
ORIGINATION FORM

Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: June 21, 2023

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Standard Plans:

Index Number: 430-001

Sheet Number (s): 2

Index Title: Miscellaneous Drainage Details

Summary of the changes:

Deleted Notes 1 and 2 on Round Concrete Pipe Joint Detail; Added new Note 1 "Allowable tolerance for the last full wrap of circumferential reinforcement shall be within 3 inches from the spigot shoulder and meet ASTM C76 for round pipe or ASTM C507 for elliptical pipe."; renumbered notes on Elliptical Concrete Pipe Joint Detail; Updated Note 3 on Elliptical Concrete Pipe Joint Detail; Updated Profile Rubber Gasket and Preformed Plastic Joint to show 3" dimension and added Note 1 reference; deleted rebar to 3" dimension on all details; deleted Note 2 reference and changed "See Note 3" callout to "See Note 2" on Round Concrete Pipe Joint Detail

Commentary / Background:

A search in ASTM archives shows that the "within 3 inches of spigot shoulder" language has existed since about 1985 in both C76 and C507. Our standard Plans were updated in 2004 which moved the last wrap from inside the joint to the shoulder, but it is unknown why the 3" guidance was omitted. This change brings the Standard Plans in line with the ASTM specifications.

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

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

Origination Package Includes: (Submit package to Rick Jenkins)

- | Yes | N/A | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input type="checkbox"/> | <input type="checkbox"/> | Revised or Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Support Documents |

Implementation:

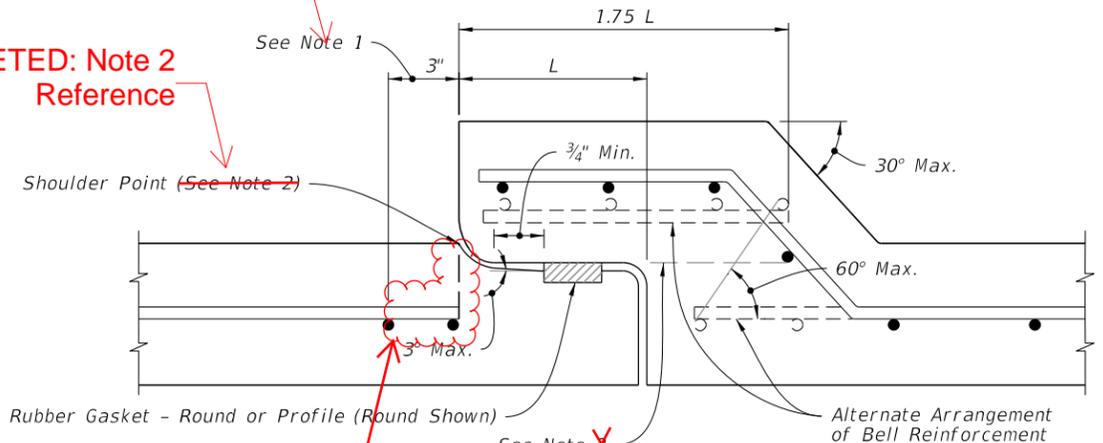
- | | |
|-------------------------------------|----------------------------------|
| <input type="checkbox"/> | Design Bulletin (Interim) |
| <input type="checkbox"/> | DCE Memo |
| <input type="checkbox"/> | Program Mgmt. Bulletin |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release)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

Contact the Roadway Design Office for assistance in completing this form

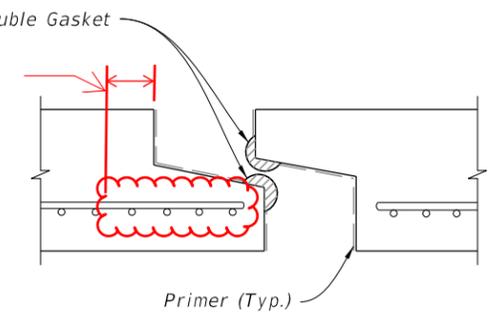
Email to: Rick Jenkins rick.jenkins@dot.state.fl.us and Darren Martin darren.martin@dot.state.fl.us

3" Max (See Note 1)

DELETED: Note 2 Reference



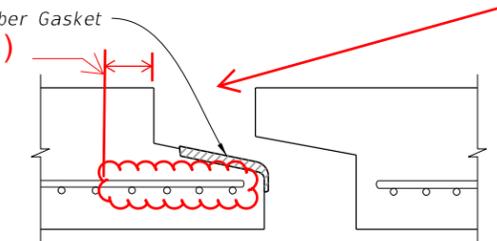
3" Max (See Note 1)



PREFORMED PLASTIC JOINT

UPDATED DETAILS:
To show 3" dimension;
added Note 1 reference;
deleted rebar to 3" dimension

3" Max (See Note 1)



PROFILE RUBBER GASKET

CHANGED: Note 2

TABLE 1
SCHEDULE OF BELL REINFORCEMENT
Classes II,III,IV,V; Wall A,B,C

Nominal Pipe Diameter	Design Bell Reinforcement	Maximum Reinforcement Under Tolerance
	in ² per foot	in ² per foot
15"	0.07	0.010
18"	0.07	0.010
24"	0.09	0.010
30"	0.12	0.010
36"	0.14	0.010
42"	0.16	0.010
48"	0.19	0.011
54"	0.21	0.012
60"	0.23	0.0135
66"	0.26	0.015
72"	0.28	0.0165
78"	0.30	0.018
84"	0.33	0.0195
90"	0.35	0.021
96"	0.37	0.0225
102"	0.40	0.024
108"	0.42	0.0255

ADDED: New Note 1
Locate the last full wrap of reinforcement within 3 inches of the spigot shoulder and meet ASTM C507 for elliptical pipe.

NOTES:

- ~~1. Allowable Tolerance for the last full wrap of reinforcing when using single elliptical cage.~~
- ~~2. Extend the last full wrap of reinforcing to the shoulder point and meet ASTM C 76 requirements.~~
3. All circumferential steel located above this line and within the 1.75 L is defined as bell reinforcement.

Deleted Note 1 and 2

NOTES:

- ~~1. Filter Fabric Jacket is required on both type of joints.~~
- ~~2. Details shown before pull up.~~

UPDATED: "Joint is homed."

ROUND CONCRETE PIPE JOINT DETAIL

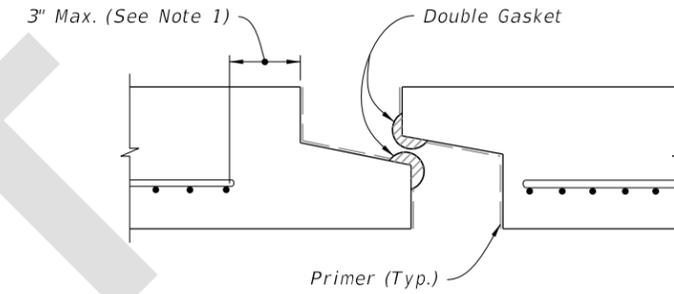
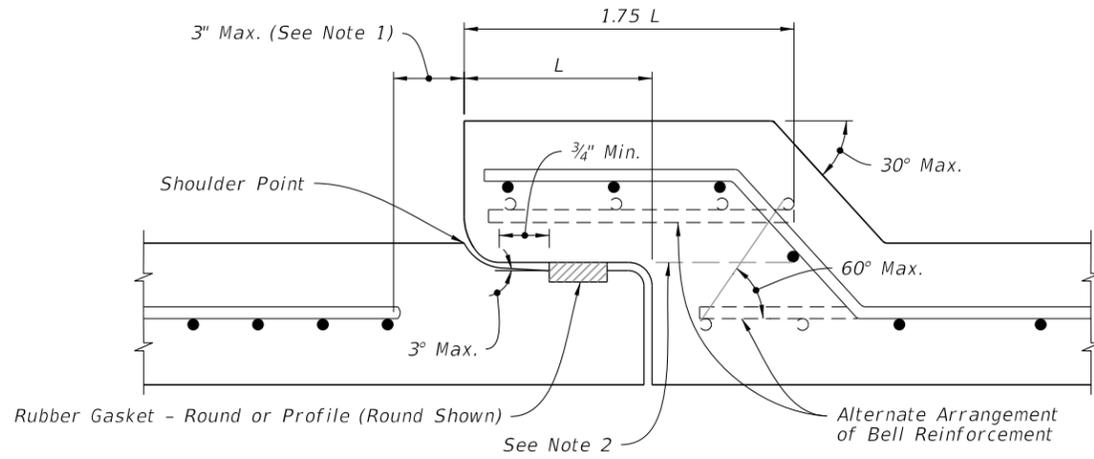
ADDED: New Note 1
Locate the last full wrap of reinforcement within 3 inches of the spigot shoulder and meet ASTM C76 for round pipe.

11/01/23

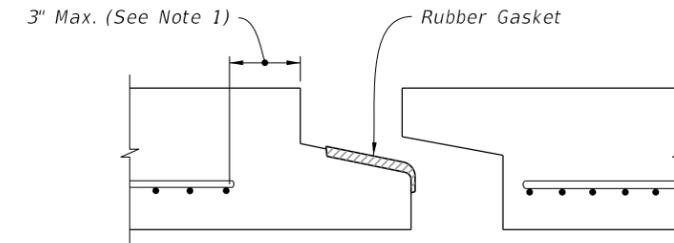
ELLIPTICAL CONCRETE PIPE JOINT DETAIL

ROUND AND ELLIPTICAL CONCRETE PIPE JOINT

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PREFORMED PLASTIC JOINT



PROFILE RUBBER GASKET

TABLE 1
SCHEDULE OF BELL REINFORCEMENT
Classes II, III, IV, AND V;
Wall A, B, AND C

Nominal Pipe Diameter	Design Bell Reinforcement	Maximum Reinforcement Under Tolerance
	in ² per foot	in ² per foot
15"	0.07	0.010
18"	0.07	0.010
24"	0.09	0.010
30"	0.12	0.010
36"	0.14	0.010
42"	0.16	0.010
48"	0.19	0.011
54"	0.21	0.012
60"	0.23	0.0135
66"	0.26	0.015
72"	0.28	0.0165
78"	0.30	0.018
84"	0.33	0.0195
90"	0.35	0.021
96"	0.37	0.0225
102"	0.40	0.024
108"	0.42	0.0255

NOTES:

1. Locate the last full wrap of reinforcement within 3 inches of the spigot shoulder and meet ASTM C76 for round pipe.
2. All circumferential steel located above this line and within the 1.75 L is defined as bell reinforcement.

NOTES:

1. Locate the last full wrap of reinforcement within 3 inches of the spigot shoulder and meet ASTM C507 for elliptical pipe.
2. Type D-3 Geotextile Jacket is required on both type of joints.
3. Details shown before joint is homed.

ROUND CONCRETE PIPE JOINT DETAIL

ELLIPTICAL CONCRETE PIPE JOINT DETAIL

ROUND AND ELLIPTICAL CONCRETE PIPE JOINT

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