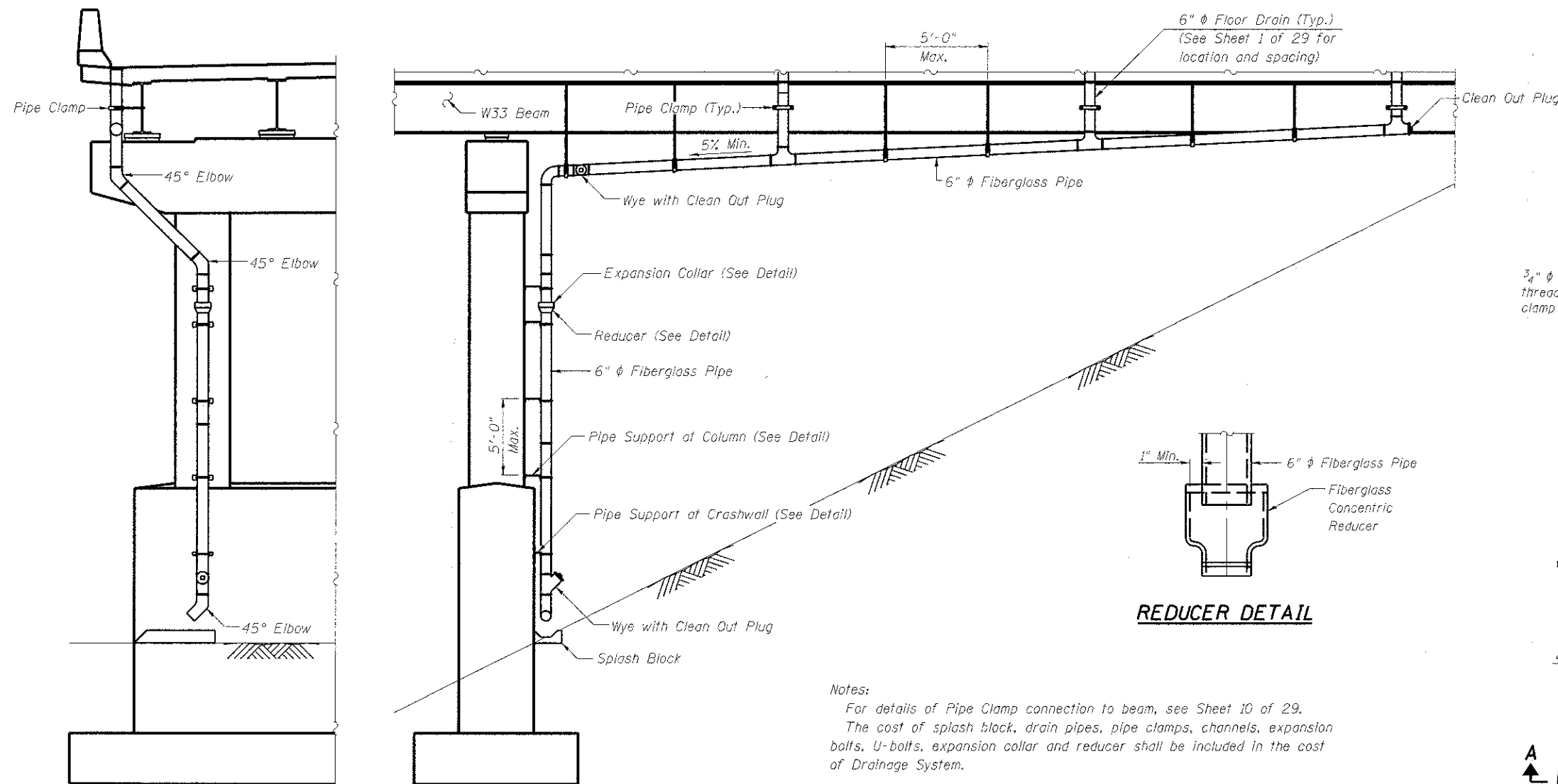
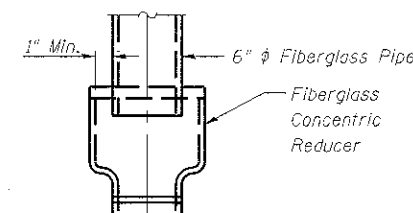
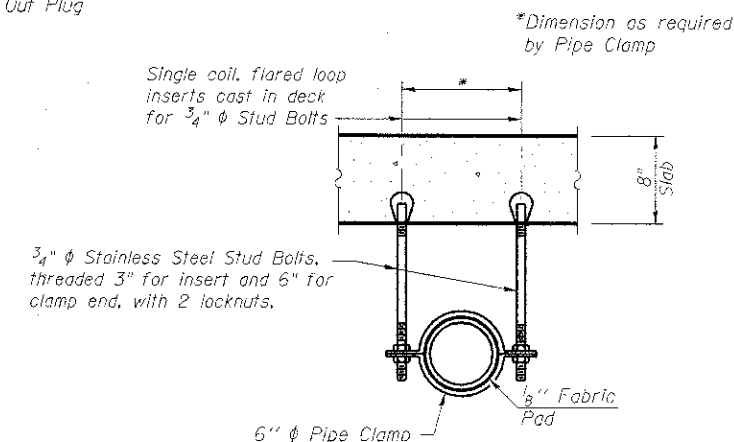




Notes:
For details of Pipe Clamp connection to beam, see Sheet 10 of 29.
The cost of splash block, drain pipes, pipe clamps, channels, expansion bolts, U-bolts, expansion collar and reducer shall be included in the cost of Drainage System.



REDUCER DETAIL

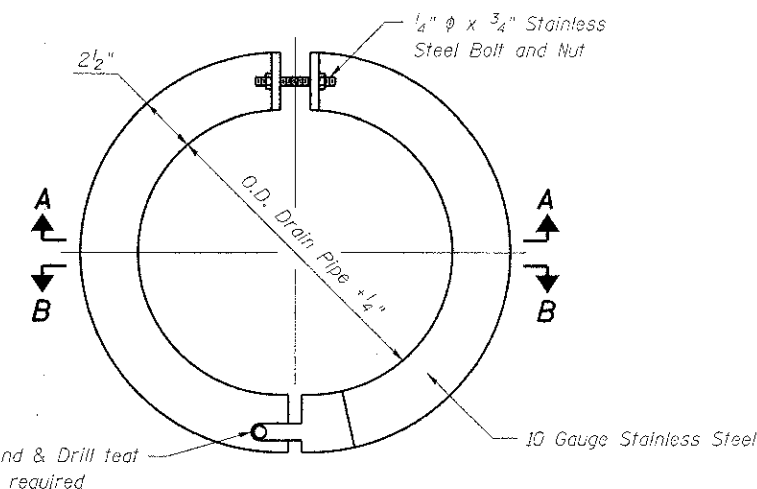


PIPE CLAMP DETAIL

Note:
Galvanize clamping device according to AASHTO M232

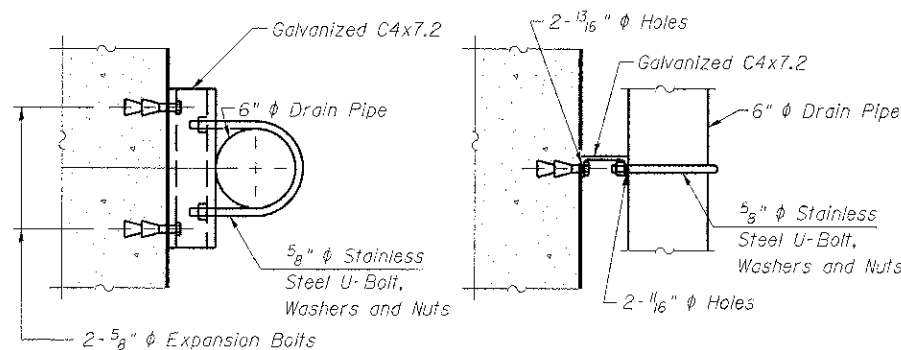


SECTION A-A



**SECTION B-B
DETAIL OF EXPANSION COLLAR**

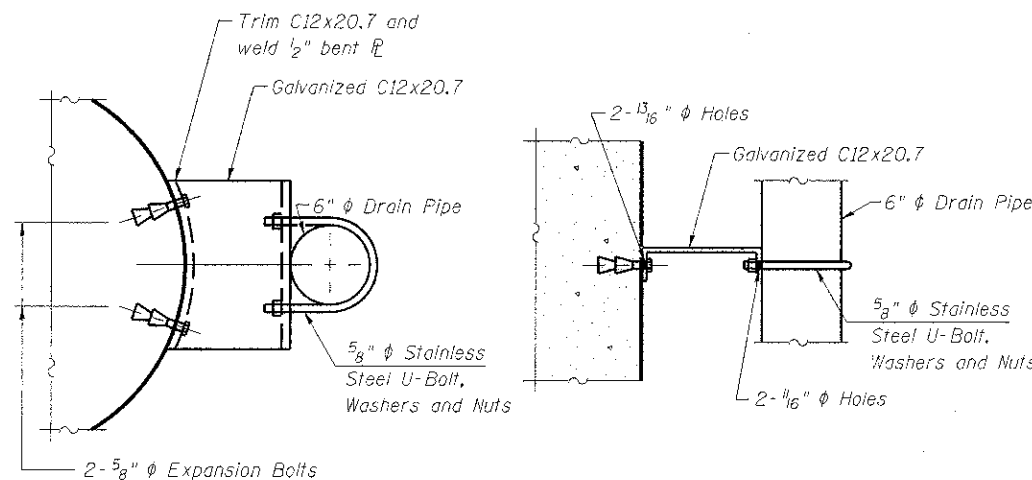
Stainless Steel 5/32 inch Rivet
Round Head (loose fit)
Test (bend as required)



PLAN

ELEVATION

PIPE SUPPORT AT CRASHWALL DETAIL



PLAN

ELEVATION

PIPE SUPPORT AT COLUMNS DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage System	L. Sum	1

FILE NAME =	USER NAME = bgj	DESIGNED - ADL	REVISED -	ADAMS COUNTY HIGHWAY DEPARTMENT	DRAINAGE SYSTEM DETAILS S.N. 001-3338	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Q:\11\files\110015\05 Plans\Bridge Plans\Without Structural Steel\VGPE & General Details	CHECKED - RJP	REVISD -	1598			11-00218-00-BR	ADAMS	53	19	
PLOT SCALE = 3/8" = 1' IN.	DRAWN - RJP	REVISD -	CONTRACT NO. 3590							
PLOT DATE = 11/5/2012	CHECKED - ADL	REVISED -	ILLINOISIFIED, A10 PROJECT							

Klingner & Associates P.C.