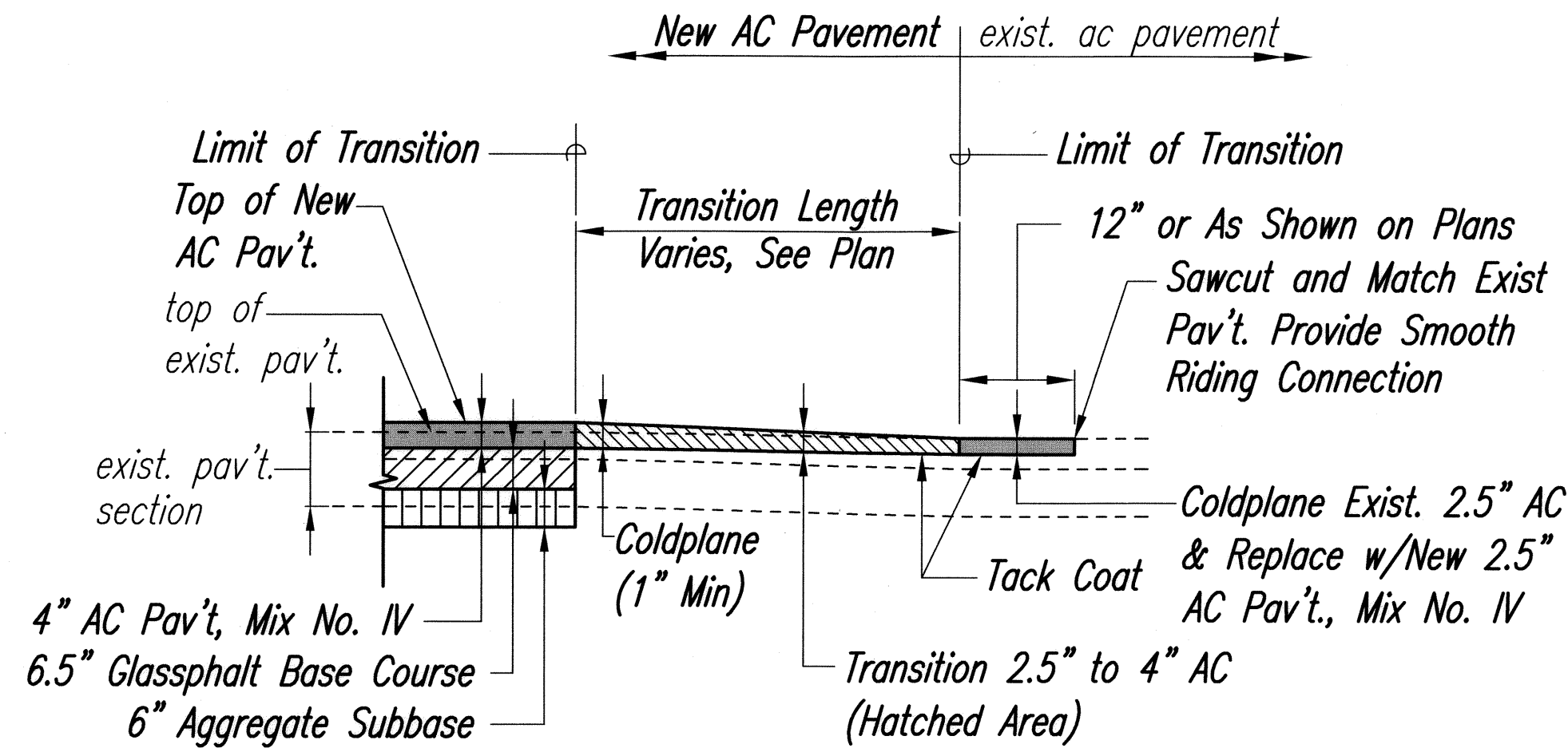
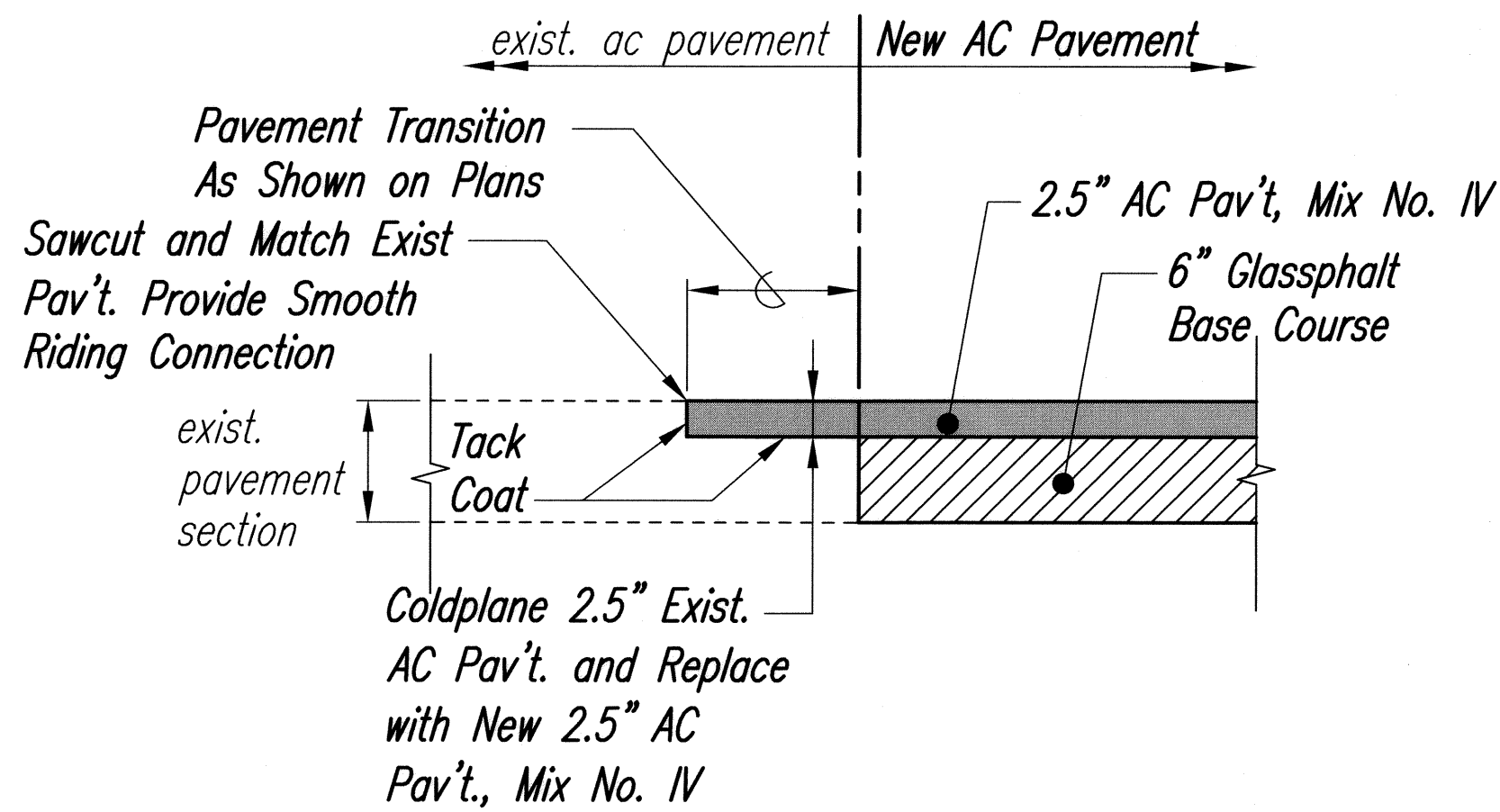


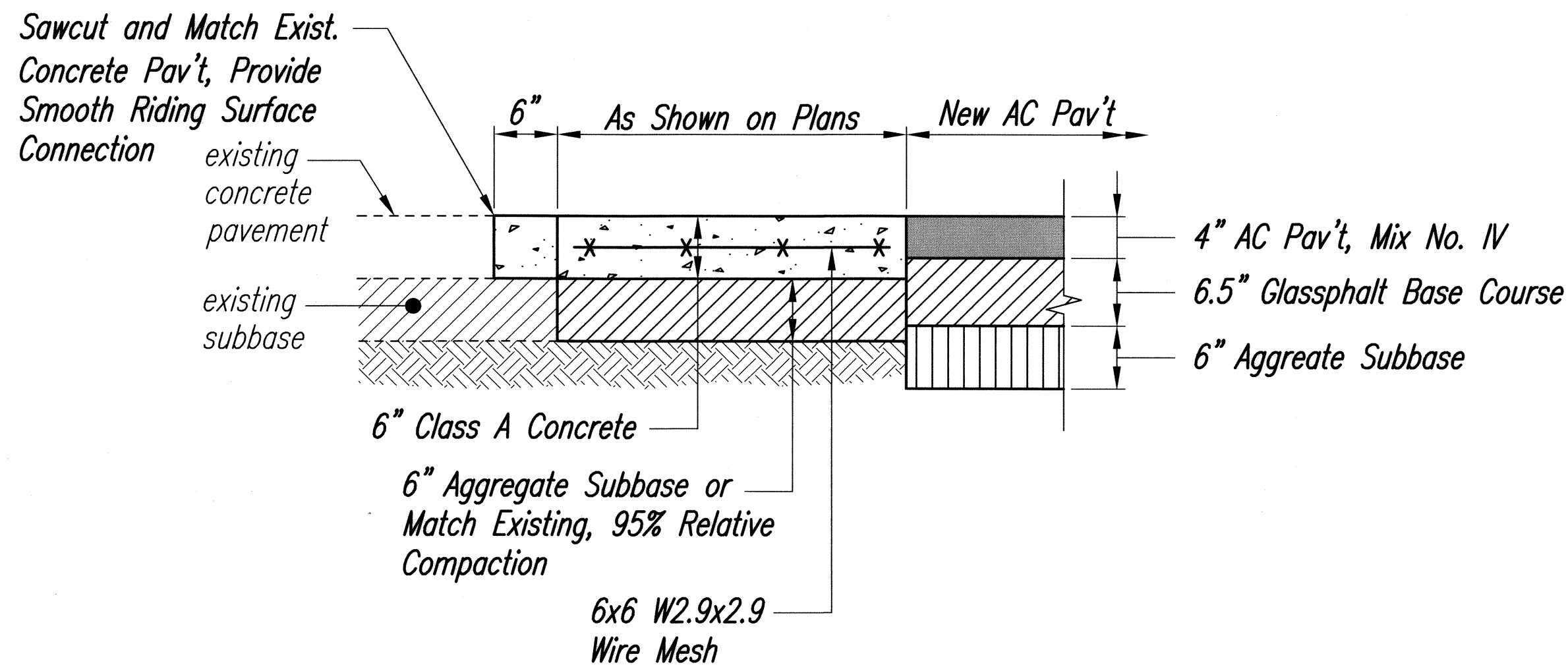
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HS-STP-011-2(38)	2010	98	141



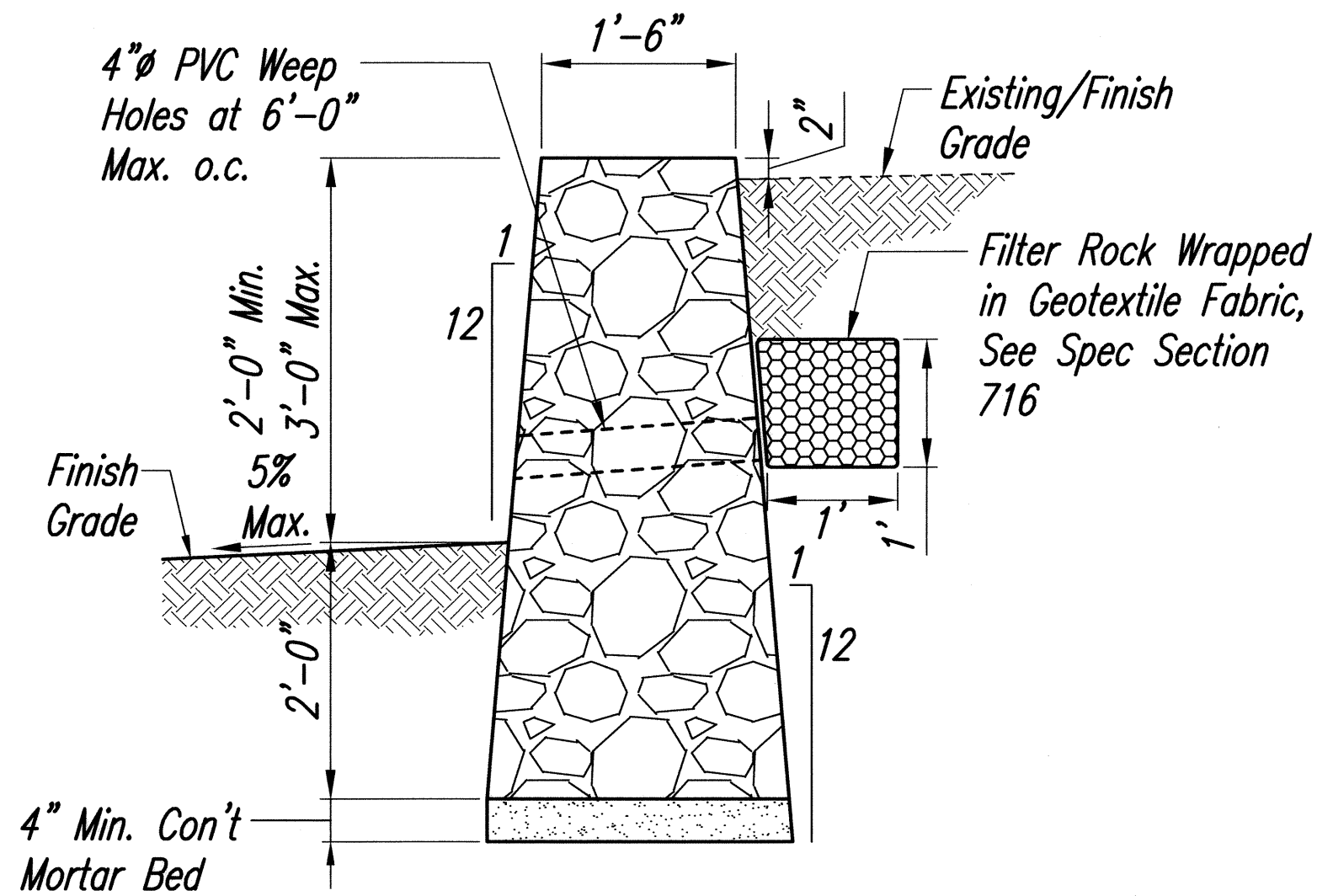
PAVEMENT CONNECTION DETAIL (STATE R/W)
Not to Scale



PAVEMENT CONNECTION DETAIL (COUNTY R/W)
Not to Scale



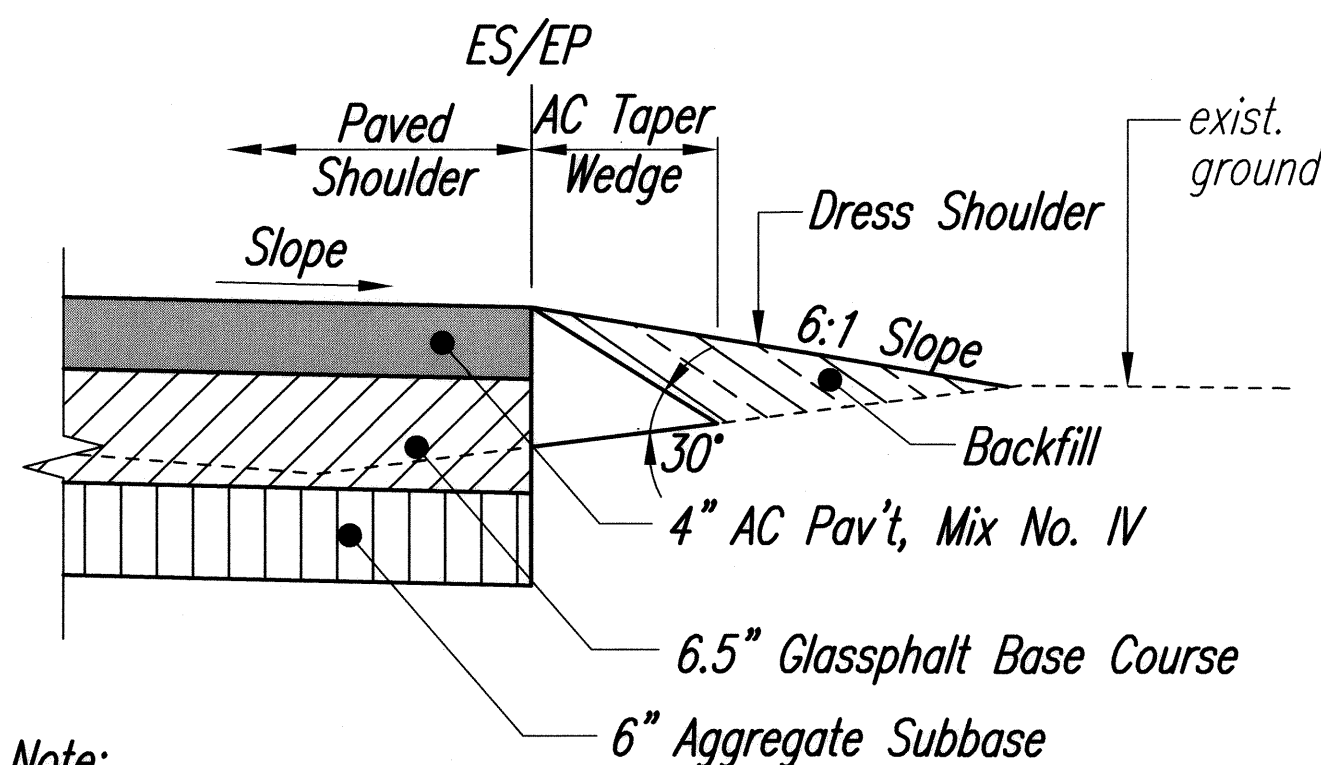
PCC PAVEMENT TYPICAL DETAIL
Not to Scale



TYPICAL CRM WALL DETAIL
Not to Scale

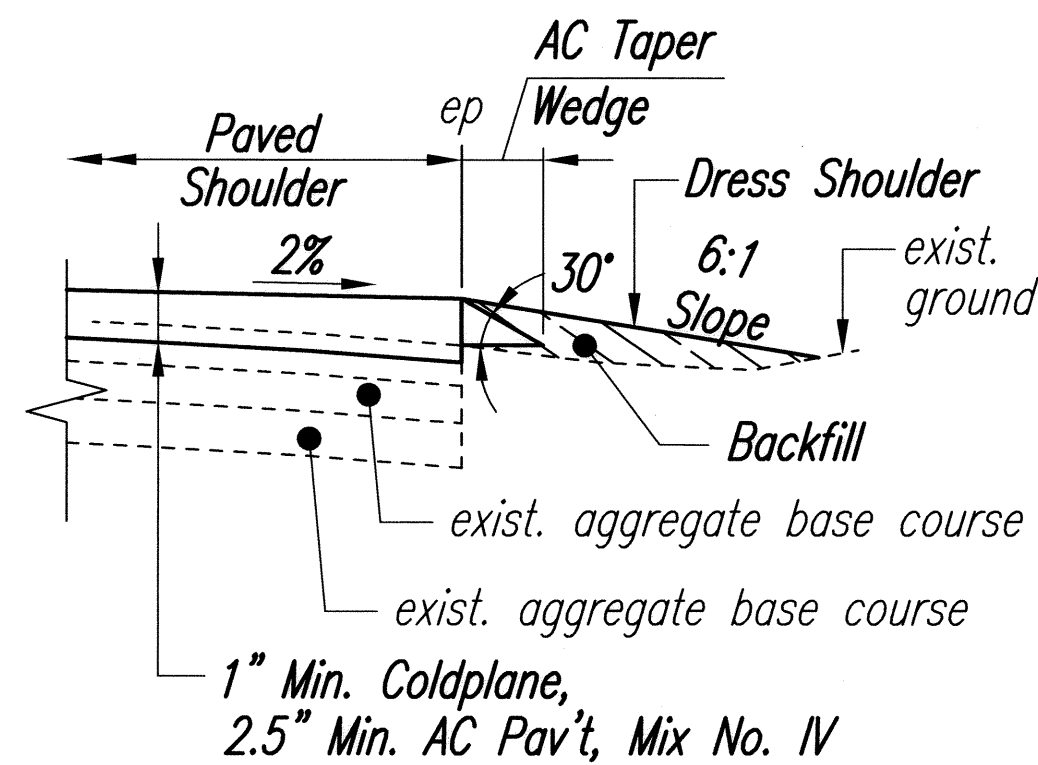
CEMENT RUBBLE MASONRY (CRM) NOTES:

1. Stones shall be clean, hard, sound and durable. Each stone, except stones for filling or lining interstices, shall have a thickness of not less than 6 inches and a width of not less than one and one-half times the thickness or 12 inches, whichever is greater.
2. Mortar shall be Type "M" conforming to ASTM C270 and have a minimum compressive strength of 2,500 psi at 28 days.
3. Cement rubble masonry shall be constructed by experienced workmen.
4. Selected stones shall be roughly squared and pitched to lines at angles and ends of walls.
5. Stones shall be wet thoroughly before laying.
6. Stone joints shall overlap at least 6 inches and form a firm bond.
7. Stones for bottom course shall be large, flat, and fully bedded in mortar.
8. Horizontal joints in the face of the wall shall not exceed 1 inch in thickness and vertical joints shall not exceed 2 inches in width.
9. CRM wall base shall be founded on firm undisturbed soil or structural fill compacted to a minimum 95% relative compaction. Remove soft and/or loose material at the bottom of the excavation and fill with granular fill compacted to a minimum 95% relative compaction. Alternately, the CRM wall base may be extended down to the firm undisturbed soil.



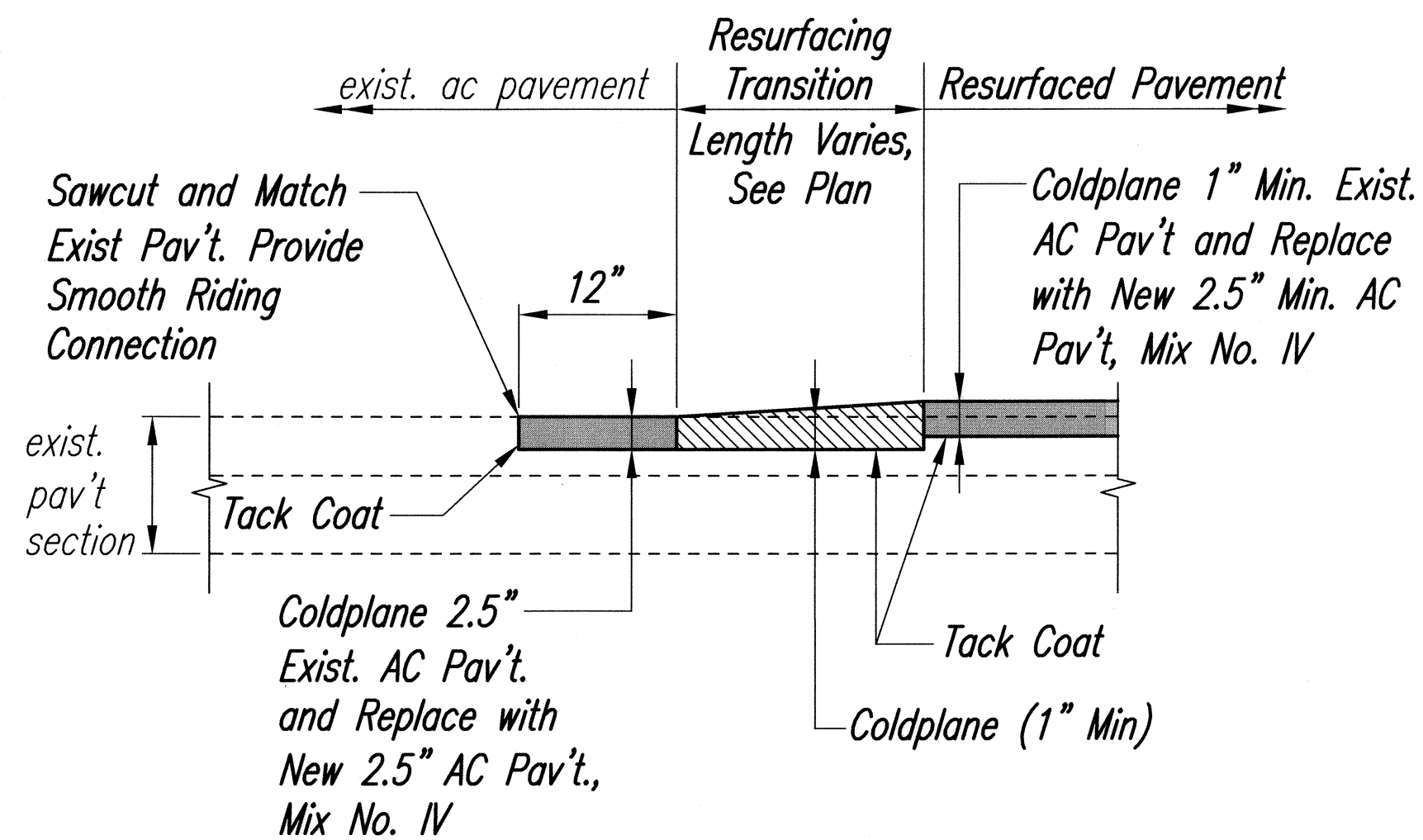
Note: Contractor Shall Mount a Device Directly on the Paver Screed Extension to Provide a 30° Beveled Shoulder Edge

FOR RECONSTRUCTION AREAS



FOR COLD-PLANING AREAS

TYPICAL PAVEMENT EDGE DETAILS
Not to Scale



PAVEMENT RESURFACING DETAIL
Not to Scale



LICENSE EXPIRES 4/30/12
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

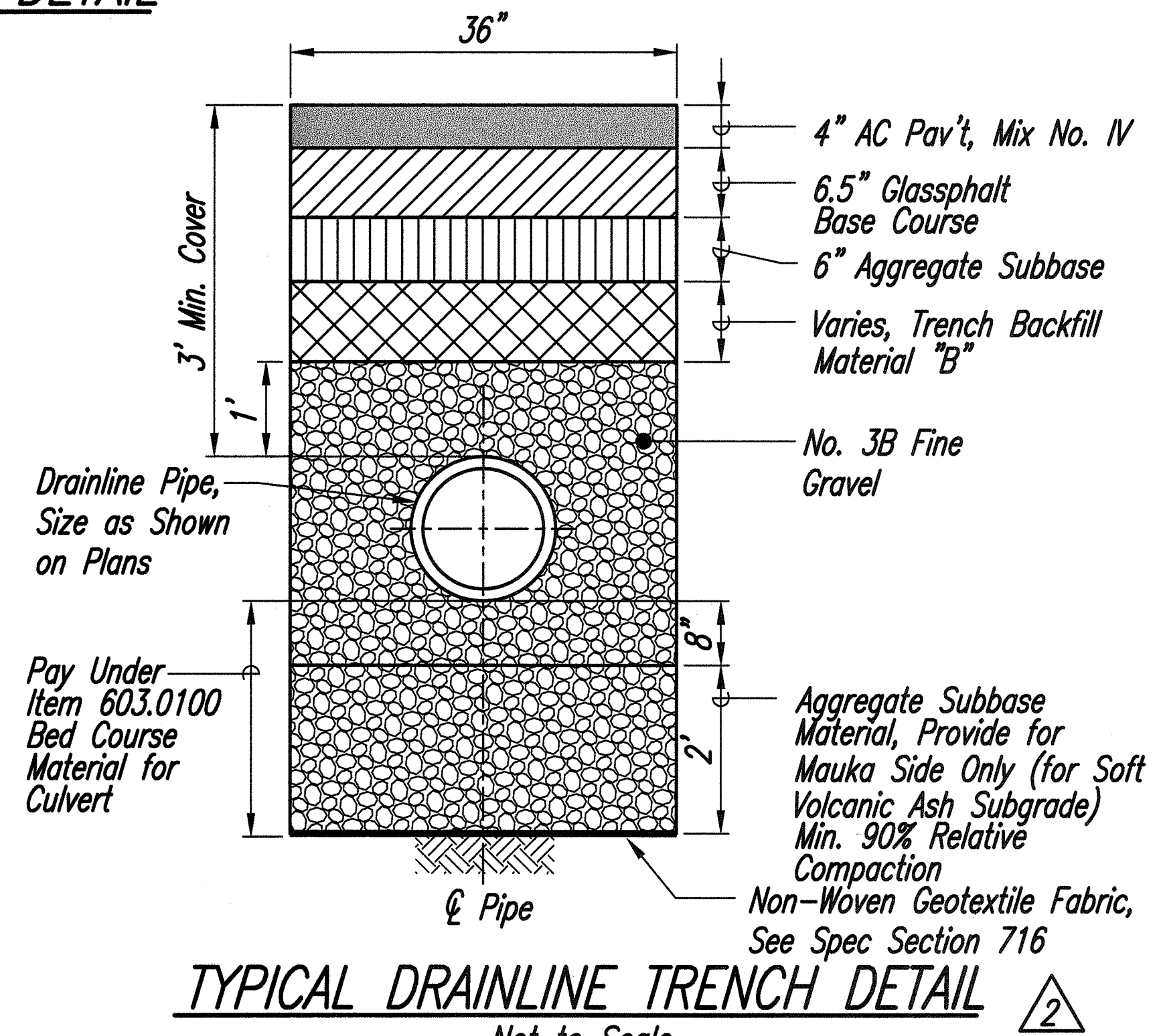
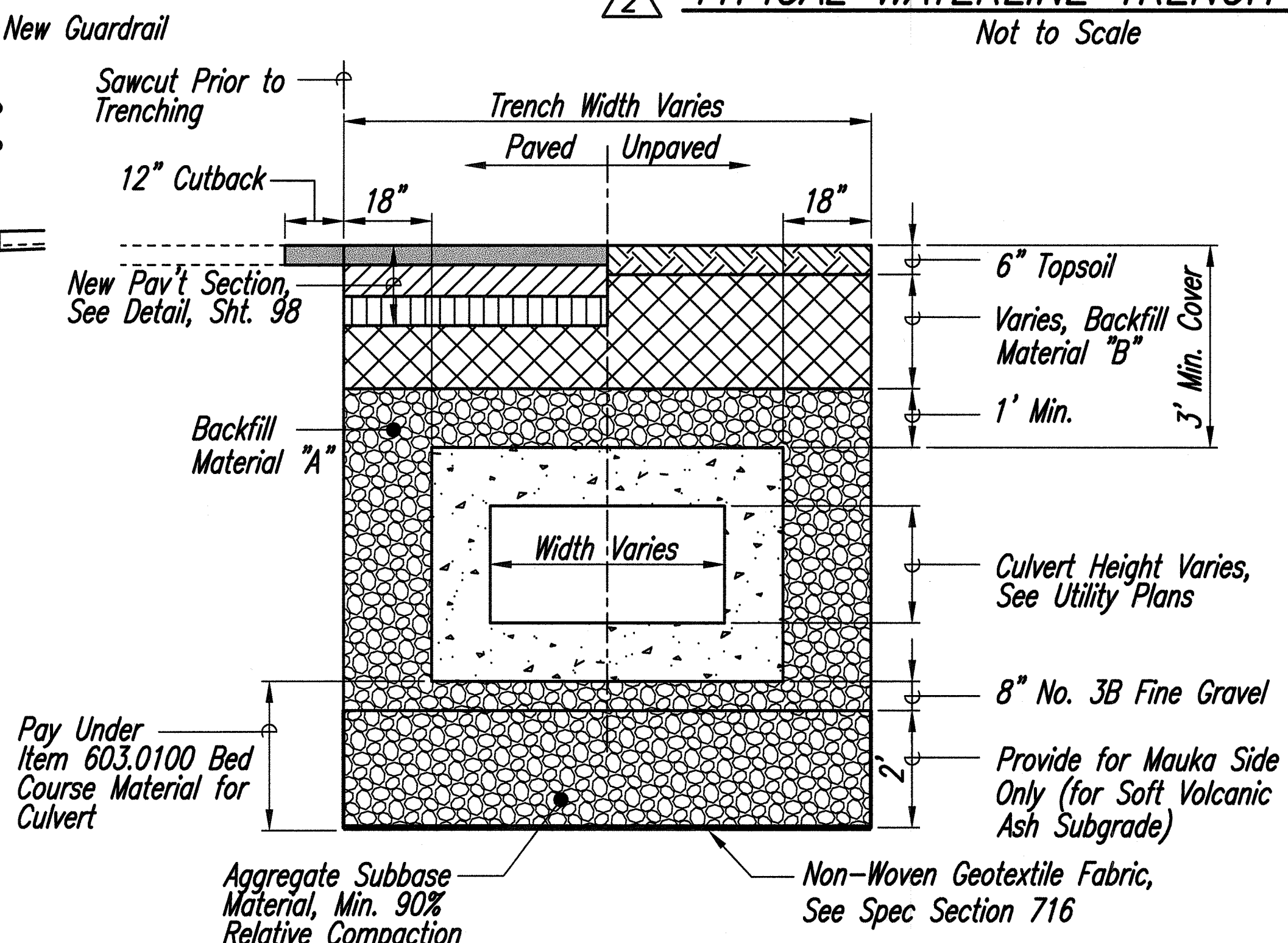
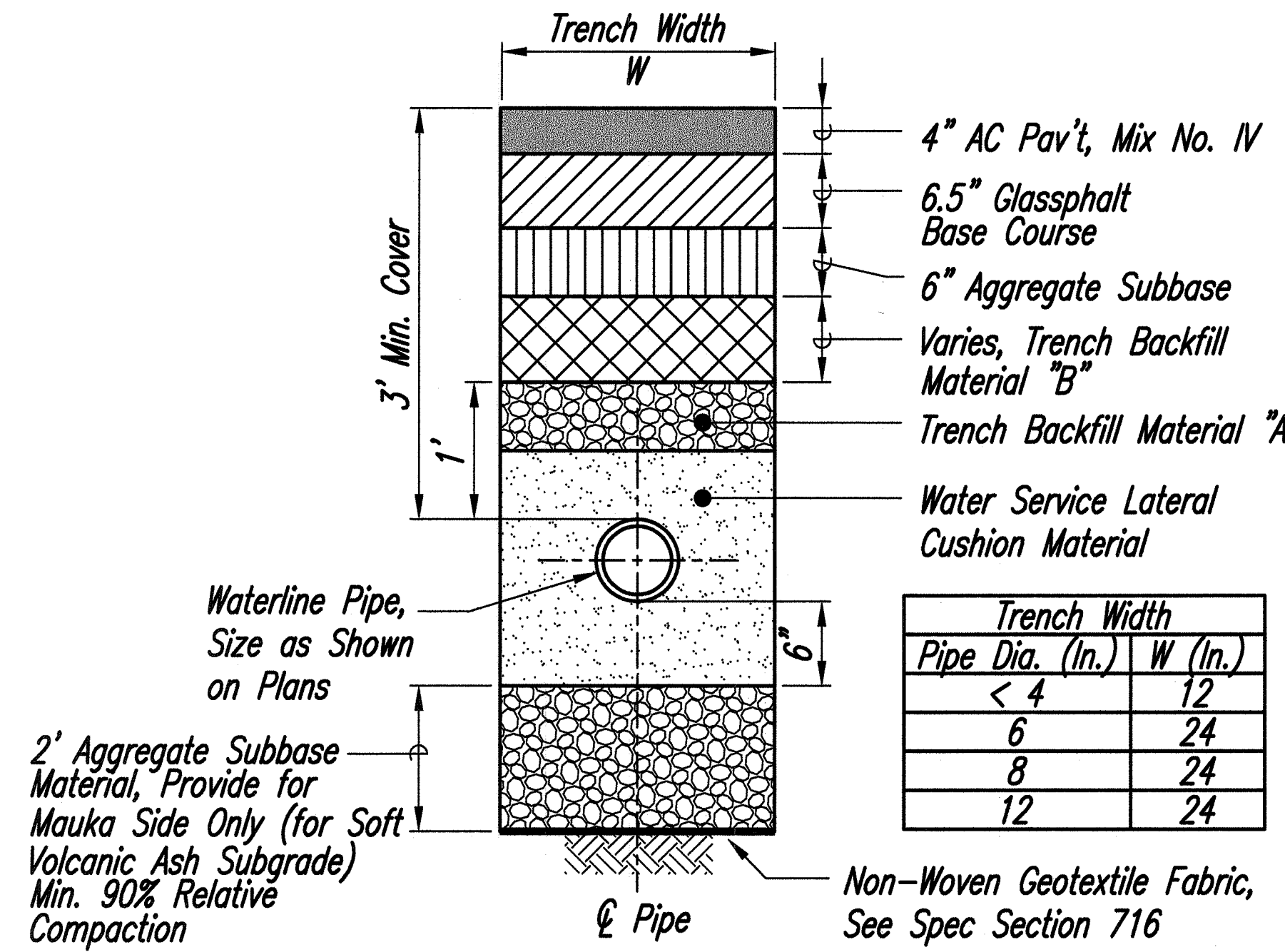
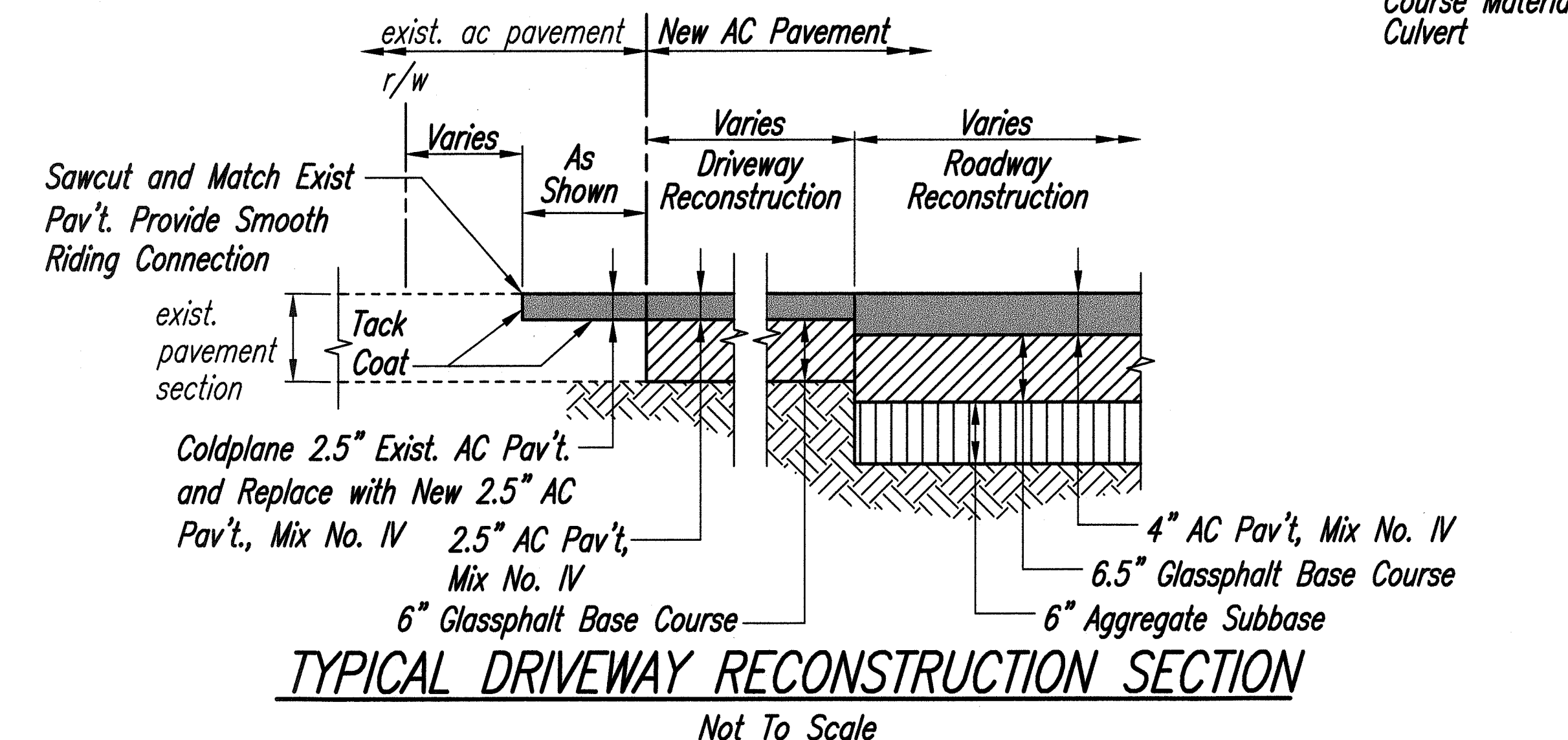
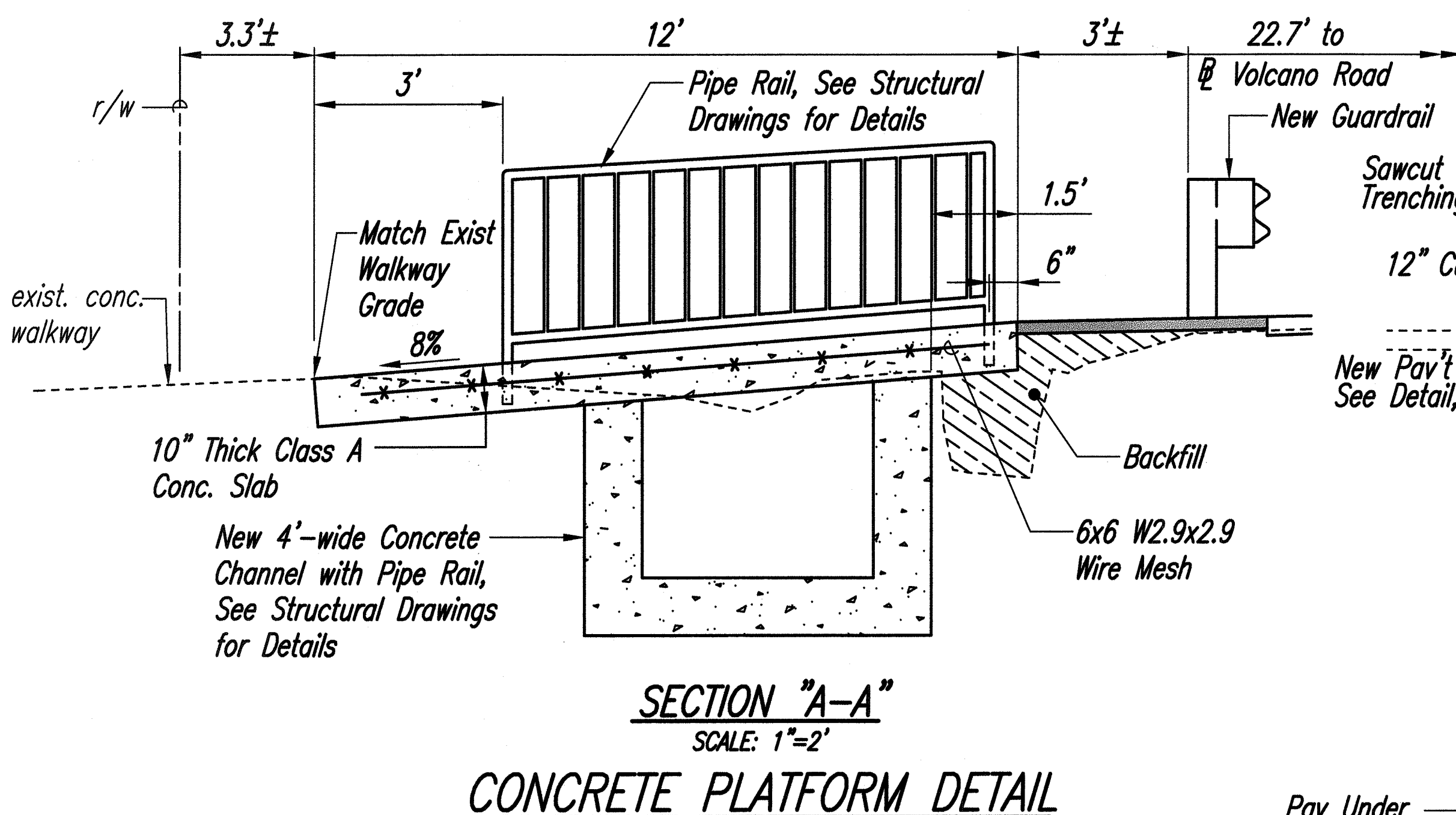
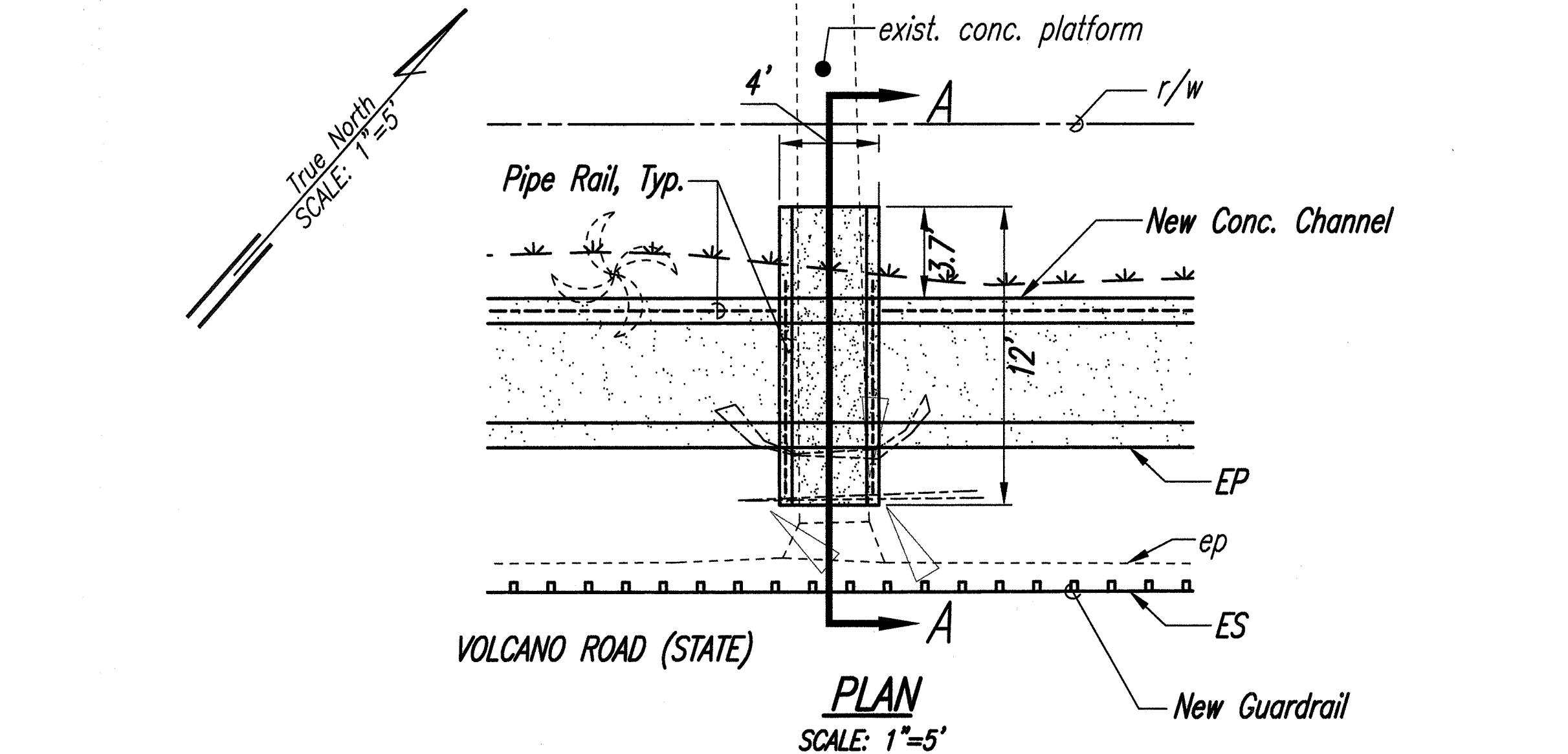
MISCELLANEOUS DETAILS
Volcano Road Intersection and Drainage Improvements
Federal-Aid Project No. HS-STP-011-2(38)

Scale: Not To Scale Date: November 2010

SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HS-STP-011-2(38)	2010	ADD. 99	141

- TYPICAL TRENCH NOTES:**
- TRENCH BACKFILL MATERIAL "A"**
1. Sand Equivalent (S.E.) ≥ 20
 2. 8" Maximum Lifts
 3. 95% compaction
- TRENCH BACKFILL MATERIAL "B"**
1. S.E. must not be less than the area being filled and in no case shall the S.E. be < 2 regardless of where it is used.
 2. 8" Maximum Lifts
 3. 95% Compaction
- WATER SERVICE LATERAL CUSHION MATERIAL**
1. Provide 6" minimum cushion material around water service laterals.
 2. Cushion material shall be No. 4 sand or other material approved by the County of Hawaii, Department of Water Supply.



TYPICAL BOX CULVERT TRENCH DETAIL
Not to Scale

TYPICAL DRAINLINE TRENCH DETAIL
Not to Scale

1/27/11

DATE

Addendum 2, Revised Typical Box Culvert, Drainline Trench and Waterline Trench Details

REVISION

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

Volcano Road Intersection and Drainage Improvements

Federal-Aid Project No. HS-STP-011-2(38)

Scale: As Noted Date: November 2010

SHEET NO. 2 OF 2 SHEETS

BARRY K. MURAKAWA

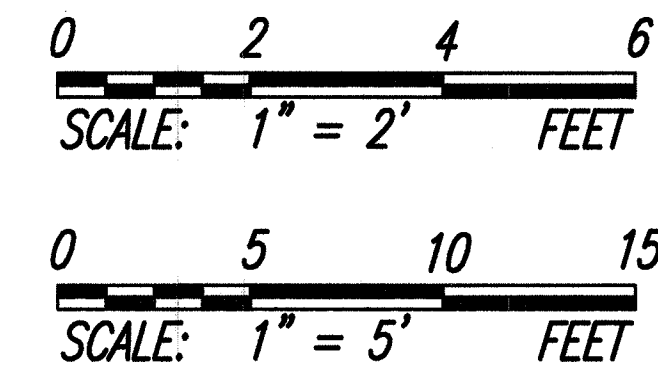
LICENSED PROFESSIONAL ENGINEER

No. 8418-C

HAWAII, U.S.A.

LICENSE EXPIRES 4/30/12

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

PLOT DATE: February 03, 2011 @ 04:34:04 pm
 LAST UPDATE: January 25, 2011 @ 11:28:12 am
 PROJ/FILENAME: \\volcano\proj\hawaii\hawaii\00001114_Volcano_Road_Intersection\000_Summit\000_ADDENDUM_02\00001114_Volcano_Road_Intersection.dwg