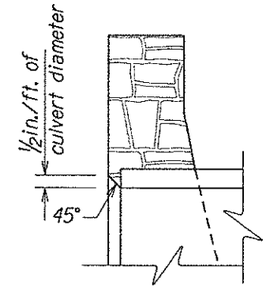
STATE	SADDLE ROAD PROJECT	SHEET NO.	TOTAL SHEETS
HI	HI A-AD 6(4)	L13	L15

WINGWALL LENGTHS									
NO.	STATION	Inlet				Outlet			
		Left		Right		Left		Right	
		Length	Angle	Length	Angle	Length	Angle	Length	Angle
3	57+40	15'	30°	15'	30°	23'	30°	23'	30°
4	75+30	14'	45°	12'	30°	14'	30°	14'	30°
5	81+47	20'	45°	15'	15°	20'	45°	15'	0°
6	86+76	15'	15°	16'	30°	12'	15°	13'	30°
26	293+18	18'	45°	15'	30°	19'	45°	16'	30°
29	334+29	11'	45°	9'	15°	13'	45°	10'	0°
30	335+88	11'	45°	9'	0°	18'	60°	11'	-15°

GENERAL NOTES:

1. Construct bevels ½ in./ft. of culvert diameter or rise. Minimum bevel size shall be 2 inches.
2. The groove or bell end of the concrete culvert may be used in place of the bevel.
3. Rubble masonry, coarse pointed finish paid for under item no. 62001CC.



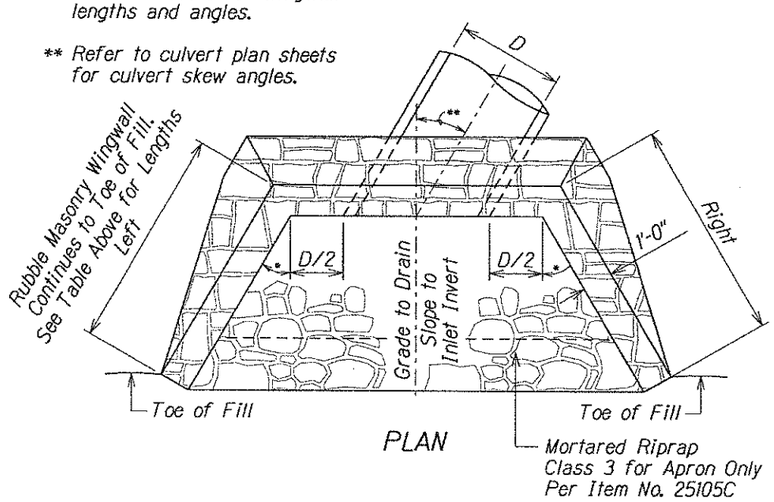
BEVEL DETAIL

Notes:
1. Construct bevels ½ in./ft. of culvert diameter or rise. Minimum bevel size shall be 2 inches.
2. The groove or bell end of the concrete culvert may be used in place of the bevel.

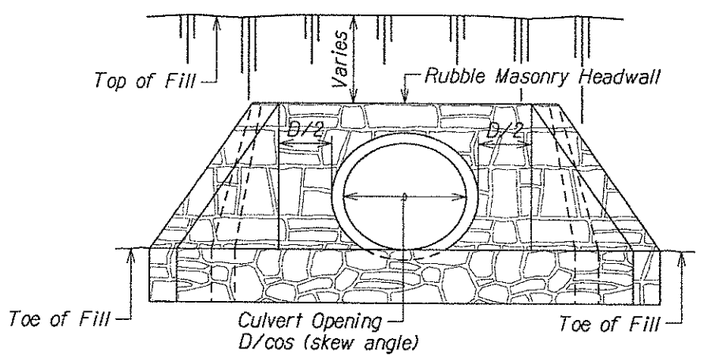
NOTE:
D = Inner Diameter of Pipe Culvert

* See table above for wingwall lengths and angles.

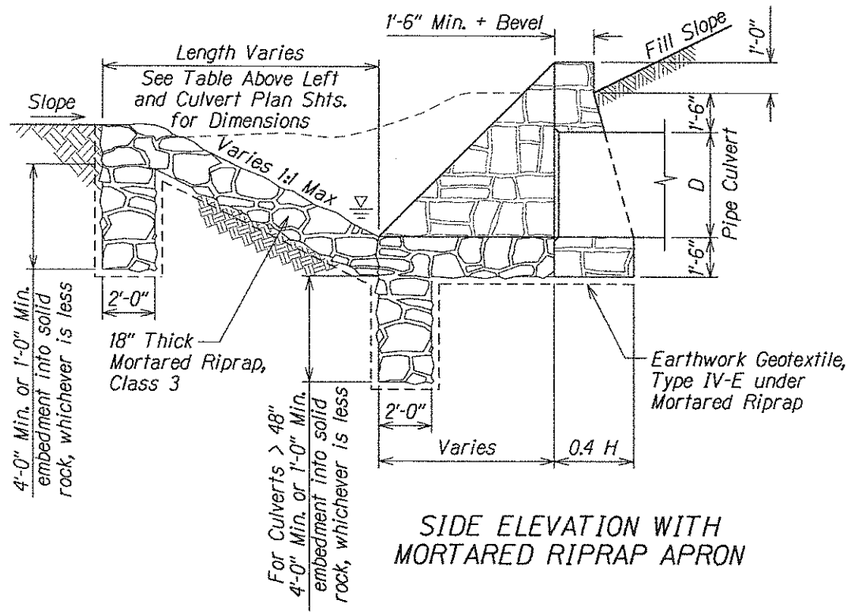
** Refer to culvert plan sheets for culvert skew angles.



PLAN

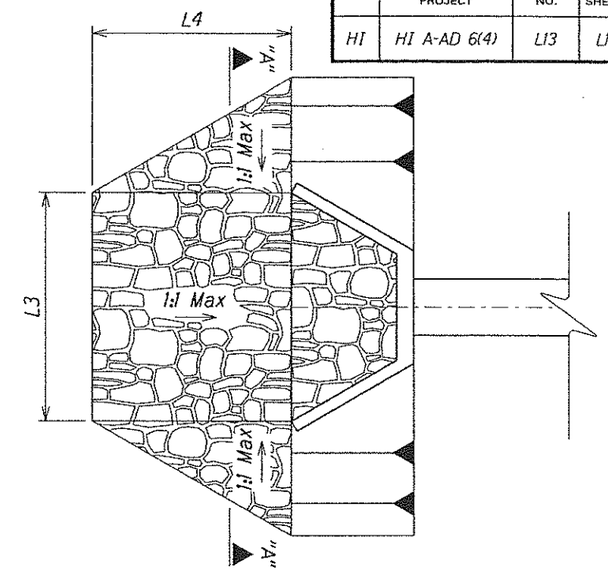


FRONT ELEVATION



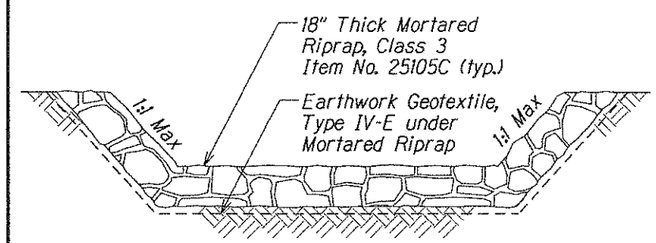
SIDE ELEVATION WITH MORTARED RIPRAP APRON

RUBBLE MASONRY, COARSE POINTED FINISH CIRCULAR CULVERT END TREATMENT



Plan

NO.	STATION	L3	L4
4	75+30	21'	13'
5	81+47	26'	20'
6	86+76	19'	20'
26	293+18	29'	12'
29	334+29	14'	12'
30	335+88	12'	12'



Section "A-A"

MORTARED RIPRAP APRON AT CIRCULAR CULVERT INLET

BRUCE K. MEYERS
Licensed Professional Engineer
No. 8336-C
HAWAII, U.S.A.

The work was prepared by me or under my supervision and construction of this project will be under my observation.

Expiration Date of License 4/08

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

CIRCULAR CULVERT RUBBLE MASONRY STRUCTURE & MORTARED RIPRAP AT INLET

Scale: N.T.S. Date: June 29, 2007

SHEET No. 1 OF 1

M:/Mproj/Lennie/204028/100%/sheets/sht1013.dgn