
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index
(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: November 1, 2019

Originator: Rick Jenkins

Phone: (850) 414-4355

Email: Rick.Jenkins@dot.state.fl.us

Standard Plans:

Index Number: 425-054

Sheet Number (s): ALL

Index Title: Ditch Bottom Inlet Type J

Summary of the changes:

Reorganized Index, Added additional Sheets.

Sheet 1: General Notes

Sheet 2: Dimensional and Reinforcement Details

Sheet 3: Grate, Concrete Ditch Pavement, and Sodded Area Details

Sheet 4: Alternate A structure Bottom - Top Slab Details

Deleted "INLET WITH STRUCTURE BOTTOM" detail, referenced 425-010.

Added Detail for Concrete Ditch Pavement.

Commentary / Background:

Reorganized Details and Sheets to declutter Index. Moved information from detail callouts to Notes in order to decrease clutter of the drawing. Moved design information to SPI.

Other Affected Offices / Documents: (Provide name of person contacted)

- | Yes | No | |
|--------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – |
| <input type="checkbox"/> | <input type="checkbox"/> | FDOT Design Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Standard Specifications – |
| <input type="checkbox"/> | <input type="checkbox"/> | Approved Product List – |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction – |
| <input type="checkbox"/> | <input type="checkbox"/> | Maintenance – |

Origination Package Includes:

(Email or hand deliver package to Rick Jenkins)

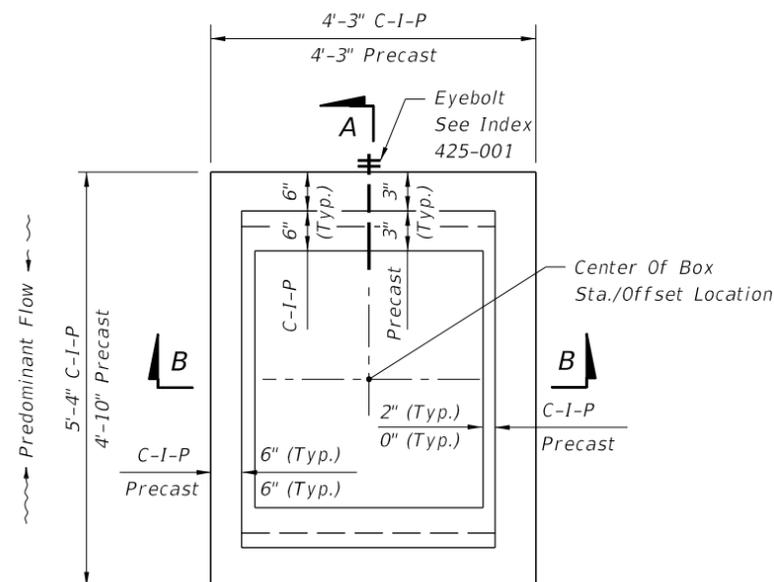
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| <input type="checkbox"/> | <input type="checkbox"/> | Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/> | Revised SPI |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Support Documents |

Implementation:

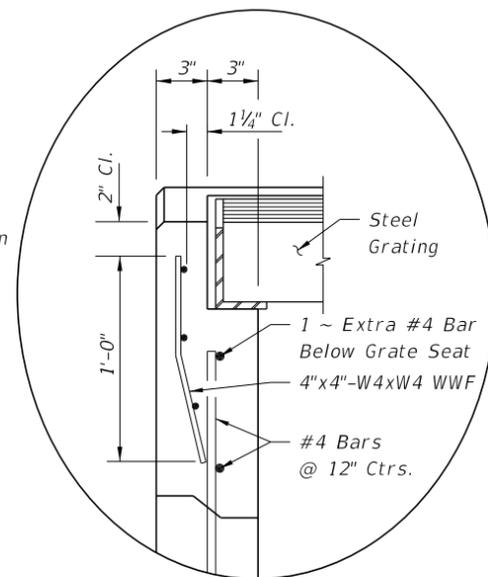
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| <input type="checkbox"/> | DCE Memo |
| <input type="checkbox"/> | Program Mgmt. Bulletin |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

Contact the Roadway Design Office for assistance in completing this form

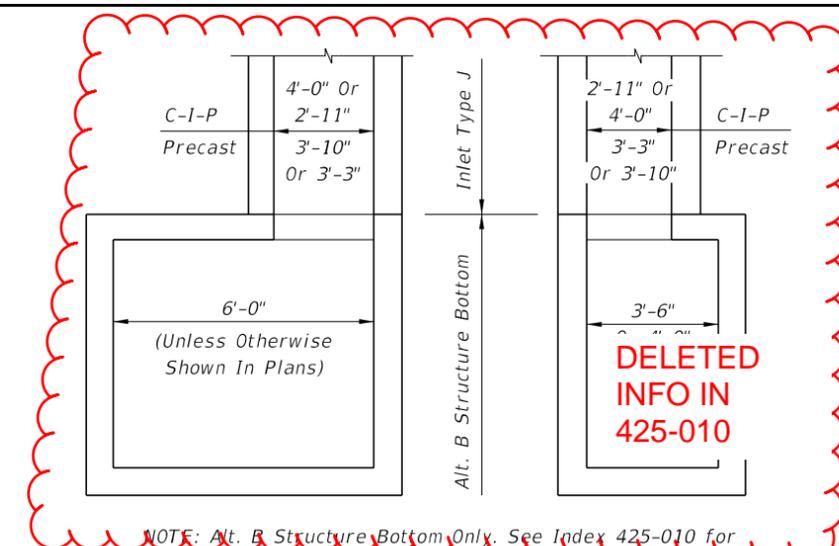
NEW SHEET 1
GENERAL NOTES AND OVERVIEW



PLAN
(CAST-IN-PLACE INLET SHOWN, WITHOUT GRATE, PRECAST INLET SIMILAR)



INSET A
(PRECAST OPTION)



NOTE: Alt. B Structure Bottom Only. See Index 425-010 for structure bottom details and hole reinforcement.

INLET WITH STRUCTURE BOTTOM

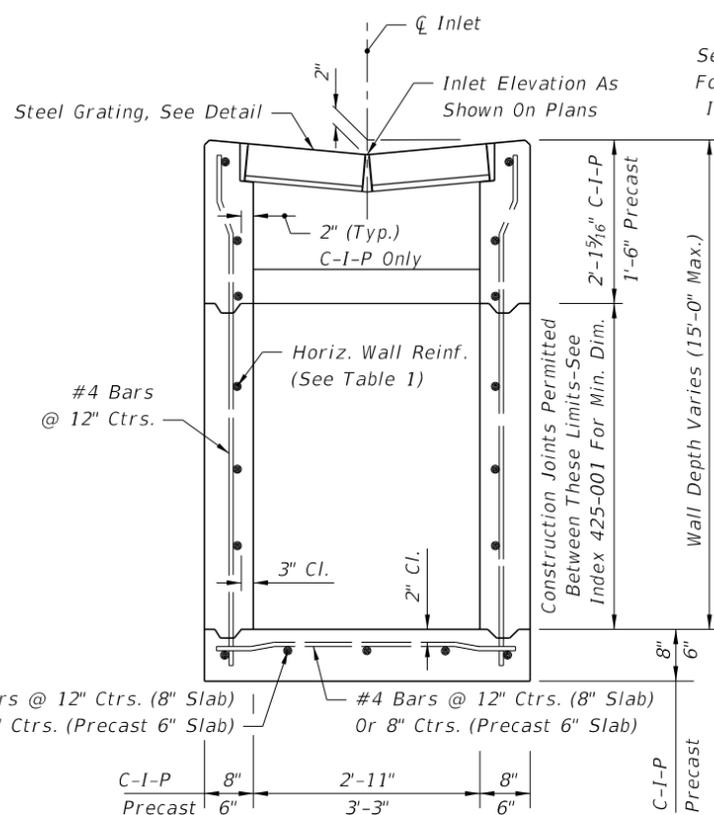
HORIZONTAL WALL REINFORCING SCHEDULE (TABLE 1)

WALL DEPTH	SCHEDULE	AREA (In ² /ft)	MAX. SPACING	
			BAR	WWF
0' - 4'	A12	0.20	12"	8"
4' - 9'	A6	0.20	6"	5"
9' - 12'	A4	0.20	4"	3"
9' - 15'	B5.5	0.24	5 1/2"	5"

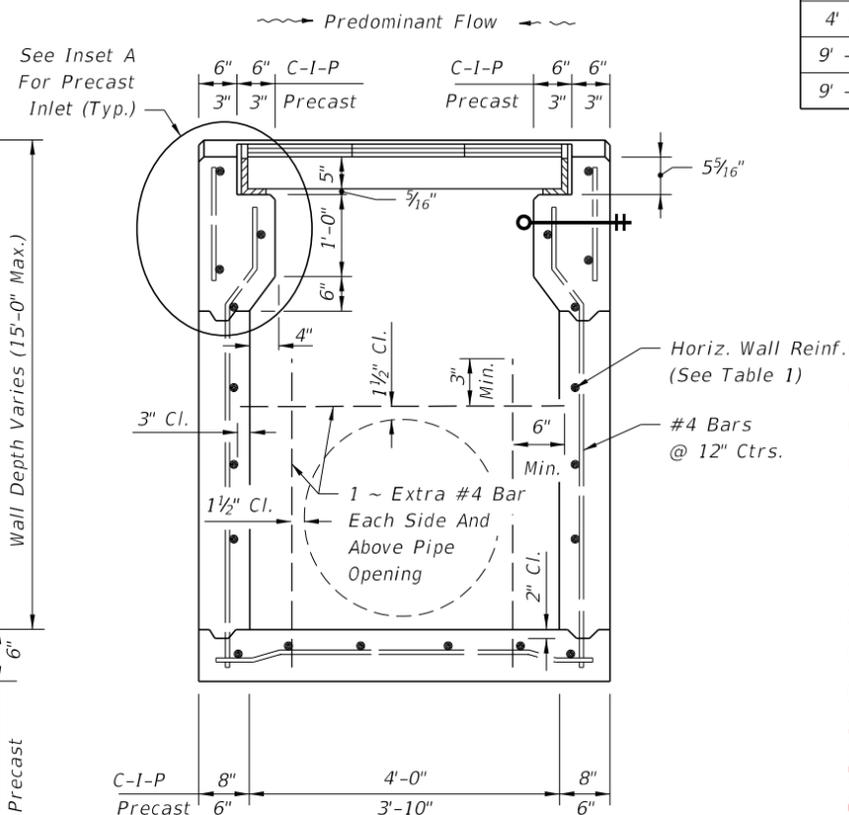
RECOMMENDED MAXIMUM PIPE SIZES

INLET INSIDE WIDTH	PIPE SIZE
2'-11" or 3'-3"	24"
3'-10" or MOVED TO SPI	36"

Note: Recommended sizes are for concrete pipe. Sizes for other types of pipe must be verified for fit in accordance with Index 425-001. For larger pipe, see Structure Bottom detail above and Index 425-010.



(Pipe Opening Not Shown)
SECTION BB



(Pipe Opening Shown)
SECTION AA

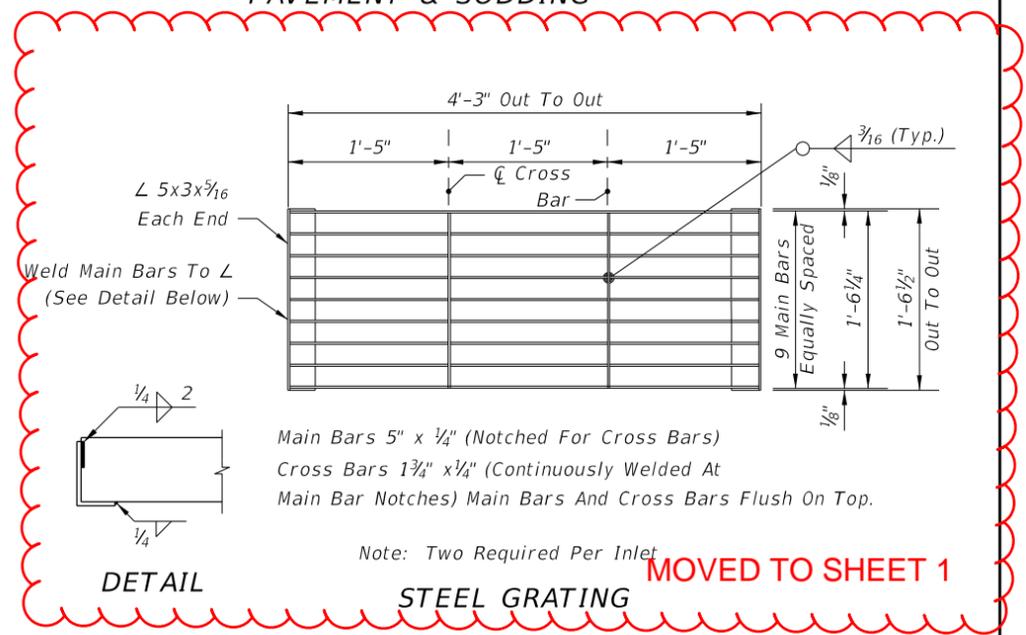
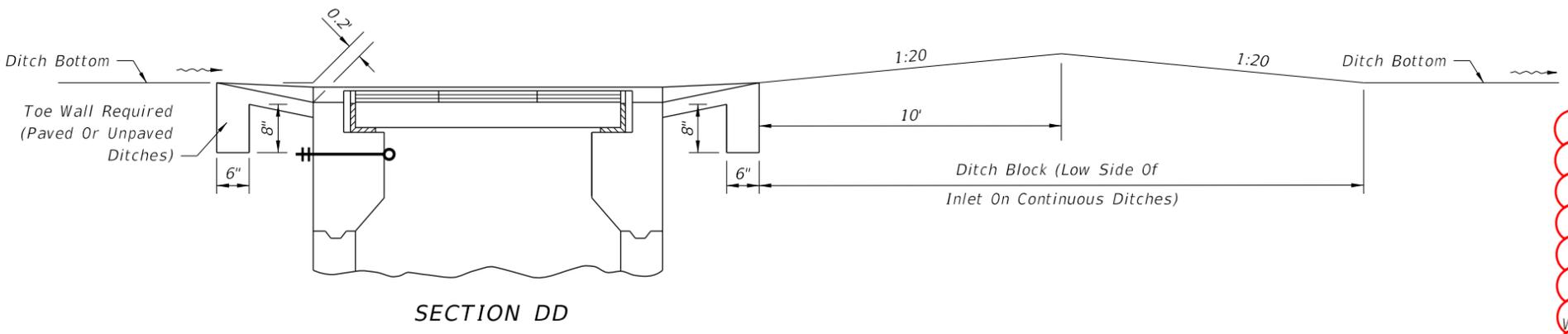
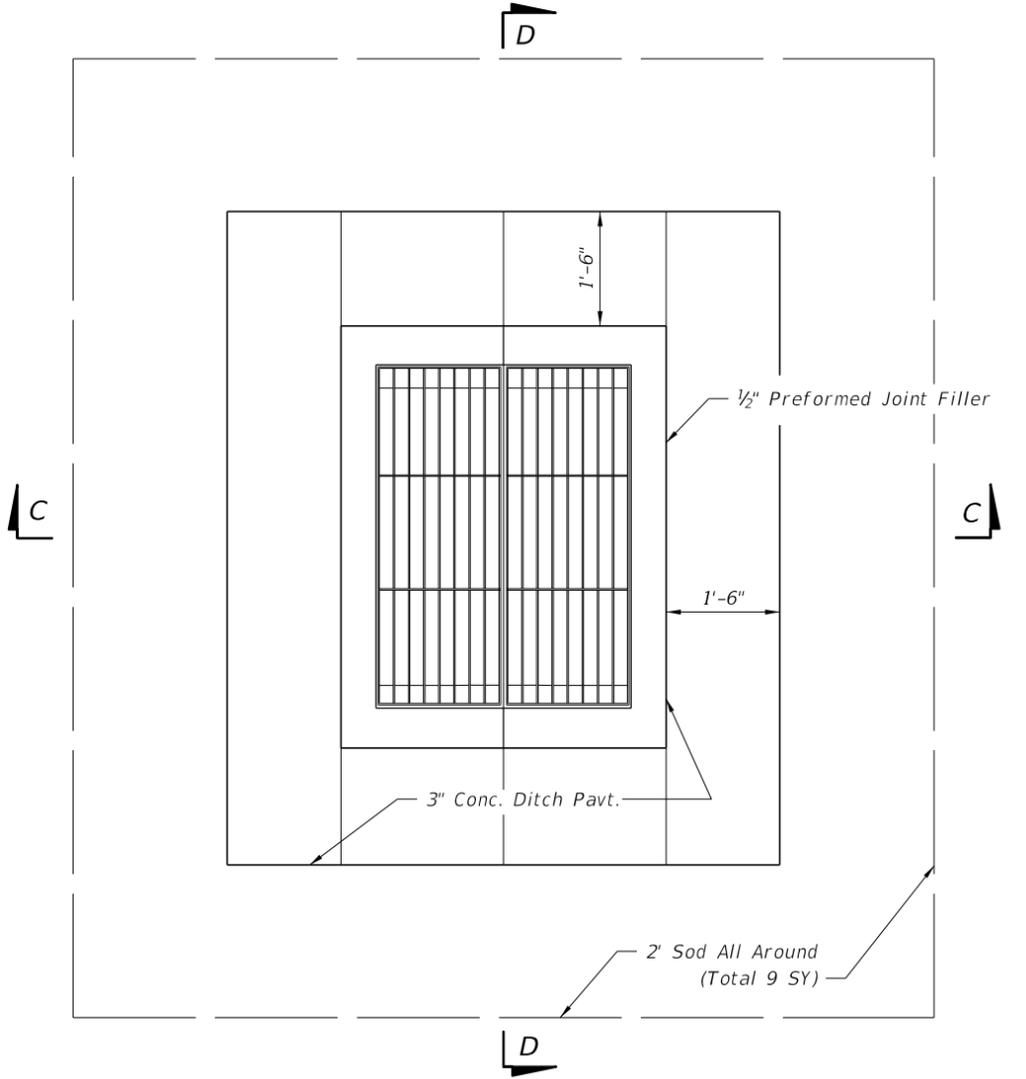
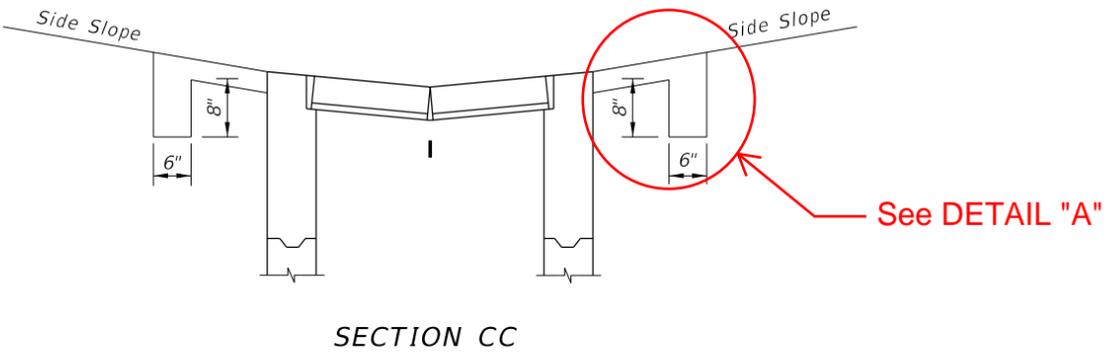
GENERAL NOTES **MOVED TO SHEET 1**

- This inlet is designed for use in ditches, medians, pavement areas or other areas subject to heavy wheel loads with minimal debris. This inlet is not for use in areas subject to bicycle traffic. This inlet may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and pavement areas where pedestrians can walk around the inlet. **SPI**
- All reinforcing Grade 60 bars with 2" min. cover unless otherwise noted. See Index 425-001 for equivalent area of welded wire fabric. Cut or bend bars out of way of pipe when necessary; bars to clear pipe by 1 1/2".
- All exposed edges and corners shall be 3/4" chamfer or tooled to 1/4" radius.
- When alternate G grate is specified in plans the grate is to be hot dip galvanized after fabrication. **In Spec**
- For supplemental details, see Index 425-001.
- All dimensions are for both precast and cast-in-place inlets unless otherwise noted.
- Cost of ditch paving to be included in cost of inlet. Sodding to be paid for under contract unit price for Performance Turf, SY. **Spec**

9/18/2018 2:50:55 PM

LAST REVISION	DESCRIPTION:
11/01/17	11/01/20

ADDED DETAIL



MOVED TO SHEET 1

9/18/2018 2:50:58 PM

LAST REVISION	DESCRIPTION:
11/01/17	11/01/20

**FY 2019-20
STANDARD PLANS**

DITCH BOTTOM INLET TYPE J NEW SHEET 3

INDEX	SHEET
425-054	2 of 2

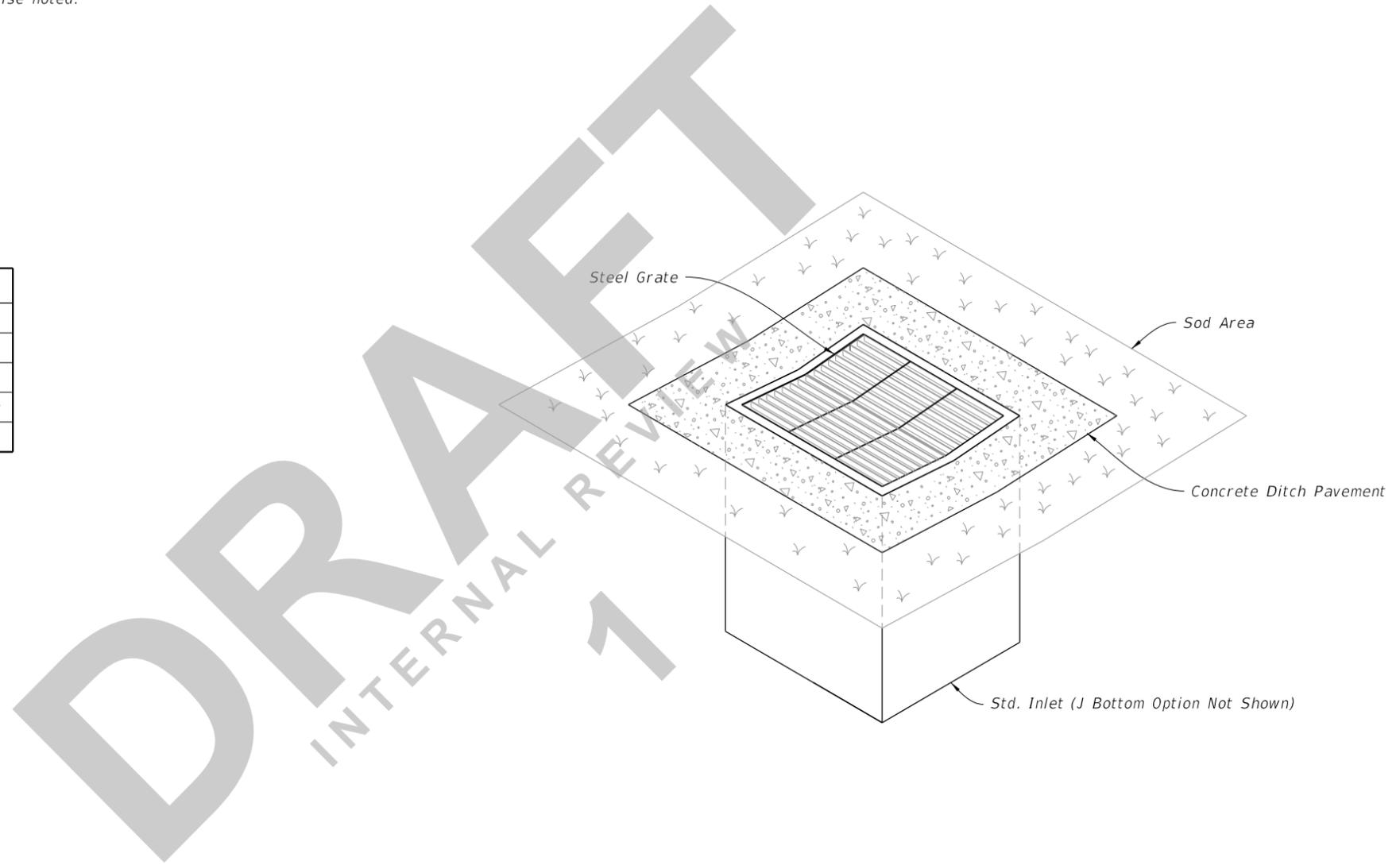
NEW SHEET 4

ALTERNATE A STRUCTURE BOTTOM SLAB DETAILS

GENERAL NOTES:

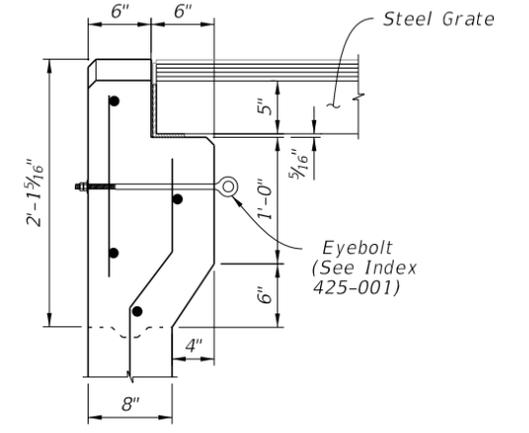
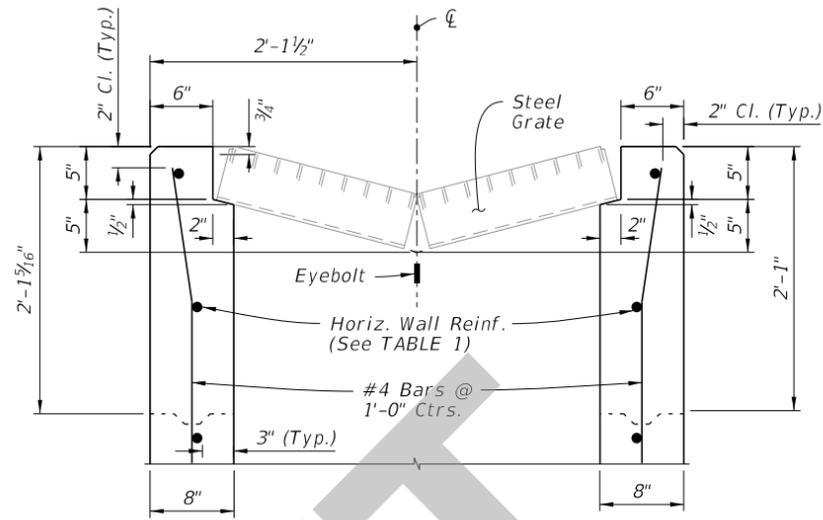
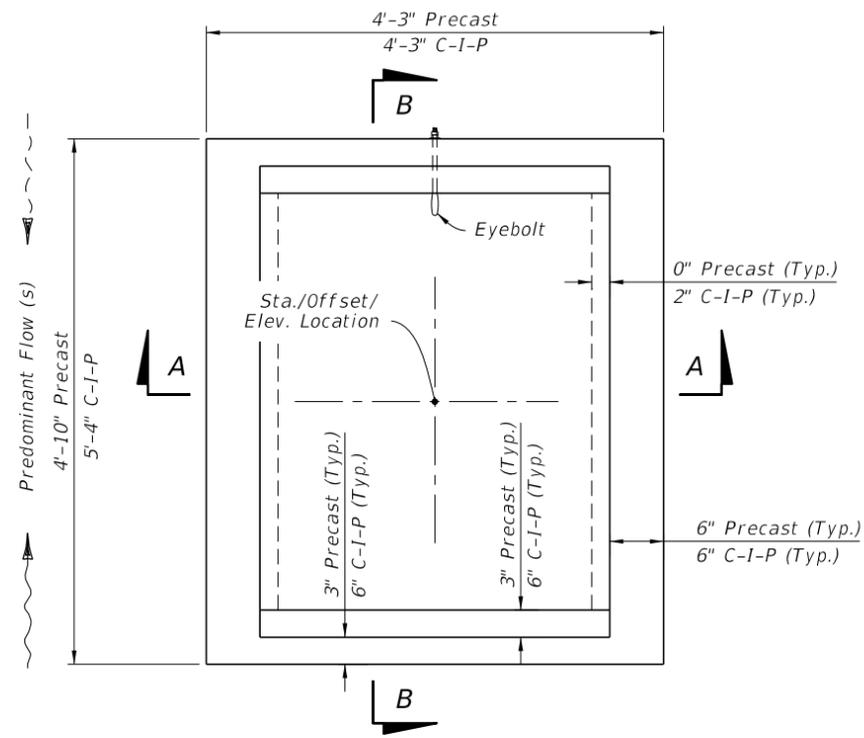
1. Work this Index with Index 425-001 and Index 425-010.
2. Reinforcing bars are Grade 60 bars with 2" minimum cover unless otherwise noted. See Index 425-001 for equivalent area of welded wire fabric. Cut or bend bars out of way of pipe when necessary; bars to clear pipe by 1½".
3. Chamfer all exposed edges and corners ¾" or tooled to ¼" radius.
4. Dimensions are for both precast and cast-in-place inlets unless otherwise noted.
5. Quantities are for informational and estimating purposes only.

TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Dimensional and Reinforcement Details
3	Grate, Concrete Ditch Pavement, and Sodded Area Details
4	Alternate A Structure Bottom - Top Slab Details



===== DITCH BOTTOM INLET TYPE J =====
(Pipe Connection Not Shown)

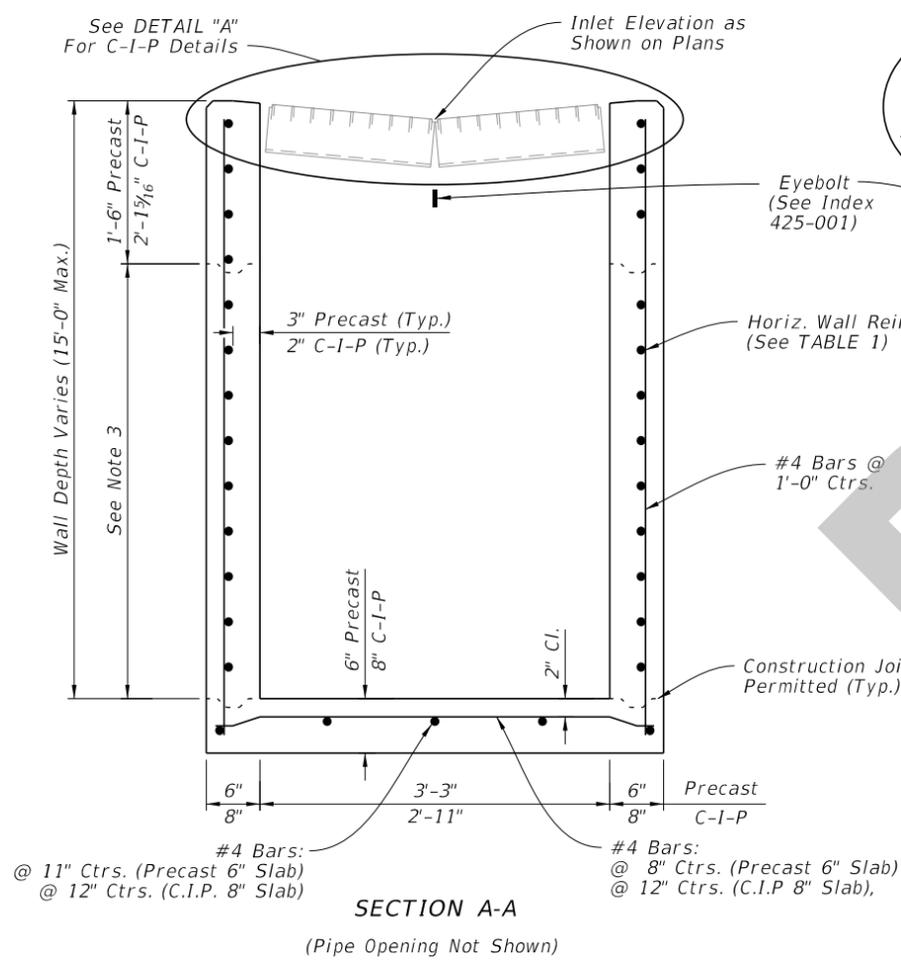
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DETAIL "A"

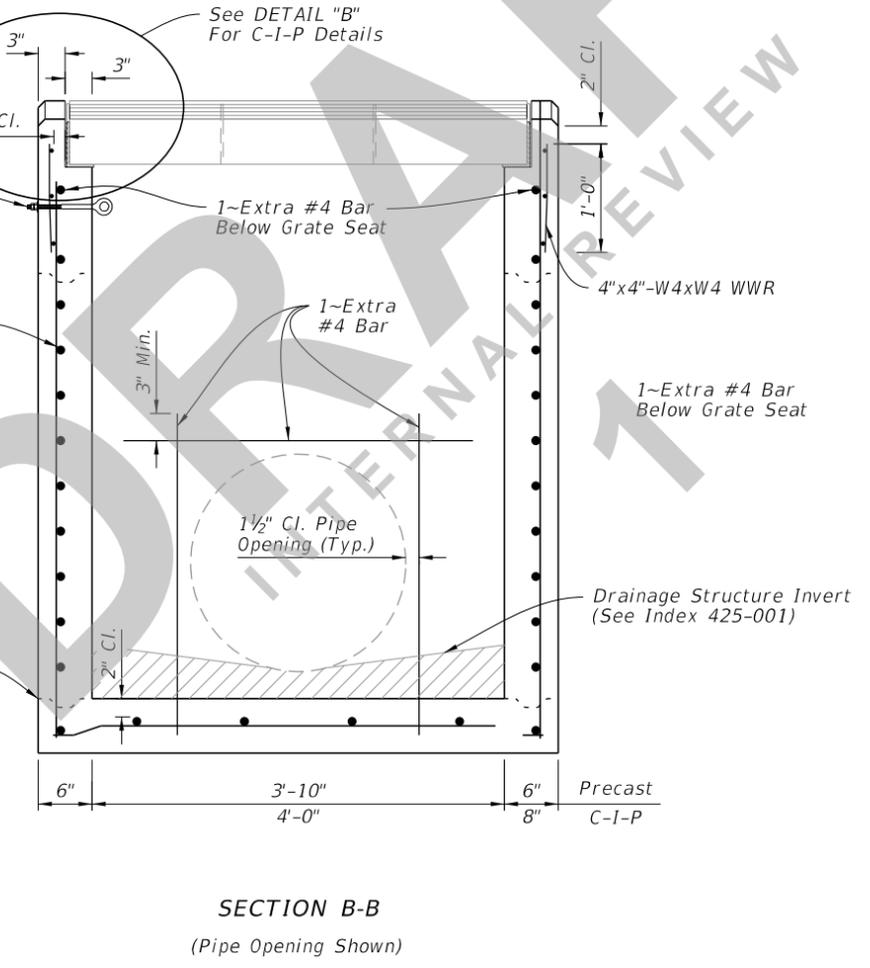
DETAIL "B"

CAST-IN-PLACE OPTION



SECTION A-A

(Pipe Opening Not Shown)



SECTION B-B

(Pipe Opening Shown)

TABLE 1
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	
			BARS	WWR
0' - 4'	A12	0.20	12"	8"
4' - 9'	A6	0.20	6"	5"
9' - 12'	A4	0.24	4"	3"
9' - 15'	B5.5	0.24	5 1/2"	5"

NOTES:

1. Grate, Concrete Ditch Pavement, and Sod not shown in Plan View.
2. See Sheet 3 for Concrete Ditch Pavement and Sodded Area details.
3. Construction joints permitted between these limits. See Index 425-001 for minimum dimensions.

DIMENSIONAL AND REINFORCEMENT DETAILS

DIMENSIONAL AND REINFORCEMENT DETAILS

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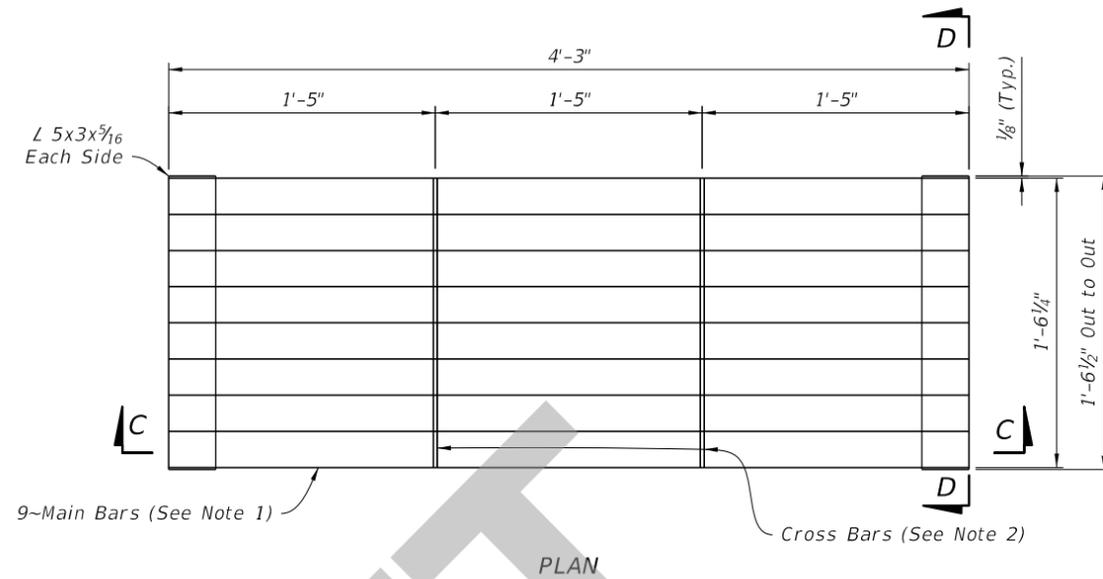
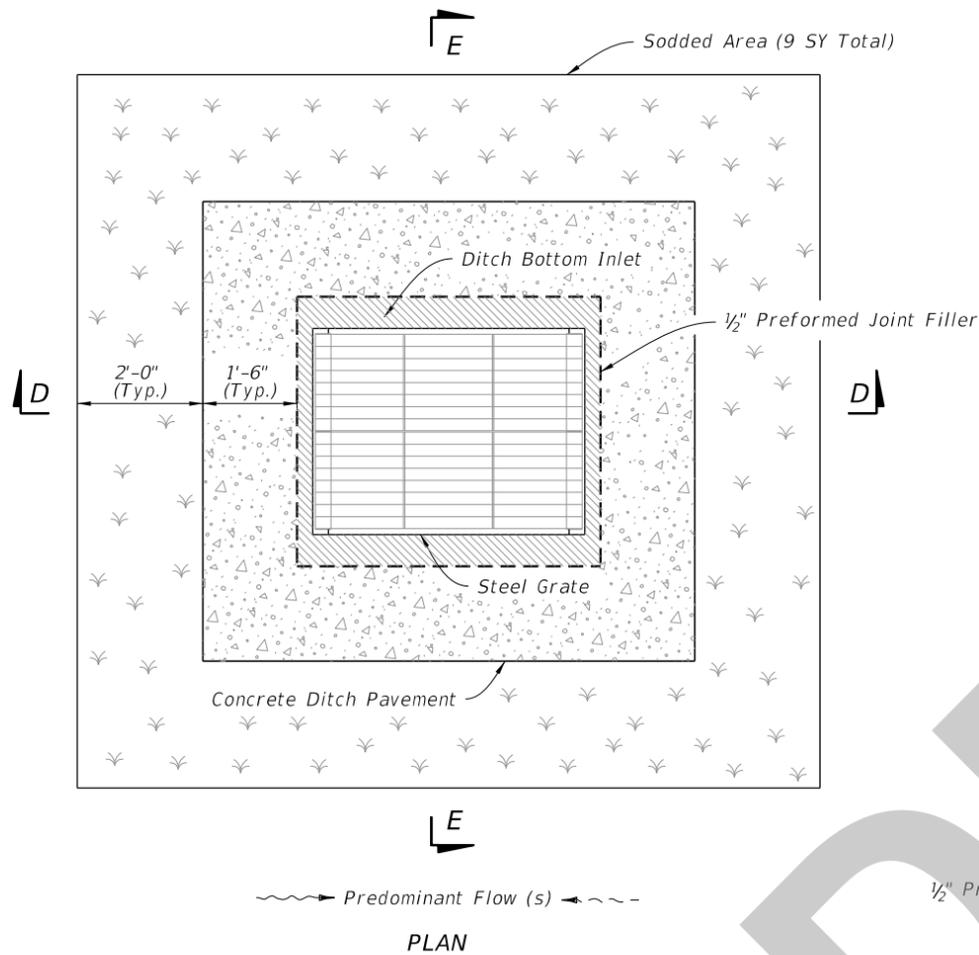
LAST REVISION 11/01/20	DESCRIPTION:
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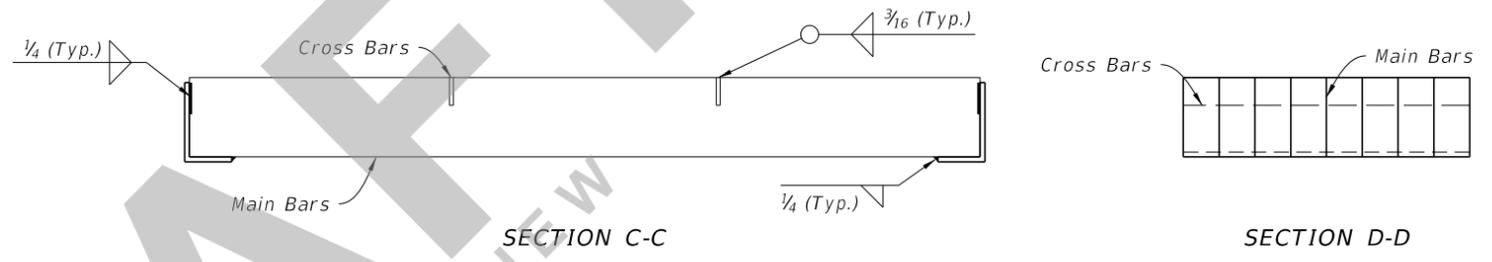
 FY 2021-22
 STANDARD PLANS

DITCH BOTTOM INLET TYPE J

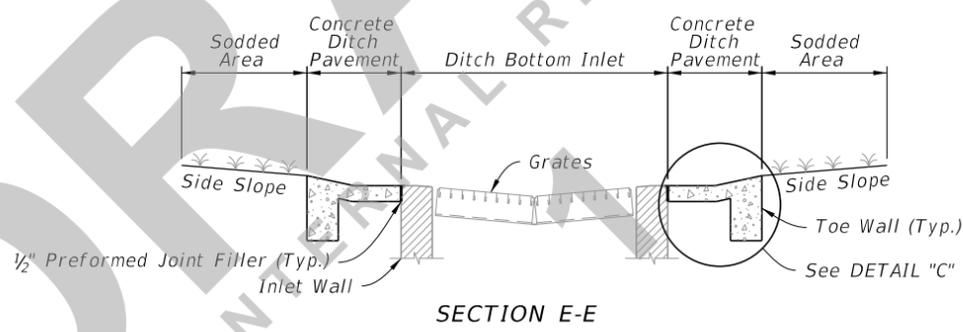
INDEX 425-054	SHEET 2 of 4
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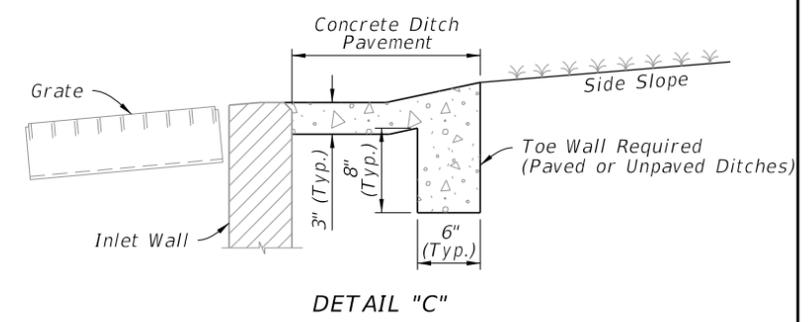
- NOTES:**
1. Main Bars are 5"x1/4" and are notched for Cross Bars.
 2. Cross Bars are 1 3/4"x1/4" and continuously welded at Main Bar Notches.
 3. Main Bars and Cross Bars are flush on top.



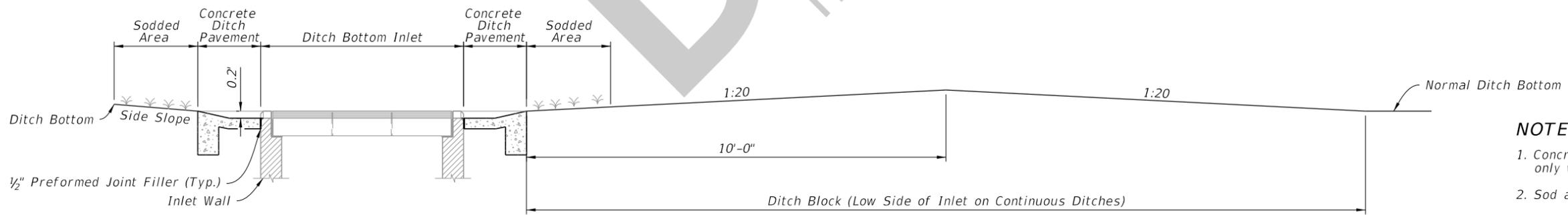
STEEL GRATE DETAIL



SECTION E-E



DETAIL "C"



SECTION D-D AND DITCH BLOCK DETAILS

CONCRETE DITCH PAVEMENT AND SODDED AREA DETAILS

- NOTES:**
1. Concrete Ditch Pavement to be installed only where called for in the Plans.
 2. Sod always required.

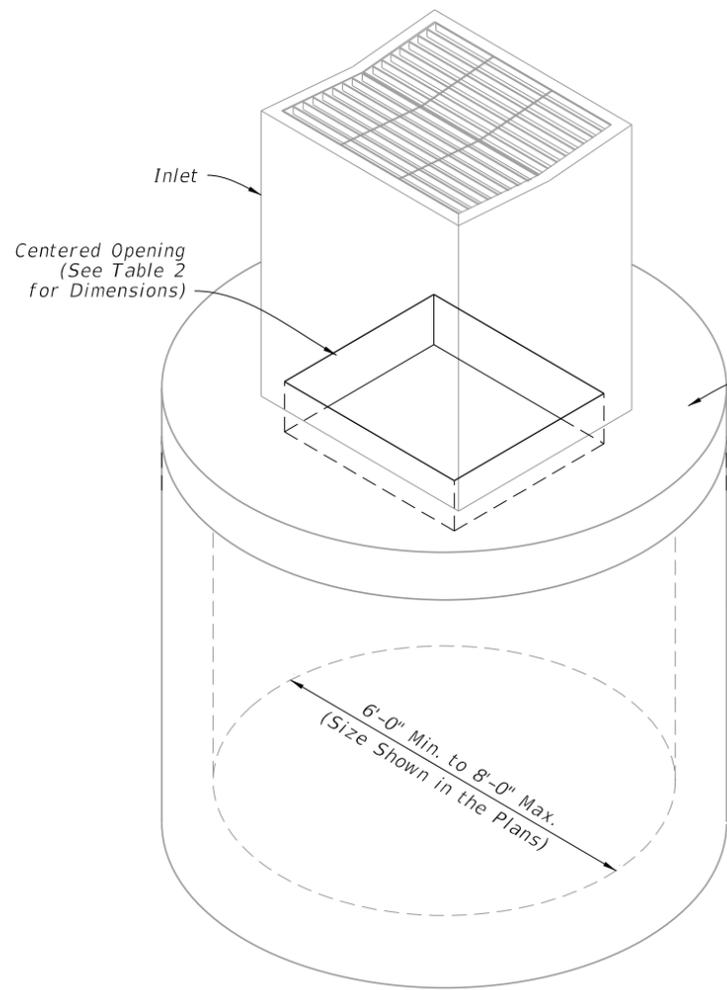
GRATE, CONCRETE DITCH PAVEMENT, AND SODDED AREA DETAILS

DITCH BOTTOM INLET TYPE J

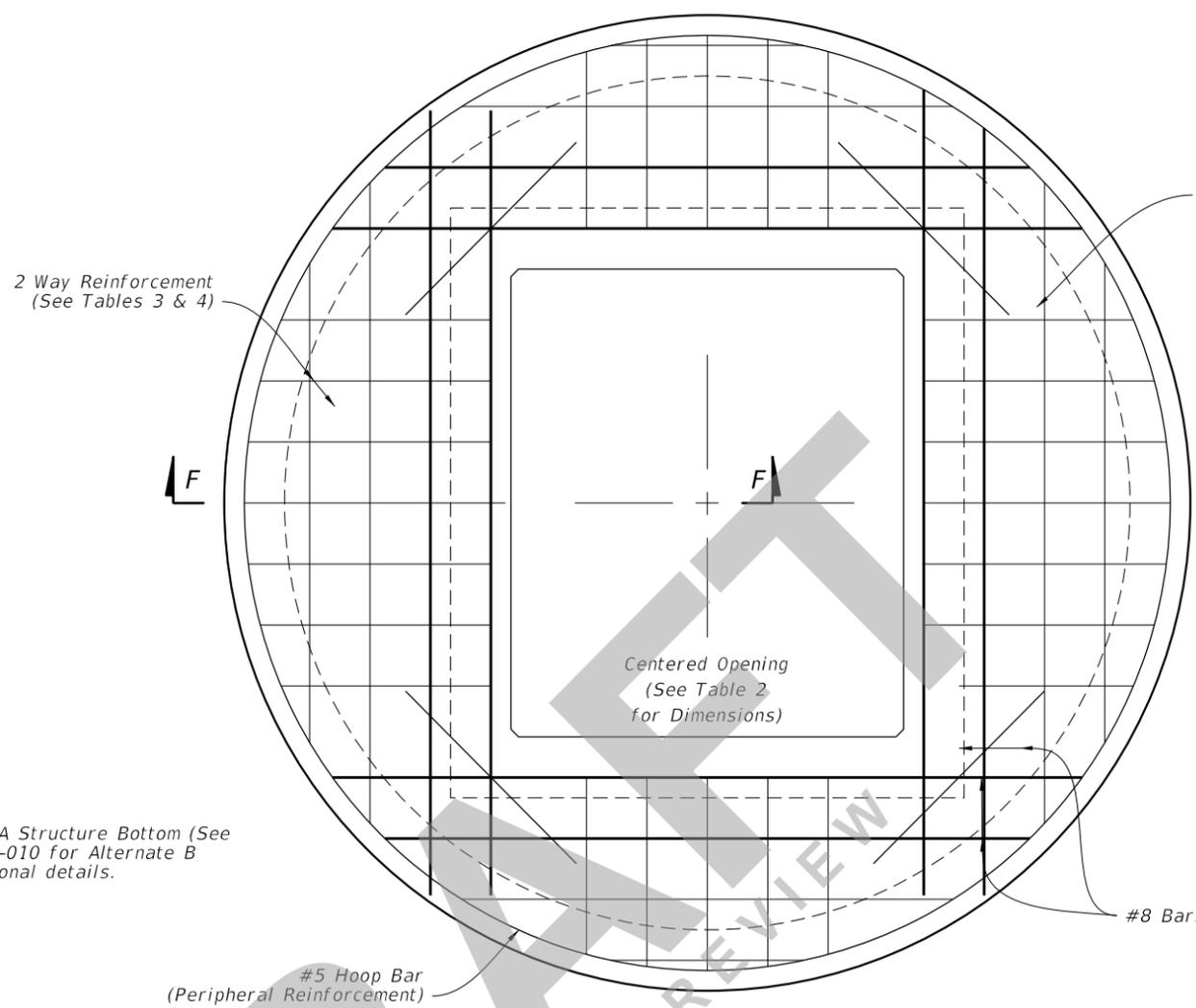
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LAST REVISION 11/01/20	REVISION	DESCRIPTION:		FY 2021-22 STANDARD PLANS	INDEX 425-054	SHEET 3 of 4
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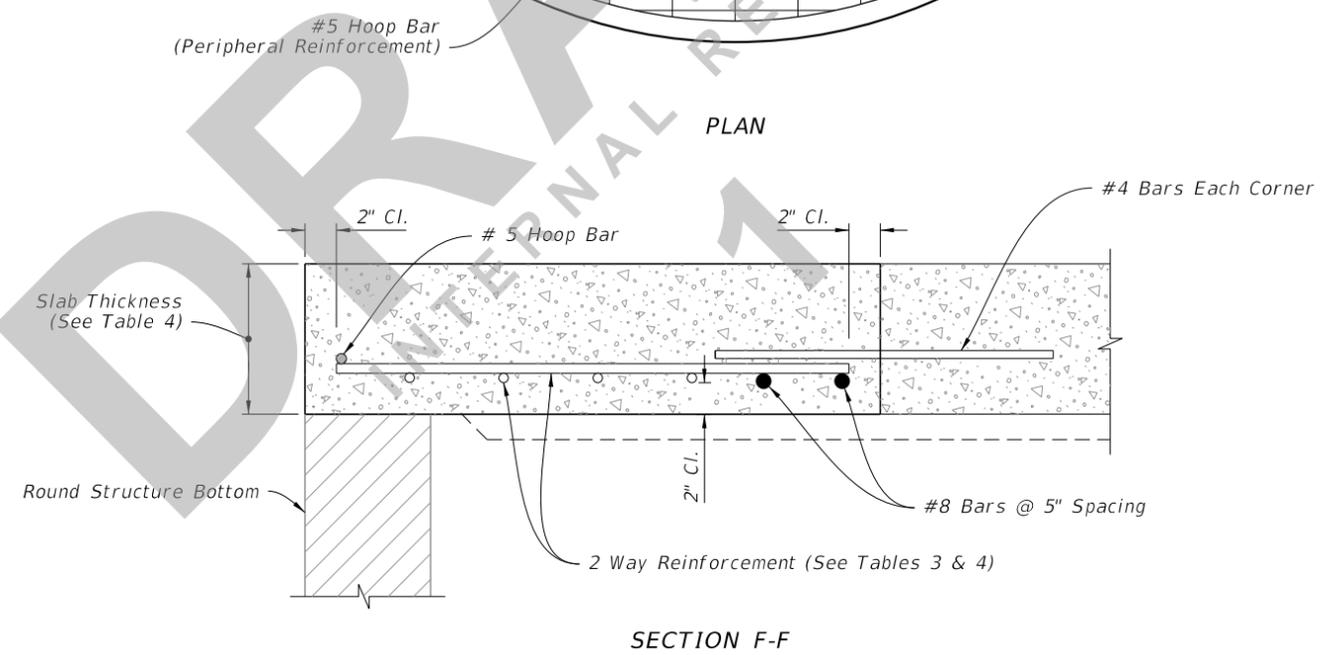


BOTTOM STRUCTURE DIAMETER	OPENING SIZE	
	Min.	Max.
6'-0" to 8'-0"	3'-8" x 4'-2"	3'-10" x 4'-2"



SCHEDULE	GRADE 60 (BAR) OR 65 KSI & 70 KSI (WIRE REINFORCING) In. ² /ft.
A	0.20
B	0.24
C	0.37
D	0.53
E	0.73
F	1.06
G	1.45

STRUCTURE DEPTH	SLAB THICKNESS	REINFORCING (2 WAY) SCHEDULE
SIZE: 6'-0"		
0.5' < 8'	9 1/2"	B
8' < 18'	9 1/2"	C
18' < 30'	9 1/2"	D
30' < 37'	9 1/2"	E
37' - 40'	9 1/2"	G
SIZE: 8'-0"		
≥ 0.5' < 9'	11 1/2"	C
9' < 15'	11 1/2"	D
15' < 23'	11 1/2"	E
23' < 33'	11 1/2"	E
33' - 40'	11 1/2"	G



ISOMETRIC VIEW

TOP SLAB REINFORCEMENT DETAILS

ALTERNATE A STRUCTURE BOTTOM - TOP SLAB DETAILS



FY 2021-22
STANDARD PLANS

DITCH BOTTOM INLET TYPE J

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425-054

SHEET
4 of 4

LAST REVISION	DESCRIPTION:
11/01/19	