CONSTRUCTION PLANS
FOR
POPE/STEARNS JUDICIAL DITCH 1 BRANCH 12 PROJECT
NORTH FORK CROW RIVER WATERSHED DISTRICT
RAYMOND TOWNSHIP, STEARNS COUNTY, MINNESOTA
MARCH 2016

NOTES:
1. GEODETIC CONTROL
   VERTICAL: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
   HORIZONTAL: COUNTY COORDINATES (MNDOT), STEARNS COUNTY, US FOOT
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.
   THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D.
   THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES
   OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINE FOR THE COLLECTION AND
   DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

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: 3-25-2016
Printed Name: Joseph A. Lewis
License #: 46215

PREPARED BY:
Houston Engineering Inc.
MAPLE GROVE, MINNESOTA
CONSTRUCTION NOTES
1. WETLAND AREAS. MATERIAL EXCAVATED FROM THE DITCH SHALL BE PLACED ON EXISTING SPOIL BANKS.
2. EXCAVATED MATERIAL IS TO BE PLACED ON EXISTING SPOIL BANKS AND LEVELShaped TO DRAW AWAY FROM THE DITCH.
3. THE EXCAVATION DETAILED IN THE TYPICAL SECTION, PROFILE AND CROSS SECTIONS REPRESENT AN ESTIMATE OF THE EARTH WORK REQUIRED TO RESTORE THE DITCH. THE INTENT OF THIS REPAIR PROJECT IS TO RESTORE THE DITCH BY REMOVING ACCUMULATED SEDIMENTS TO THE ACSIC WHILE NOT REMOVING VIRGIN MATERIAL. THE CONTRACTOR SHALL REPAIR THE DITCH AS NEARLY AS PRACTICAL TO THE PREVIOUSLY CONSTRUCTED CONDITION.

EROSION AND SEDIMENT CONTROL QUANTITY SUMMARY AND BMP SCHEDULE

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>UNITS</th>
<th>QUANTITY</th>
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</thead>
<tbody>
<tr>
<td>SEDIMENT CONTROL LOG TYPE STRAW, 6-INCH DIA.</td>
<td>L F</td>
<td>600</td>
</tr>
<tr>
<td>SEEDING (1)</td>
<td>ACRE</td>
<td>25</td>
</tr>
<tr>
<td>SEED MIXTURE SPECIAL</td>
<td>LB</td>
<td>2500</td>
</tr>
<tr>
<td>MULTICLASS MATERIAL TYPE 1</td>
<td></td>
<td></td>
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<tr>
<td>DISK ANCHORING</td>
<td>ACRE</td>
<td>25</td>
</tr>
</tbody>
</table>

NOTES:
1. 
2. 
3. 
4.

FIELD CROSSING TYPICAL GRAVEL SECTION

NOTES:
1. 
2. 
3. 
4.

PIPE BEDDING DETAIL - HDPE PIPE

NOTES:
1. 
2. 
3. 
4.
1. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

3. GENERAL CONSTRUCTION ACTIVITY INFORMATION

1. PROJECT NAME: POPESFARMS JUDICIAL DITCH 1 BRANCH 12 PROJECT

2. PROJECT LOCATION:
   ADDRESS: RAYMOND TOWNSHIP OF STEARNS COUNTY IN SEC 14, T15N, R34W, T12N, R35W
   CITY OR TOWNSHIP: RAYMOND TOWNSHIP
   COUNTY: STEARNS
   LATITUDE/LONGITUDE OF APPROXIMATE CENTROID OF PROJECT: 45.6225/-95.0808

3. PROJECT INFORMATION

   A. IMPAIRED WATER: THE PROJECT DISCHARGE IS WITHIN ONE MILE (AERIAL RADAR MEASUREMENT) OF IMPAIRED WATER NORTH FORK CROW RIVER.
   B. SPECIAL WATERS: THERE ARE NO SPECIAL WATERS WITHIN ONE MILE OF PROJECT BOUNDARY.
   C. WETLANDS: JUDICIAL DITCH SEGMENTS IN WETLANDS ARE NOT BEING REPAIRED IN THIS PROJECT. JUDICIAL DITCH SEGMENTS IN WETLANDS AND BEING REPAIRED IN THIS PROJECT ARE DONE SO AS REGULATIONS Permit.
   D. KARST AREAS: THERE ARE NO KNOWN KARST AREAS WITHIN THE PROJECT BOUNDARY.
   E. CALCAREOUS FENS: THERE ARE NO CALCAREOUS FENS WITHIN THE PROJECT BOUNDARY.
   F. ENDANGERED OR THREATENED SPECIES: THERE ARE NO ENDANGERED OR THREATENED SPECIES IN THE SPECIAL WATER MANAGEMENT DISTRICT.
   G. HISTORIC PLACES OR ARCHEOLOGICAL SITES: THERE ARE NO HISTORIC PLACES OR ARCHEOLOGICAL SITES WITHIN THE PROJECT BOUNDARY.
   H. SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFF SITE WITHIN 24 HOURS OF DISCOVERY.

2. PROJECT AREAS

   1. TOTAL AREA TO BE DISTURBED (ACRES): 20
   2. PRE-CONSTRUCTION IMPERVIOUS SURFACE (ACRES): 0.0
   3. POST-CONSTRUCTION IMPERVIOUS SURFACE (ACRES): 0.0
   4. TOTAL NEW IMPERVIOUS SURFACE (ACRES): 0.0

2. 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:

   WATERBODY ID: NA.
   NAME OF WATERBODY: POPESFARMS JUDICIAL DITCH 1 BRANCH 12
   DITCH: NO
   NO SPECIAL WATERS WITHIN ONE MILE OF PROJECT BOUNDARY.

3. CONTRACT INFORMATION

   PROJECT OWNER: NORTH FORK CROW RIVER WATERSHED DISTRICT
   TARA J. OZONE, ADMINISTRATOR
   1811 FRONT STREET
   FAX BOX
   BBE
   BRENTWOOD, MINNESOTA 56216
   PHONE: (320) 493-2670
   FAX: (320) 493-2670
   info@northforckcrowriver.com

   CONTRACTOR: TO BE DETERMINED.

4. SEDIMENT CONTROL PRACTICES

   1. RE-INSTALL ALL SEDIMENT CONTROL PRACTICES THAT HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITY SUCH AS CLEANING OR REPAIRING OR PASSAGE OF VEHICLES. IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED, COMPLETE ANY REQUIRED TEMPORARY ACTIVITY THAT REQUIRED REMOVAL OF SEDIMENT CONTROL PRACTICES AS QUICKLY AS POSSIBLE. RE-INSTALL SEDIMENT CONTROL PRACTICES BEFORE THE NEXT PRECAST OR PREFAB ACTIVITY EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

   2. WHERE VEHICLE TRAFFIC LEAVES ANY PART OF THE SITE OR PAVEMENT ROADS WITHIN THE SITE, A VEHICLE TRACKING SYSTEM (PROVIDED BY THE CONTRACTOR) MUST BE INSTALLED TO MINIMIZE TRACK OUT OF SEDIMENT FROM THE CONSTRUCTION SITE. STREET SWEEPING MUST BE USED IF SEDIMENT TRACKING IMPACTS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET.

   3. SOIL COMPACTION MUST BE MINIMIZED AND OR UNLESS INEFFECTIVE, PRESERVE TOPSOIL. MINIMIZE SOIL COMPACTION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA OF THE SITE DETERMINES THAT IT BE COMPACTED.

   4. A 50 FOOT FOOTPATH MUST BE RESERVED OR IF A (A REPAIR IS ON THE SITE) PROVIDER-REQUIRED SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 15 FEET OF THE PROJECT’S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE BODY. NATURAL SLOPES ARE NOT REQUIRED ADDITIVE TO LONG DISTANCE, SURFACE BODY, STORMWATER CONVEYANCE CHANNELS, STORM BORA DRAINAGE, AND SEDIMENT BASINS.

5. INSPECTIONS AND MAINTENANCE

   1. THE CONTRACTOR SHALL IDENTIFY THE INDIVIDUALS CERTIFIED AS A SITE MANAGER FOR OVERALL IMPLEMENTATION OF, REVISING, AND AMENDING THE SWPPP AND PERFORMING INSPECTIONS.

   2. THE CONTRACTOR SHALL IDENTIFY THE INDIVIDUALS CERTIFIED AS A DEP INSTALLER FOR PERFORMING OR SUPERVISING THE INSTALLATION, MAINTENANCE AND REPAIR OF IMPS.

   3. INSPECTIONS WILL BE CONDUCTED AT LEAST ONE TIME PER WEEK AND WITHIN 24 HOURS AFTER A RAIN EVENT GREATER THAN 0.5 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 FREEZING GROUND CONDITIONS, THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BE SUSPENDED WITHIN 24 HOURS AFTER FREEZE OCCURS WHERE THE SITE OCCURS AT 24 HOURS PRIOR TO RESUMING CONSTRUCTIONS. WHEREEVER COMES FIRST.

   6. ALL PERMITTER 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 CONTROL DEVICES. THESE DEVICES MUST BE MADE BY THE END OF THE NEXT RAINY DAY AFTER DISCOVERY OR, THEREAFTER AS SOON AS FEASIBLE CONDITIONS ALLOW ACCESS.

   7. SEDIMENT WATER, INCLUDING GRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSTRUCTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION.

   8. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE IDENTIFIED TO ENSURE OF OFF-SITE WATER SALES INTO FREE DISPOSAL WATER DISPOSAL sites. VEHICLE TRACKING IS REQUIRED TO BE REMOVED FROM ALL PAVED ROADS HOURS PRIOR TO AND OFF SITE WITHIN 24 HOURS OF DISCOVERY.
1. **Prevention of Spills**

   - Spills of hazardous materials, including oil, diesel fuel, gasoline, hydraulic fluids, paint, varnish, polyurethane-based products, wood preservatives, adhesives, curing compounds, and other 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. 7035.10, including secondary containment as applicable.

2. **Cleaning and Washing**

   - Cleaning and 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 washout facility that requires site personnel to utilize the proper facilities for disposal of concrete and other washout wastes.

3. **Soil Disturbing Activities**

   - 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 disturbed surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.

4. **Reporting Requirements**

   - Report and follow up on all spills, leaks, or other discharge.

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**Amendments**

**Amendment by date**
OBJECTIVE AND DESCRIPTION OF SERVICE LOCATION:

ACSC profiles are based on the 1907 design profile with a datum adjustment of 1272.87 established by a comparison with hand soil borings.

POPE/STEARNS JUDICIAL DITCH 1 BRANCH 12
NORTH FORK CROW RIVER WATERSHED DISTRICT

PROJECT NO. 5021-008

H: Maple Grove
F: 763.493.5572

SCALE 1:640

Printed Name: Joseph A. Lewis
License #: 46215
LEGEND

SOIL BORING

SCALE

0 200 400 Feet

0 0

N

400

200

200

400

POPE/STEARNS JUDICIAL DITCH 1 BRANCH 12
NORTH FORK CROW RIVER WATERSHED DISTRICT

SECTIONS NO. 10, 15-17, 20-22, 27, 28 AND 33, T125N, R35W
RAYMOND TOWNSHIP, STEARNS COUNTY

PLAN AND PROFILE
BRANCH 12 FORK 4
PROJECT NO. 5021-008

POPE/STEARNS JUDICIAL DITCH 1 BRANCH 12

AS SHOWN

P: 763.493.4522
F: 763.493.5572

SHEET 12 of 19
EXISTING GROUND (AUGUST 2014)

WATER ELEVATION = 1310.13

EXISTING GROUND (AUGUST 2014)