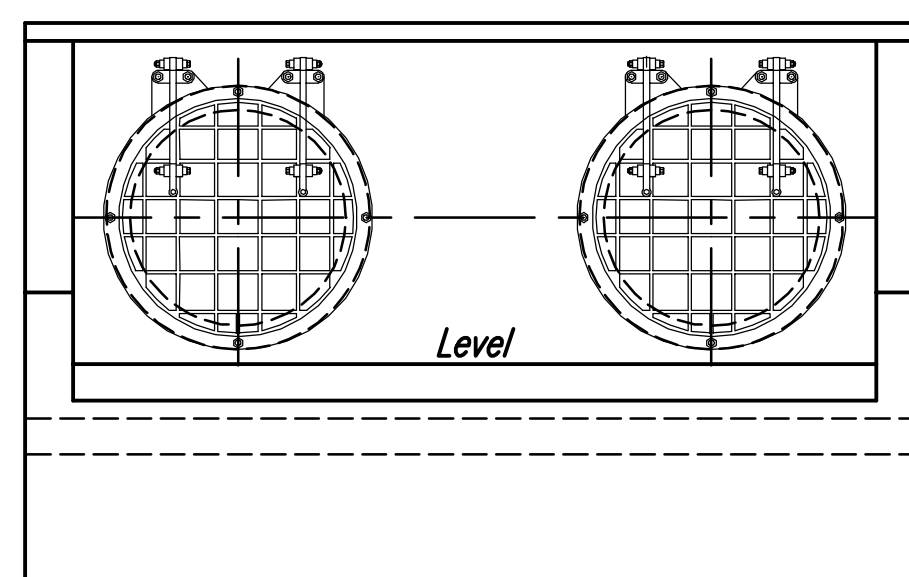
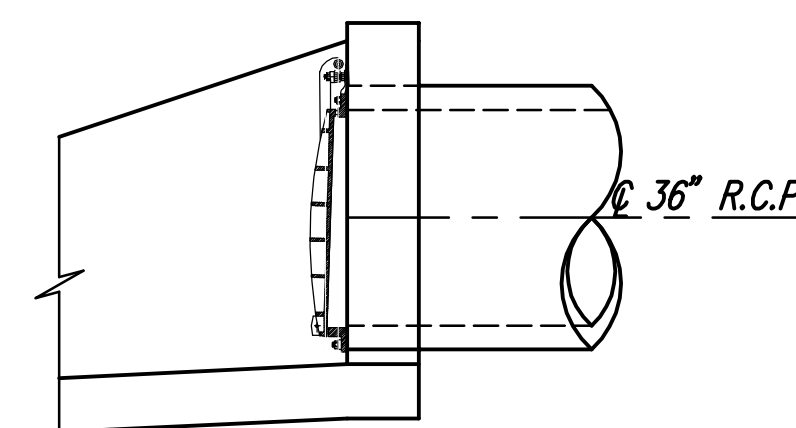


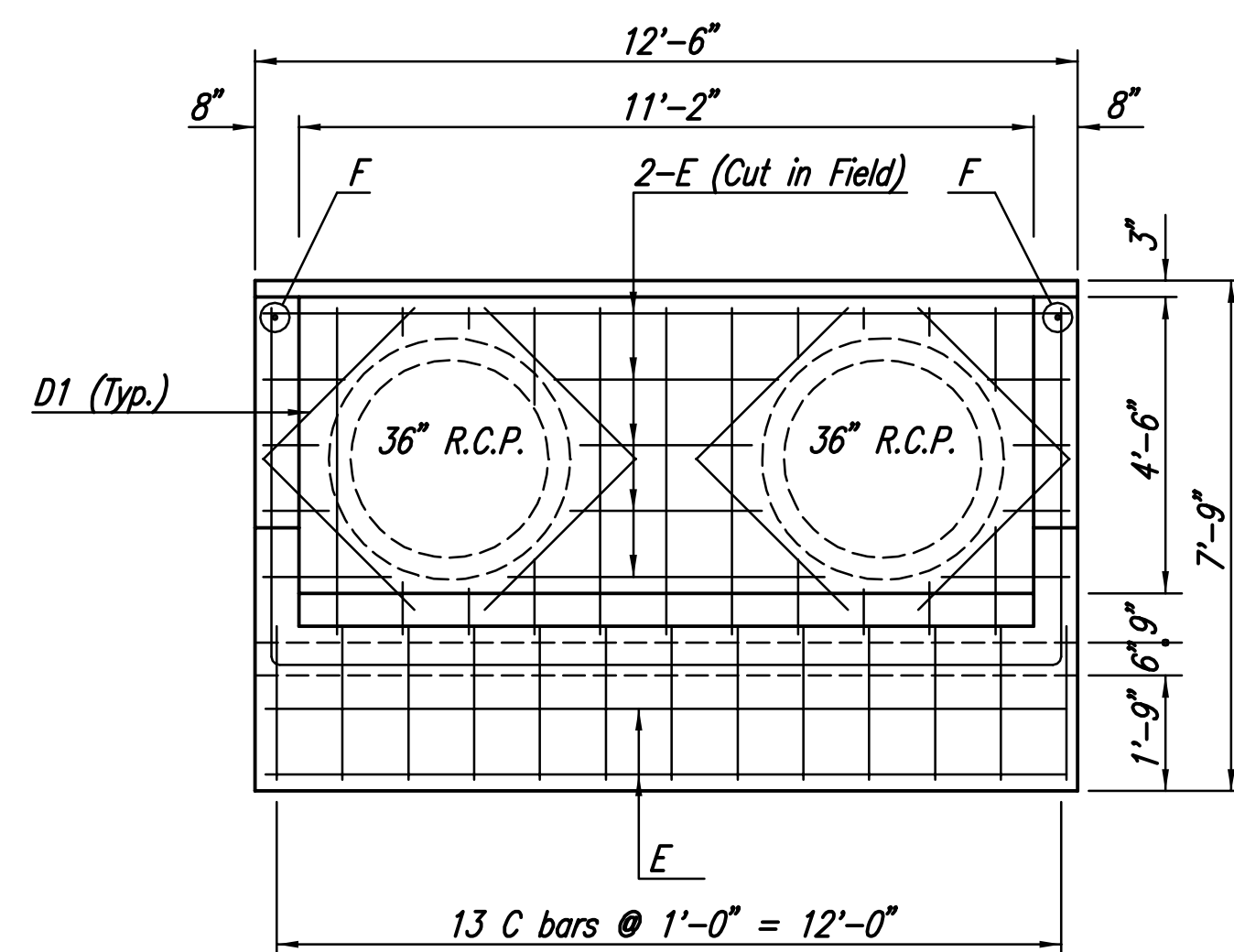
PLAN



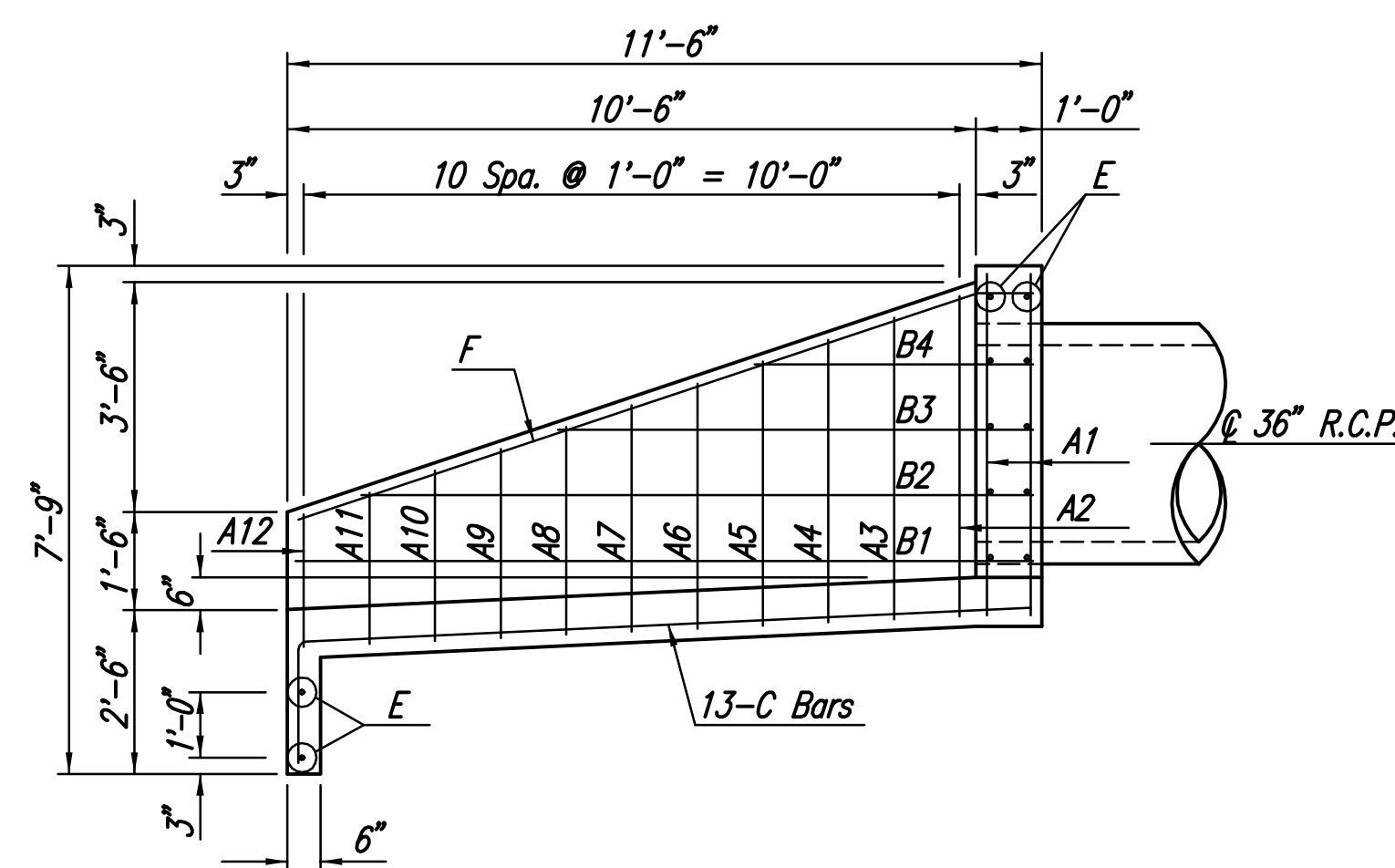
FRONT VIEW WITH FLAPGATE AND FLANGE



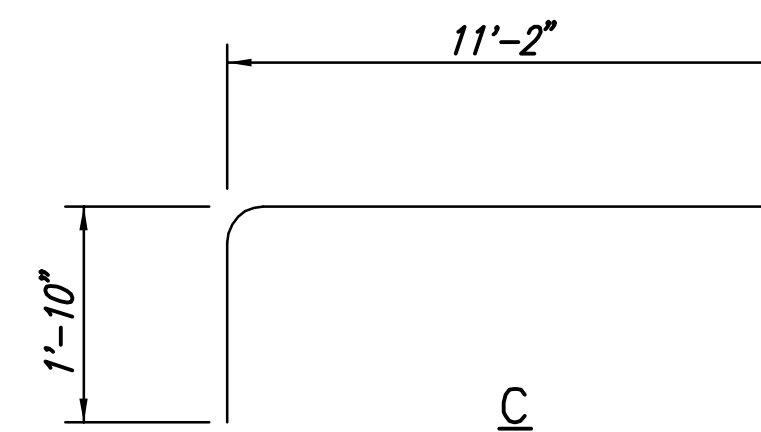
SIDE VIEW WITH FLAPGATE AND FLANGE



ELEVATION

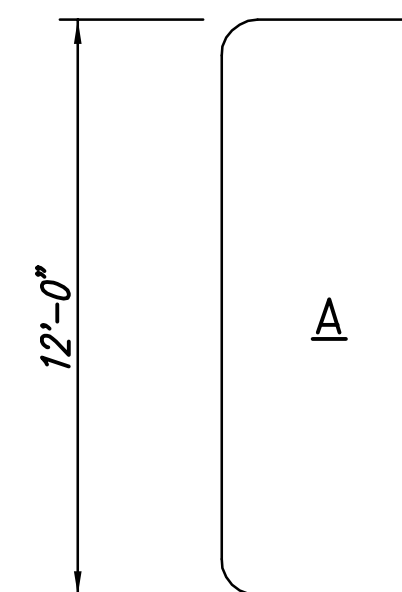


SECTION A-A



BENDING DIAGRAMS

All dimensions are out to out.



A1	5'-2"
A2	4'-11"
A3	4'-7"
A4	4'-4"
A5	4'-1"
A6	3'-9"
A7	3'-6"
A8	3'-2"
A9	2'-11"
A10	2'-7"
A11	2'-4"
A12	2'-0"

CONCRETE HEADWALL NOTES

CONCRETE: Bevel all exposed edges with a 3/4 inch triangular molding or finish with an approved edging tool. Concrete (Grade 4.0)(AE) shall have a minimum 28 day compressive strength of 4000 p.s.i.

REINFORCING STEEL: All dimensions relative to reinforcing steel are to centerline of bar unless otherwise noted. All reinforcing steel shall conform to A.S.T.M. designation A615 (Grade 60) Epoxy Coated. End and side clearance to reinforcing to be 2 inches.

FLAPGATE: A medium duty flat back flapgate (designed for a minimum 20' head) shall be provided. The flapgate shall be painted with one coat of zinc dust paint followed by two coats of aluminum paint.

PAYMENT: The headwall, including flapgates, shall be paid for at the unit price bid per each, which price shall be considered full compensation for all materials, labor, tools, equipment and incidentals necessary to complete the work.

REINFORCING SCHEDULE				
Mark	Shape	No.	Length	Weight
A1	□	2	22'-4"	29.84
A2	□	1	21'-10"	14.58
A3	□	1	21'-2"	14.14
A4	□	1	20'-8"	13.80
A5	□	1	20'-2"	13.47
A6	□	1	19'-6"	13.03
A7	□	1	19'-0"	12.69
A8	□	1	18'-4"	12.25
A9	□	1	17'-10"	11.91
A10	□	1	17'-2"	11.47
A11	□	1	16'-8"	11.13
A12	□	1	16'-0"	10.69
B1	—	2	11'-3"	15.03
B2	—	2	10'-3"	13.69
B3	—	2	7'-3"	9.69
B4	—	2	4'-3"	5.68
C	□	13	13'-0"	112.89
D1	—	8	3'-3"	17.37
E	—	12	12'-2"	97.53
*F	—	2	11'-9"	15.70

* Bend in Field
All Reinforcing Steel shall be #4 bars.

SUMMARY OF QUANTITIES		
Item	Quantity	Unit
** Concrete (Grade 4.0) (AE)	7.6	C.Y.
** Reinforcing Steel (Gr. 60) Epoxy Coated	460	Lbs.
Flapgate (36")	2	Each

** For Information Only

No.	Revision	By	Date
HEARTLAND PREPAREDNESS CENTER PAVING AND DRAINAGE IMPROVEMENTS DOUBLE 36" HEADWALL DETAILS JAMES L. ARMOUR, P.E. - CITY ENGINEER CITY OF WICHITA PROJ. NO. 472-8489B Professional Engineering Consultants, P.A. 303 S. TOPEKA • WICHITA, KANSAS 67202 316-262-2691 • FAX 316-262-3003			
Designed by	BMM	Job No.	35-09307
Drawn by	BJS	Date	December 2009
			Sheet 40 of 59