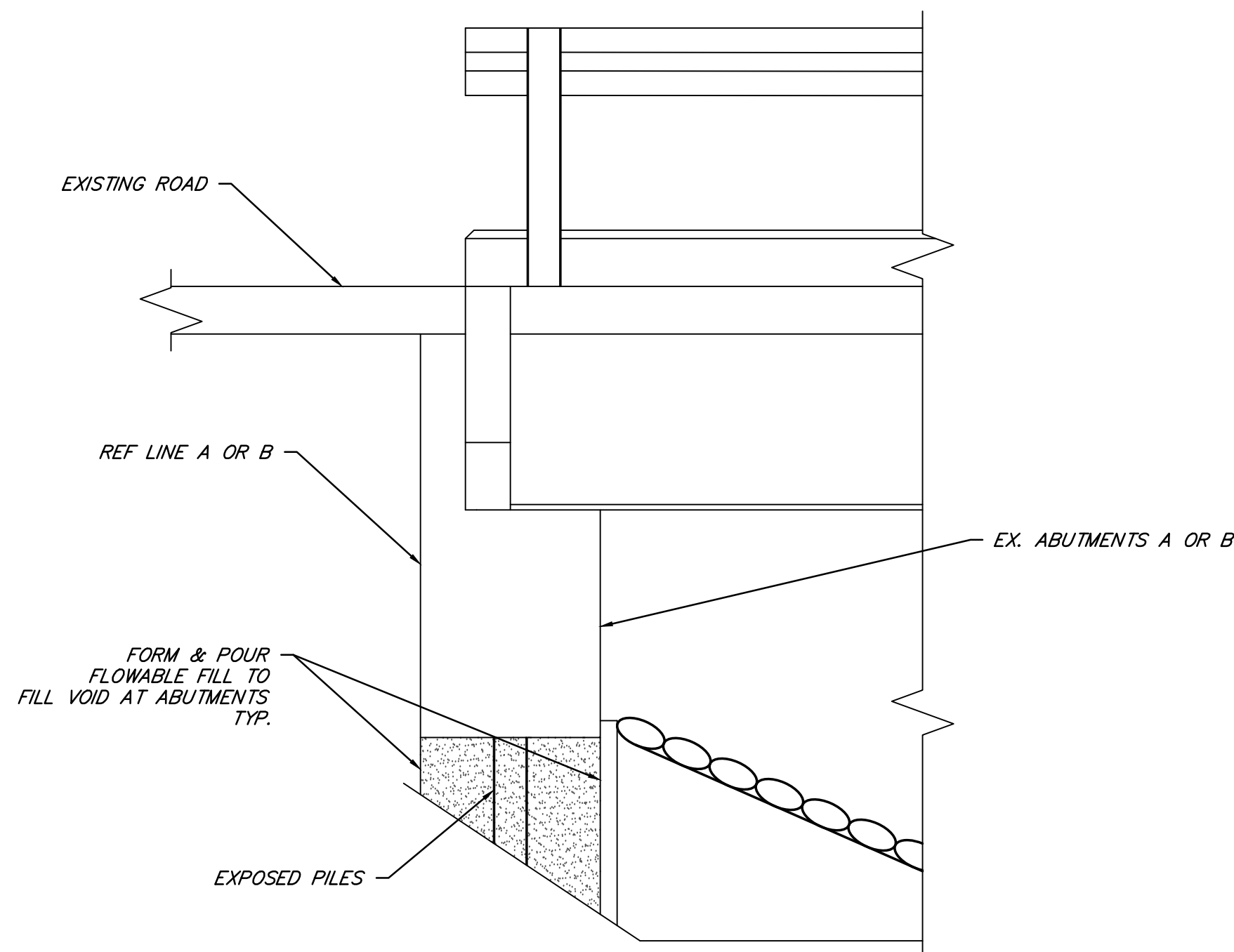


**RIPRAP HEADER DETAILS**

TOP OF RIPRAP MUST BE AT OR BELOW EXISTING STREAMBED / SLOPE ELEVATION.

AN APPROPRIATE METHOD OF WATER DIVERSION FOR PLACING RIPRAP SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. IF WATER IS SHALLOW (LESS THAN TWO FEET), TEMPORARY EARTHEN BARRIER OR SANDBAGS MAY BE USED TO DIVERT FLOW.

THE RIPRAP SCHEME SHOWN IS A MINIMUM REQUIREMENT FOR SCOUR.




SECTION - A  
NOT TO SCALE

**NOTES**

TOTAL FLOWABLE FILL (ABUTMENTS A & B) 5.0 CYD

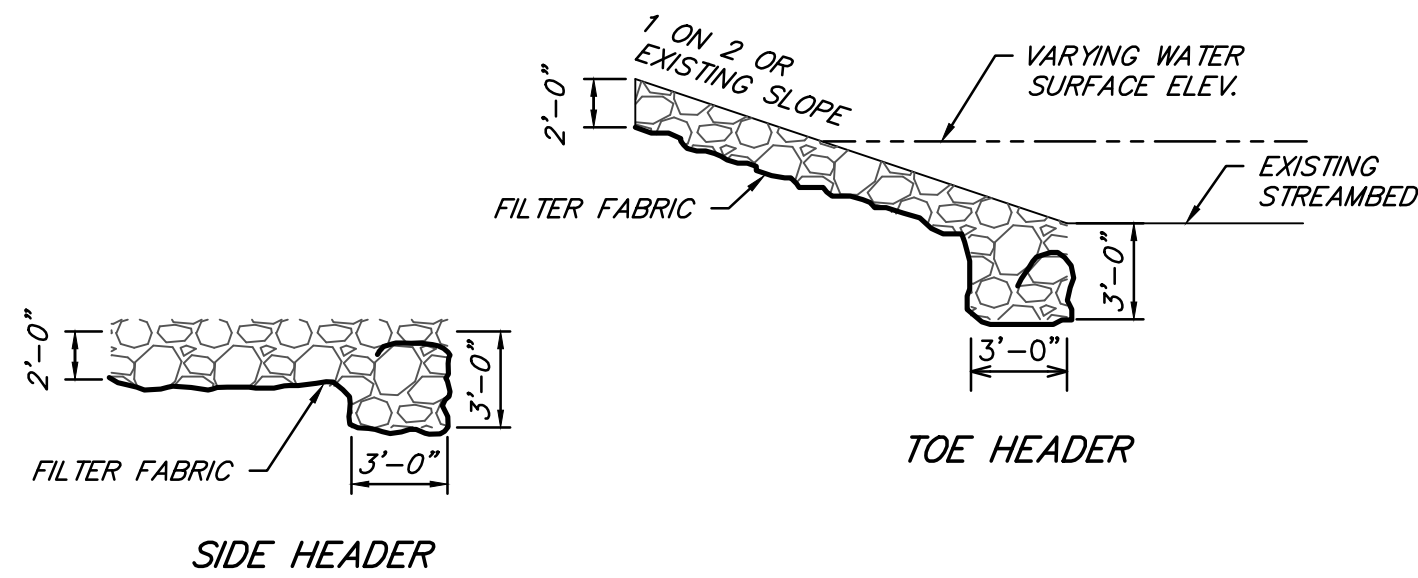
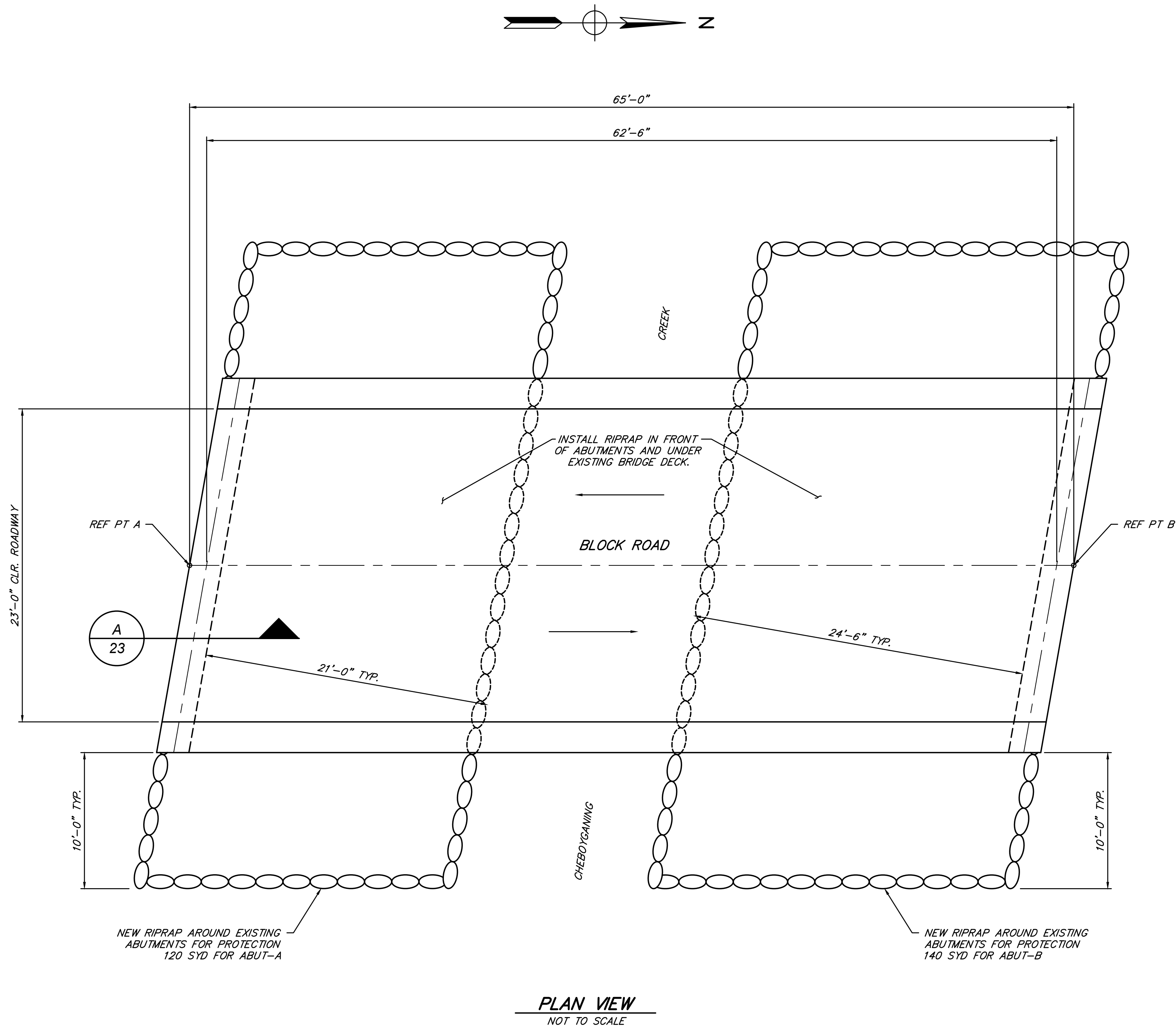
**CONSTRUCTION NOTES**

- ALL RIPRAP SHALL BE MDOT PLAIN RIPRAP.
- CONTRACTOR TO REMOVE AND HAUL AWAY EXISTING BAG RIPRAP HEADWALLS, BROKEN CONCRETE AND ANY OTHER DEBRIS, REGRADE BANK AND INSTALL RIPRAP AS SHOWN IN DETAILS. ALL COSTS INCLUDED IN LUMP SUM PRICE BID FOR SCOUR PROTECTION.

BY		MARK	REVISIONS
			DATE
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CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
BEYER ROAD BRIDGE OVER CHEBOYGANING CREEK			
		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: DPZ DR. BY: MTS		CH. BY: LDO APP. BY: NDC	
		PROJECT NO. 127970SG2019	
STDs.		SHEET 22 OF 25	
DATE SCALE		FILE NO. DR-3797-22	
APRIL, 2025 NOT TO SCALE			
		DR 22	



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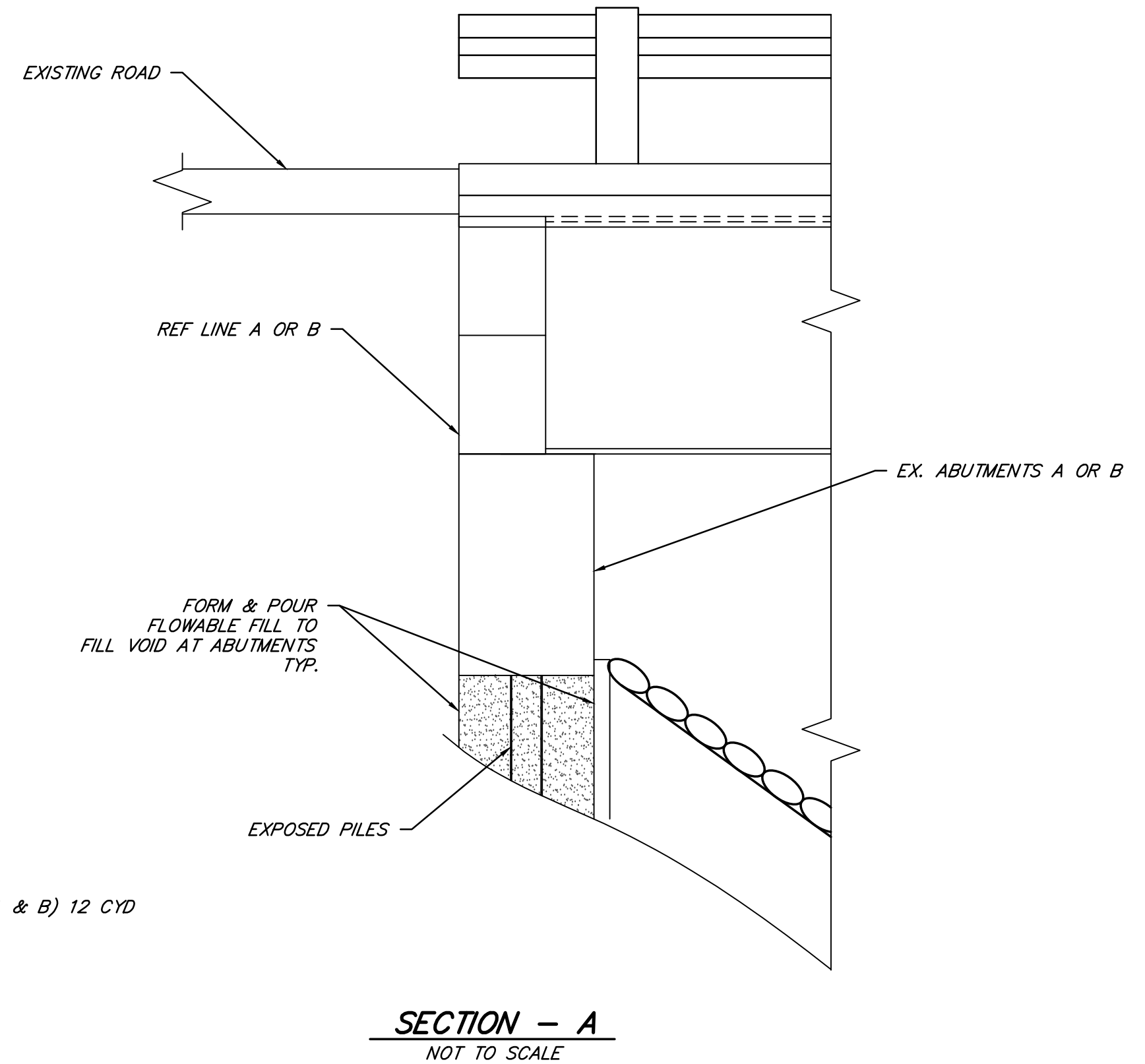


**RIPRAP HEADER DETAILS**

TOP OF RIPRAP MUST BE AT OR BELOW EXISTING STREAMBED / SLOPE ELEVATION.

AN APPROPRIATE METHOD OF WATER DIVERSION FOR PLACING RIPRAP SHALL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. IF WATER IS SHALLOW (LESS THAN TWO FEET), TEMPORARY EARTHEN BARRIER OR SANDBAGS MAY BE USED TO DIVERT FLOW.

THE RIPRAP SCHEME SHOWN IS A MINIMUM REQUIREMENT FOR SCOUR.



**NOTES**  
TOTAL FLOWABLE FILL (ABUTMENTS A & B) 12 CYD

**CONSTRUCTION NOTES**

- ALL RIPRAP SHALL BE MDOT PLAIN RIPRAP.
- CONTRACTOR TO REMOVE AND HAUL AWAY EXISTING BAG RIPRAP HEADWALLS, BROKEN CONCRETE AND ANY OTHER DEBRIS, REGRADE BANK AND INSTALL RIPRAP AS SHOWN IN DETAILS. ALL COSTS INCLUDED IN LUMP SUM PRICE BID FOR SCOUR PROTECTION.

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CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, BAY, AND TUSCOLA COUNTIES			
BLOCK ROAD BRIDGE OVER CHEBOYGANING CREEK			
<b>Spicer group</b> 62018		SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	
DE. BY: DPZ DR. BY: MTS	CH. BY: LDO APP. BY: NDC	PROJECT NO. 127970SG2019	
STDs.	SHEET 23 OF 25	DR	
DATE SCALE	APRIL, 2025 NOT TO SCALE	FILE NO. DR-3797-23	23



RIPRAP TOE OF SLOPE PROTECTION  
PLAN VIEW  
NOT TO SCALE

RIPRAP TOE OF SLOPE PROTECTION  
NOT TO SCALE

IF EXISTING TILE PLASTIC:  
CONTRACTOR SHALL SLIDE CMP TILE OUTLET  
APPROX 18" OVER EXISTING TILE AND WRAP JOINT  
WITH 2' WIDE BAND OF FILTER FABRIC.

IF EXISTING TILE CLAY OR CONCRETE:  
CONTRACTOR SHALL PROVIDE 12" WIDE X 3" THICK  
CONCRETE COLLAR AT JOINT.

IF EXISTING TILE CMP:  
CONTRACTOR SHALL ATTACH NEW FIELD TILE  
OUTLET WITH MANUFACTURER SUPPLIED COLLAR.

DO NOT DISTURB  
STABLE DITCH BANK IF  
OUTLET TUBE IS NOT TO  
BE REPLACED

20' OF CMP ONE SIZE  
LARGER THAN FIELD TILE IF  
NOT CMP  
(UNLESS OTHERWISE NOTED)

PLACED

*SPLASH PAD* —

*FILTER FABRIC TOED IN 12"* —

NOTE:  
CENTERLINE OF SPLASH PAD MUST BE RECESSED 12" DEEPER  
THAN BANK TO CREATE A "V" SHAPE. SPLASH PADS WILL NOT  
PASS INSPECTION IF THEY ARE NOT "V" SHAPED. SPLASH PAD  
INCLUDED IN THE COST OF FIELD TILE OUTLET.

FIELD TILE OUTLET DETAIL  
NOT TO SCALE

*SURFACE OUTLET TUBE DETAIL*  
*NOT TO SCALE*

**NOTE:**  
CENTERLINE OF SPLASH  
PAD MUST BE RECESSED  
12" DEEPER THAN BANK  
TO CREATE A "V" SHAPE.  
SPLASH PADS WILL NOT  
PASS INSPECTION IF  
THEY ARE NOT "V"  
SHAPE.

SITE CLEARING WITH MAINTENANCE LANE DETAIL - BOTH SIDES

NOT TO SCALE

R.O.W. (VARIES)

SITE CLEARING WITH MAINTENANCE LANE DETAIL - ONE SIDE


NOT TO SCALE

**BERM REPAIR DETAIL**  
NOT TO SCALE

NOT TO SCALE

CMP CROSSING DETAIL

NOT TO SCALE

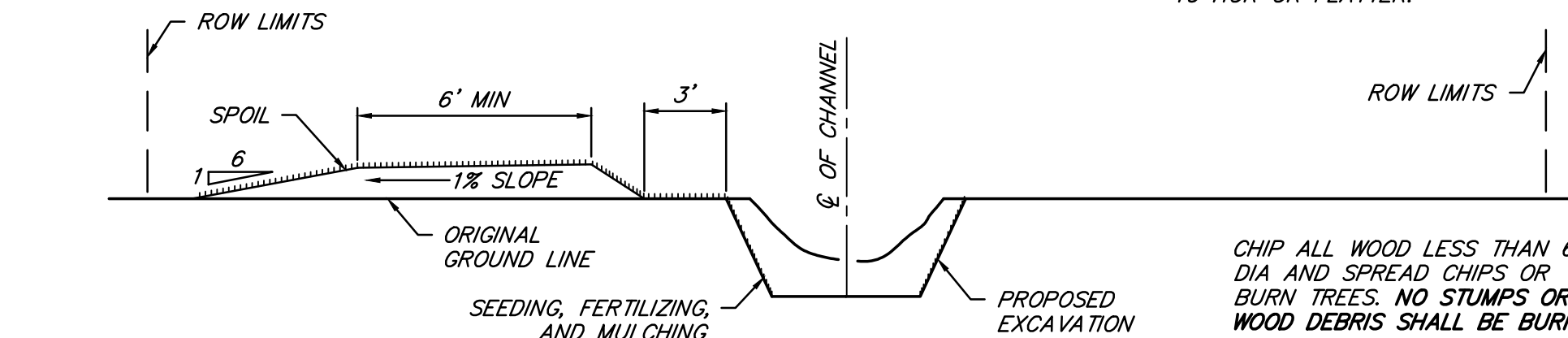
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<p align="center"><i>CHEBOYGANING CREEK INTERCOUNTY DRAIN SAGINAW, LAY, AND TUSCULA COUNTIES</i></p>			
<p align="center"><i>STANDARD DETAILS</i></p>			
		<p><b>SAGINAW OFFICE</b> 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com</p>	
<p>DE. BY: <i>POC/LDO</i> CH. BY: <i>LDO</i> DR. BY: <i>CBG</i> APP. BY: <i>NOC</i></p>		<p align="center">PROJECT NO. <i>127970SG2019</i></p>	
<p>STD.S.</p>		<p>SHEET <i>24</i> OF <i>25</i></p>	
<p>DATE <i>APRIL, 2025</i> SCALE <i>NOT TO SCALE</i></p>		<p>FILE NO. <i>DR-3797-24</i></p>	
		<p align="center"><b>DR 24</b></p>	



EXCAVATE FROM ONLY ONE SIDE OF DRAIN AS DESIGNATED ON PLANS OR DETERMINED BY ENGINEER

FOR EXCAVATION FROM ONE SIDE OF DRAIN, OPPOSITE SIDE OF DRAIN MUST BE CLEARED TO TOP OF BANK

LEAVE OPENINGS IN DEBRIS PILE AND SPOIL BANK WHERE NECESSARY SO THAT NO PONDING OF SURFACE WATER OCCURS. SIDE SLOPES ON OPENINGS SHALL BE 1 VERT ON 10 HOR OR FLATTER.

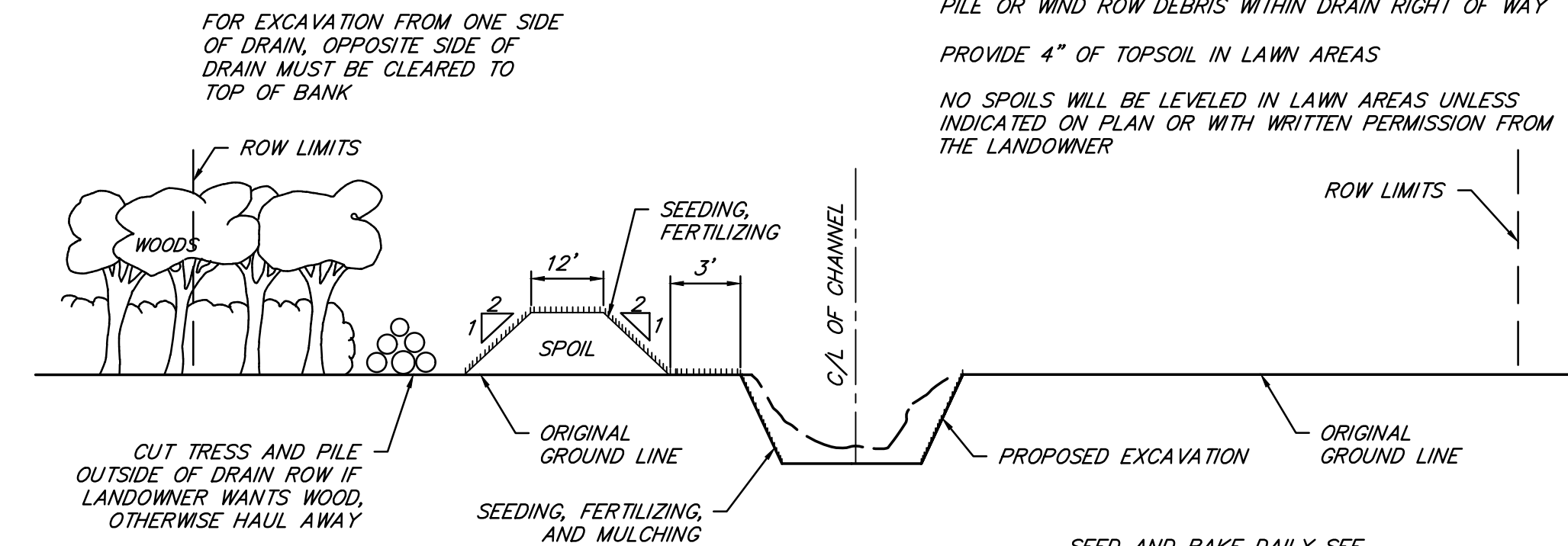


PROVIDE 4" TOPSOIL IN LAWN AREAS. NO SPOILS WILL BE LEVELED IN LAWN AREAS UNLESS INDICATED ON PLAN OR WITH WRITTEN PERMISSION FROM LANDOWNER.

**SPOIL LEVELING DETAIL "A"**

NOT TO SCALE

RAKE, SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS DAILY SEE SPECIFICATION FOR APPLICATION RATES

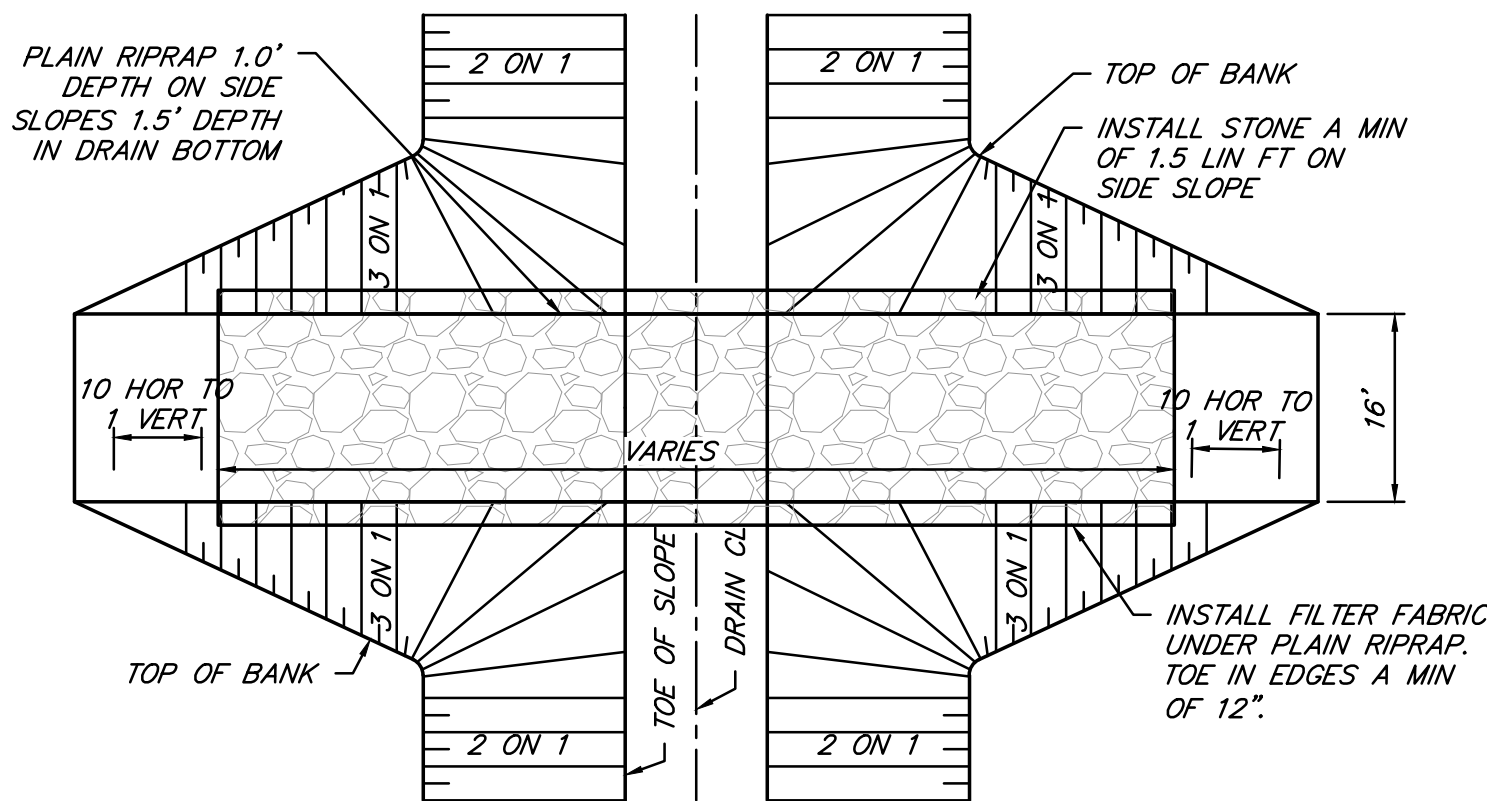


LEAVE OPENINGS IN DEBRIS PILE AND SPOIL BANK WHERE NECESSARY SO THAT NO PONDING OF SURFACE WATER OCCURS. SIDE SLOPES ON OPENINGS SHALL BE 1 VERT ON 10 HOR OR FLATTER FOR TRAFFICABILITY.

**SPOIL LEVELING DETAIL "B"**

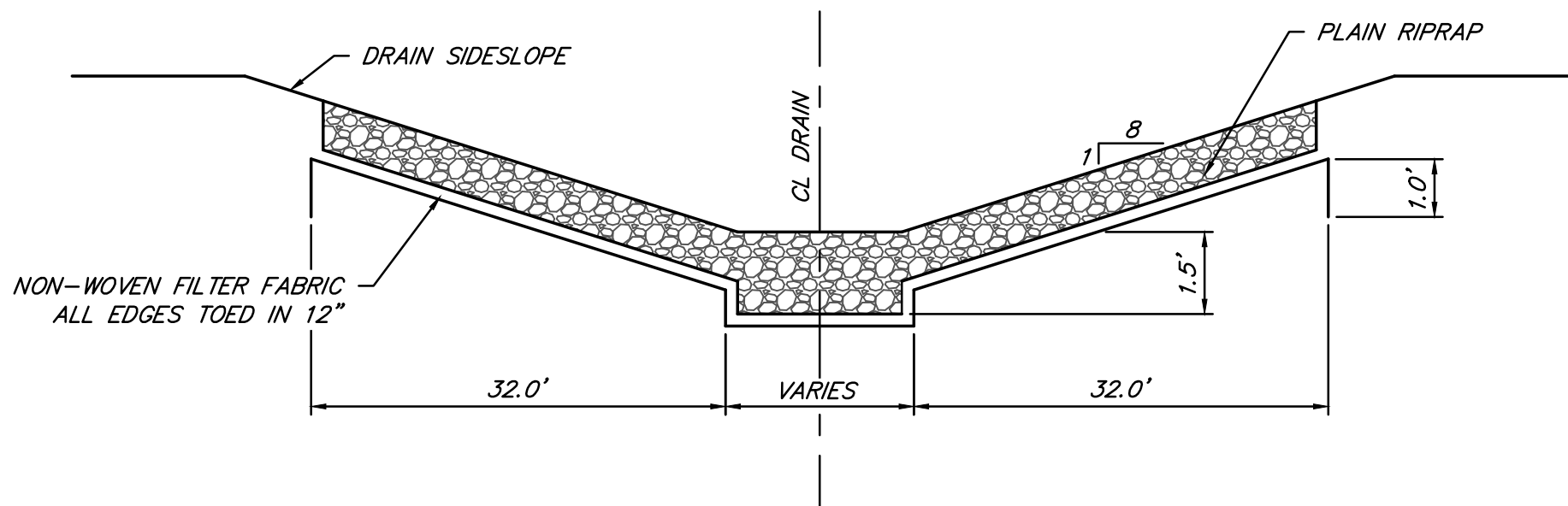
NOT TO SCALE

SEED AND RAKE DAILY SEE SPECIFICATION FOR APPLICATION RATES



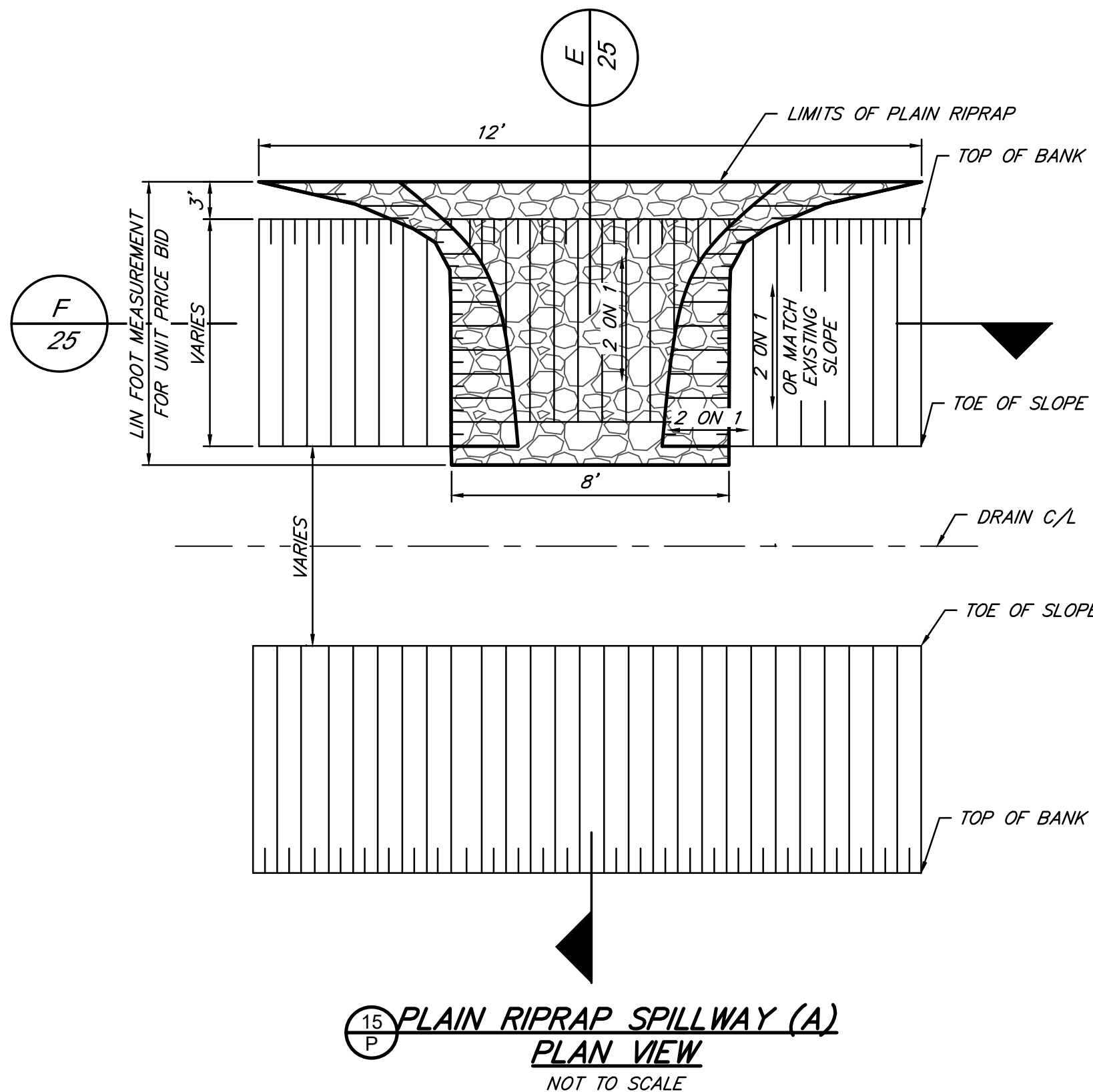
**PLAN VIEW**

NOT TO SCALE



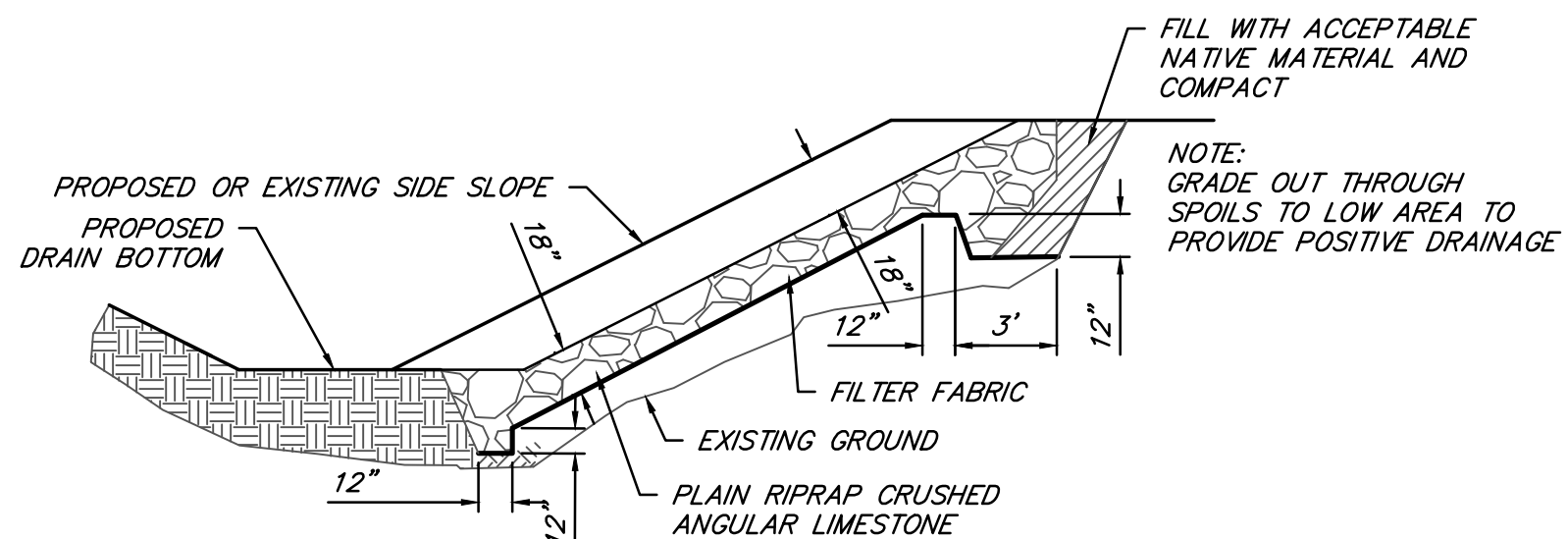
**CROSS SECTION  
ROCK FORD CROSSING DETAIL**

NOT TO SCALE



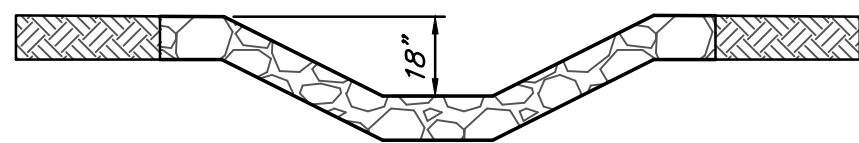
**PLAIN RIPRAP SPILLWAY (A)  
PLAN VIEW**

NOT TO SCALE



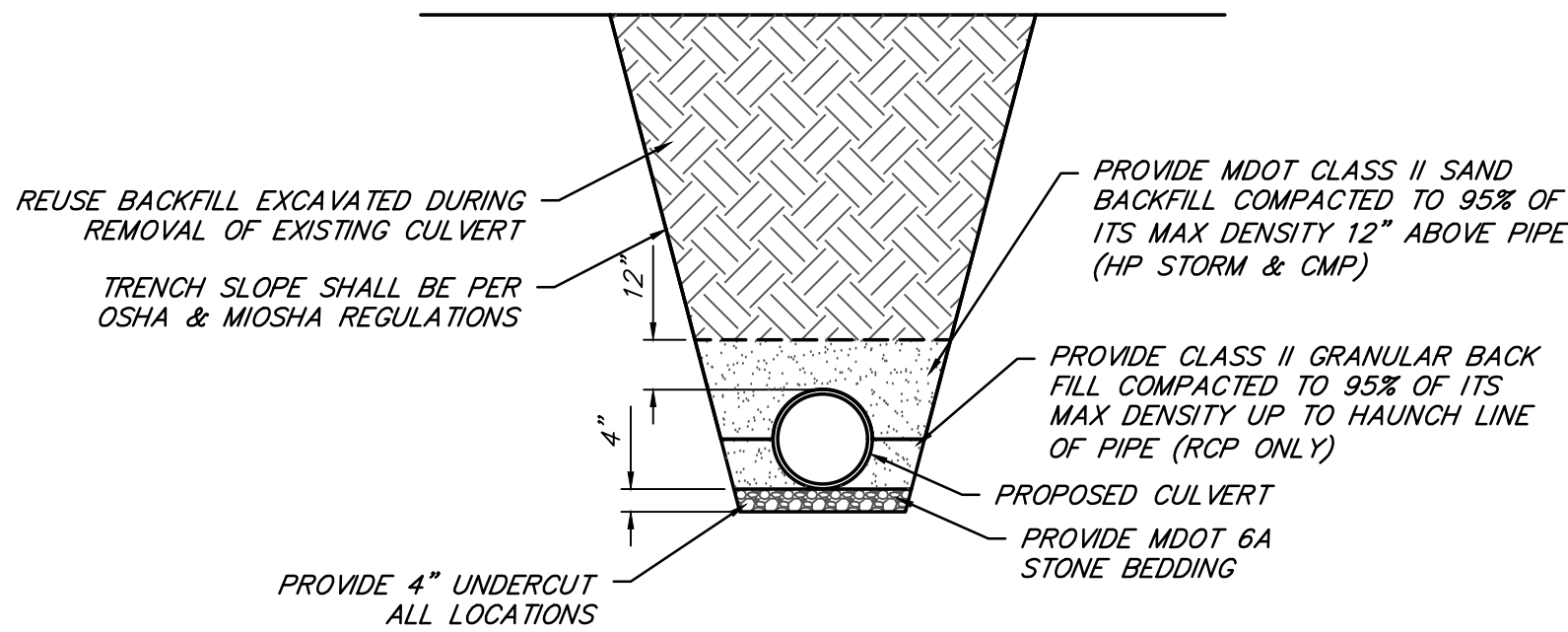
**PLAIN RIPRAP SPILLWAY (A)  
CROSS SECTION**

NOT TO SCALE



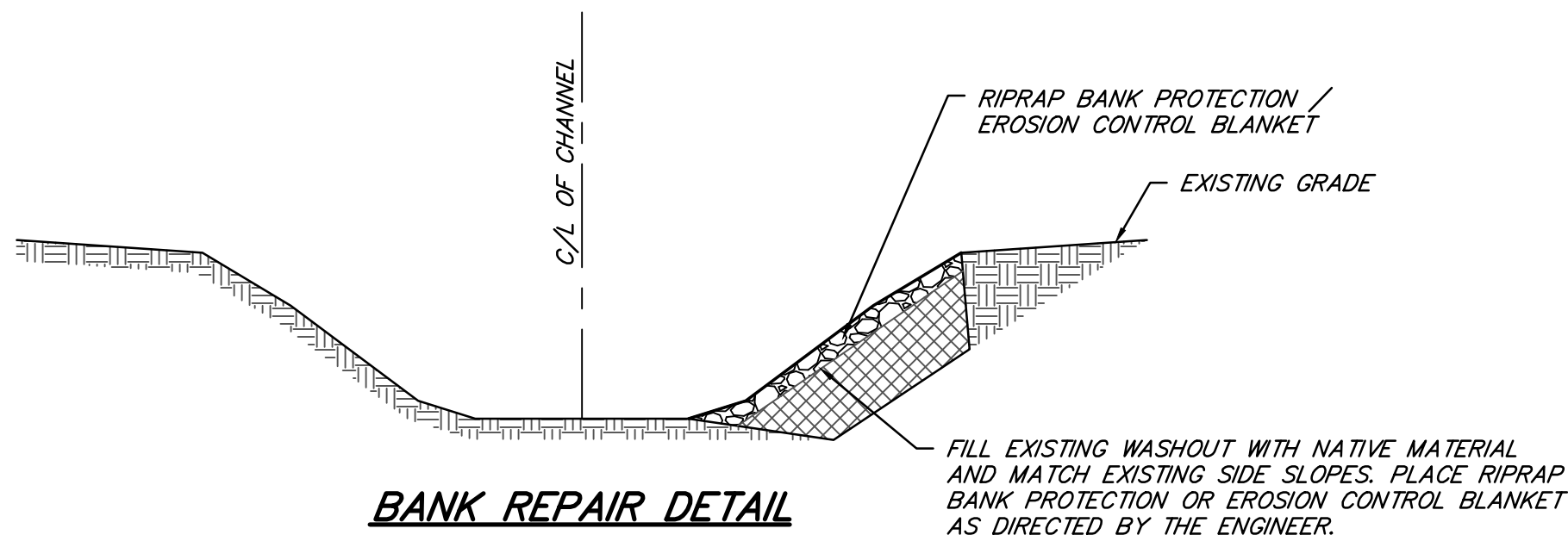
**PLAIN RIPRAP SPILLWAY (A)  
CROSS SECTION**

NOT TO SCALE



**TYPICAL NATIVE DRIVE  
CROSSING DETAIL**

NOT TO SCALE



**BANK REPAIR DETAIL**

NOT TO SCALE

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STANDARD DETAILS			
SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com			PROJECT NO. 127970SG2019
DE. BY: POC/LDO DR. BY: CBS	CH. BY: LDO APP. BY: NDC	SHEET 25 OF 25	
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