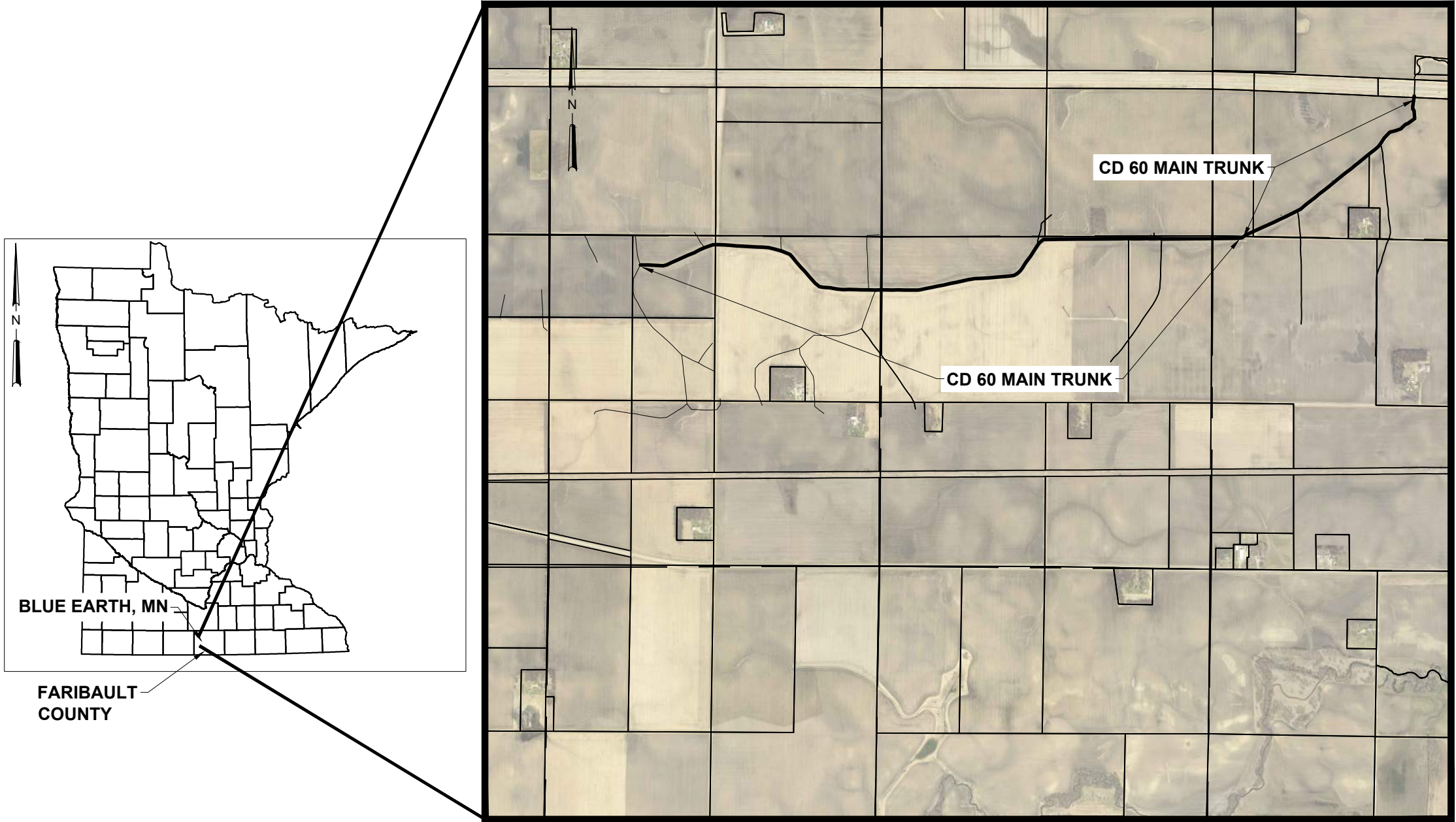


**RECORD DRAWING**  
**FARIBAULT COUNTY DITCH 60 REPAIR**  
**FARIBAULT COUNTY**  
**JO DAVIES TOWNSHIP**  
**AUGUST 2020**

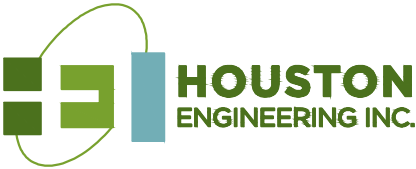


Sheet List Table	
Sheet Number	Sheet Title
1	Titlesheet
2	Legend and Construction Notes
3	Plan and Profile
4	Plan and Profile
5	Plan and Profile
6	Plan and Profile
7	Cross Sections
8	Cross Sections
9	Cross Sections
10	Details
11	Details
12	Details
13	SWPPP Narrative
14	SWPPP Narrative

**NOTES:**

1. **GEODETIC CONTROL**
- HORIZONTAL:** NAD83(2011) GEODETIC POSITION, US FOOT
- VERTICAL:** NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- BENCH MARK:** BRADY, NW QUARTER, SECTION 5, TOWNSHIP 102N, RANGE 27W
- 2.0 MILES NORTH OF BLUE EARTH, 0.45 MILE NORTH ALONG TRUNK HIGHWAY 169 FROM THE JUNCTION OF TRUNK HIGHWAY 169 AND INTERSTATE HIGHWAY 90 IN BLUE EARTH, AT TRUNK HIGHWAY 169 MILEPOINT 11.95, 114.5 FEET WEST-SOUTHWEST OF SOUTHBOUND TRUNK HIGHWAY 169, 60.0 FEET NORTH OF COUNTY ROAD 103 (125TH STREET), 6.3 FEET SOUTH OF A BURIED CABLE MARKER, 1.5 FEET NORTH OF A WITNESS POST.
2. **UTILITY**
- PRIOR TO ANY EXCAVATION WORK, THE CONTRACTOR IS RESPONSIBLE UNDER MINNESOTA STATE STATUTE 216D AND MINNESOTA RULES CHAPTER 7560 TO CONTACT GOPHER STATE ONE CALL FOR THE LOCATION OF UNDERGROUND UTILITY FACILITIES IN PROXIMITY TO THE EXCAVATION SITE.
3. **UTILITY TABULATION**
- | DESCRIPTION   | OWNER                   |
|---------------|-------------------------|
| COMMUNICATION | CENTURY LINK            |
| COMMUNICATION | FRONTIER COMMUNICATIONS |
| ENERGY        | XCEL ENERGY             |
4. CONTACT "GOPHER STATE ONE CALL" FOR LOCATIONS OF BURIED UTILITIES. CALL (651) 454-0002 OR (800) 252-1166. ALSO CONTACT AT [www.gopherstateonecall.org](http://www.gopherstateonecall.org)


**PREPARED BY:**









**MAPLE GROVE, MINNESOTA**

**PROJECT INFORMATION**  
OWNER: FARIBAULT COUNTY  
ENGINEER: HOUSTON ENGINEERING INC.  
CONTRACTOR: BRUNZ CONSTRUCTION  
RECORD DRAWING DATE: OCTOBER 27, 2021  
SURVEY COLLECTED BY FARIBAULT COUNTY  
NOTE: RECORD DRAWING TEXT, DIMENSIONS AND ELEVATIONS ARE NOTED IN OBLIQUE TEXT.

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

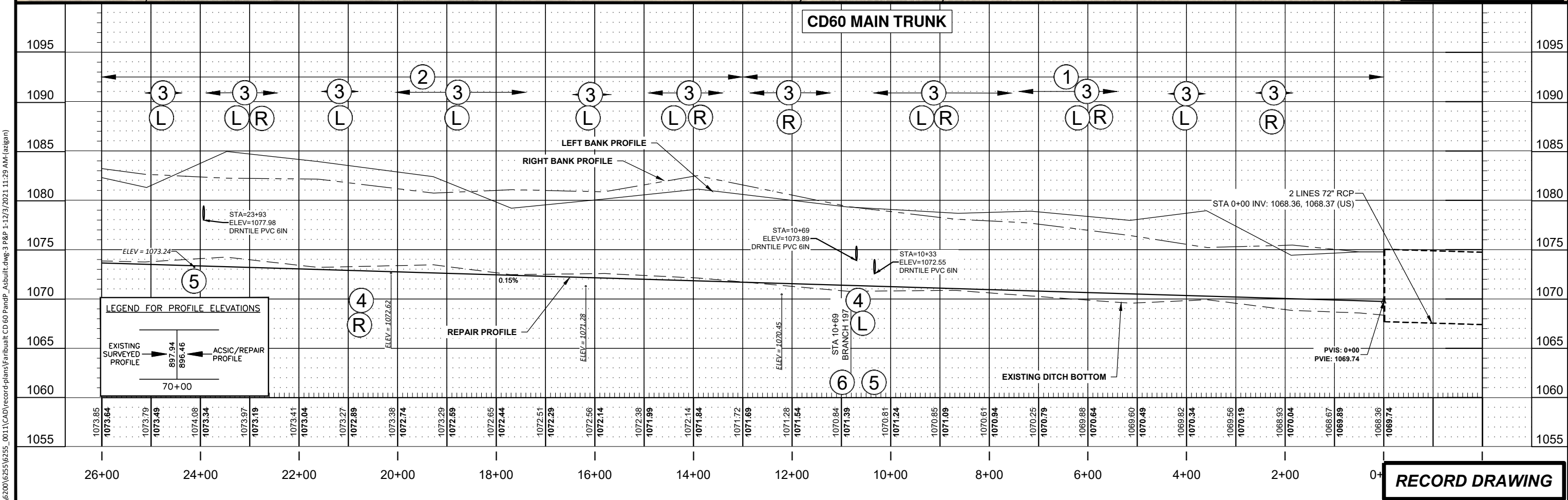
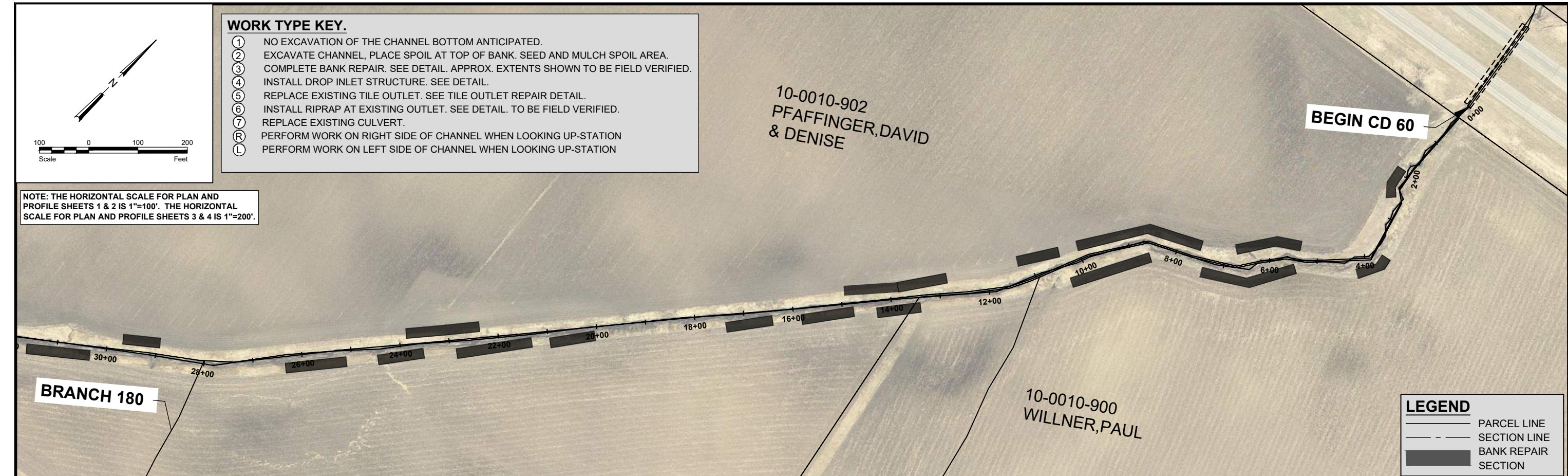
Signature:  Date: 12-3-2021  
Printed Name: JOSEPH A LEWIS License #: 46215

**CONSTRUCTION NOTES:**

LEGEND	EXISTING	NEW
PRIVATE TILE OUTLET		
SECTION LINES		
PARCEL BOUNDARIES		
BANK FAILURE		
CULVERT PIPE		

1. THE CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN CONSTRUCTION SIGNING.
2. TRAFFIC CONTROL DEVICES SHALL CONFORM TO AND BE MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS AND THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN UTCD) PART 6 A - J INCLUDING THE MOST RECENT EDITION OF THE MN MUTCD "FIELD MANUAL".
3. EXCAVATED MATERIAL IS TO BE PLACED ON EXISTING SPOIL BANKS AND LEVELED/SHAPED TO DRAIN AWAY FROM THE DITCH.
4. IN LOCATIONS TO BE EXCAVATED CONTRACTOR SHALL EXCAVATE TO THE REPAIR PROFILE GRADE WITHIN THE EXISTING CHANNEL BOTTOM. CONTRACTOR SHALL NOT STRAIGHTEN OR OTHERWISE ALTER THE ALIGNMENT EXCEPT WHERE NOTED IN THE PROJECT PLANS. IN LOCATIONS WHERE THE ACSIC GRADE IS ABOVE THE EXISTING GRADE, NO EXCAVATION IS TO BE COMPLETED, ONLY VEGETATION REMOVAL AS DESCRIBED IN THE PROJECT SPECIFICATIONS.
5. ALL FENCES WITHIN WORK LIMITS ARE TO BE TEMPORARILY REMOVED AND REPLACED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL LEAVE SIDE INLET SWALES OR INSTALL SIDE INLET TILES IN THE SPOIL BANK TO ALLOW DRAINAGE IN LOW AREAS ADJACENT TO THE WORK LIMITS AND AS DIRECTED BY THE ENGINEER.
7. RESTORATION OF TILE OUTLETS DAMAGED DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. TILE OUTLETS ARE NOT ALL MARKED OR SHOWN ON THE PLANS.
8. CONTRACTOR MUST CONTACT COUNTY AND ROAD AUTHORITY 30 DAYS PRIOR TO CONSTRUCTION TO PROVIDE NOTIFICATION OF ROAD CLOSURES.

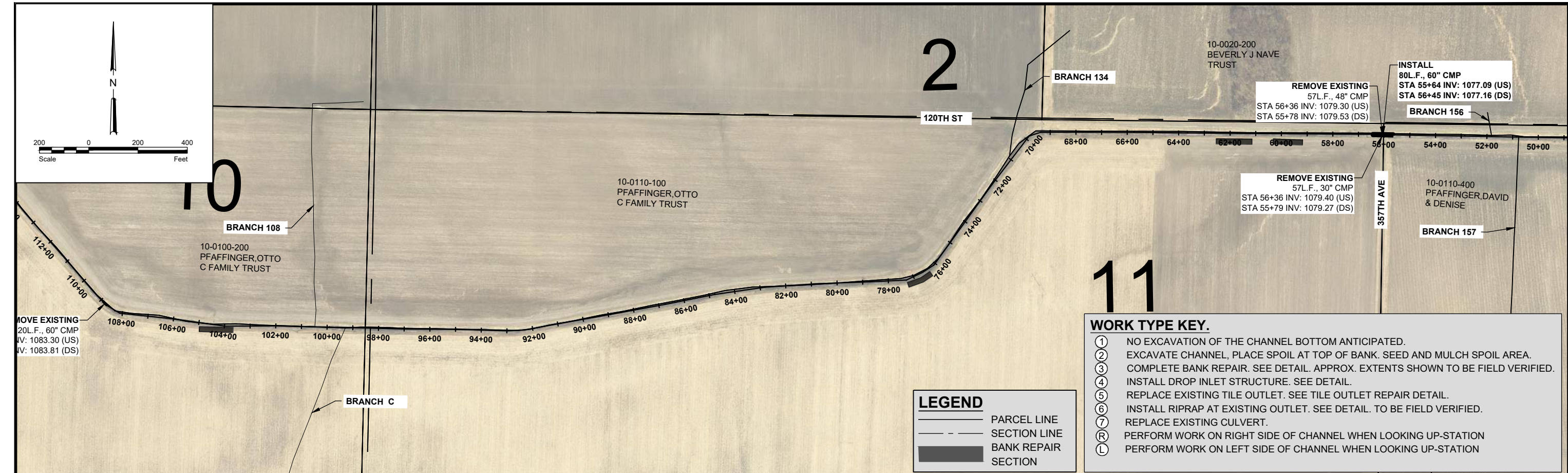










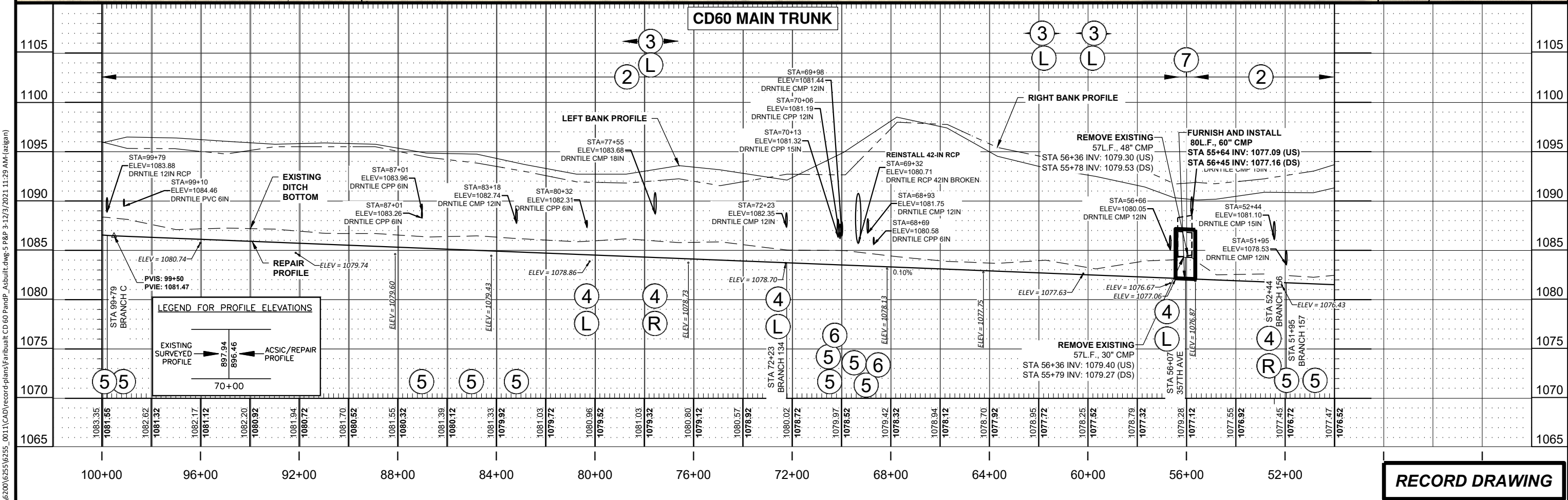


**WORK TYPE KEY.**

- ① NO EXCAVATION OF THE CHANNEL BOTTOM ANTICIPATED.
- ② EXCAVATE CHANNEL, PLACE SPOIL AT TOP OF BANK. SEED AND MULCH SPOIL AREA.
- ③ COMPLETE BANK REPAIR. SEE DETAIL. APPROX. EXTENTS SHOWN TO BE FIELD VERIFIED.
- ④ INSTALL DROP INLET STRUCTURE. SEE DETAIL.
- ⑤ REPLACE EXISTING TILE OUTLET. SEE TILE OUTLET REPAIR DETAIL.
- ⑥ INSTALL RIPRAP AT EXISTING OUTLET. SEE DETAIL. TO BE FIELD VERIFIED.
- ⑦ REPLACE EXISTING CULVERT.
- Ⓜ PERFORM WORK ON RIGHT SIDE OF CHANNEL WHEN LOOKING UP-STATION
- Ⓛ PERFORM WORK ON LEFT SIDE OF CHANNEL WHEN LOOKING UP-STATION

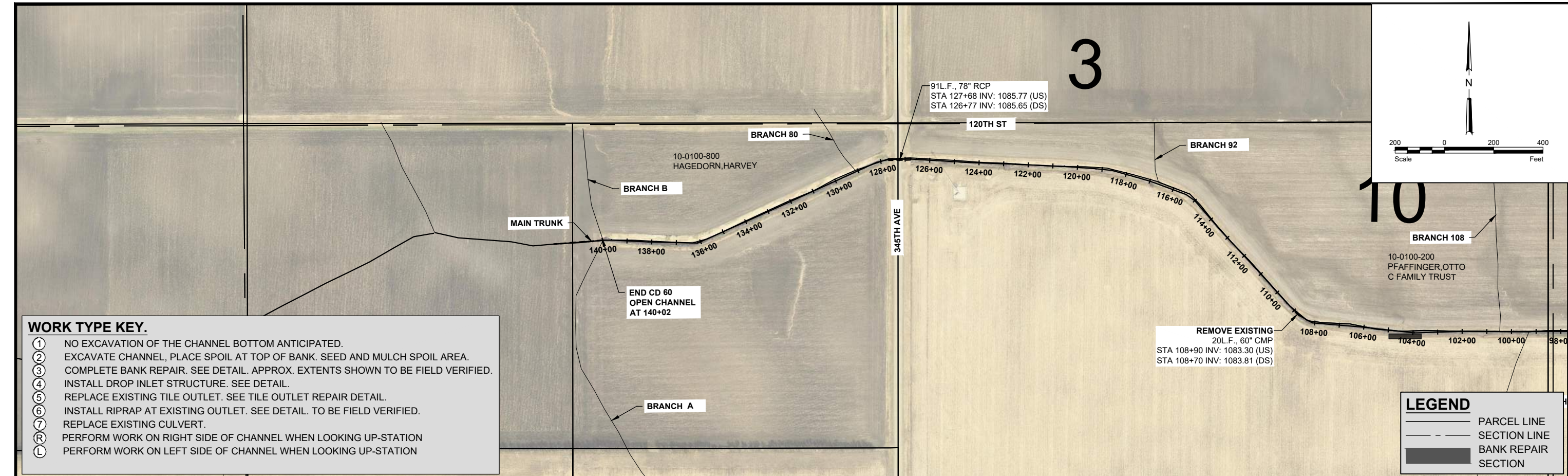
**LEGEND**

- PARCEL LINE
- - - SECTION LINE
- █ BANK REPAIR SECTION



**RECORD DRAWING**



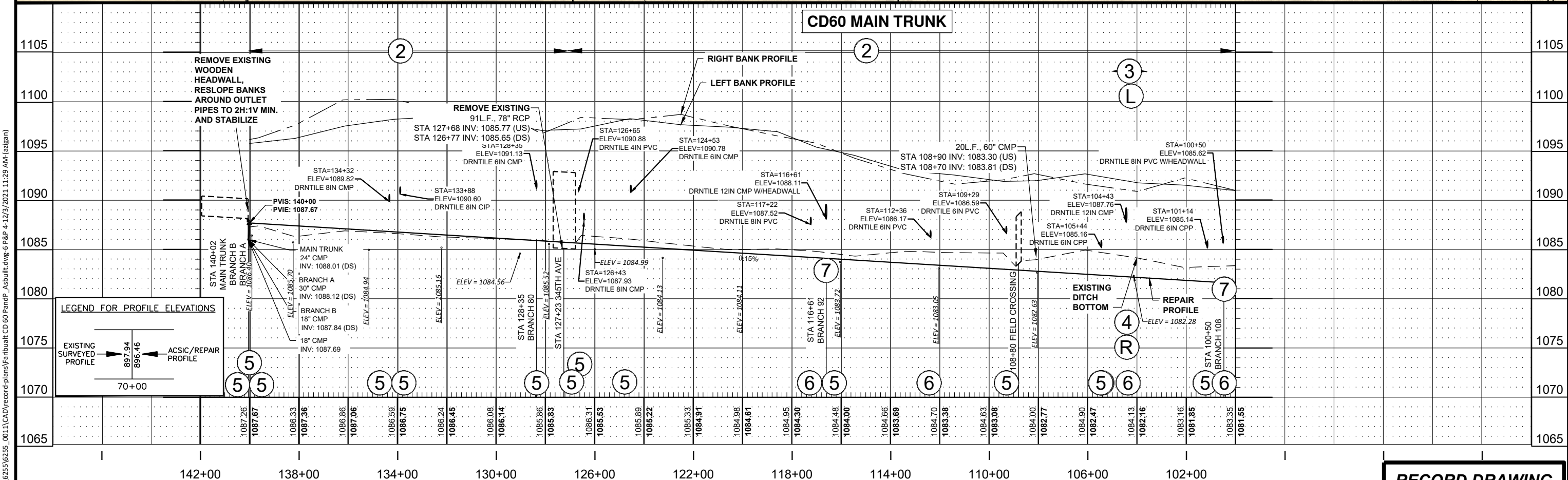


**WORK TYPE KEY.**

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- ② EXCAVATE CHANNEL, PLACE SPOIL AT TOP OF BANK. SEED AND MULCH SPOIL AREA.
- ③ COMPLETE BANK REPAIR. SEE DETAIL. APPROX. EXTENTS SHOWN TO BE FIELD VERIFIED.
- ④ INSTALL DROP INLET STRUCTURE. SEE DETAIL.
- ⑤ REPLACE EXISTING TILE OUTLET. SEE TILE OUTLET REPAIR DETAIL.
- ⑥ INSTALL RIPRAP AT EXISTING OUTLET. SEE DETAIL. TO BE FIELD VERIFIED.
- ⑦ REPLACE EXISTING CULVERT.
- (R) PERFORM WORK ON RIGHT SIDE OF CHANNEL WHEN LOOKING UP-STATION
- (L) PERFORM WORK ON LEFT SIDE OF CHANNEL WHEN LOOKING UP-STATION

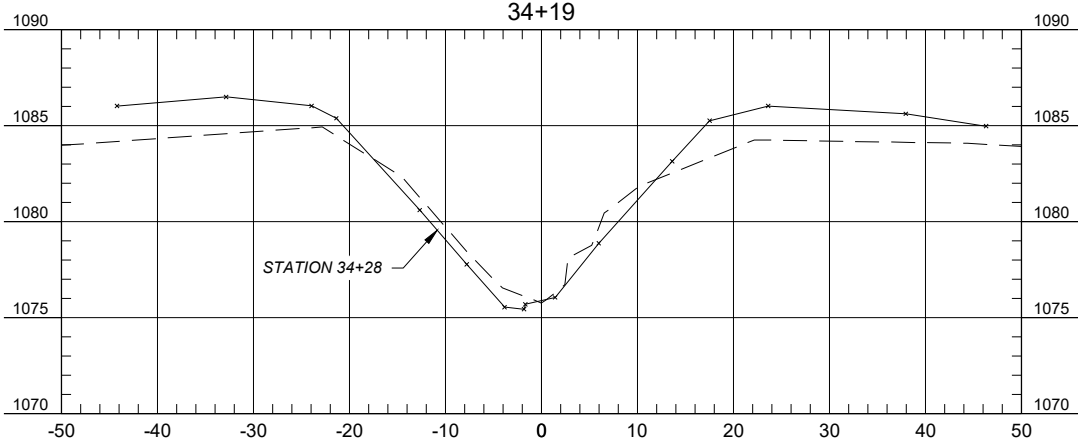
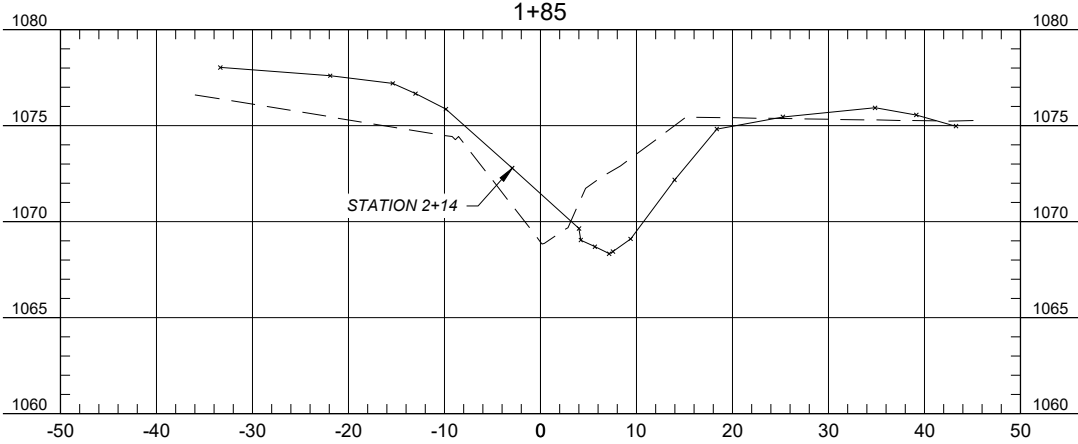
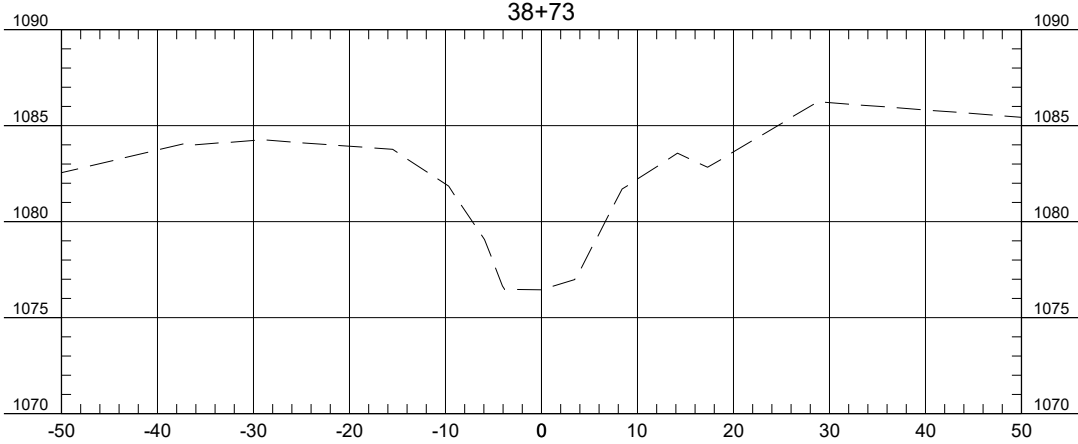
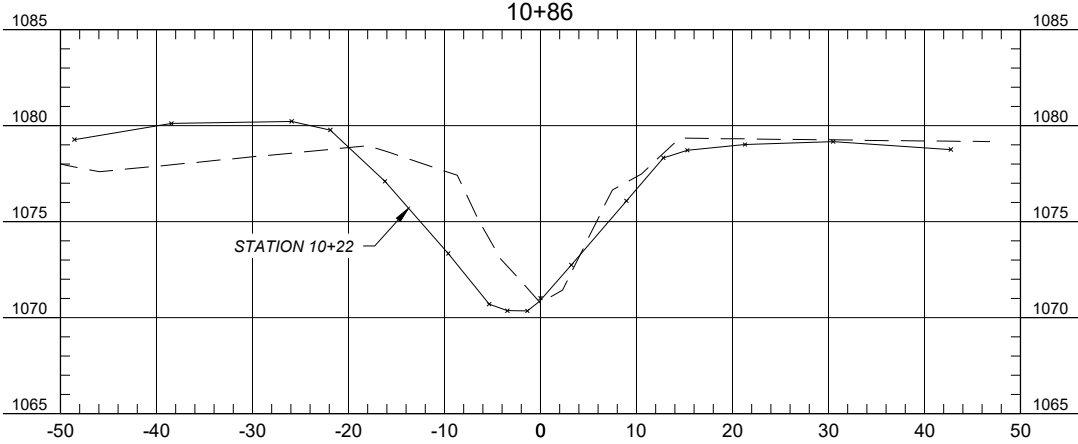
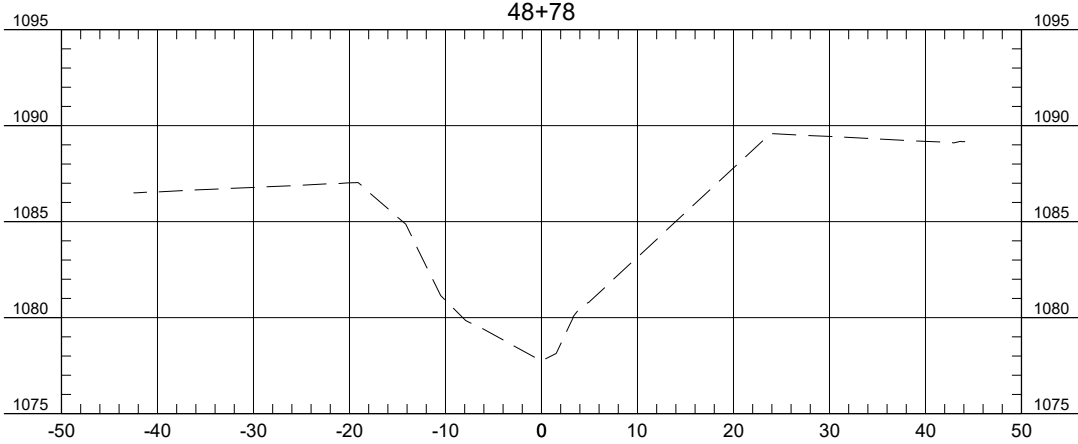
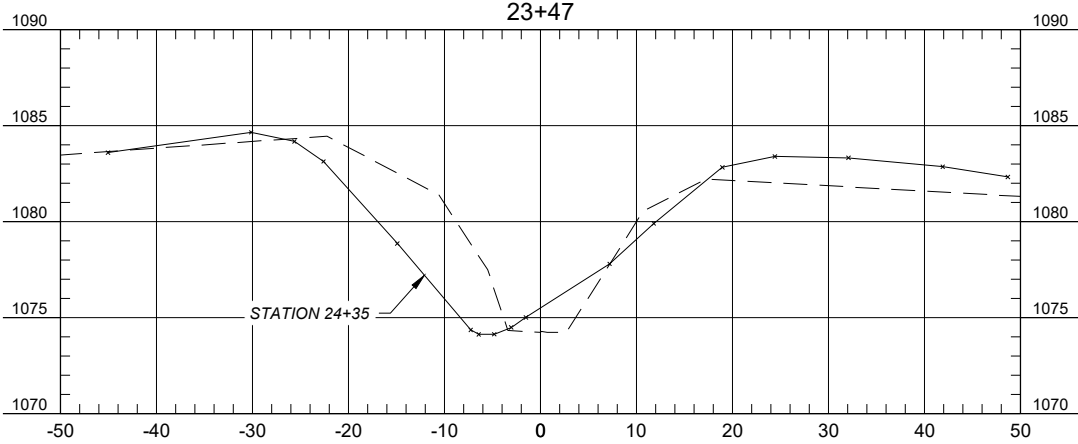
**LEGEND**

- PARCEL LINE
- - - SECTION LINE
- BANK REPAIR SECTION



**RECORD DRAWING**

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RECORD DRAWING

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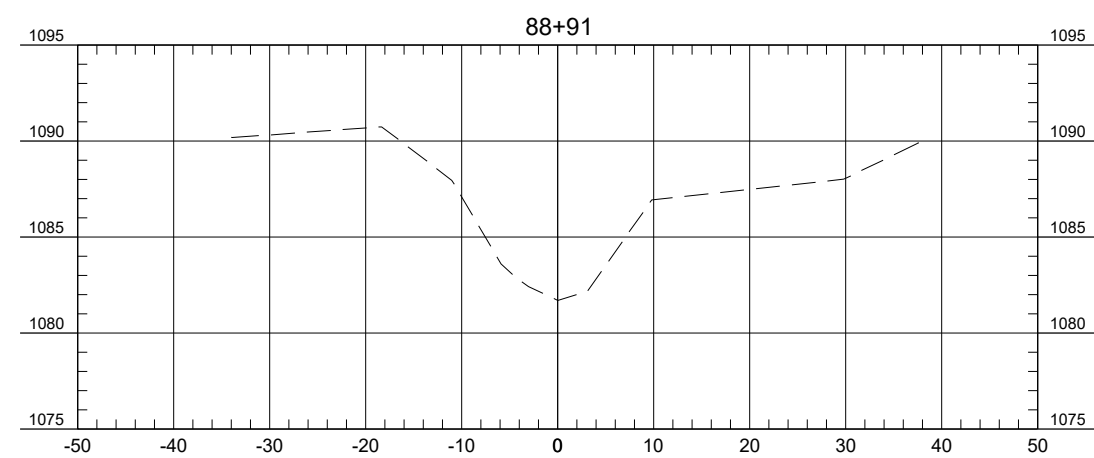
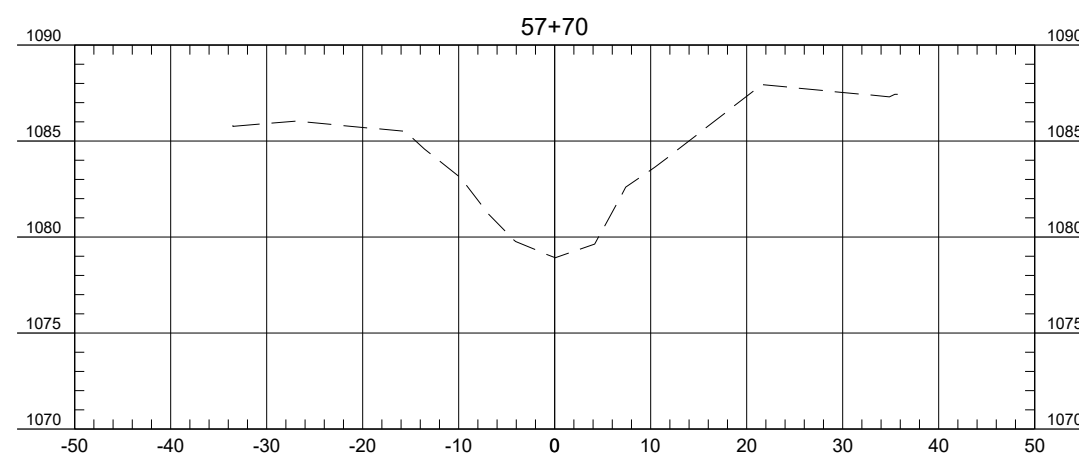
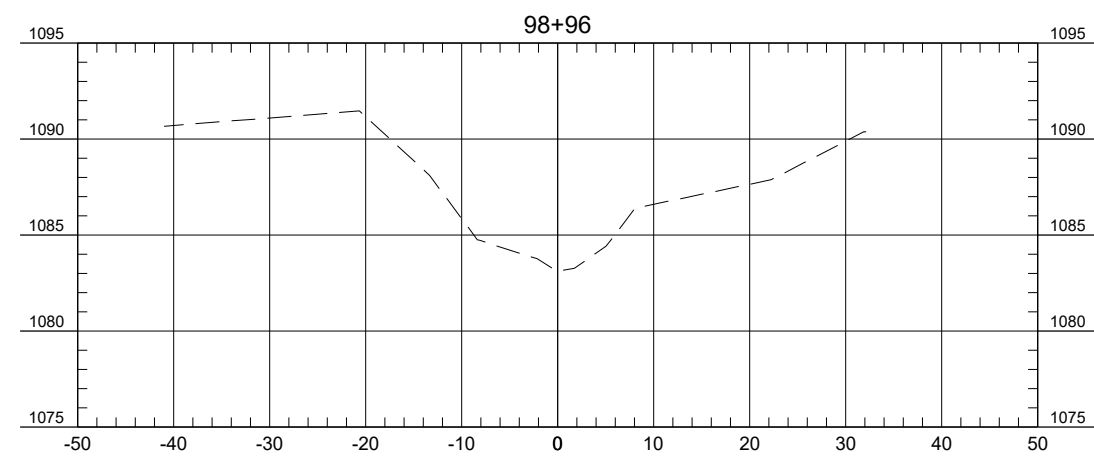
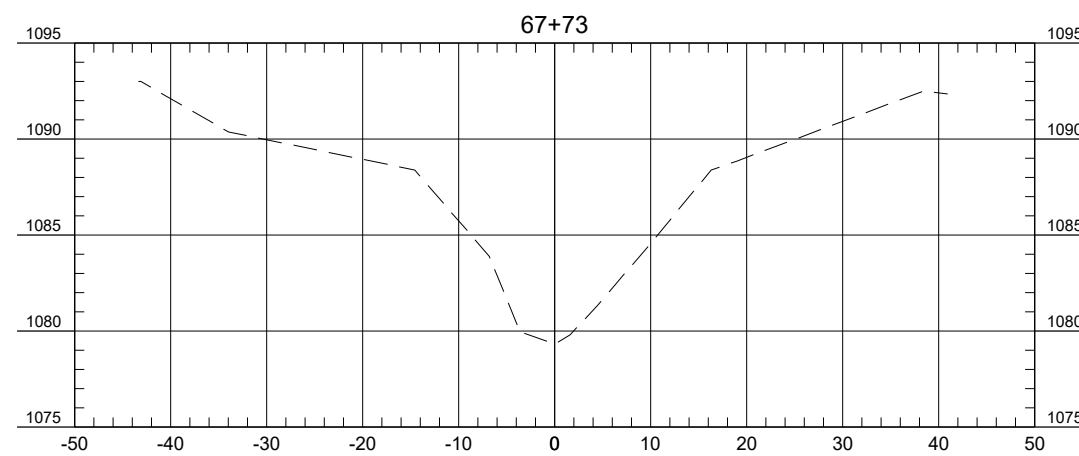
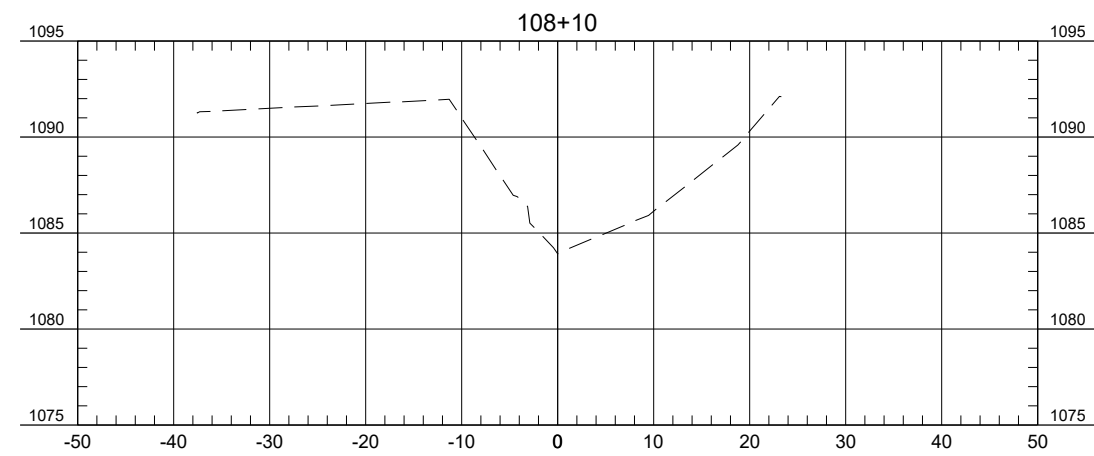
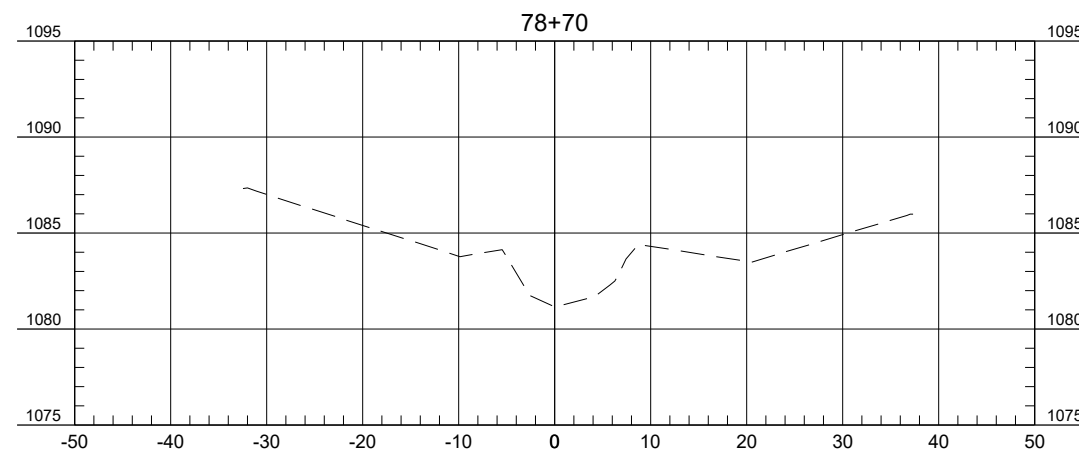


Maple Grove	Drawn by PAS	Date 8-24-2020
P: 763.493.4522 F: 763.493.5572	Checked by GM	Scale AS SHOWN

FARIBAULT COUNTY DITCH 60  
JO DAVIESS TOWNSHIP SECTIONS 1,10,11, AND 12  
FARIBAULT COUNTY

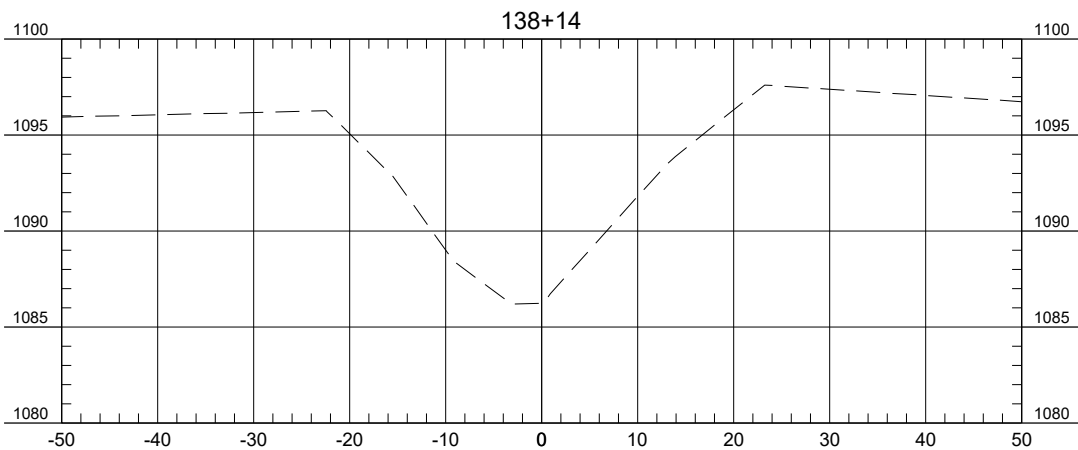
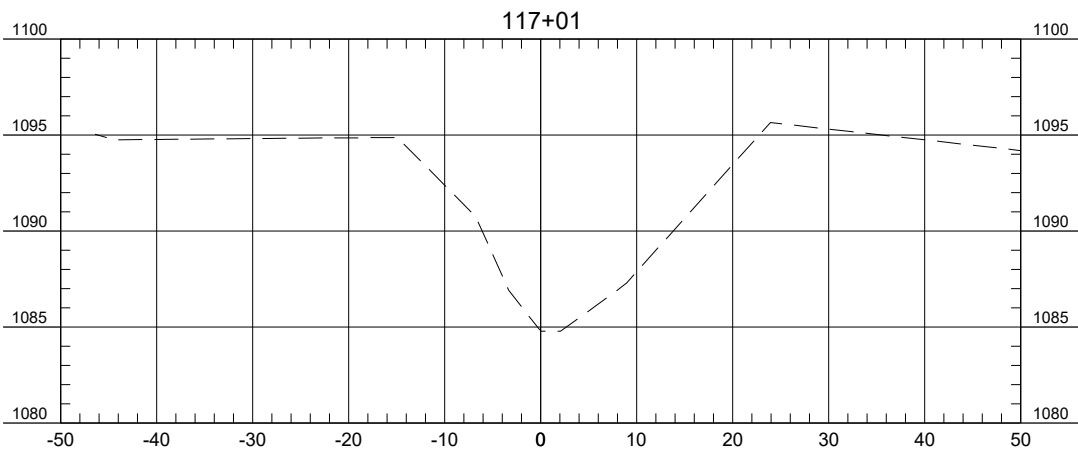
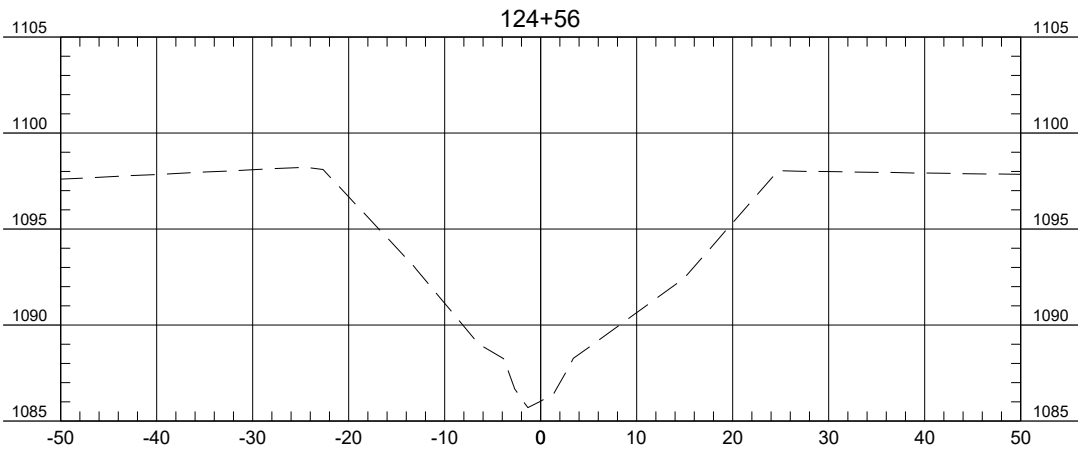
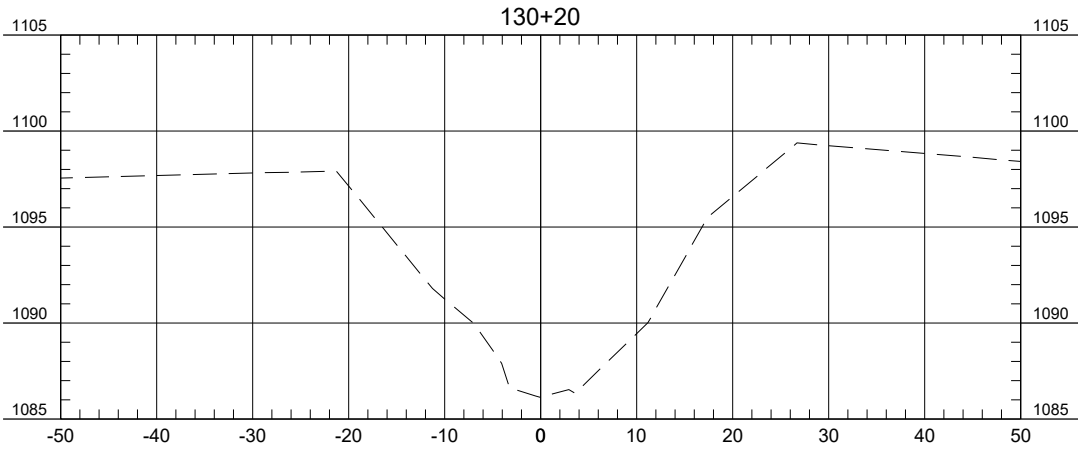
CROSS SECTIONS  
PROJECT NO. 6255-0011

SHEET  
7 of 14





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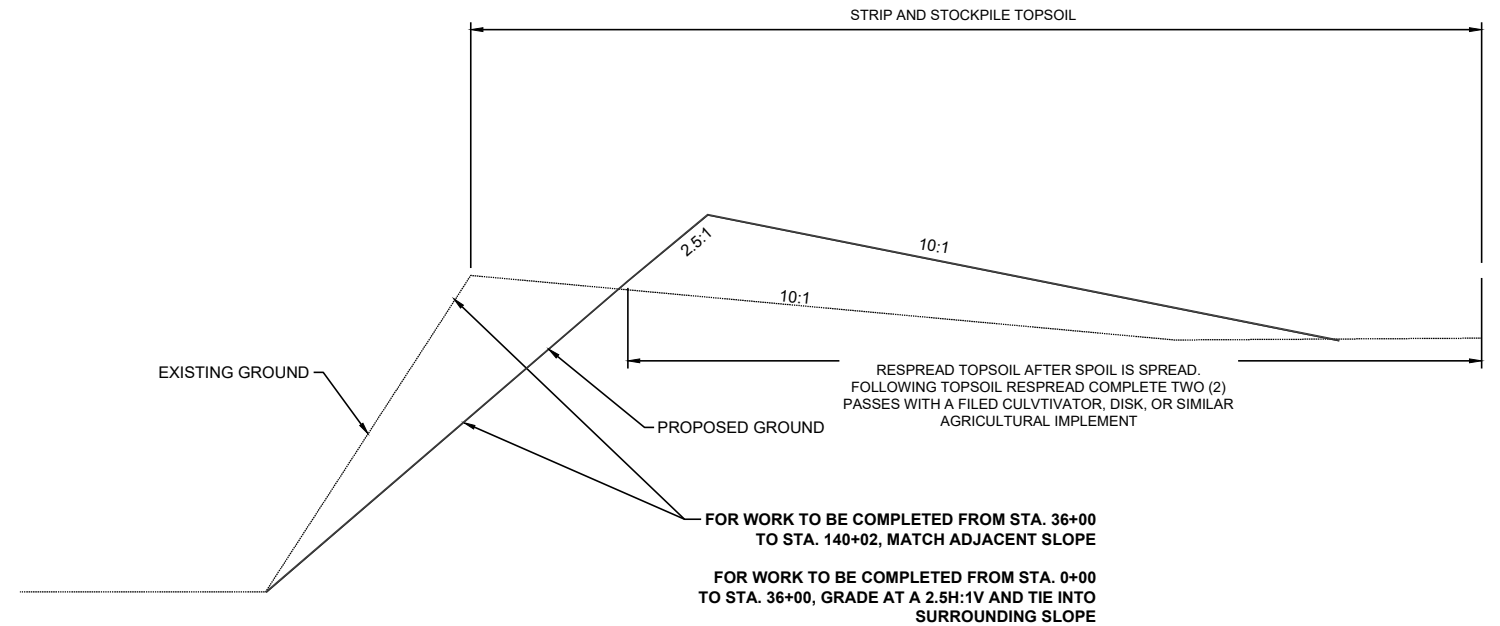
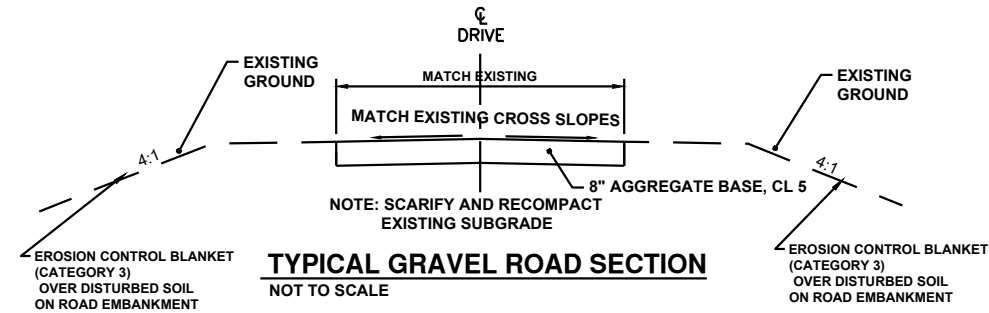
					I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
No.	Revision	Date	By	Signature: 	Date: 12-3-2021
				Printed Name: JOSEPH A LEWIS	License #: 46215



Maple Grove		Drawn by PAS	Date 8-24-2020
P: 763.493.4522 F: 763.493.5572		Checked by GM	Scale AS SHOWN

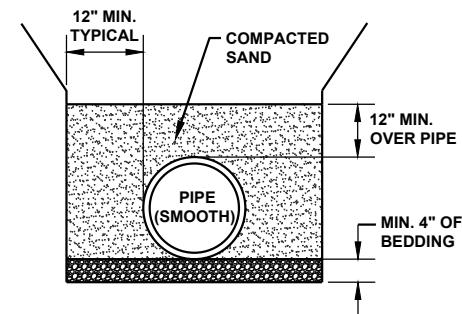
FARIBAULT COUNTY DITCH 60  
JO DAVIESS TOWNSHIP SECTIONS 1,10,11, AND 12  
FARIBAULT COUNTY

CROSS SECTIONS	SHEET
PROJECT NO. 6255-0011	9 of 14



**BANK RESLOPING DETAIL**

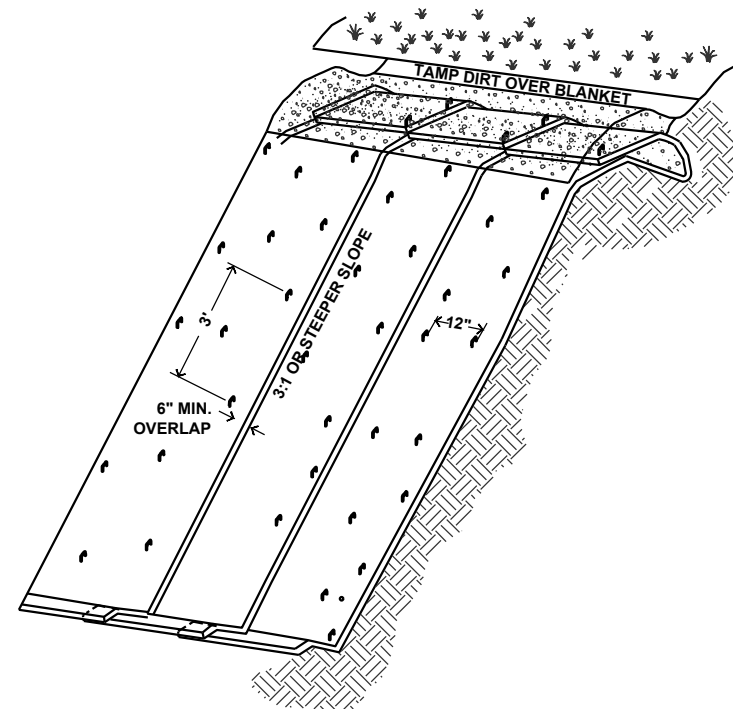
NOT TO SCALE



- NOTES:**
1. IF PIPE SPRING LINE IS LESS THAN 48" BELOW FINISHED GRADE, PLACE GRANULAR MATERIAL UNDER PIPE TO A MINIMUM OF 48" BELOW FINISHED GRADE.
  2. SAND SHALL CONFORM WITH MNDOT SPEC. 3149.

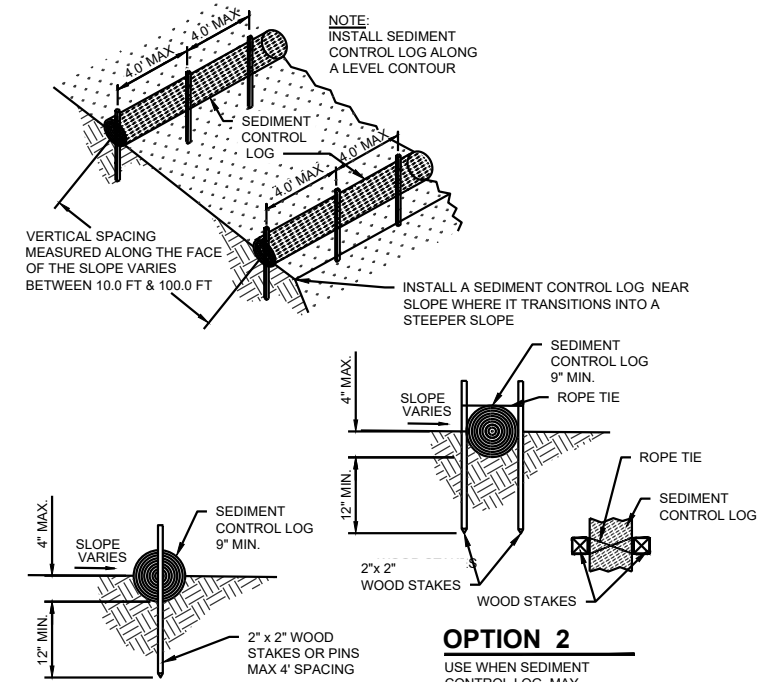
**PIPE BEDDING DETAIL - HDPE/CMP PIPE**

NOT TO SCALE



**EROSION CONTROL BLANKET FOR CULVERT CROSSING SLOPES**

NOT TO SCALE



**SEDIMENT CONTROL LOG INSTALLATION**

NOT TO SCALE

**STANDARD PLATES**

THE FOLLOWING MNDOT STANDARD PLATES, APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

PLATE NO.	PLATE NAME
3123 J	METAL APRON FOR C.S. PIPE
3124 B	METAL APRON CONNECTION
3125 A	METAL APRON FOR CORRUGATED POLYETHYLENE PIPE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: *Joe Lewis* Date: 12-3-2021  
Printed Name: JOSEPH A. LEWIS License #: 46215



Maple Grove

P: 763.493.4522  
F: 763.493.5572

PAS

8-24-2020

GM

FARIBAULT COUNTY DITCH 60  
FARIBAULT COUNTY  
JO DAVIES TOWNSHIP SECTIONS 1,10,11, AND 12

DETAILS

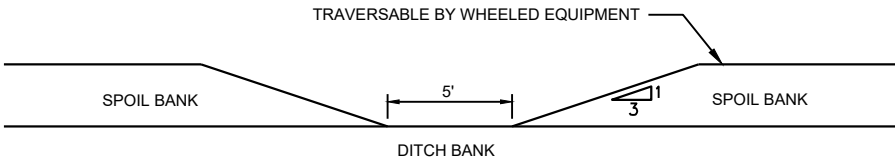
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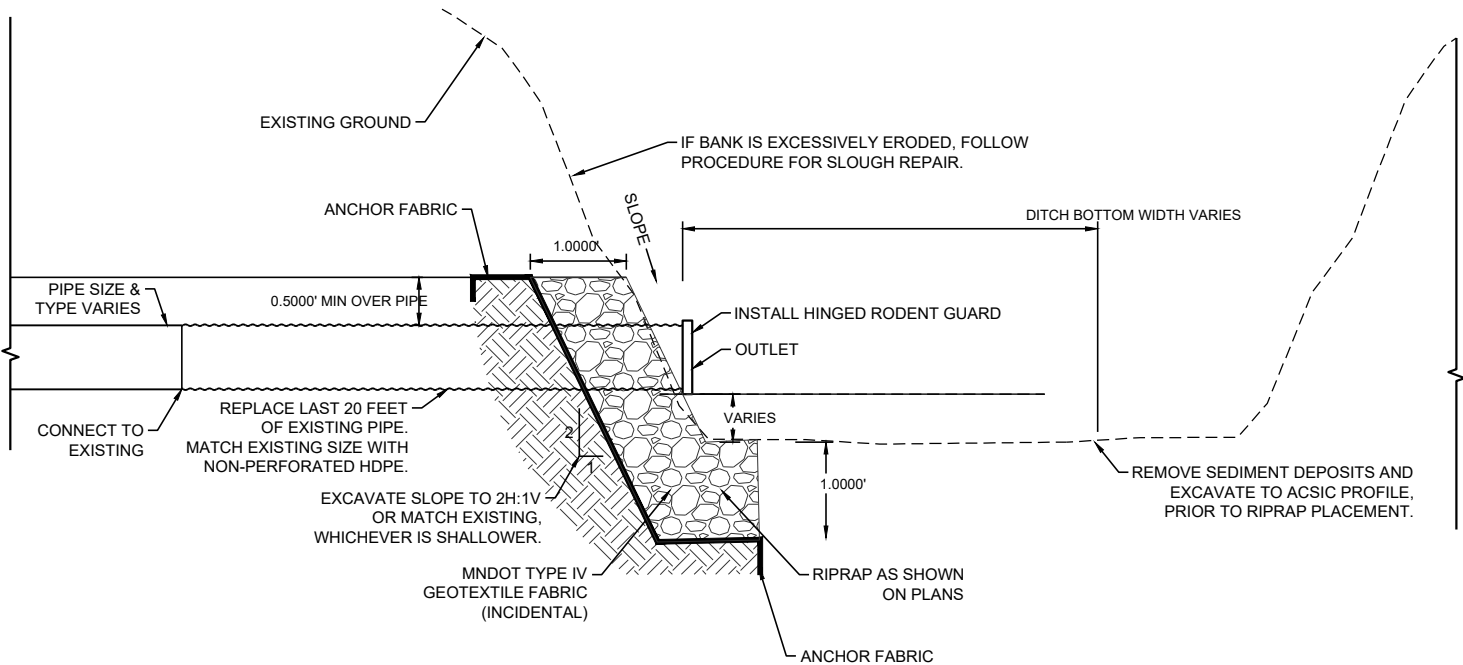
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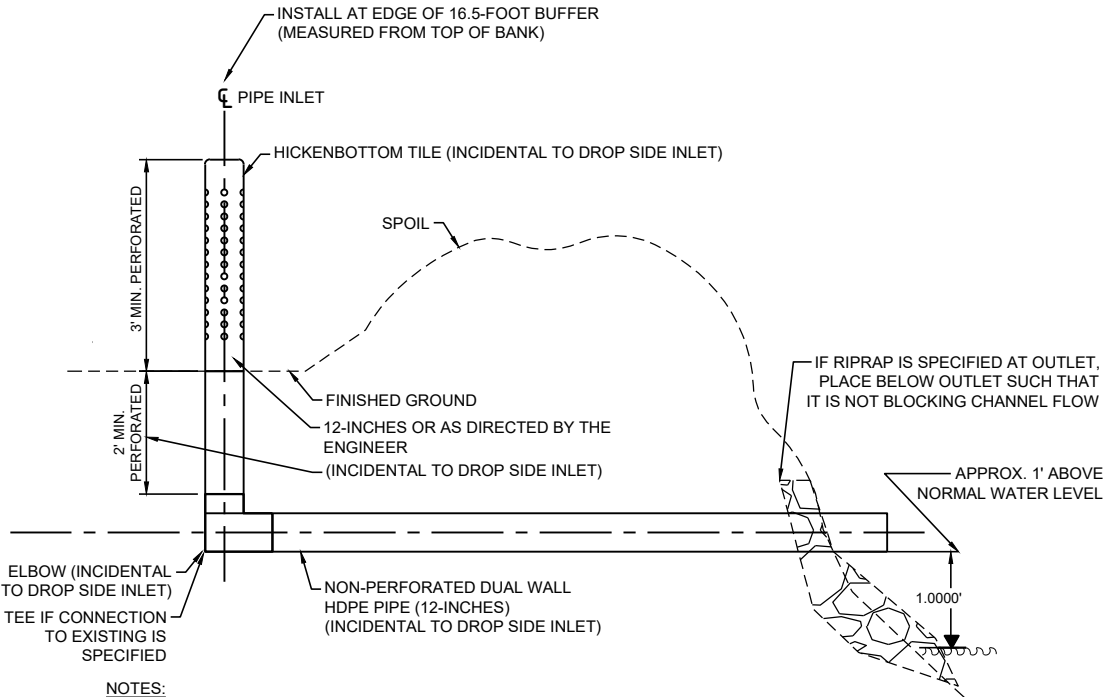
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**SIDE INLET SWALE X-SECTION** (INCIDENTAL TO SPOIL MANAGEMENT)  
NOT TO SCALE



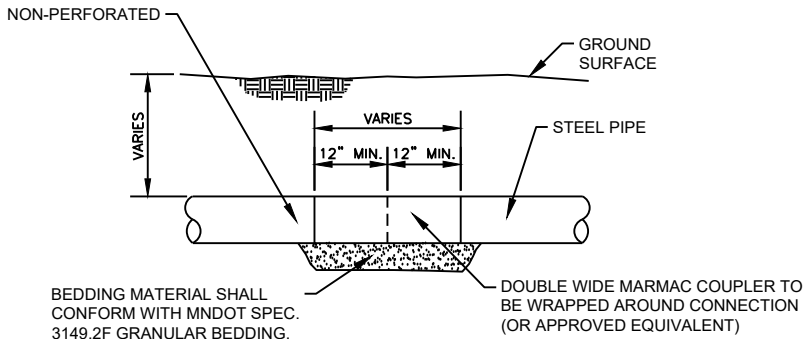
**STABILIZE OUTLET**  
NOT TO SCALE



**NOTES:**

1. THE NON-PERFORATED PIPE INLET AND TEE SHALL BE SIMILAR OR EQUAL TO MATERIALS FROM HICKENBOTTOM TILE.
2. THE CONNECTION SHALL UTILIZE STANDARD MANUFACTURED FITTINGS.
3. THE PERFORATED SECTION OF THE INLET SHALL HAVE 6 ROWS OF HOLES SPACED AT 2 INCHES, CENTER TO CENTER, AND HAVE A 1 INCH DIAMETER.
4. INLET COMPONENT LENGTHS MAY BE SHORTENED OR LENGTHENED, TO OBTAIN THE REQUIRED HEIGHT OR DEPTH.

**DROP SIDE INLET DETAIL**  
NOT TO SCALE



**DISSIMILAR MATERIAL PIPE CONNECTION (MARMAC) DETAIL**  
NOT TO SCALE

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Signature: *Joe Lewis* Date: 12-3-2021  
Printed Name: JOSEPH A LEWIS License #: 46215



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8-24-2020

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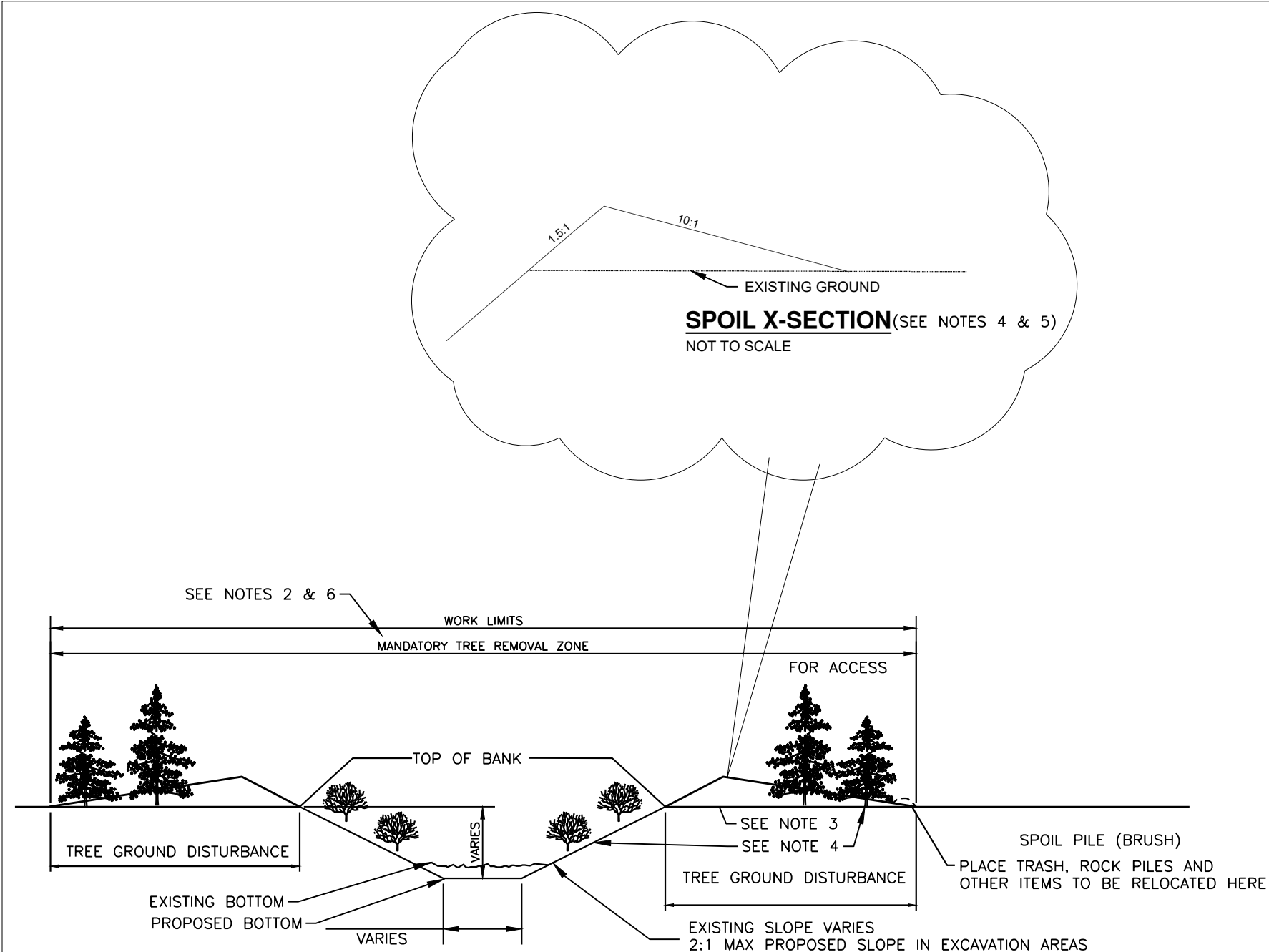
FARIBAULT COUNTY DITCH 60  
FARIBAULT COUNTY  
JO DAVIES TOWNSHIP SECTIONS 1,10,11, AND 12

DETAILS  
PROJECT NO. 6255-0011

SHEET

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- \*NOTES:
- 1) WORK LIMITS EXTEND FROM TOP OF BANK TO WORK LIMIT STAKES OR AS SHOWN, ON EITHER SIDE OF THE DITCH.
  - 2) TREES CUT TO 2" OR LESS ABOVE GROUND SURFACE PER SPECIFICATIONS.
  - 3) LEAVE SIDE INLET SWALE OR INSTALL SIDE INLET PIPE IN LOW AREAS TO PROVIDE DRAINAGE AND AS DIRECTED BY ENGINEER.
  - 4) COMPLETE DITCH EXCAVATION ONLY AT LOCATIONS IDENTIFIED IN THE PLAN.
  - 5) SIDE SLOPES ARE NOT TO BE DISTURBED UNLESS INDICATED IN THE PLANS.
  - 6) TREES AND BRUSH FROM CLEARING OPERATIONS MUST BE DISPOSED OF OFF-SITE AT CONTRACTOR'S EXPENSE.

**DITCH CORRIDOR "WORK LIMITS"**  
NOT TO SCALE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Signature: *Joe Lewis* Date: 12-3-2021  
Printed Name: JOSEPH A LEWIS License #: 46215



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GM  
8-24-2020

FARIBAULT COUNTY DITCH 60  
FARIBAULT COUNTY  
JO DAVIES TOWNSHIP SECTIONS 1,10,11, AND 12

DETAILS  
PROJECT NO. 6255-0011

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12 of 14



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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

THE MINNESOTA GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY ISSUED ON AUGUST 1, 2018 SHALL APPLY FOR THIS PROJECT.

GENERAL CONSTRUCTION ACTIVITY INFORMATION

PROJECT NAME: FARIBAULT COUNTY DITCH 60 REPAIR

1. DESCRIBE PROJECT LOCATION:  
ADDRESS OR DESCRIBE AREA: NORTHWEST OF BLUE EARTH STARTING FROM I-90 IN THE SE QUARTER OF SECTION 1 OF T102N R28W, INCLUDING SECTIONS 1, 2, 11, AND 12 OF T102N R28W.
- CITY OR TOWNSHIP: JO DAVIES TOWNSHIP  
STATE: MN ZIP CODE: 56103 COUNTY: FARIBAULT
- LATITUDE/LONGITUDE OF APPROXIMATE CENTROID OF PROJECT: 44.831528/-94.457091
2. DESCRIBE THE CONSTRUCTION ACTIVITY:  
THE CD 60 REPAIR PROJECT WILL CONSIST OF REMOVAL AND REPLACEMENT OF EXISTING CULVERTS AS SPECIFIED IN THE PLANS. TREE REMOVAL, SEDIMENT REMOVAL, AND BANK RESLOPING ALONG THE MAIN TRUNK WILL ALSO TAKE PLACE. REMOVED SEDIMENT AND EXCESS BANK MATERIAL WILL BE SPOIL BANKED ALONG THE DITCHES AND DISTURBED AREAS RE-VEGETATED.

PROJECT AREAS

1. TOTAL AREA TO BE DISTURBED (ACRES):
2. PRE-CONSTRUCTION IMPERVIOUS SURFACE (ACRES): 1.1
3. POST-CONSTRUCTION IMPERVIOUS SURFACE (ACRES): 1.1
4. TOTAL NEW IMPERVIOUS SURFACE (ACRES): 0.0

RECEIVING WATERS

SURFACE WATERS WITHIN ONE MILE OF PROJECT BOUNDARY (AERIAL RADIUS MEASUREMENT) THAT WILL RECEIVE STORMWATER FROM THE SITE OR DISCHARGE FROM PERMANENT STORMWATER MANAGEMENT SYSTEM:

WATER BODY ID	NAME OF WATER BODY	TYPE	SPECIAL WATER	IMPAIRED WATER
07020012-832	BLUE EARTH RIVER	STREAM	NO	YES
07020009-511	COUNTY DITCH 60	STREAM	NO	NO

CONTACT INFORMATION

PROJECT OWNER:	TOM WARMKA 415 NORTH MAIN STREET BLUE EARTH, MN 56103 PHONE: (507) 787-2590
CONTRACTOR:	TO BE DETERMINED

DESIGN OF CONSTRUCTION SWPPP

DESIGN OF CONSTRUCTION SWPPP COMPLETED BY:
GARRETT MONSON 7550 MERIDIAN CIRCLE NORTH - SUITE 120 MAPLE GROVE, MN 55369 PHONE: (763) 493-4522

PROJECT INFORMATION

1. CHAIN OF RESPONSIBILITY: OWNER AND CONTRACTOR ARE COPERMITTEES FOR THE MINNESOTA GENERAL PERMIT AUTHORIZATION TO DISCHARGE STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL ASPECTS OF THE MINNESOTA GENERAL PERMIT AT ALL TIMES UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA. THE CONTRACTOR WILL DEVELOP A CHAIN OF COMMAND WITH ALL OPERATORS ON THE SITE TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE, THE ENTIRE SITE HAS UNDERGONE FINAL STABILIZATION, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED TO THE MPCA.
2. TRAINING DOCUMENTATION: CONTRACTOR SHALL LIST PEOPLE REQUIRING TRAINING PER PART III.F.1, DATES OF TRAINING AND NAME OF INSTRUCTOR(S) AND ENTITY PROVIDING TRAINING, CONTENT OF TRAINING COURSE OR WORKSHOP INCLUDING THE NUMBER OF HOURS OF TRAINING. THE OWNER SHALL BE PROVIDED WITH A COPY OF THE TRAINING DOCUMENTATION BEFORE THE START OF CONSTRUCTION ON THE PROJECT.

PROJECT INFORMATION

1. ENVIRONMENTALLY SENSITIVE AREAS:
- A. IMPAIRED WATERS: THE CD 60 DISCHARGE IS WITHIN ONE MILE OF IMPAIRED WATERS (BLUE EARTH RIVER). BLUE EARTH RIVER HAS EPA APPROVED IMPAIRMENTS FOR MERCURY IN FISH TISSUE; E. COLI; FISH BIOASSESSMENTS; TURBIDITY.
- B. SPECIAL WATERS: THERE ARE NO SPECIAL WATERS WITHIN ONE MILE OF THE DISCHARGE FOR CD63.
- C. WETLANDS: SEGMENTS OF THE WORK LIMITS CROSS WETLANDS. WORK SHALL CONFORM TO STATE AND FEDERAL WETLAND LAWS.
- D. KARST AREAS: THERE ARE NO KNOWN KARST AREAS WITHIN THE PROJECT BOUNDARY.
- E. CALCAREOUS FENS: THERE ARE NO KNOWN CALCAREOUS FENS WITHIN THE PROJECT BOUNDARY.

ENDANGERED OR THREATENED SPECIES: THERE ARE NO KNOWN ENDANGERED OR THREATENED SPECIES WITHIN THE PROJECT BOUNDARY.

F. HISTORIC PLACES OR ARCHEOLOGICAL SITES: THERE ARE NO KNOWN HISTORIC PLACES OR ARCHEOLOGICAL SITES WITHIN THE PROJECT BOUNDARY.

- G. STEEP SLOPES: SLOPES 1:3 (V:H) OR STEEPER IN GRADE ARE CONFINED TO THE SLOPES OF THE PUBLIC DRAINAGE SYSTEM.

2. SOIL TYPES.

THE SEDIMENT REMOVAL WILL GENERALLY CONSIST OF LOAM, CLAY LOAM, SILTY CLAY LOAM, SANDY LOAM, AND MUCK. ESTIMATED PARTICLE SIZE RANGING FROM 0.0001 MM TO 0.5MM.

3. ORDER OF CONSTRUCTION ACTIVITIES:
- A. INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- B. PROCEED WITH REMOVAL OF TREES FROM DITCH, RESLOPED BANKS, AND SPOIL BANK AREAS. WORK FROM DOWNSTREAM TO UPSTREAM TO REMOVE SEDIMENT FROM DITCH AND PLACE IN SPOIL BANK AREAS. REMOVE AND REPLACE CULVERTS WHILE WORKING FROM DOWNSTREAM TO UPSTREAM.
- C. STABILIZE AREAS DISTURBED WITH TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.
- D. COMPLETE PERMANENT RESTORATION WITH EROSION AND SEDIMENT CONTROL MEASURES.

EROSION PREVENTION PRACTICES

1. STABILIZATION MUST BE INITIATED IMMEDIATELY AND NO LATER THAN 7 DAYS CALENDAR DAYS WHENEVER ANY CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED ON ANY PORTION OF THE SITE. STABILIZATION MEANS THE EXPOSED GROUND SURFACE HAS BEEN COVERED BY APPROPRIATE MATERIALS SUCH AS MULCH, STAKED SOD, RIPRAP, EROSION CONTROL BLANKET, MATS OR OTHER MATERIAL THAT PREVENTS EROSION FROM OCCURRING. GRASS, AGRICULTURAL CROP OR OTHER SEEDING ALONE IS NOT STABILIZATION. MULCH MATERIALS MUST ACHIEVE APPROXIMATELY 90 PERCENT GROUND COVERAGE (TYPICALLY 2 TON/ACRE).
2. STABILIZATION OF THE NORMAL WETTED PERIMETER OF THE LAST 200 LINEAR FEET OF TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALES THAT DRAIN WATER FROM THE SITE MUST OCCUR WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.
3. STORMWATER CONVEYANCE CHANNELS MUST BE ROUTED AROUND UNSTABILIZED AREAS. EROSION CONTROLS AND VELOCITY DISSIPATION DEVICES MUST BE USED ALONG THE LENGTH OF THE CONVEYANCE CHANNEL AND AT ANY OUTLET.
4. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER CONNECTION TO A SURFACE WATER.
5. IF FEASIBLE, STORMWATER DISCHARGES FROM BMPS MUST BE DIRECTED TO VEGETATED AREAS. USE VELOCITY DISSIPATION DEVICES AT DISCHARGE POINT IF NECESSARY.

SEDIMENT CONTROL PRACTICES

1. SEDIMENT CONTROL PRACTICES MUST BE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS AND BE LOCATED UP GRADIENT OF ANY BUFFER ZONES. THE PERIMETER SEDIMENT CONTROL PRACTICE MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND-DISTURBING ACTIVITIES BEGIN. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION.
2. RE-INSTALL ALL SEDIMENT CONTROL PRACTICES THAT HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES SUCH AS CLEARING OR GRUBBING, OR PASSAGE OF VEHICLES, IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. COMPLETE ANY SHORT-TERM ACTIVITY THAT REQUIRES REMOVAL OF SEDIMENT CONTROL PRACTICES AS QUICKLY AS POSSIBLE. RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
3. ALL STORM DRAIN INLETS MUST BE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED. INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/FREEZING) HAS BEEN IDENTIFIED BY THE PERMITTEE OR THE JURISDICTIONAL AUTHORITY. THE PERMITTEE MUST DOCUMENT THE NEED FOR REMOVAL AND RETAIN THE RECORD WITH THE SWPPP.
4. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS, AND CANNOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A BYPASS IN PLACE FOR THE STORMWATER.
5. WHERE VEHICLE TRAFFIC LEAVES ANY PART OF THE SITE (OR ONTO PAVED ROADS WITHIN THE SITE) A VEHICLE TRACKING BMP, APPROVED BY THE ENGINEER, MUST BE INSTALLED TO MINIMIZE THE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE. STREET SWEEPING MUST BE USED IF SUCH VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.
6. SOIL COMPACTION MUST BE MINIMIZED AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED.
7. SOIL COMPACTION MUST BE MINIMIZED AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL. MINIMIZING SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DICTATES THAT IT BE COMPACTED.

CONTROL OF WATER

1. WORK IN DRY CONDITIONS.
2. PUMPING, IF NECESSARY, SHALL BE PROVIDED AND CONDUCTED AT DISCHARGE RATES THAT DO NOT ERODE SOIL MATERIAL. DISSIPATION BMP'S SHALL BE IMPLEMENTED TO MITIGATE SOIL EROSION.

INSPECTIONS AND MAINTENANCE

1. THE CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) CERTIFIED AS A SITE MANAGER FOR OVERSEEING IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP AND PERFORMING INSPECTIONS.
2. THE CONTRACTOR SHALL IDENTIFY THE INDIVIDUAL(S) CERTIFIED AS A BMP INSTALLER FOR PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF BMPS.
3. INSPECTIONS WILL BE CONDUCTED AT LEAST ONE TIME PER WEEK AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.50 INCH IN 24 HOURS.
4. WHERE PARTS OF THE CONSTRUCTION SITE HAVE UNDERGONE FINAL STABILIZATION, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE STABILIZED AREAS MAY BE REDUCED TO ONCE PER MONTH.
5. WHERE WORK HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR 24 HOURS PRIOR TO RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.
6. ALL PERIMETER CONTROL DEVICES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES ONE-HALF (1/2) OF THE HEIGHT OF THE DEVICE. THESE REPAIRS MUST BE MADE BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR THEREAFTER AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
7. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION.
8. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY.
9. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA. ALL INFILTRATION AREAS MUST BE INSPECTED TO ENSURE THAT EQUIPMENT IS NOT BEING DRIVEN ACROSS THE INFILTRATION AREA.

				I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.	 <div>Houston Engineering Inc.</div>	Maple Grove	PAS	8-24-2020	FARIBAULT COUNTY DITCH 60 FARIBAULT COUNTY	SWPPP NARRATIVE	SHEET	
				 Date: 12-3-2021			P: 763.493.4522 F: 763.493.5572	GM		JO DAVIES TOWNSHIP SECTIONS 1,10,11, AND 12	PROJECT NO. 6255-0011	13 of 14
No.	Revision	Date	By	Signature:  Printed Name: JOESEPH A LEWIS License #: 46215								



## **STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE (CONTINUED)**

## POLLUTION PREVENTION MANAGEMENT MEASURES

**THE FOLLOWING POLLUTION PREVENTION MANAGEMENT MEASURES SHALL BE IMPLEMENTED ON THE SITE AND SHALL BE A LUMP SUM PAYMENT:**

1. BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS, PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS MUST BE UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY A SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.
2. HAZARDOUS MATERIALS, TOXIC WASTE, (INCLUDING OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) MUST BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH.7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.
3. SOLID WASTE MUST BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH.7035.
4. PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R. CH.7041.
5. REASONABLE STEPS SHALL BE TAKEN TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE. FUELING MUST BE CONDUCTED IN A CONTAINED AREA UNLESS INFEASIBLE. ADEQUATE SUPPLIES MUST BE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS AND AN APPROPRIATE DISPOSAL METHOD MUST BE AVAILABLE FOR RECOVERED SPILLED MATERIALS. REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINN. STAT. § 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE.
6. WASHING THE EXTERIOR OF VEHICLES OR EQUIPMENT ON THE PROJECT SITE MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF FROM THE WASHING AREA MUST BE CONTAINED IN A SEDIMENT BASIN OR OTHER SIMILARLY EFFECTIVE CONTROLS AND WASTE FROM THE WASHING ACTIVITY MUST BE PROPERLY DISPOSED OF. STORE AND PROPERLY USE THE SOAPS, DETERGENTS, OR SOLVENTS. NO ENGINE DEGREASING IS ALLOWED ON SITE.
7. EFFECTIVE CONTAINMENT SHALL BE PROVIDED FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS (CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS) RELATED TO THE CONSTRUCTION ACTIVITY. THE LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND, AND THE CONTAINMENT MUST BE DESIGNED SO THAT IT DOES NOT RESULT IN RUNOFF FROM THE WASHOUT OPERATIONS OR AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA RULES. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES.
8. IN THE EVENT OF A SPILL, THE CONTRACTOR WILL MAKE THE APPROPRIATE NOTIFICATION(S) TO THE MPCA, CONSISTENT WITH THE FOLLOWING PROCEDURES:

**SPILLS OF PETROLEUM IN A QUANTITY GREATER THAN 5 GALLONS MUST BE REPORTED IMMEDIATELY TO THE MINNESOTA DUTY OFFICER.**

**SPILLS OF ANY QUANTITY OF ALL OTHER CHEMICALS OR MATERIALS WHICH MAY CAUSE POLLUTION OF WATERS OF THE STATE MUST BE REPORTED IMMEDIATELY TO THE MINNESOTA DUTY OFFICER.**

**REPORTABLE SPILLS SHOULD BE DIRECTED TO THE MINNESOTA DUTY OFFICER BY IMMEDIATELY CALLING THE FOLLOWING NUMBERS: (651) 649-5451 OR (800) 422-0798.**

## FINAL STABILIZATION

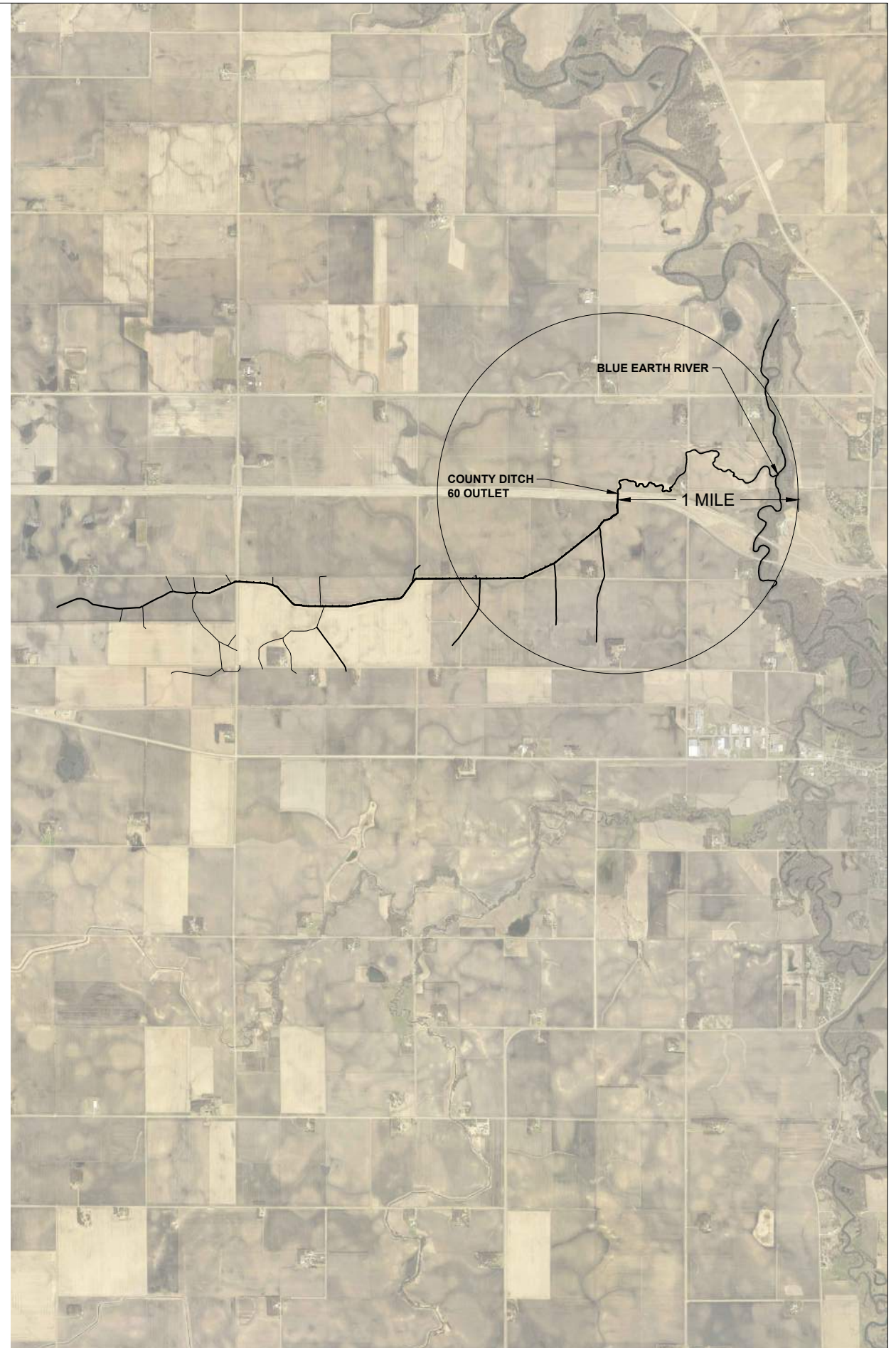
**FINAL STABILIZATION IS NOT COMPLETE UNTIL ALL OF THE FOLLOWING REQUIREMENTS ARE COMPLETE:**

1. ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL SOILS ARE STABILIZED BY A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70 PERCENT OF ITS EXPECTED FINAL GROWTH DENSITY OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSION CONDITIONS.
2. ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) HAVE BEEN REMOVED. BMPs DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOME COMPOST LOGS) MAY BE LEFT IN PLACE.
3. FOR CONSTRUCTION PROJECTS ON AGRICULTURAL LAND (E.G., PIPELINES ACROSS CROP, FIELD PASTURE OR RANGE LAND) THE DISTURBED LAND HAS BEEN RETURNED TO ITS PRECONSTRUCTION AGRICULTURAL USE.

## AMENDMENTS

EROSION AND SEDIMENT CONTROL QUANTITY SUMMARY AND BMP SCHEDULE		
DESCRIPTION	UNITS	QUANTITY
SILT FENCE, TYPE PA*	L F	100
SEEDING & MULCH	ACRE	3
EROSION CONTROL BLANKETS CATEGORY 3*	S Y	160

\*SILT FENCE AND BLANKET TO BE INSTALLED AT LOCATIONS SPECIFIED BY ENGINEER



					I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.	 Houston Engineering Inc.	Maple Grove	PAS	8-24-2020	FARIBAULT COUNTY DITCH 60 FARIBAULT COUNTY JO DAVIES TOWNSHIP SECTIONS 1,10,11, AND 12	SWPPP NARRATIVE  PROJECT NO. 6255-0011	SHEET  14 of 14
					Signature:  Date: 12-3-2021 Printed Name: JOSEPH A LEWIS License #: 46215		P: 763.493.4522 F: 763.493.5572	GM				
No.	Revision	Date	By									