STANDARD SHEET

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

WETLAND RESTORATION PLAN
BWSR
EMBANKMENT / SPILLWAY DETAILS - SINGLE

102-A

SPILLWAY

SPILLWAY DESIGN TABLE

<table>
<thead>
<tr>
<th>SPILLWAY</th>
<th>WETLAND ID #</th>
<th>CONTROL ELEVATION (FEET)</th>
<th>CONTROL SECTION LENGTH (FEET)</th>
<th>CONTROL SECTION WIDTH (FEET)</th>
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</thead>
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<tr>
<td>SPILLWAY</td>
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WAVE BERM

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CORE TRENCH

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EMBANKMENT

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CONSTRUCTION REQUIREMENTS

EMBANKMENT:
- SUBCUT DIMENSIONS ARE MINIMUMS. DEPTH MAY VARY BASED ON SITE AND SOIL CONDITION. ENGINEER MAY DIRECT WHEN NECESSARY TO EXCAVATE TO DIFFERENT DEPTHS THAN SHOWN.
- PLACE 4 TO 6 INCHES OF TOPSOIL ON THE ENTIRE EMBANKMENT SURFACE AFTER CONSTRUCTED ELEVATION IS ACHIEVED. TOPSOIL MATERIAL USED SHALL BE SUITABLE FOR VEGETATION ESTABLISHMENT.

CORE TRENCH:
- CORE TRENCH DIMENSIONS ARE MINIMUMS. DEPTH, WIDTH, AND SIDE SLOPES MAY VARY BASED ON SITE AND SOIL CONDITIONS. ENGINEER MAY DIRECT WHEN TO EXCAVATE TO DIFFERENT DEPTHS THAN SHOWN.

WAVE BERM:
- WAVE BERM DIMENSIONS ARE MINIMUMS. HEIGHT, WIDTH AND SIDE SLOPES MAY VARY, AS DIRECTED BY THE ENGINEER, BASED ON SITE AND SOIL CONDITIONS, AND MATERIAL AVAILABILITY.

SPILLWAY:
- ENTREE AND EXIT SLOPES SHALL BE EXCAVATED / GRADED TO ENSURE POSITIVE DRAINAGE IN AND OUT OF SPILLWAY CONTROL SECTION.
- WHEN DIRECTED OR DEEMED NECESSARY, OVER EXCAVATE SPILLWAY 4 TO 6 INCHES AND REPLACE WITH TOPSOIL TO DESIGN ELEVATIONS. TOPSOIL MATERIAL SHALL BE SUITABLE FOR VEGETATION ESTABLISHMENT.

COMPACTION:
- THE ENTIRE SURFACE OF EACH LIFT OF FILL SHALL BE COMPACTED BY AT LEAST 2 PASSES OF THE SPECIFIED COMPACTING EQUIPMENT.

COMPACTING EQUIPMENT:

C1: 200 P.S.I. TAMPER ROLLER OR SIMILAR TYPE EQUIPMENT AS APPROVED BY ENGINEER
C2: RUBBER TIRED HAULING / SPREADING EQUIPMENT OR SIMILAR TYPE EQUIPMENT AS APPROVED BY ENGINEER, "LOADED" AND TRAVELING IN A DIRECTION PARALLEL TO THE MAIN AXIS OF THE FILL. C1 IS AN ACCEPTABLE ALTERNATIVE COMPACTING METHOD.
C3: METAL TRACK-TYPE TRACTOR OR SIMILAR TYPE EQUIPMENT AS APPROVED BY ENGINEER. C1 OR C2 ARE ACCEPTABLE ALTERNATIVE COMPACTING METHODS.

CONSTRUCTION DETAILS:

TYPICAL EMBANKMENT PROFILE

1. CONSTRUCTED ELEV. (VARIES) = DESIGN ELEVATION PLUS REQUIRED SETTLEMENT (A + B)
2. (VARIES) = TOTAL FILL HEIGHT TIMES SETTLEMENT ALLOWANCE (A x B)

TYPICAL SPILLWAY X-SECTION

1. CONSTRUCTED ELEV. (VARIES) = DESIGN ELEVATION PLUS REQUIRED SETTLEMENT (A + B)
2. (VARIES) = TOTAL FILL HEIGHT TIMES SETTLEMENT ALLOWANCE (A x B)

NOT TO SCALE