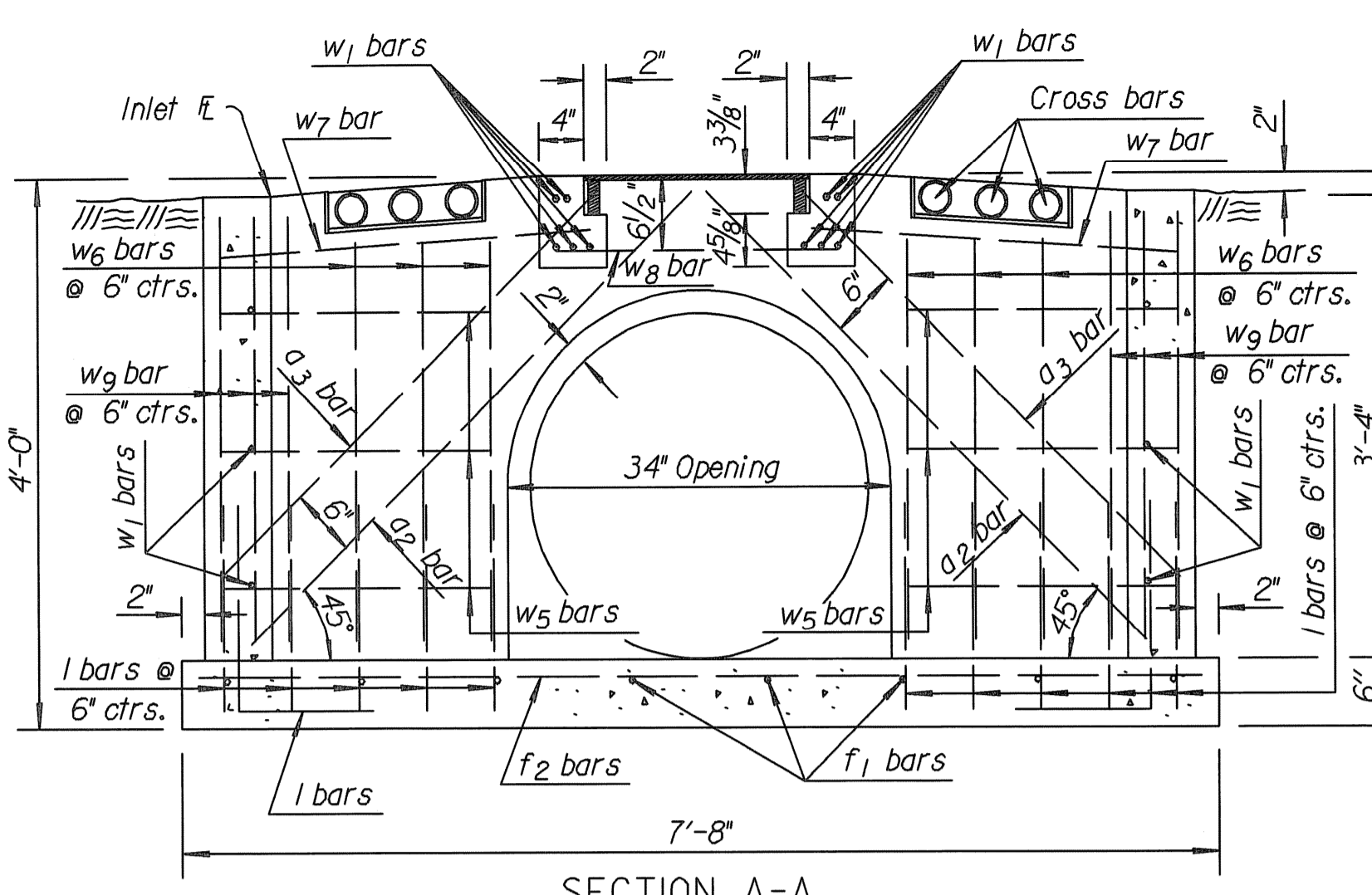
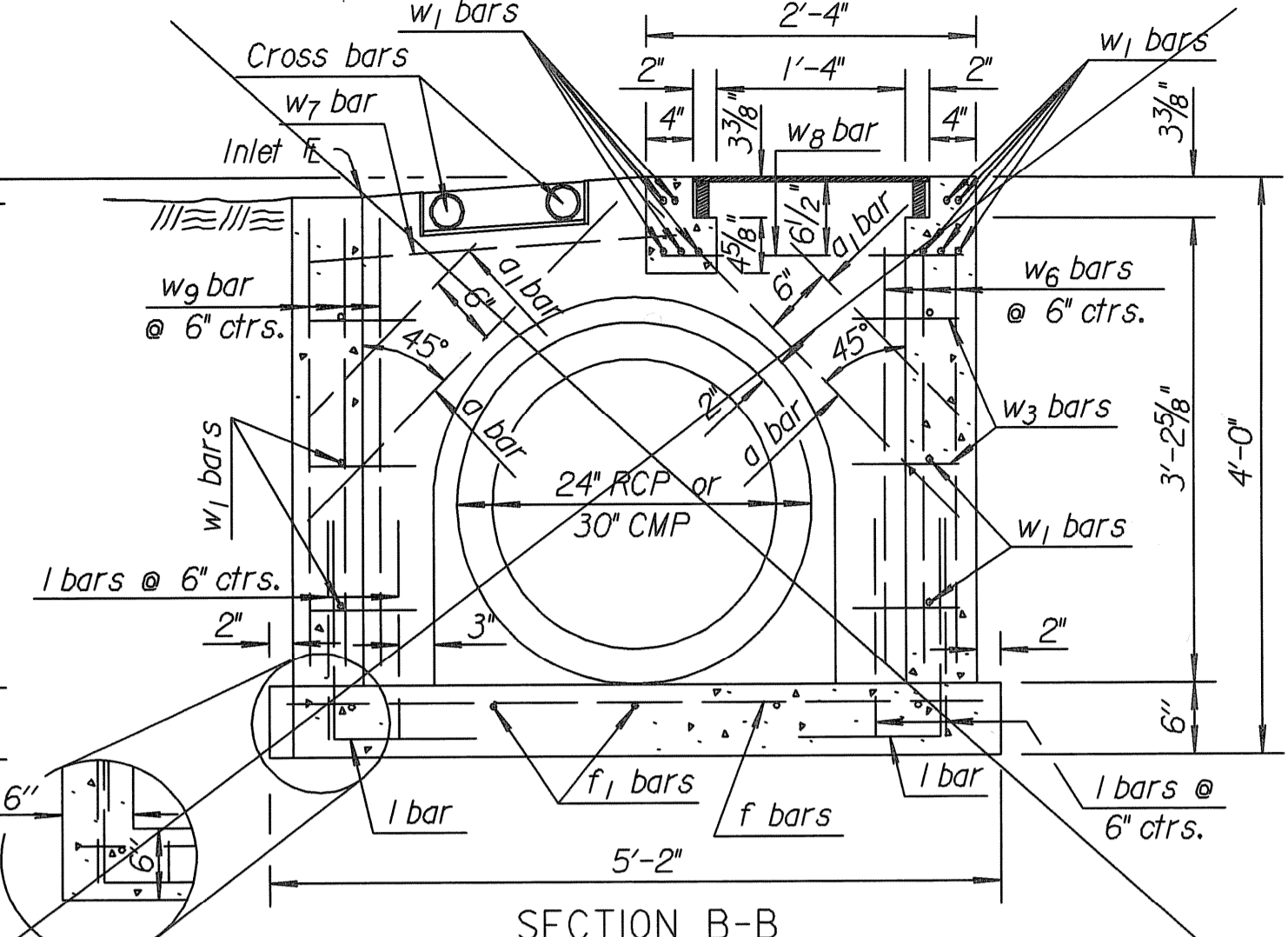


BILL OF MATERIALS			
TYPE II H= 4'-0"			
Bar	No.	Size	Length
a ₂	2	#4	4'-7"
a ₃	2	#4	3'-10"
f ₁	8	#4	3'-7"
f ₂	4	#4	7'-5"
l	39	#4	2'-6"
w ₁	16	#4	3'-3"
w ₂	3	#4	7'-1"
w ₃	6	#4	1'-11"
w ₄	17	#4	2'-10 1/2"
w ₅	4	#4	2'-8"
w ₆	2	#4	2'-1"
w ₇	22	#4	3'-1"
Conc. Gr. 3.0		1.7 Cu.Yd.	
Reinf. steel		260 Lbs.	
Struct. steel		* 350 Lbs.	
Class III Excav.		13 Cu.Yd.	

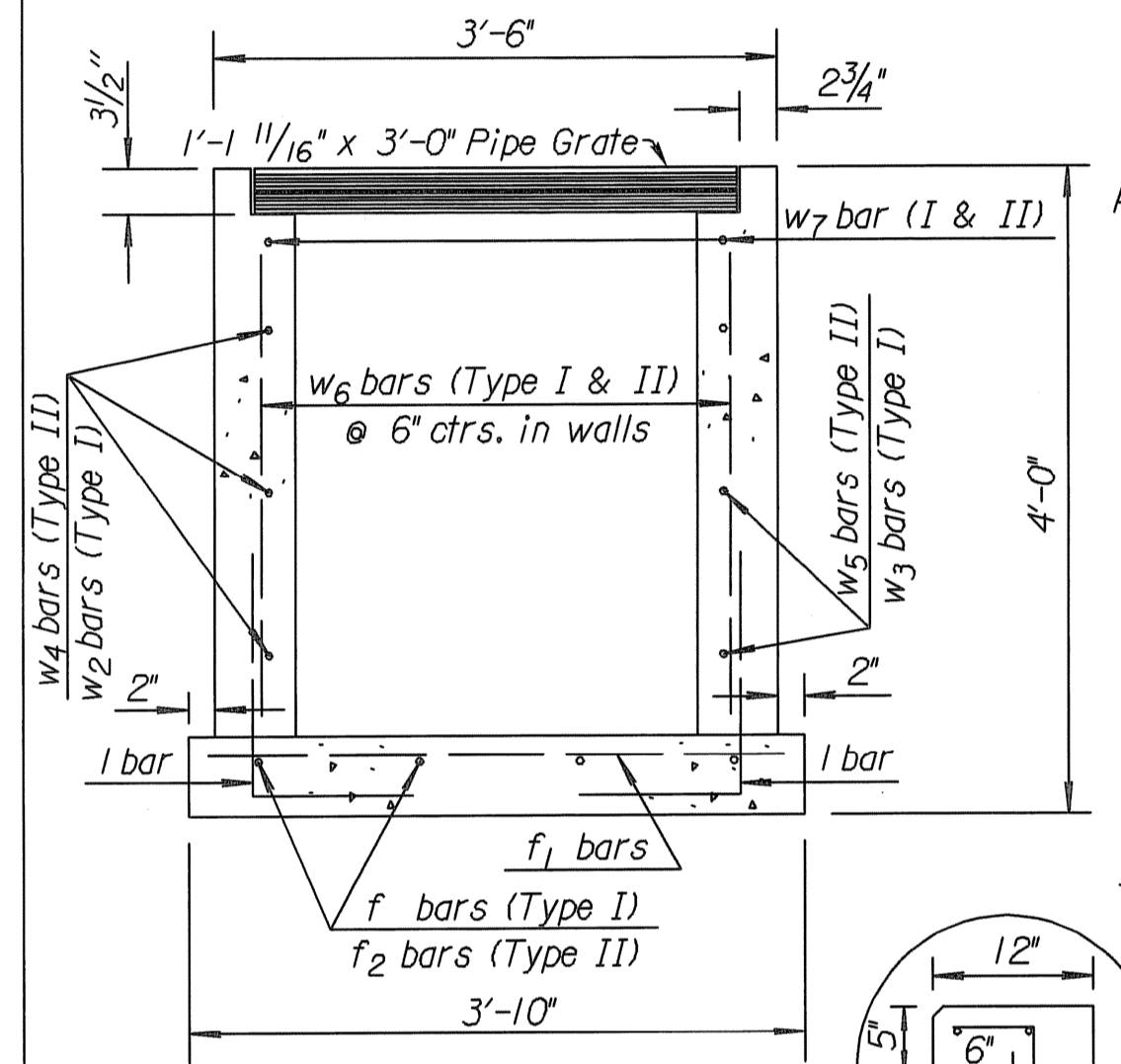
NOTE: ALL REINFORCING BARS ARE #4 BARS ON 12" CENTERS UNLESS OTHERWISE NOTED.



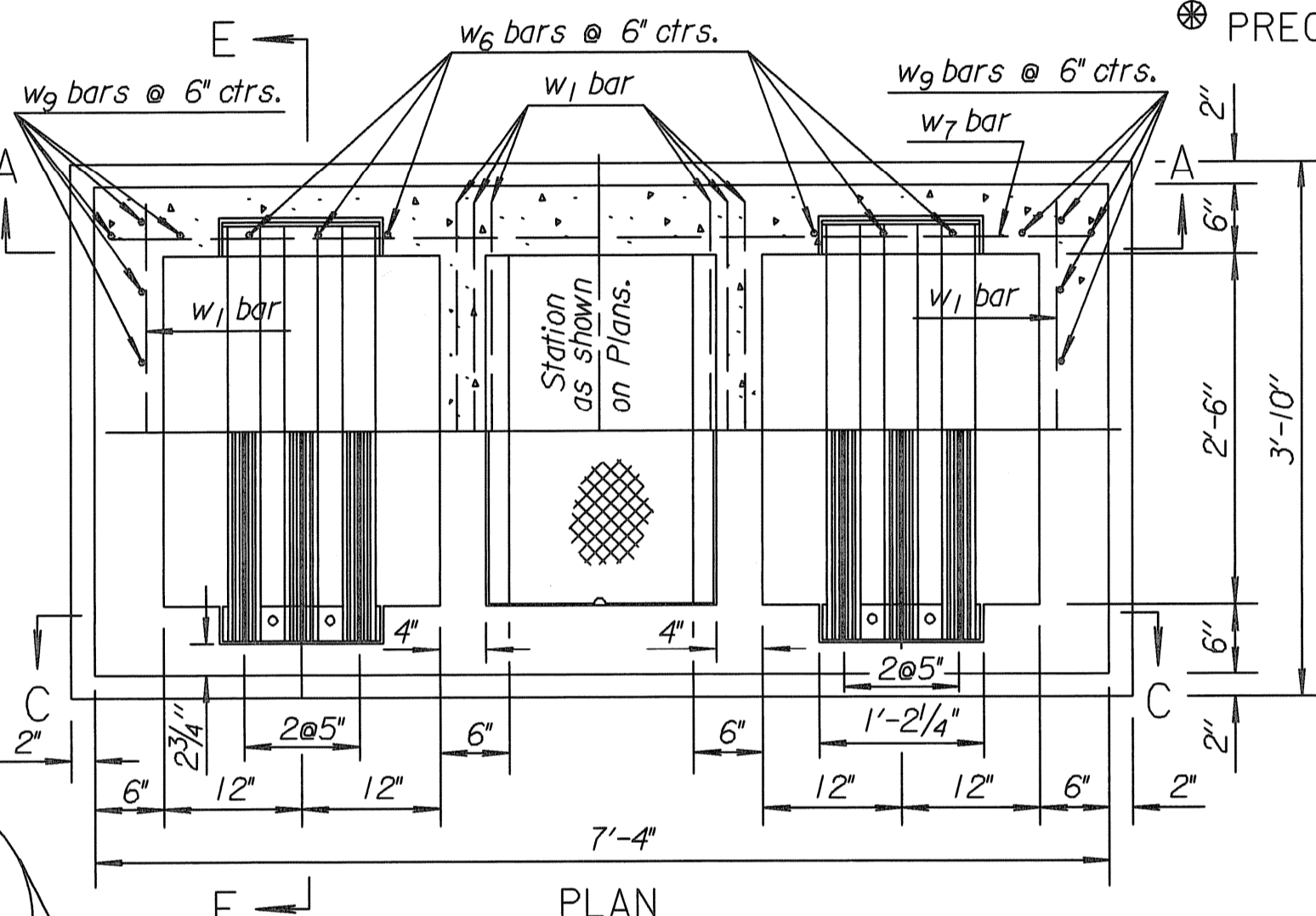
SECTION A-A



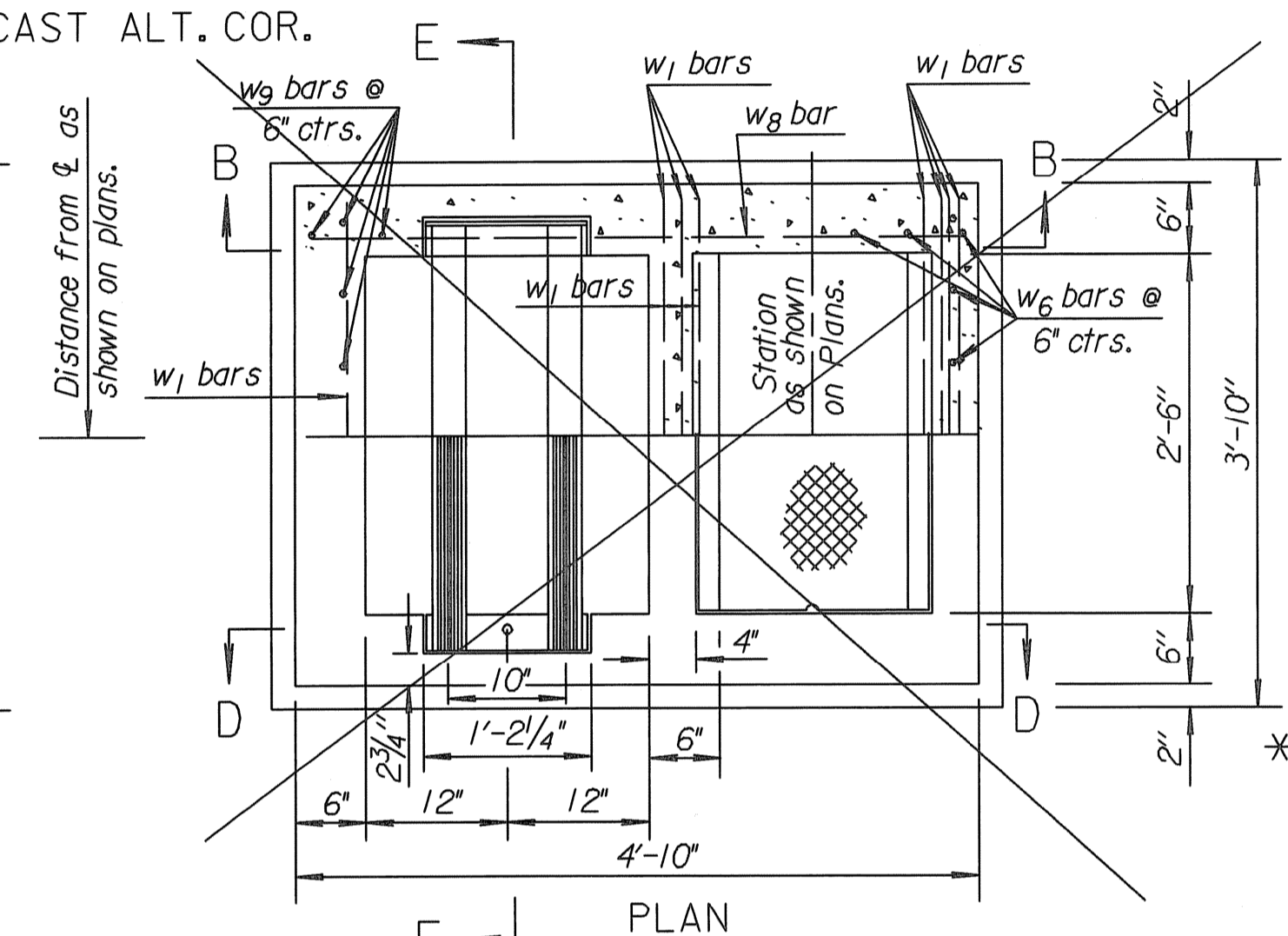
SECTION B-B



SECTION E-E
TYPE I & TYPE II



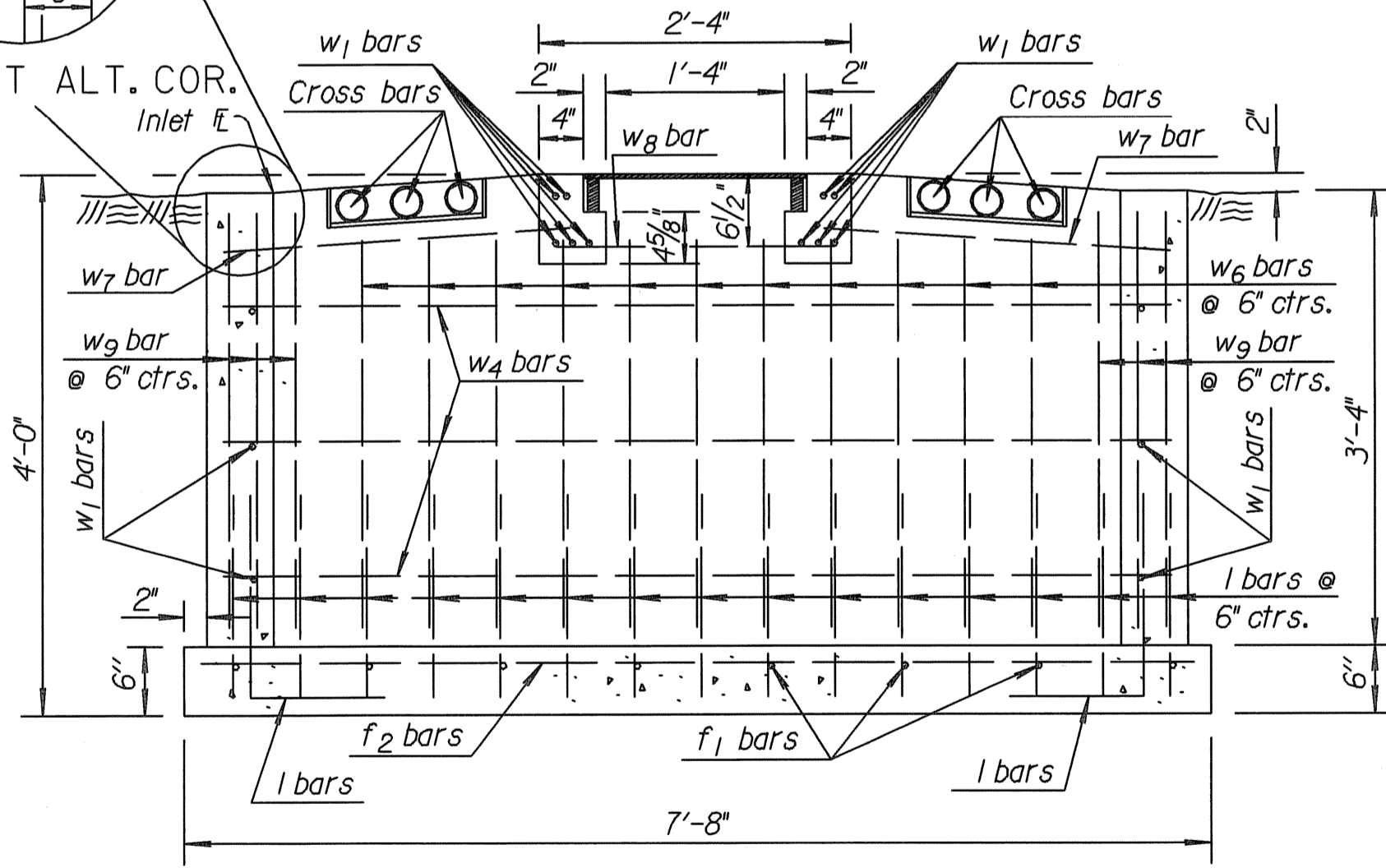
PLAN
TYPE II



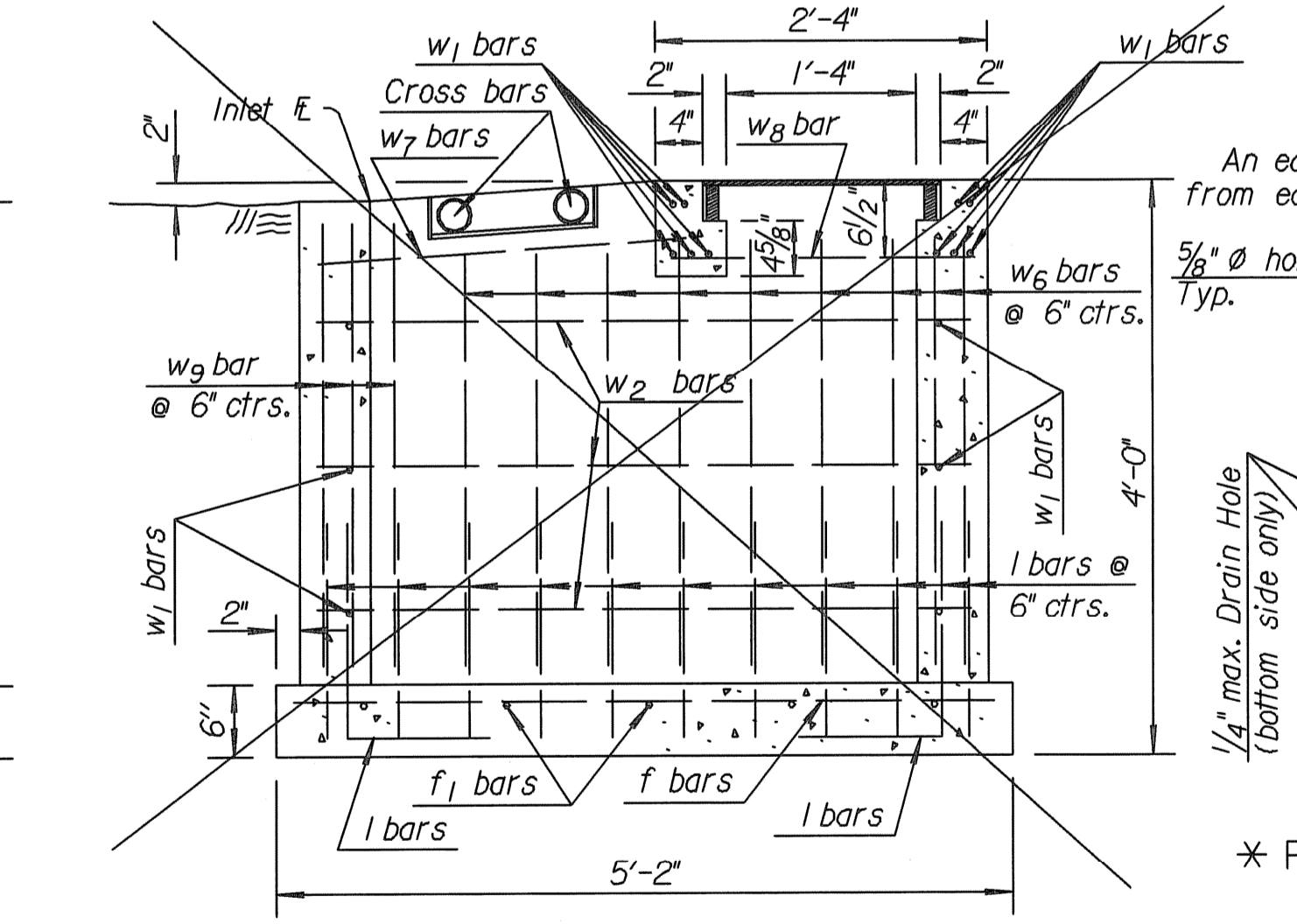
PLAN
TYPE I

BILL OF MATERIALS			
TYPE I H=4'-0"			
Bar	No.	Size	Length
a	2	#4	3'-1"
a ₁	2	#4	1'-9"
f	4	#4	4'-11"
f ₁	5	#4	3'-7"
l	28	#4	2'-6"
w ₁	16	#4	3'-3"
w ₂	3	#4	4'-7"
w ₃	6	#4	0'-9"
w ₄	17	#4	2'-10 1/2"
w ₅	2	#4	2'-8"
w ₆	2	#4	2'-1"
w ₇	11	#4	3'-1"
Conc. Gr. 3.0		1.2 Cu.Yd.	
Reinf. steel		187 Lbs.	
Struct. steel		* 161 Lbs.	
Class III Excav.		10.2 Cu.Yd.	

NOTE: ALL REINFORCING BARS ARE #4 BARS ON 12" CENTERS UNLESS OTHERWISE NOTED.



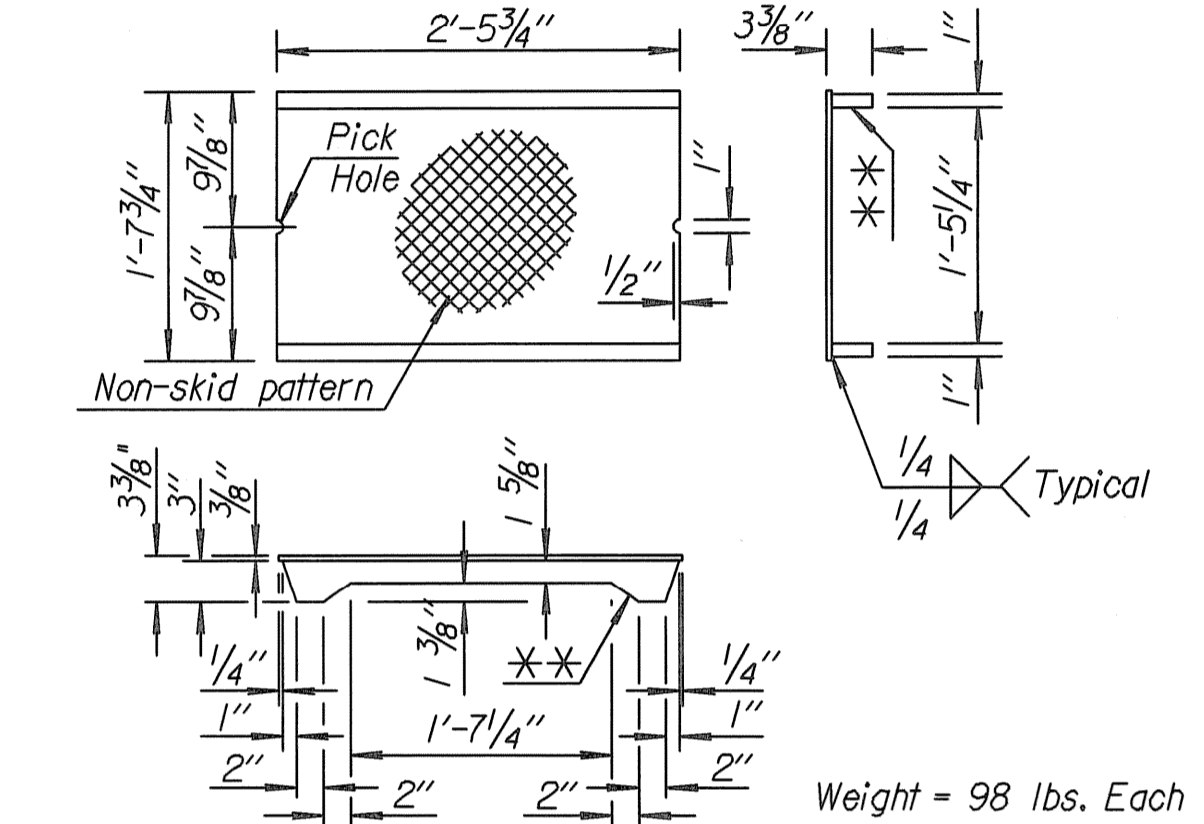
SECTION C-C



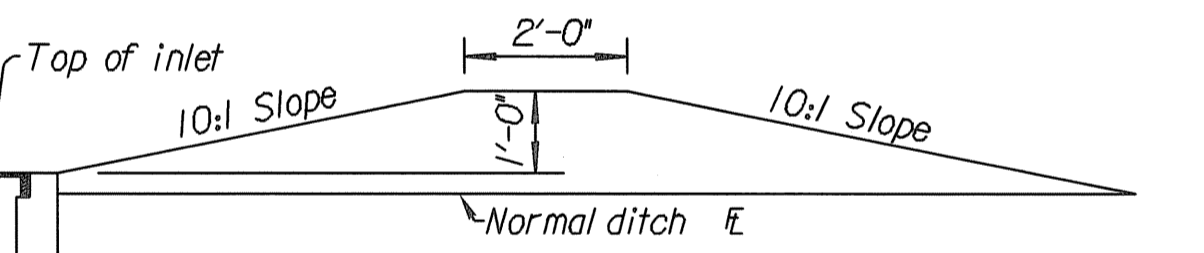
SECTION D-D

GENERAL NOTES
 Concrete Grade 3.0, Concrete Grade 3.0 (AE), or the mix used in Concrete Pavement, at the Contractor's option, shall be used throughout.
 All exposed edges shall be finished with an edging tool.
 All structural steel shall comply with ASTM A-36, A-242, or A-441.
 Cross bars shall be fastened securely to the concrete wings by bolts or other suitable means.
 Minor variations in the shape of legs will be permitted but payment will be made on calculated weight.
 Cast iron cover plate, constructed to the dimensions shown for structural steel cover plate, minimum weight 98 lbs. (approx.), will be allowed as an approved alternate.
 All castings shall be gray iron and shall comply with the Standard Specifications.
 The weight of castings includes no allowance for fillets and overruns.
 All exposed structural steel shall be painted with a coat of inorganic zinc primer and then with a topcoat or a field coat of organic zinc, each coat to be 3 to 4 mils. As an alternate, all structural steel parts may be hot dip galvanized after fabrication in accordance with the Standard Specifications.
 Minimum clearance on all reinforcing steel shall be 1 1/2" except where noted.
 Four lift anchor inserts, 4 ton capacity, cast in interior floor for safe and efficient handling of precast structure.

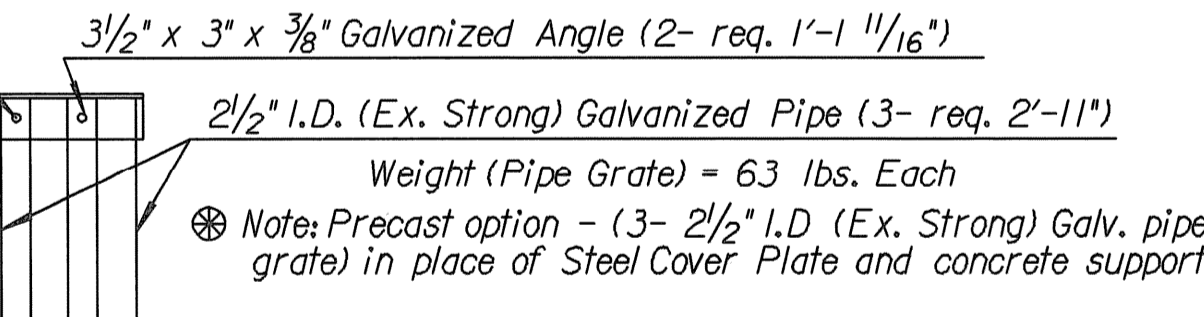
* Cast in place or precast option, size and details shown are typical cast-in-place example. Precast variations noted, moderately larger precast inlet size that meet or exceed cast-in-place design are acceptable.



* STRUCTURAL STEEL COVER PLATE
 Non skid steel floor plate (commercial grade)
 * * At the contractor's option, the supports on the cover plate may be made with the "feet" portions welded to the 1 5/8" steel bars. The weld shall be 1/8" full length, each side and ground smooth on the outside.



An earth dike, as shown above, shall be constructed across the ditch downstream from each Type I inlet where no other plug is used.



Weight (Pipe Grate) = 63 lbs. Each
 * Note: Precast option - (3- 2 1/2" I.D. (Ex. Strong) Galv. pipe grate) in place of Steel Cover Plate and concrete support.

KANSAS DEPARTMENT OF TRANSPORTATION			
CONCRETE DITCH INLETS, TYPES I & II			
RD 631			
27	9-30-09	Revised Inlet E location	S.W.K. J.O.B.
26	6-05-07	Redesigned, precast option	S.W.K. J.O.B.
25	1-28-05	Changed Class to Grade concrete	S.W.K. J.O.B.
NO.	DATE	REVISIONS	BY APP'D
DESIGNED BY: JAMES O. BROWER			
QUANTITIES: TRACED BOWSER			
DETAIL CK: QUANCK, TRACE CK: KING			

MAIZE ROAD PAVING AND DRAINAGE IMPROVEMENTS
 LOT 1, NEWMARKET V ADDITION
CONCRETE DITCH INLETS TYPE II
 GARY JANZEN, P.E. - CITY ENGINEER
 CITY OF WICHITA PROJECT NO. 472-84607

PEC PROFESSIONAL ENGINEERING CONSULTANTS P.A.
 303 SOUTH TOPEKA WICHITA, KS 67202
 316-262-2691 www.pec1.com

Designed by: MLB Job No. 12568
 Drawn by: WLL Date: September 2013