

Sample Plan

DRAINAGE DETAILS ----- NARRATIVE

References:

Design Scene: Chapter 12 - Drainage  
Technical Manual: Culvert Treatments 5-292.510 thru 5-292.516  
Drainage Manual

Miscellaneous:  
Metro District's Electronic Details Library  
  
Design Standards Office's Electronic Details Library  
pw:\OTS\DesignStandards\DesignDetails\

General Information:

Examples of drainage details could include the following: ponds, hydraulic control structures, skimmers, culvert treatments, drainage structures in shoulders used as bus lanes, safety grates and trash guards.

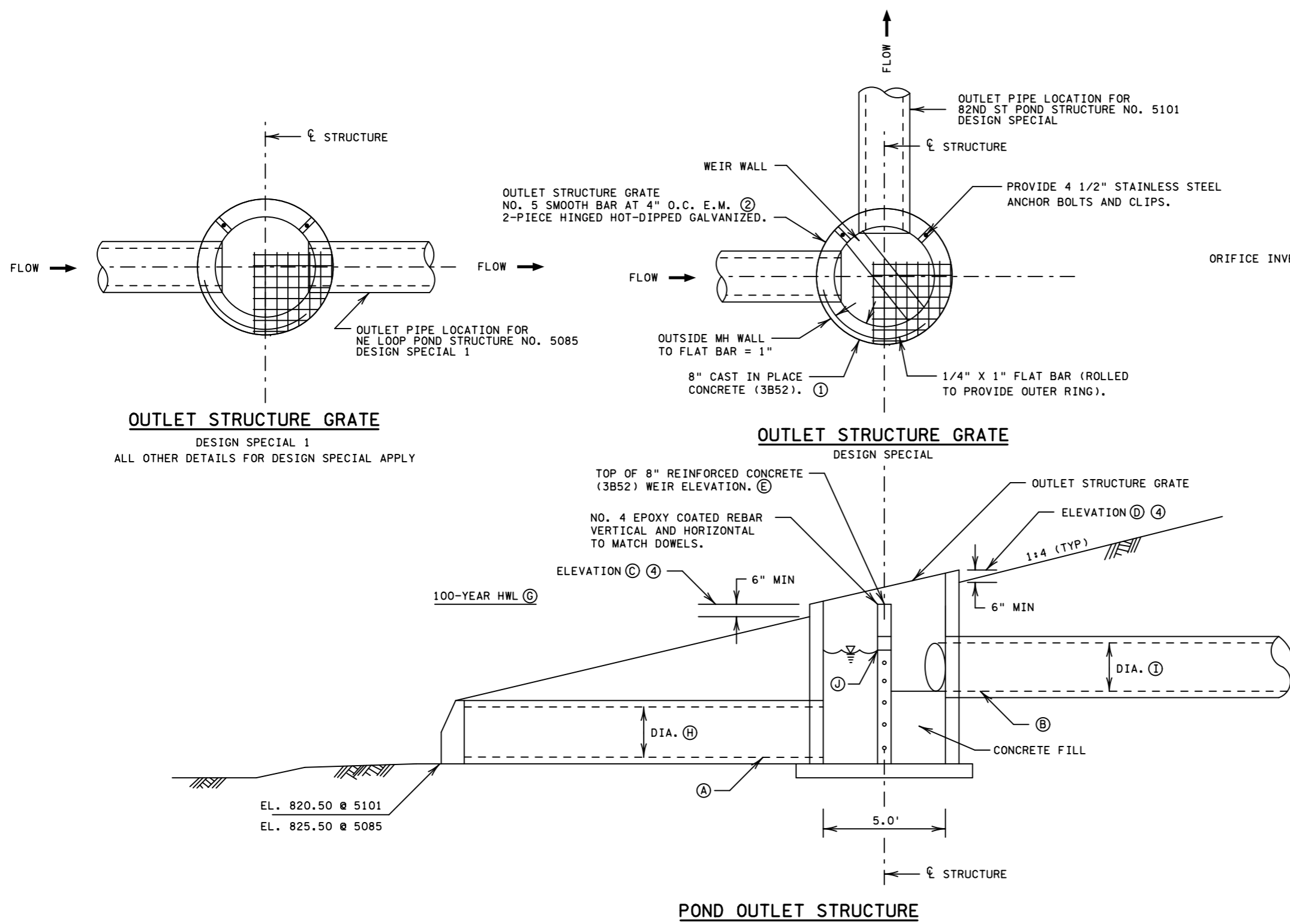
Sample Plan

DRAINAGE DETAILS ----- CHECKLIST

- \_\_\_ 1. If a concrete collar is needed, provide Standard Plate No. 4026
- \_\_\_ 2. Special details (trash guard, special structures, skimmers, weirs, 1:10 safety aprons, safety grates, etc.) - Indicate location where each detail is used
- \_\_\_ 3. Details showing typical berms or ditch blocks if appropriate
- \_\_\_ 4. Drawn by: and Checked by: Initials and Engineer's signature

REVISION DATE 12/28/16  
 PLOTTED/REVISED: 26-JAN-2017 08:56

DISTRICT #: METRO  
 IPLOT NAME: spdrndet1  
 FILENAME: Projects\DM\_R0S\Non\_Proj\sect\Design\SamplePlan\Eng\lsh\drndet1.dgn



**NOTES:**

- ① WALL CONSTRUCTION MAY BE CLASS II PRECAST RC PIPE. SEE MNDOT STANDARD PLATE 3000.
- ② PROVIDE FULL PENETRATION TACK WELD EVERY OTHER BAR-MINIMUM.
- ③ DELETED.
- ④ ELEVATION ③ OCCURS INLINE WITH THE CENTERLINE OF PIPE ④. ELEVATION ④ OCCURS DIRECTLY ACROSS STRUCTURE FROM ③.

POND OUTLET STRUCTURES													
DRAINAGE STRUCTURE DESIGN	STRUCTURE NO.	LOCATION	INLET ELEVATION ①	OUTLET ELEVATION ②	OVERFLOW ELEVATION ③	TOP OF STRUCTURE ④	WEIR CREST ⑤	ORIFICE INVERT ELEVATION ⑥	100-YEAR HWL. ⑦	INLET DIAMETER ⑧	OUTLET DIAMETER ⑨	ORIFICE DIAMETER ⑩	POSITIVE OVERFLOW ELEVATION
DESIGN SPECIAL	5101	82ND ST POND	821.50	824.34	826.40	827.60	825.70	824.50	826.53	24"	24"	8"	824.50
DESIGN SPECIAL 1	5085	NE LOOP POND	826.01	828.43	830.00	831.50			830.46	24"	24"		828.43

POND OUTLET STRUCTURES  
 DESIGN SPECIAL  
 DESIGN SPECIAL 1

**DRAINAGE DETAILS**