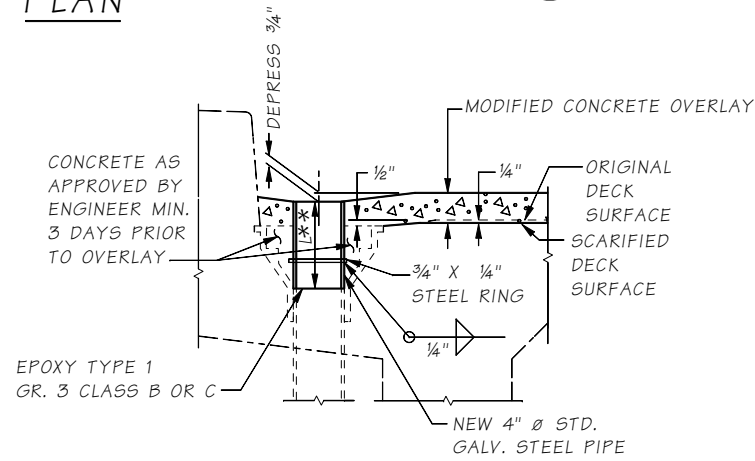
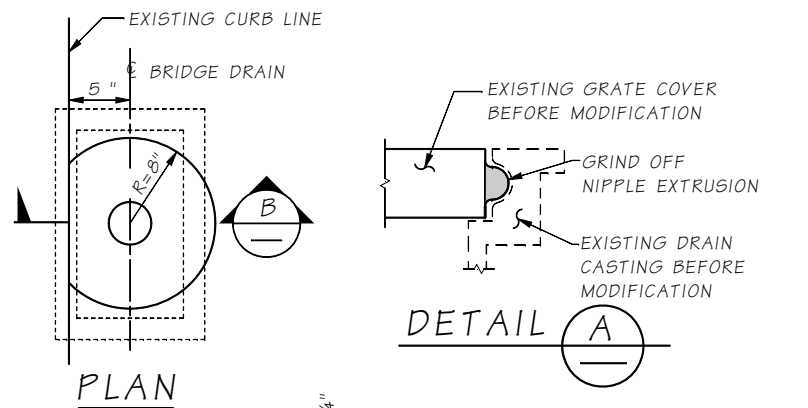
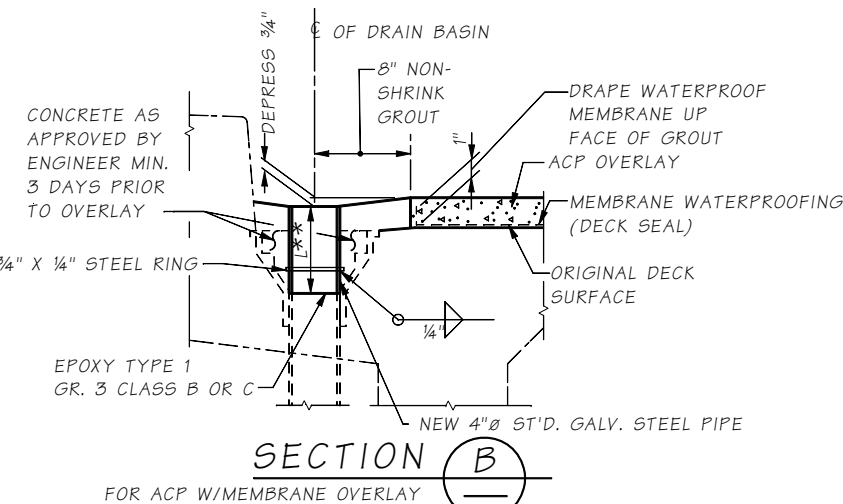


**ALTERNATE MODIFICATION  
FOR BRIDGE DRAIN  
TYPES "1", "1B" & "1C"**



**SECTION A**

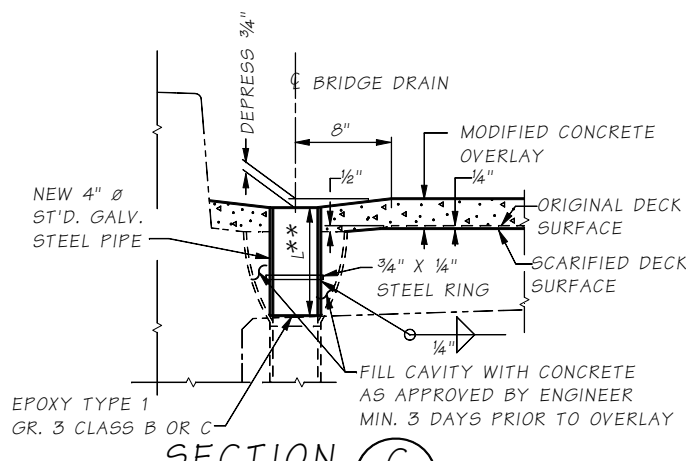
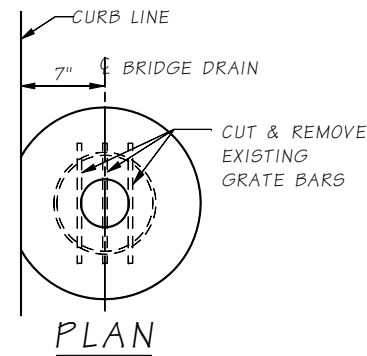
\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.



**SECTION B**

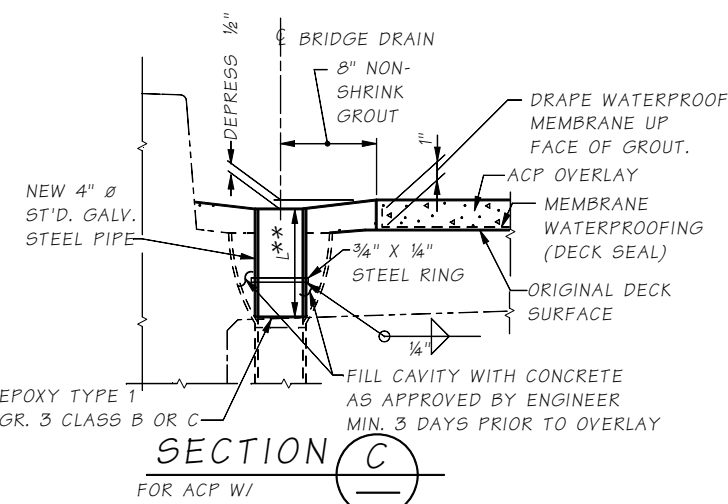
\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.

**OVERLAY MODIFICATION  
FOR BRIDGE DRAIN  
TYPE 6**



**SECTION C**

\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.

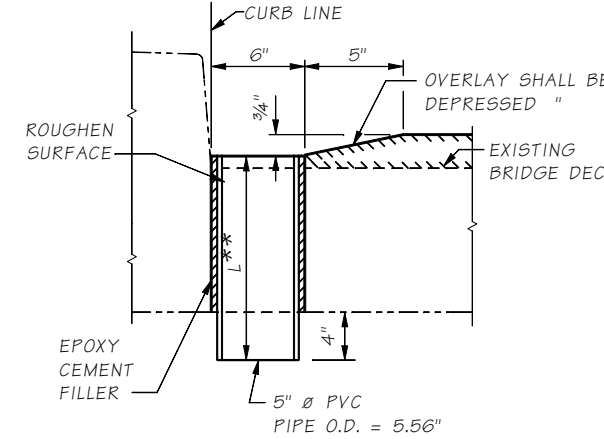


**SECTION C**

\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.

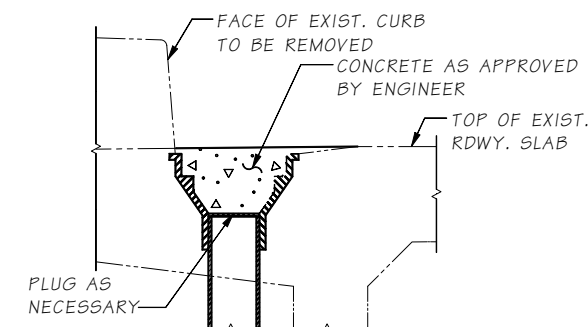
**DRAIN MODIFICATION BY CORE DRILLING**

THIS MODIFICATION MAY BE REQUIRED WHEN THE EXISTING DRAIN IS NOT FUNCTIONAL AND CANNOT BE MADE FUNCTIONAL OR WHEN THE EXISTING DRAIN MUST BE PERMANENTLY PLUGGED AND RELOCATED, AS WITH A WIDENING.



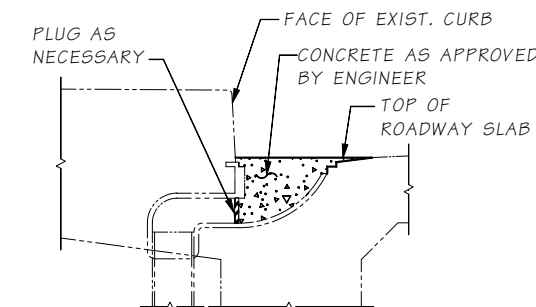
**ELEVATION VIEW  
STRAIGHT DROP**

\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.



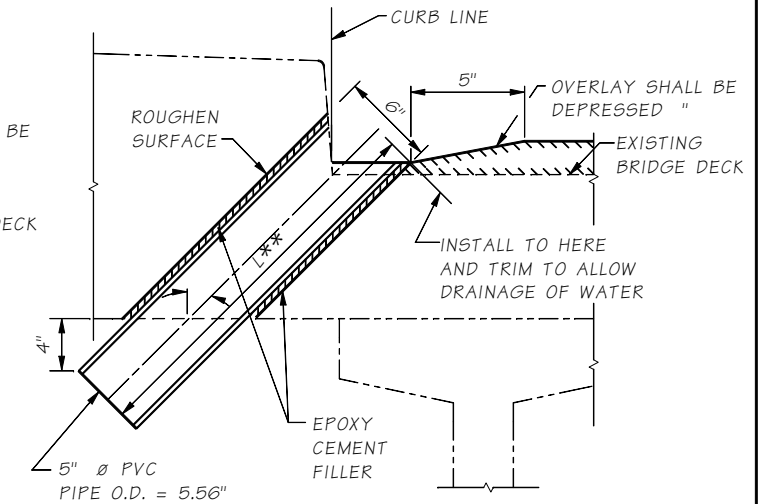
**BRIDGE DRAIN PLUG DETAIL**

(LOCATIONS)  
REMOVE DRAIN GRATING & GALV. STEEL CHAIN. FILL DRAIN WITH CONCRETE GROUT AFTER PLUGGING.



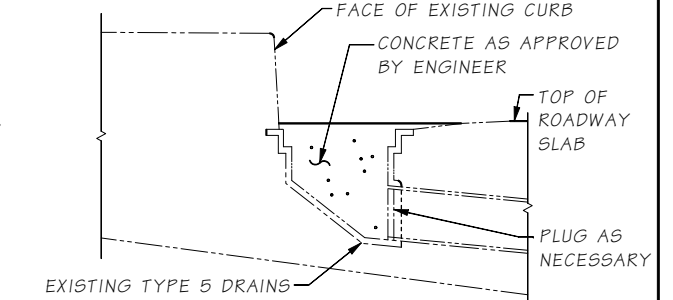
**BRIDGE DRAIN PLUG DETAIL**

(LOCATIONS)  
REMOVE DRAIN GRATING & GALV. STEEL CHAIN. FILL DRAIN WITH CONCRETE GROUT AFTER PLUGGING.



**ELEVATION VIEW  
INCLINED DROP**

\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.



**BRIDGE DRAIN PLUG DETAIL**

REMOVE DRAIN GRATING & GALV. STEEL CHAIN. FILL DRAIN WITH CONCRETE GROUT AFTER PLUGGING.

**NOTES**

- DIMENSIONS AND DETAILS OF EXISTING DRAIN TYPES 1 THRU 6, INCLUDING REVISIONS B, C, AND CR, ARE BASED ON "STANDARDS FOR BRIDGE CONSTRUCTION", SHEET E-13, DATED 12/29/67 AND BEFORE.
- FOR STANDARD BRIDGE DRAINS DATED SEPTEMBER 1, 1965, AND AFTER, IT WILL BE NECESSARY TO GRIND OFF THE NIPPLE EXTRUSION ON ONE SHORT SIDE OF THE TYPICAL GRATE COVER.
- ALL NEW STEEL EXCEPT STEEL PIPE SHALL BE AASHTO M 183. STEEL PIPE SHALL CONFORM TO ASTM A 53 GRADE B. ALL STEEL SHALL BE GALVANIZED PER AASHTO M 111.

\*\* ACTUAL PIPE LENGTH (L) SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND SHALL BE INSTALLED AS SHOWN ON THIS SHEET.

± THESE SPACINGS ARE TYPICAL HOWEVER OTHER SPACINGS MAY EXIST

**GENERAL NOTES**

THIS SHEET IS INTENDED FOR USE AS A STANDARD FOR DRAIN MODIFICATIONS WHICH ARE REQUIRED WITH BRIDGE DECK OVERLAYS OF 1" NOMINAL THICKNESS. MODIFICATIONS PERTAIN ONLY TO THE STANDARD DRAINS DESCRIBED IN NOTE 1 ABOVE.

LAST REVISED: 01/04/15

JOB NO. 000 SHEET 1

10.11-A1-1

Bridge Design Engr.	M:\STANDARDS\Drainage\DRAIN-LIB.MAN	REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor		10	WASH.			
Designed By		JOB NUMBER				
Checked By						
Detailed By						
Bridge Projects Engr.						
Prelim. Plan By						
Architect/Specialist	DATE	REVISION	BY	APP'D		

Wed Jun 24 12:58:09 2015

**BRIDGE AND STRUCTURES OFFICE**



**BRIDGE DRAIN MODIFICATION**

BRIDGE DRAIN MODIFICATION

BRIDGE SHEET NO.  
SHEET  
OF  
SHEETS