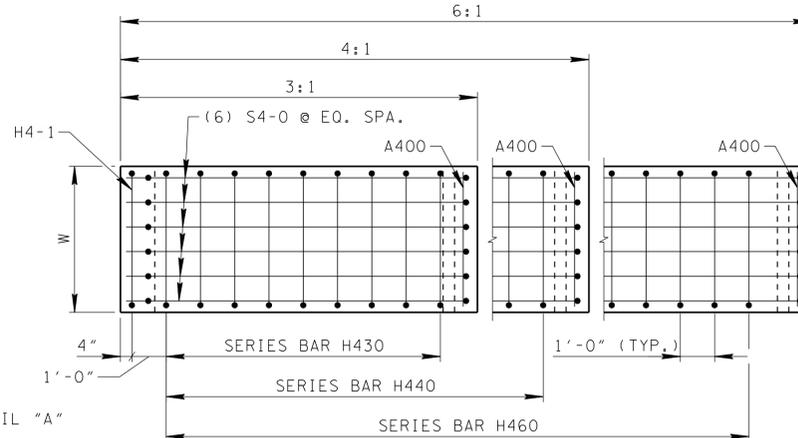


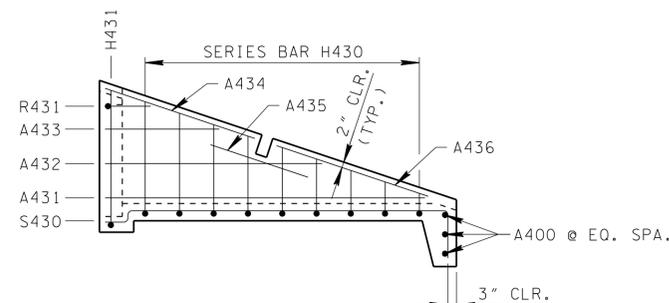
ISOMETRIC VIEW

NOTES: SEE STD. DWG. D-PE-99 FOR STEEL PIPE GRATE DETAILS
 3/4" CHAMFER REQUIRED ON ALL EXPOSED EDGES

ALTERNATE DETAIL "A"

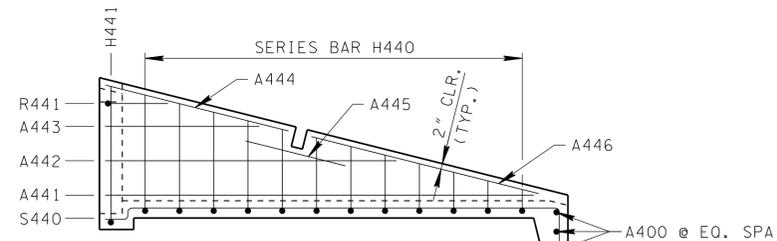


BOTTOM SLAB PLAN



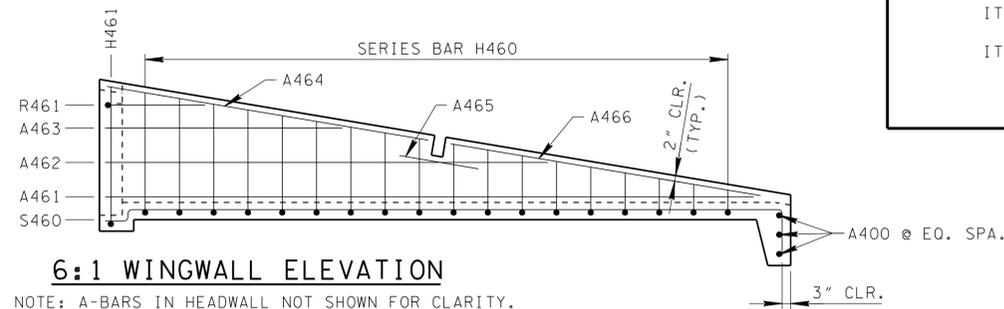
3:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



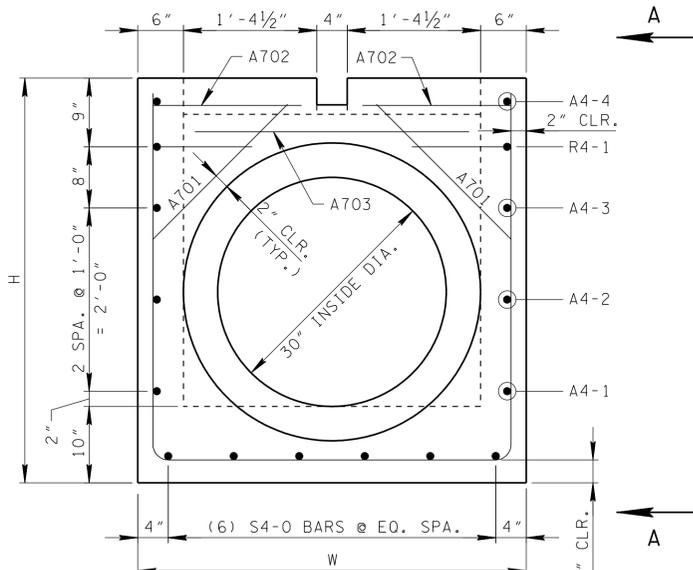
4:1 WINGWALL ELEVATION

NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



6:1 WINGWALL ELEVATION

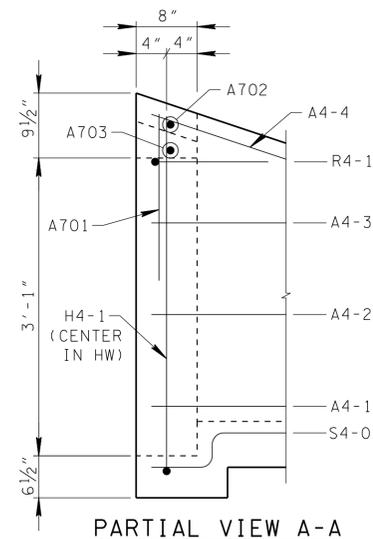
NOTE: A-BARS IN HEADWALL NOT SHOWN FOR CLARITY.



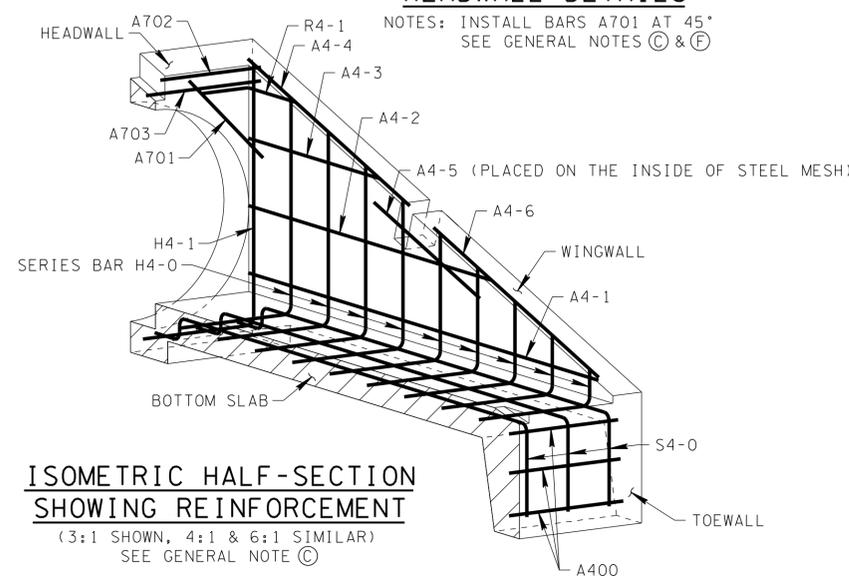
ELEVATION

HEADWALL DETAILS

NOTES: INSTALL BARS A701 AT 45°
 SEE GENERAL NOTES (C) & (F)



PARTIAL VIEW A-A



ISOMETRIC HALF-SECTION SHOWING REINFORCEMENT

(3:1 SHOWN, 4:1 & 6:1 SIMILAR)
 SEE GENERAL NOTE (C)

GENERAL NOTES

- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE AND ALL PRECAST 30" CONCRETE ENDWALLS (TYPE "U") FOR CROSS DRAINS ONLY. "U" ENDWALL TO BE PLACED AT 90° SKEW TO CENTERLINE. SEE STD. DWG. D-PE-99 FOR SKEWED CONNECTION DETAIL WHEN CROSS DRAIN IS NOT PERPENDICULAR TO CENTERLINE. CAST-IN-PLACE CONCRETE ENDWALL SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.
- (B) SEE STD. DWG. D-PE-30B FOR BILL OF STEEL & PRECAST NOTES.
- (C) "-" IN BAR DESIGNATION REPRESENTS 3, 4 OR 6 FOR 3:1, 4:1 OR 6:1 SLOPES, RESPECTIVELY.
- (D) SPLICING OF REINFORCEMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.
- (E) TOEWALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15°.
- (F) OPTIONAL STEPPED HOLE IS ALLOWED PROVIDED THE AMOUNT OF COVER BETWEEN THE PIPE OPENING AND BARS A701 AND A703 IS THE SAME OR GREATER THAN SHOWN ON THIS DRAWING.
- (G) PAYMENT WILL BE MADE UNDER:
 - ITEM NO. 611-07.01, CLASS "A" CONCRETE (PIPE ENDWALLS)----CU. YD.
 - ITEM NO. 611-07.02, STEEL BAR REINFORCING (PIPE ENDWALLS)----LB.

DIMENSIONS AND QUANTITIES FOR ONE ENDWALL 30" PIPE										
SLOPE	CONCRETE ENDWALL DIMENSIONS					STRUCTURAL STEEL PIPE DIMENSIONS		ESTIMATED QUANTITIES		
	H	L ₁	L ₂	L ₃	W	LG	WG	CLASS "A" CONC. CU. YD.	STEEL BAR REINF. LB.	STRUCTURAL STEEL LB.
3:1	4' - 5"	10' - 5"	10' - 11 3/4"	5' - 2"	4' - 1"	10' - 10 5/8"	4' - 1"	1.84	174	114
4:1	4' - 5"	13' - 8"	14' - 1"	6' - 1"	4' - 1"	14' - 0 7/8"		2.32	216	137
6:1	4' - 5"	20' - 2"	20' - 5 3/8"	10' - 1"	4' - 1"	20' - 4 3/4"		3.29	303	186

NOTE: SEE STD. DWG. D-PE-99 FOR STRUCTURAL STEEL PIPE DIMENSIONS LG & WG.

NOT TO SCALE