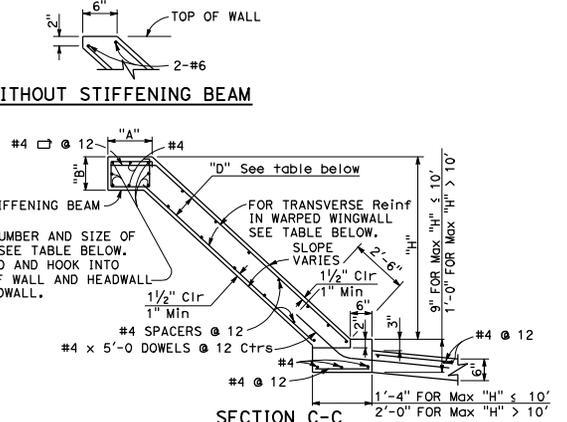
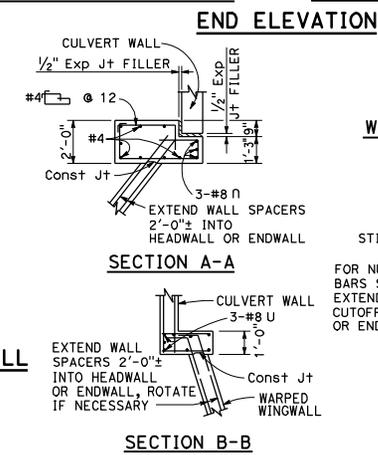
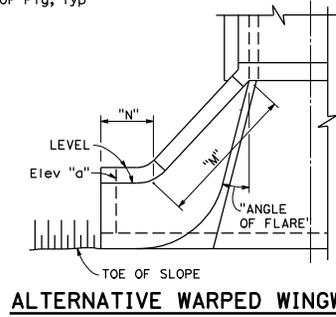
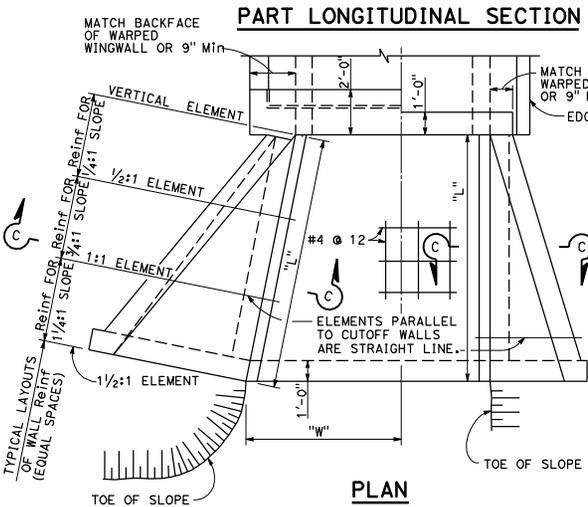
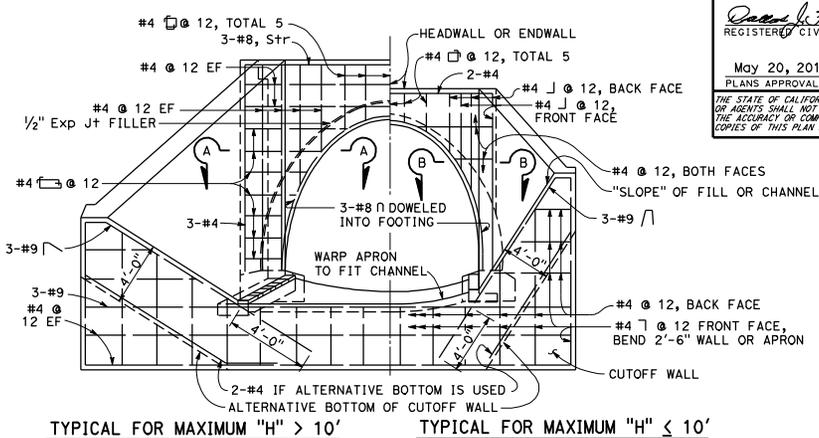
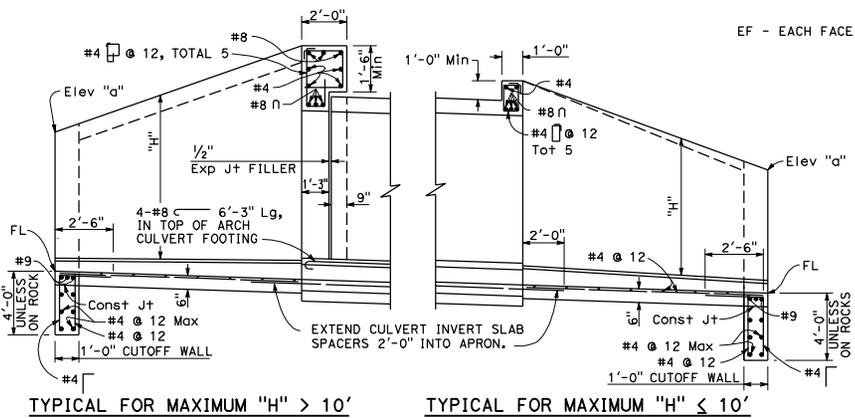


D16+	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

REGISTERED CIVIL ENGINEER
 May 20, 2011
 PLANS APPROVAL DATE
 Exp. 12-31-12
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



ELEMENT SLOPE	WALL DIMENSIONS AND REINFORCING								WARPED WINGWALLS										STIFFENING BEAM DIMENSIONS AND REINFORCING								
	"H"	8' OR LESS	10'	12'	14'	16'	18'	20'	12'	14'	16'	18'	20'	25'	30'	35'	40'										
1/4:1	FRONT FACE Reinf	#4 @ 12	#4 @ 7	#5 @ 7	#5 @ 5	#6 @ 6	#7 @ 7	#7 @ 6	6"	NO BEAM. PLACE 2-#6 IN EACH FACE ALONG TOP OF WALL.										"A" = 1'-0"							
	REAR FACE Reinf	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 8	#4 @ 8	#4 @ 6	#4 @ 6	8"											"B" = 9"							
3/4:1	FRONT FACE Reinf	#4 @ 12	#4 @ 12	#4 @ 8	#4 @ 8	#4 @ 8	#4 @ 6	#4 @ 6	10"											"A" = 1'-6"							
	REAR FACE Reinf	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 10	#4 @ 7	#4 @ 6	#5 @ 8	12"											"A" = 1'-10"							
1 1/4:1	FRONT FACE Reinf	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	14"											"B" = 1'-0"							
	REAR FACE Reinf	#4 @ 8	#4 @ 8	#4 @ 5	#5 @ 6	#6 @ 7	#6 @ 6	#7 @ 6	16"											"B" = 1'-3"							
"D" AT CUTOFF WALL	6"	6"	6"	6"	7 1/2"	8"	9 1/2"	11"	18"											"A" = 2'-2"							
"D" AT CULVERT	6"	6"	6"	6"	8"	9 1/2"	11"	1'-1"	20"											"B" = 1'-6"							

NOTES:
 Walls designed for 2'-0" surcharge; earth density = 120 pcf; equivalent fluid pressure = 36 pcf.
 Vary "D" of warped wall uniformly from that at cutoff wall to that at headwall or endwall, for maximum "H" > 12'.
 Dimensions "L", "W", "H", "M", "N", Elev "a", "Angle of flare", and "Slope" (as apply) are shown on the plans.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**ARCH CULVERT
 HEADWALLS, ENDWALLS
 AND WARPED WINGWALLS**

NO SCALE

D86C