Index 430-021
Cross Drain Mitered End Section

ORIGINATION

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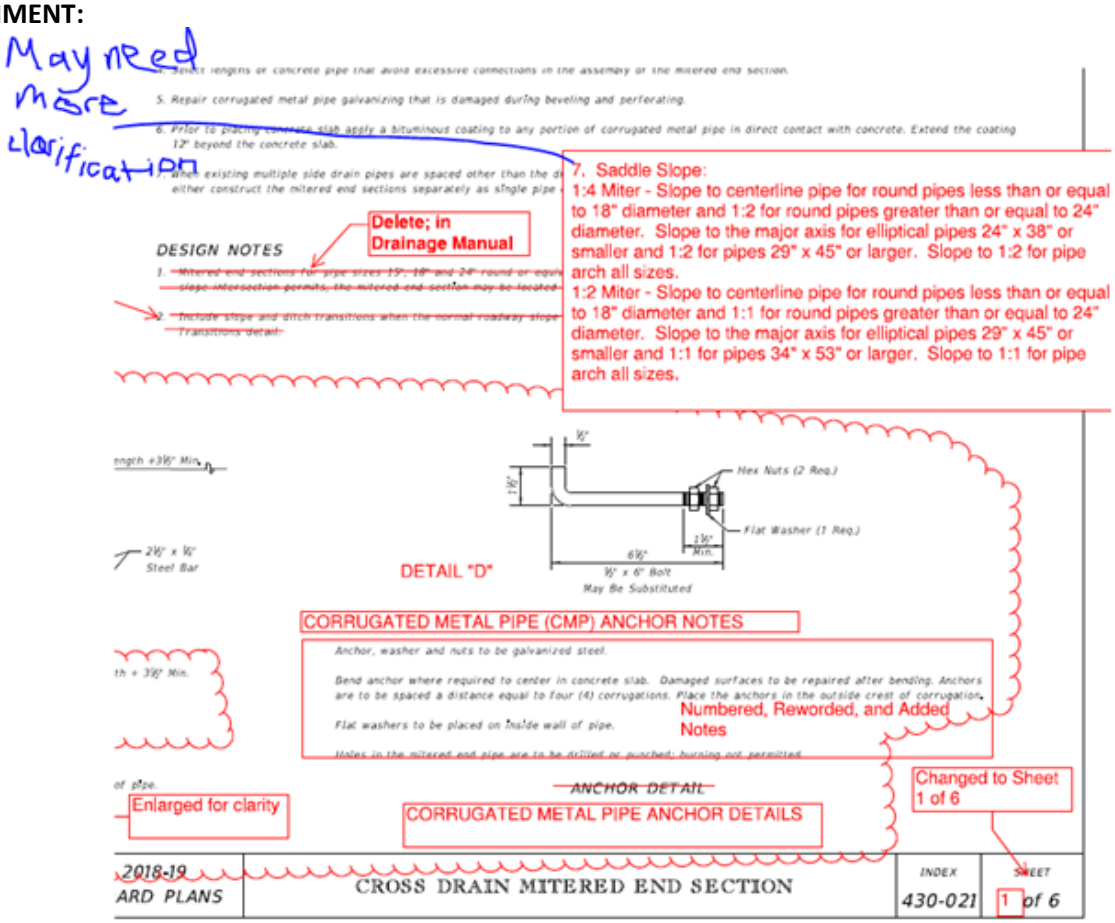
COMMENTARY

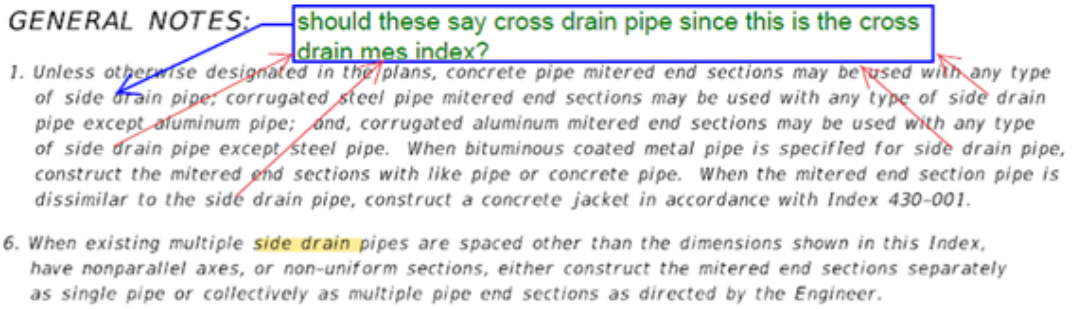
Index Reorganized. General Notes and Slope And Ditch Transitions moved to Sheet 1. Design Notes Deleted, can be found in the Drainage Manual. Sod requirements and information moved to Specifications.
Sheet 2: Combined details for Round and Elliptical Concrete Pipe.
Sheet 3: Combined Tables of Quantities for Round and Elliptical Concrete Pipe.
Sheet 4: Combined details for Arched and Round Corrugated Metal Pipe.
Sheet 5: Combined Tables of Quantities for Arched and Round Corrugated Metal Pipe.

COMMENTS AND RESPONSES

BLACK = Industry Review Comments **RED** = Standard Plans Response

Name: Erin Yao
Date: August 8, 2019
COMMENT:





RESPONSE:
Date: August 8, 2019

These notes were developed based on the notes from multiple sheets in the original indexes. We combined the notes and made it a general note since it applied throughout the index. The General Note is still referenced in each detail where the saddle slope is actually depicted. See sheet 2 and sheet 4.

All references to side drains were changed to cross drain.

GENERAL NOTES:

1. Unless otherwise designated in the plans, concrete pipe mitered end sections may be used with any type of cross drain pipe; corrugated steel pipe mitered end sections may be used with any type of cross drain pipe except aluminum pipe; and, corrugated aluminum mitered end sections may be used with any type of cross drain pipe except steel pipe. When bituminous coated metal pipe is specified for cross drain pipe, construct the mitered end sections with like pipe or concrete pipe. When the mitered end section pipe is dissimilar to the cross drain pipe, construct a concrete jacket in accordance with Index 430-001.

2. Use either corrugated metal or concrete mitered end sections for corrugated polyethylene pipe (HDPE), polyvinyl-chloride pipe (PVC), steel reinforced polyethylene pipe (SRPE), and polypropylene pipe (PP). When used in conjunction with corrugated mitered end sections, make connection using either a formed metal band specifically designated to join HDPE, PVC, SRPE, or PP pipe, with metal pipe. When used in conjunction with a concrete mitered end sections, construct concrete jacket in accordance with Index 430-001.

3. Class NS concrete cast-in-place reinforced slabs are required for all sizes of cross drain pipes. Construct slabs at 5½" thick, unless 3" thickness is called for in the Plans.

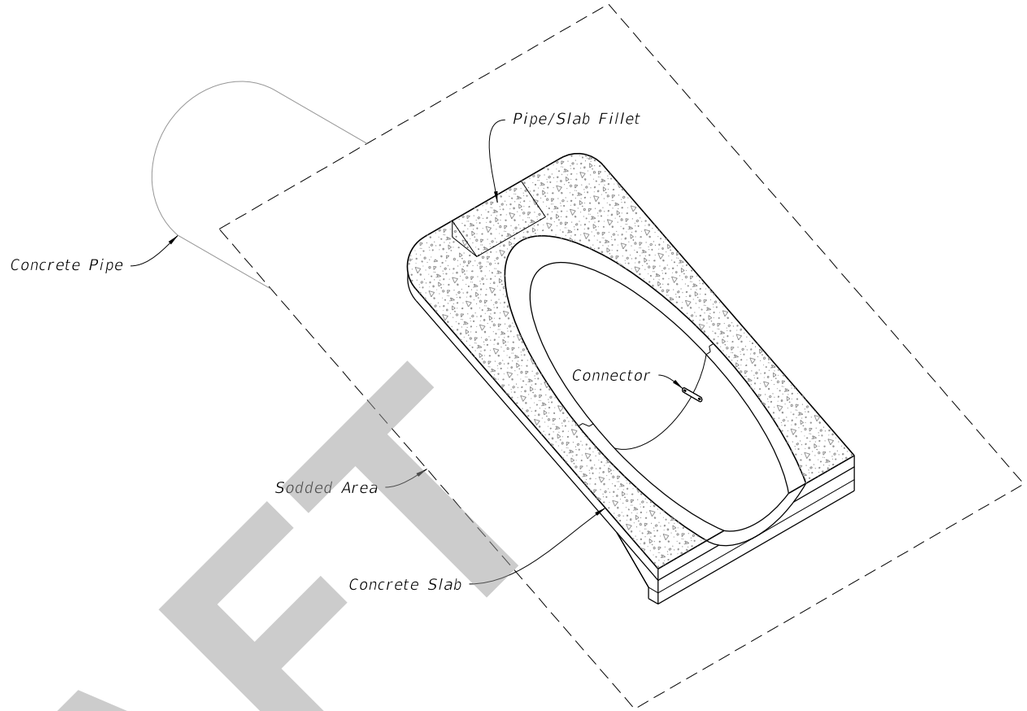
4. Select lengths of concrete pipe that avoid excessive connections in the assembly of the mitered end section.

5. Repair corrugated metal pipe galvanizing that is damaged during beveling and perforating.

6. When existing multiple cross drain pipes are spaced other than the dimensions shown in this Index, have nonparallel axes, or non-uniform sections, either construct the mitered end sections separately as single pipe or collectively as multiple pipe end sections as directed by the Engineer.

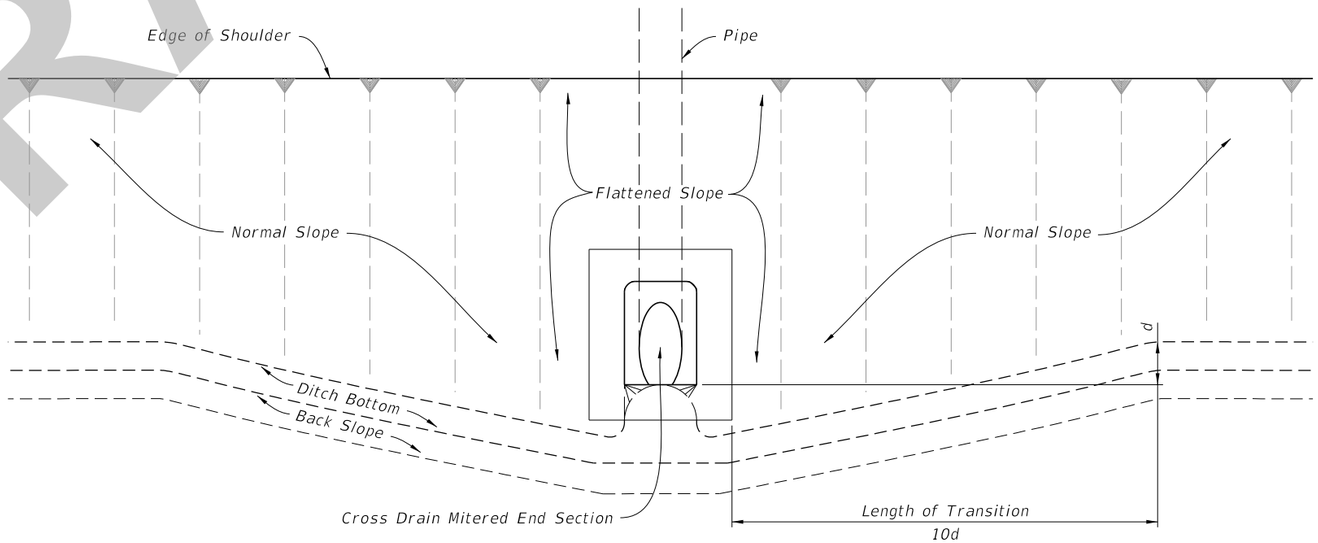
7. Saddle Slope:
   - 1:4 Miter – Slope to ℄ of pipe for round pipes less than or equal to 18" diameter and 1:1 for round pipes greater than or equal to 24" diameter.
     Slope to the major axis for elliptical pipes 24"x38" or smaller and 1:2 for pipes 29"x45" or larger.
     Slope to the span line for pipe arch 28"x20" or smaller and 1:2 for pipe arch 35"x24" or larger.
   - 1:2 Miter – Slope to ℄ of pipe for round pipes less than or equal to 18"diameter and 1:2 for round pipes greater than or equal to 24" diameter.
     Slope to the major axis for elliptical pipes 29"x45" or smaller and 1:1 for pipes 34"x53" or larger.
     Slope 1:1 for all pipe arch sizes.

8. Quantities shown are for estimating purposes only.



CROSS DRAIN MITERED END SECTION

(Concrete Pipe Shown, Corrugated Metal Pipe Similar)



SLOPE AND DITCH TRANSITIONS

TABLE OF CONTENTS:

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LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/19			FY 2020-21 STANDARD PLANS	CROSS DRAIN MITERED END SECTION	430-021	1 of 6