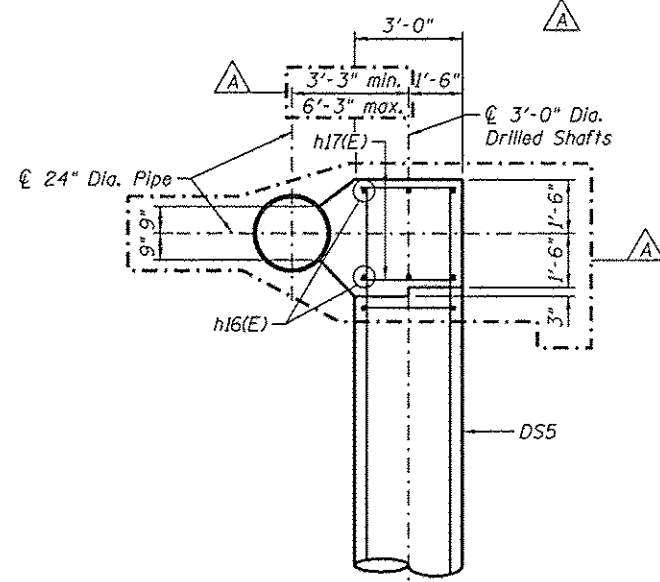
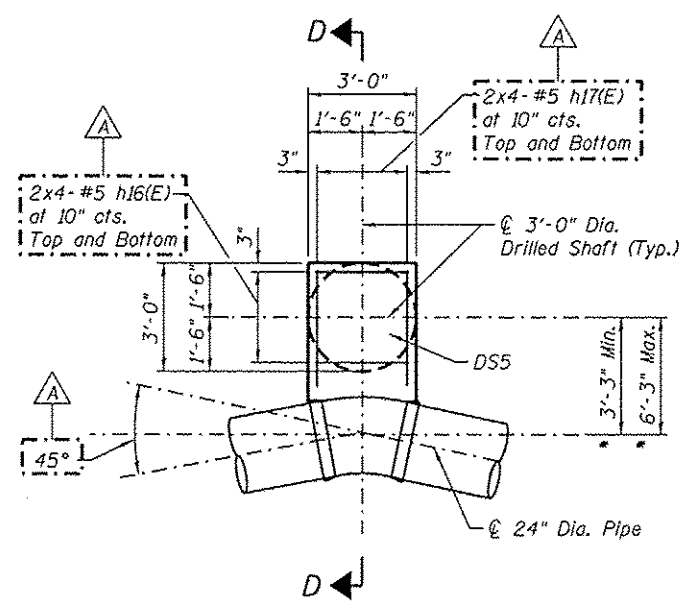


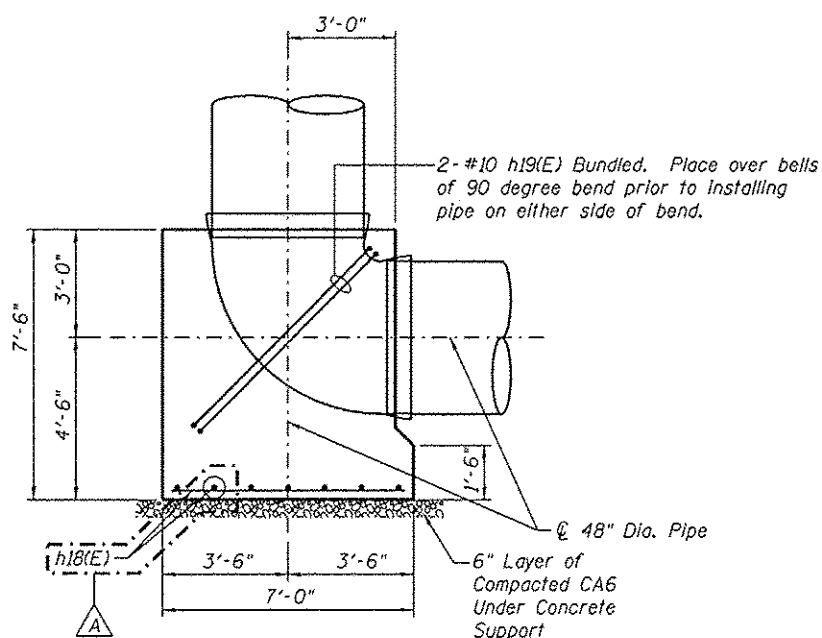
**PLAN DETAIL**  
**THRUST RESTRAINT - TYPE 4 (1 THUS)**  
**THRUST RESTRAINT - TYPE 4A (1 THUS)**



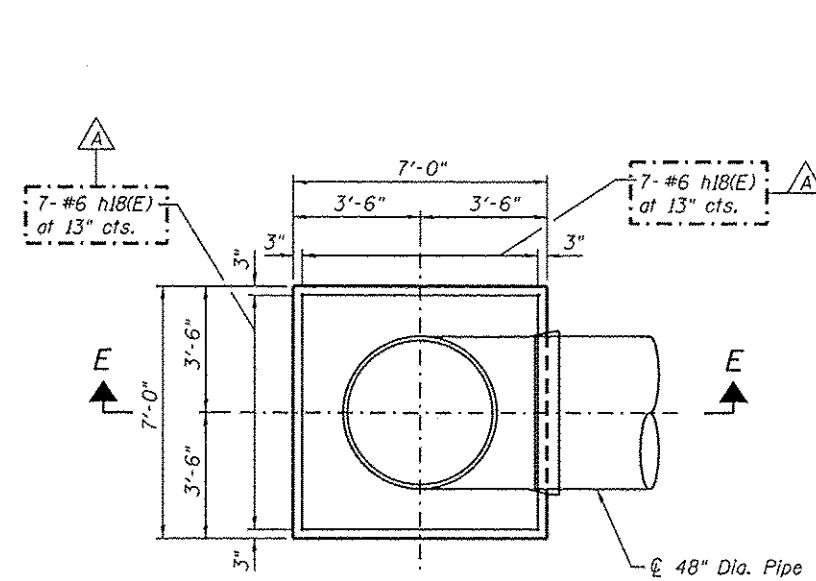
**SECTION D-D**



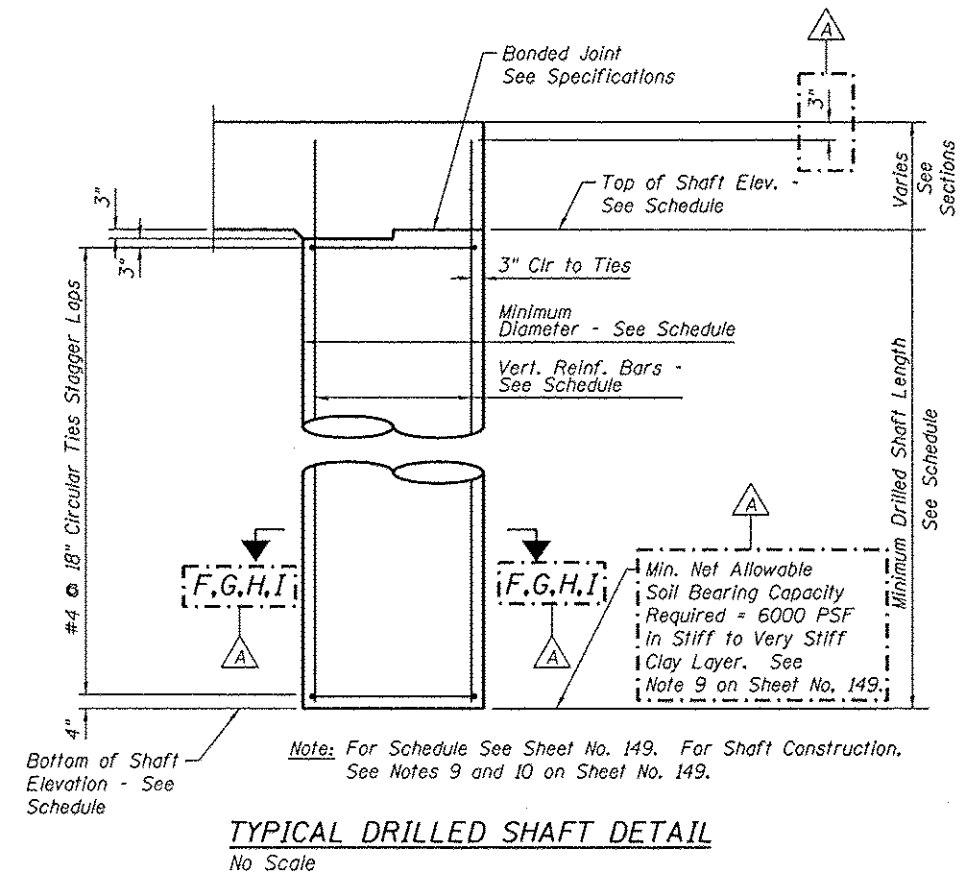
**PLAN DETAIL**  
**THRUST RESTRAINT - TYPE 5**



**SECTION E-E**



**PLAN DETAIL**  
**PIPE SUPPORT - TYPE 6**



\* Centerline of drilled shaft location in the field may vary from 3'-3" to 6'-3" from centerline of 24" dia. pipe depending on field verified existing conditions. Where location of shaft centerline exceeds 3'-6" from centerline of pipe provide additional #5 at 10" centers top and bottom epoxy coated reinforcing bars each way to lap 3'-0" with #5 at 10" in drilled shaft cap. Cost shall be incidental to concrete structures and reinforcement bars, epoxy coated.

Note: For Schedule See Sheet No. 149. For Shaft Construction, See Notes 9 and 10 on Sheet No. 149.

NOTES:  
 1. Work this Sheet with Sheet 149

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**AECOM**

USER NAME = cload	DESIGNED = AAG	REVISED = A 10/15/2013 A.A.G.
PLOT SCALE = N.T.S.	CHECKED = WWC	REVISED
PLOT DATE = 9/15/2013	DRAWN = DLC	REVISED
	CHECKED = AAG,WWC	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

WATER MAIN THRUST RESTRAINTS  
 PLAN DETAILS, SECTIONS AND DETAILS

SHEET NO. 2 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-008R	COOK	559	148
CONTRACT NO. 60W26			ILLINOIS FED. AID PROJECT	