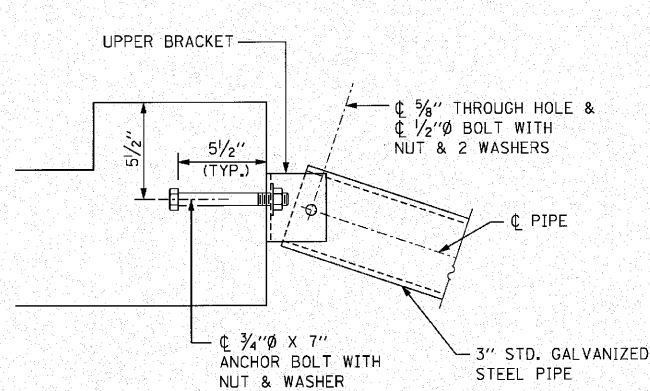
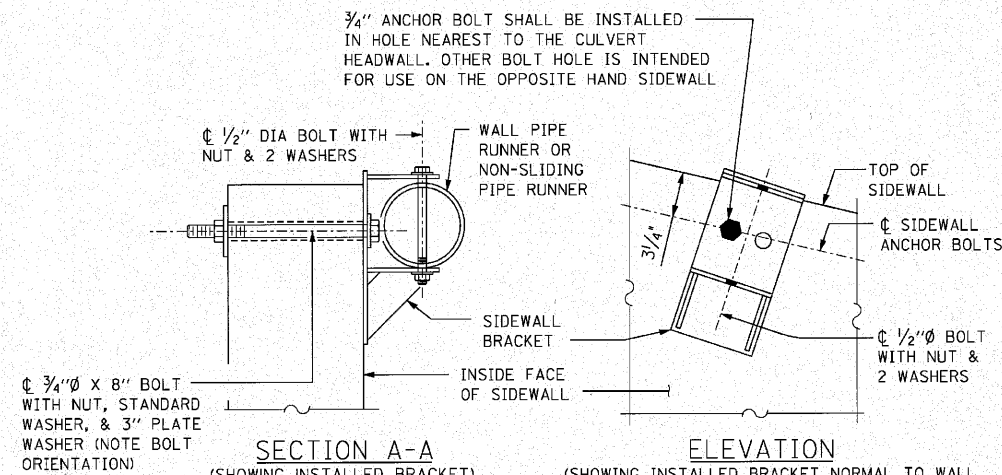


PLAN



HEADWALL DETAIL

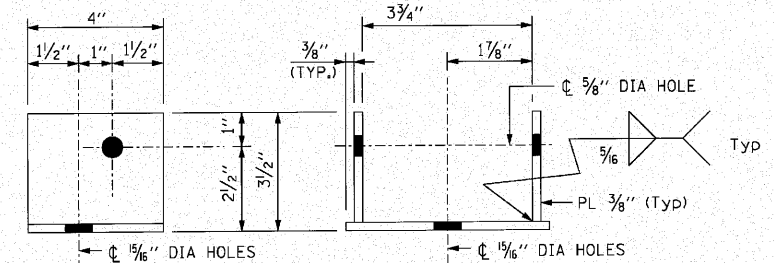


SECTION A-A
(SHOWING INSTALLED BRACKET)

ELEVATION
(SHOWING INSTALLED BRACKET NORMAL TO WALL. PIPE NOT SHOWN FOR CLARITY.)

SIDEWALL BRACKET DETAILS

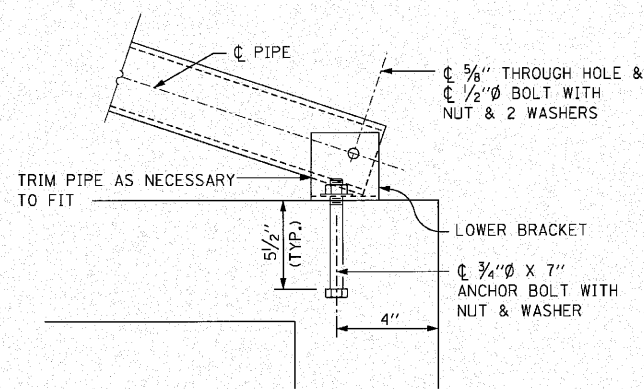
NOTE: SIDEWALL BRACKET SHALL MATCH THE HEADWALL BRACKET SIZE.



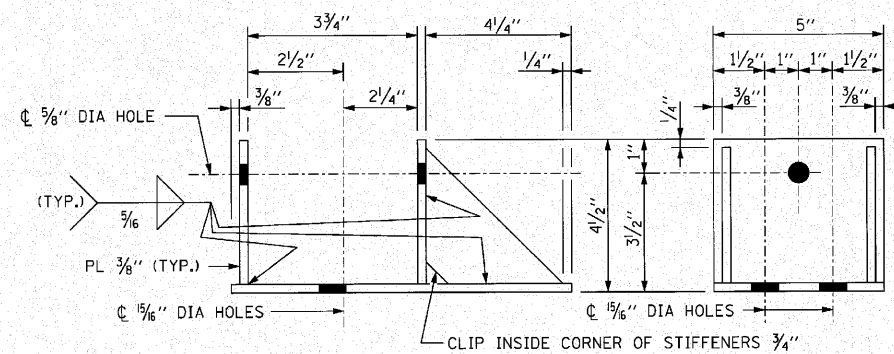
SIDE VIEW

ELEVATION

UPPER & LOWER BRACKET DETAILS



TOEWALL DETAIL



ELEVATION

SIDEVIEW

GRATING NOTES

GRATING SHALL INCLUDE THE PIPES, BRACKETS, AND HARDWARE AS SHOWN AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER CU. YD. FOR CONCRETE BOX CULVERTS.

STEEL PIPES SHALL CONFORM TO ASTM A53, GRADE B, SCHEDULE 40, AND SHALL BE GALVANIZED CONFORMING TO ASTM A120.

BRACKETS SHALL CONFORM TO AASHTO M-183 AND SHALL BE GALVANIZED CONFORMING TO AASHTO M-111.

BOLTS, NUTS, AND WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS AND SHALL BE GALVANIZED.

THE INORGANIC ZINC RICH PRIMER / ACRYLIC / ACRYLIC PAINT SYSTEM SHALL BE USED FOR FIELD PAINTING OF HOLES, THREADS, ETC.

FILE NAME = 07FILES

LE LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

USER NAME = #USER#	DESIGNED - TBP	REVISIONS
PLOT SCALE = #SCALE#	DRAWN - TBP	REVISIONS
PLOT DATE = #DATE#	CHECKED - ADB	REVISIONS
	DATE - 07/16/2010	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GRATING DETAILS
STRUCTURE NO. 037-1085

SCALE: SHEET NO. 4 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
638	129BR-4	HENRY	93	54
CONTRACT NO. 64D25				
ILLINOIS FED. AID PROJECT				