

*San Antonio Water System Standard Specifications for Construction*

**ITEM NO. 820**

**CONCRETE STEEL CYLINDER PIPE INSTALLATION**

- 820.1**      **DESCRIPTION:** This item shall consist of concrete steel cylinder pipe installation in accordance with these specifications and as directed by the Engineer.
- 820.2**      **MATERIALS:** The materials for concrete steel cylinder pipe installation shall conform to the specifications contained within the latest revision of SAWS Material Specification "Prestressed Concrete Pressure Pipe Steel Cylinder Type", Item 05-20.
- 820.3**      **CONSTRUCTION METHOD:** Concrete steel cylinder pipe shall be installed as specified within "Water Main Installation", Item No. 812 of these specifications. Bell holes for concrete steel cylinder pipe shall be of sufficient size to properly join the pipe and place the required grout. Subject to the above provisions, the length of excavation for bell holes below grade of the trench bottom shall be kept to a minimum.
- 820.4**      **MEASUREMENT:** Concrete steel cylinder water main installed will be measured as outlined in "Water Main Installation", Item No. 812 of these specifications.
- 820.5**      **PAYMENT:** Payment for concrete steel cylinder water main installed will be made as outlined in "Water Main Installation", Item No. 812 of these specifications.

Extra Brush coat

3' 2'

2' 3'

C.S.C. PIPE WITH EXTRA BRUSH COAT

5/16" O smooth steel rod or  
as required for suitable weld

Primary field welds

1/4" - 2 Pass fillet weld  
(See enlarged detail at left)

Screed coating on spigot end to  
allow access for field welding

Outside mortar applied after  
completion of field weld

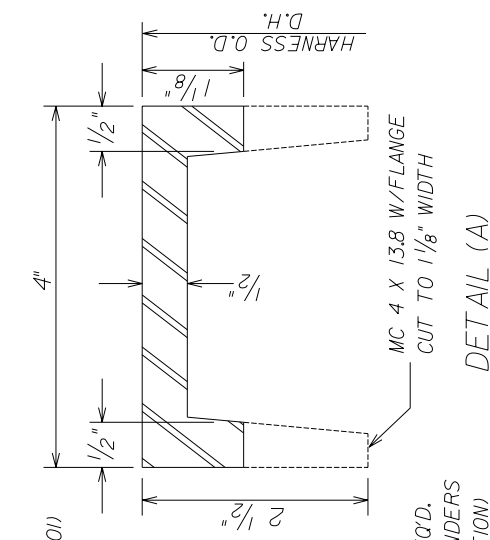
3/4"

Neoprene gasket

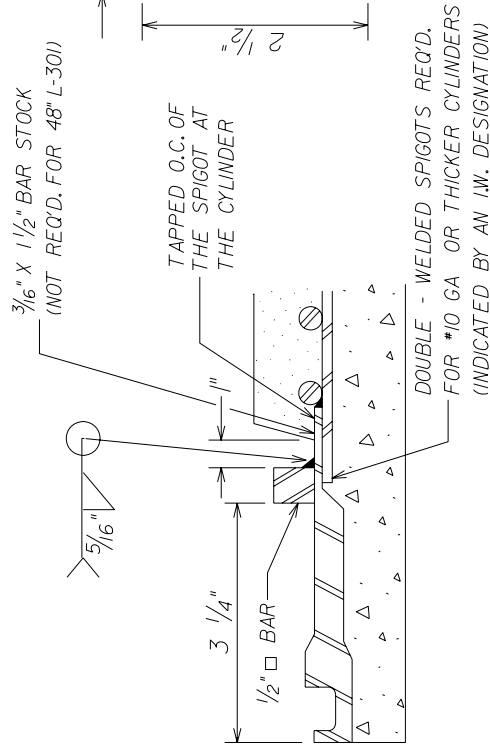
Inside joint mortar placed  
in normal manner

Weld above and field weld as indicated. The weld should be  
continuous and need not be watertight. (No Skip Weld)

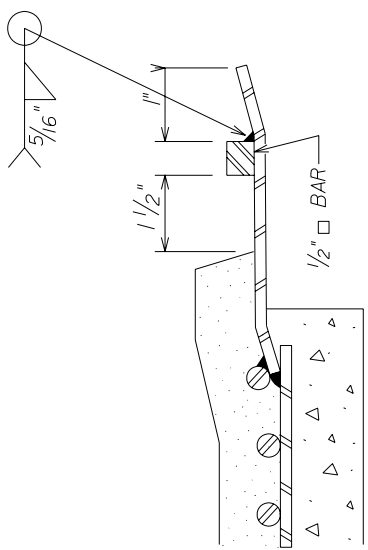
FIELD WELDED JOINT DETAIL



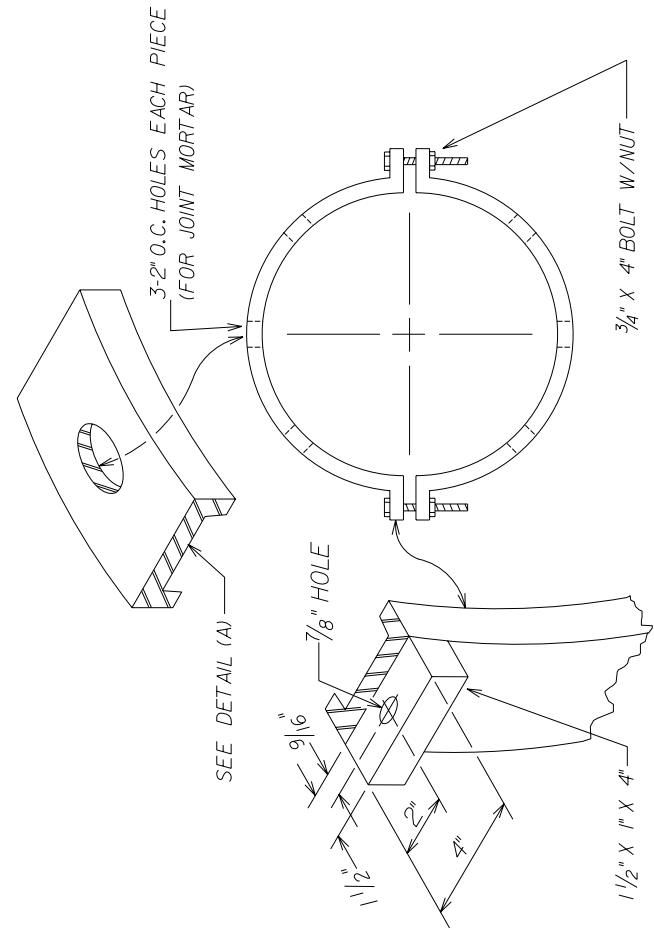
DETAIL (A)



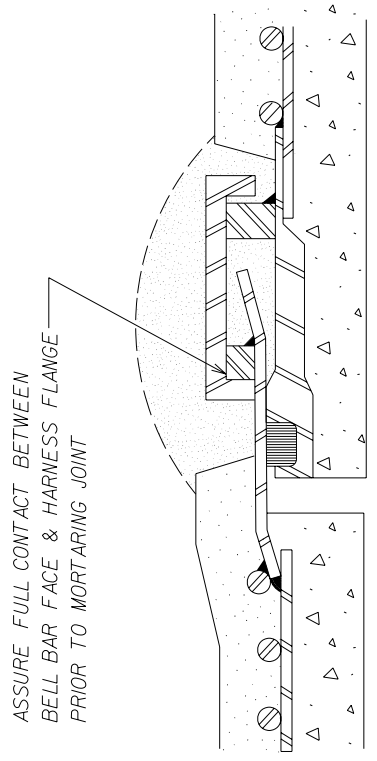
TYPICAL SPIGOT DETAIL FOR JOINT HARNESS



TYPICAL BELL DETAIL FOR JOINT HARNESS



JOINT HARNESS DETAIL

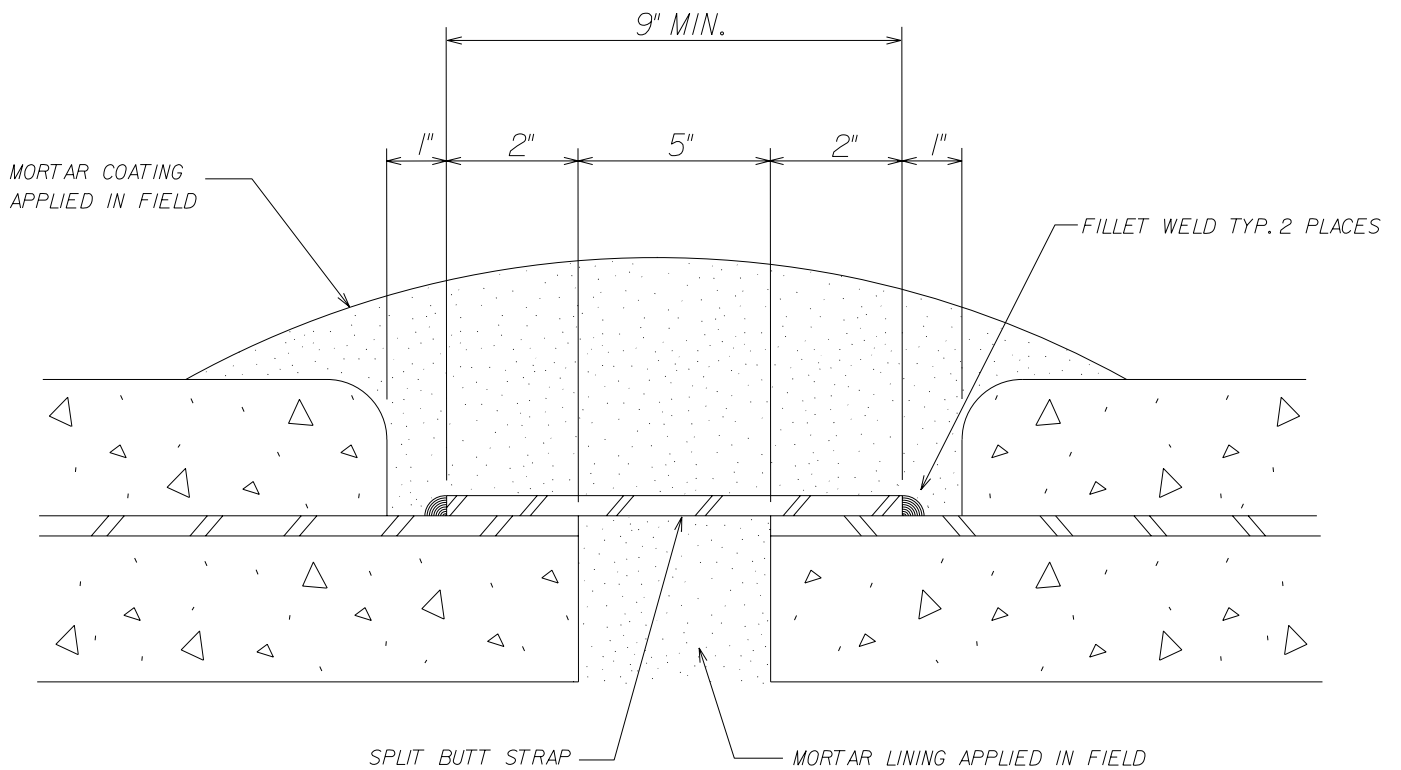
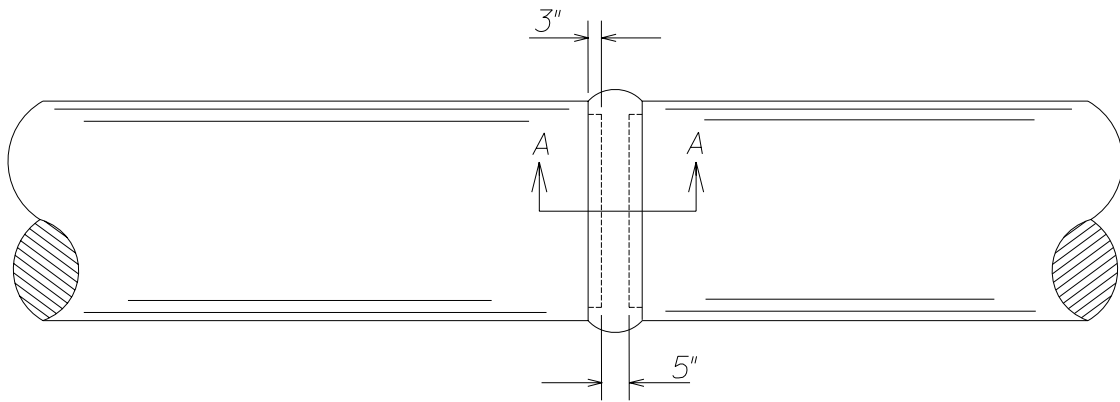


ASSEMBLED JOINT DETAIL WITH JOINT HARNESS

ASSURE FULL CONTACT BETWEEN BELL BAR FACE & HARNESS FLANGE PRIOR TO MORTARING JOINT

NOTE:  
 1. HARNESS JOINT ASSEMBLY HAS BEEN DESIGNED TO PROVIDE 3/4" JOINT FLEXIBILITY DURING INSTALLATION  
 2. 12" WIDE JOINT WRAPPER REQUIRED FOR EACH HARNESS JOINT

PROPERTY OF SAN ANTONIO WATER SYSTEM SAN ANTONIO, TEXAS	JOINT HARNESS ASSEMBLY	APPROVED	REVISED
		MARCH 2008	
		DD-820-01	
		SHEET 2 OF 3	



DETAIL (A)

**NOTE:**

CEMENT MORTAR MAY BE APPLIED TO INTERIOR AND EXTERIOR OF JOINT FOR C.S.C. PIPE OR TO INTERIOR OF JOINT ONLY FOR STEEL PIPE.

PROPERTY OF  
**SAN ANTONIO WATER SYSTEM**  
 SAN ANTONIO, TEXAS

**SPLIT BUTT STRAP**

APPROVED  
 MARCH 2008

REVISED

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SHEET  
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