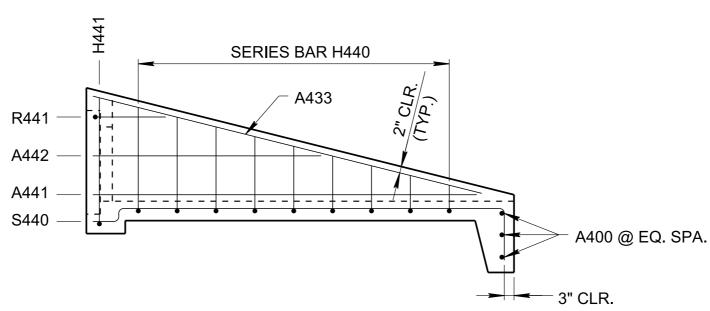
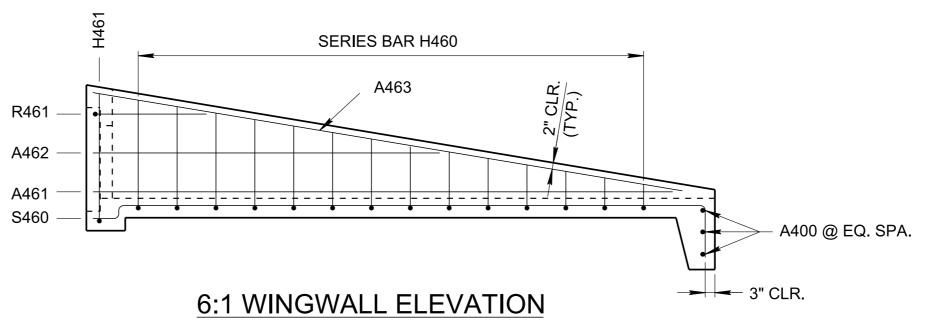


BOTTOM SLAB PLAN SERIES BAR H430 R431 A432 A431 -----S430 A400 @ EQ. SPA. 3" CLR.

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.



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

DIMENSIONS AND QUANTITIES FOR ONE ENDWALL 24" PIPE						
SLOPE	CONCRETE ENDWALL DIMENSIONS				ESTIMATED QUANTITIES	
					CLASS "A"	STEEL BAR
	Н	L ₁	L ₂	W	CONC. CU. YD.	REINF. LB.
3:1	3'-9"	8'-5"	8'-10½"	3'-6"	1.28	124
4:1		11'-0"	11'-4"		1.61	153
6:1		16'-2"	16'-4%"		2.26	215

GENERAL NOTES

- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE AND ALL PRECAST 18" 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-24B FOR BILL OF STEEL & PRECAST NOTES.
- © "-" IN BAR DESIGNATION REPRESENTS 3, 4 OR 6 FOR 3:1, 4:1 OR 6:1 SLOPES, RESPECTIVELY. SEE STD. DWG. D-PE-24B.
- (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) 90° STEPS ARE SHOWN ON THE STEPPED HOLE DETAIL, HOWEVER MINOR VARIATIONS OF THE TAPER ARE ACCEPTABLE.
- (G) OPTIONAL STEPPED HOLE OR HOLE FORMERS ARE ALLOWED PROVIDED THE AMOUNT OF COVER BETWEEN THE PIPE OPENING AND BARS A701 AND A702 IS THE SAME OR GREATER THAN SHOWN ON THIS DRAWING.
- (H) PAYMENT WILL BE MADE UNDER:
- 611-07.57, 24" ENDWALL (CROSS DRAIN) 3:1 EACH 611-07.58, 24" ENDWALL (CROSS DRAIN) 4:1 EACH 611-07.59, 24" ENDWALL (CROSS DRAIN) 6:1 EACH
- (I) THE CONTRACTOR MAY BE ELECT TO SUBSTITUTE AN APPROVED ALTERNATIVE DESIGN.
- (J) DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.

MINOR REVISION -- FHWA

REV. 6-14-13: REVISED NOTEG.

REV. 1-6-15: REVISED HOLE OPENING SIZE. ADDED STEPPED HOLE DETAIL.

REV. 1-21-16: REVISED GENERAL

REV. 7-5-17: MODIFIED GENERAL

NOTES (C) AND (J.)

ADDED NOTE(H)AND(I.)

STATE OF TENNESSEE DEPARTMENT OF **TRANSPORTATION**

CONCRETE ENDWAL

(FOR 3:1, 4:1 & 6:1 SLOPES)

APPROVAL NOT REQUIRED.

CROSS DRAIN

NOT TO SCALE

D-PE-24A