

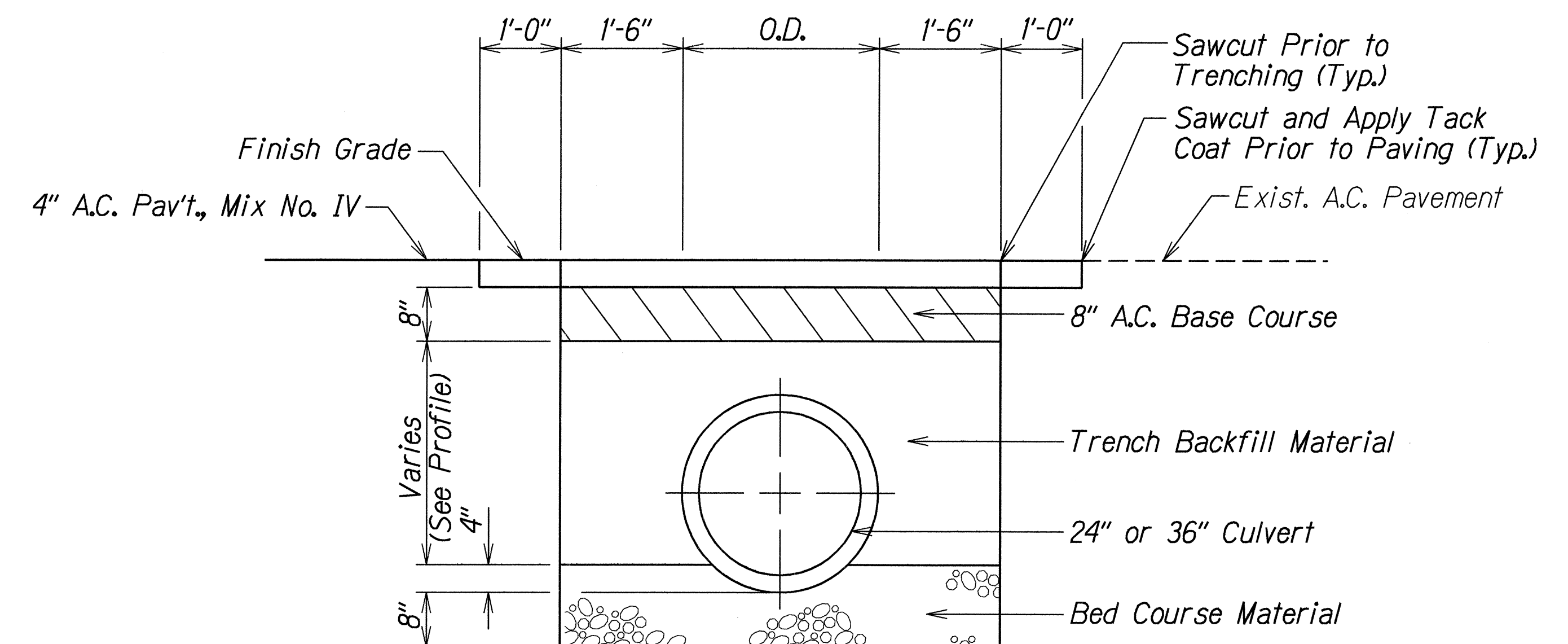
DRAINAGE SUMMARY

PROJECT: HANA HIGHWAY DRAINAGE IMPROVEMENTS
West Kuaia Road to Valley Isle Memorial Park

PROJECT NO. : STP-036-I(13)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-036-I(13)	1999	4	16

ITEM NO.		206.	207.	312.	401.	603.	603.	603.	604.	604.	604.	604.	604.	604.	604.	640.
		2020	0100	0100	0400	0010	1010	1014	2311	5105	5108	5238	5256	5265	5266	6400
UNIT USED		C.Y.	C.Y.	TON	L.F.	C.Y.	L.F.	L.F.	EA.	EA.	EA.	EA.	EA.	EA.	L.F.	L.F.
STRUCTURE	STATION	Structure Excavation for Drainage System	Ditch and Channel Excavation	Plant Mix Glassphalt Concrete Base Course	A.C. Pavement, Mix No. IV	Bed Course Material for Culvert	24-Inch RCP Class III, or 24-Inch HDPP, Type S, or 24-Inch ASRP, 4"± 0.105 Inch	36-Inch RCP Class III, or 36-Inch HDPP, Type S, or 36-Inch ASRP, 4"± 0.105 Inch	Type "61614P" Grate	Type "A" Storm Drain Manhole, 5.00 feet to 5.99 feet	Type "I" Storm Drain Manhole, 7.00 feet to 7.99 feet	Modified Type "D" Catch Basin, 5.00 feet to 5.99 feet	Type "201214P" Grated Drop Inlet, 5.00 ft. to 5.99 ft.	Type "A-9P" Grated Drop Inlet, 5.00 ft. to 5.99 ft.	Modified Type "A-9P" Grated Drop Inlet, 5.00 feet to 5.99 feet	Lined 2.75 Ft. X 2.00 Ft. Rectangular Drainage Ditch
122+28 o/s 25'± Lt.									2							
122+44 o/s 18.5'± Rt.	122+02.5 o/s 21.5'± Rt.	27		7	5	5	26								1	
122+02.5 o/s 21.5'± Rt.	121+30 o/s 15'± Rt.	94		20	13	15		62				1				
121+30 o/s 15'± Rt.	119+50 o/s 15'± Rt.	272		58	37	42		176					1			
119+50 o/s 15'± Rt.	117+00 o/s 17'± Rt.	382		81	52	59		246					1			
117+00 o/s 17'± Rt.	114+50 o/s 12.5'± Rt.	382		81	52	59		246					1			
114+50 o/s 12.5'± Rt.	112+80 o/s 16'± Rt.	257		54	35	40		166					1			
112+80 o/s 16'± Rt.	112+80 o/s 27' Lt.	56		12	8	9		38						1		
112+80 o/s 27' Lt.	112+40 o/s 27' Lt.	52		12	7	8		35		1						
112+40 o/s 27' Lt.	112+40 o/s 48.5' Lt.	28		7	4	5		20		1						
112+40 o/s 48.5' Lt.	109+40 o/s 48.5' Lt.		160								1					289
TOTAL		1550	160	332	213	242	26	989	2	2	1	1	4	1	1	289



TYPICAL DETAILS OF CULVERT TRENCH
AND PAVEMENT RESTORATION

Scale: 3/4"=1'-0"

DRAINAGE NOTES:

- Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various Contract Items.
- The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- For Culvert Trench and Pavement Restoration Detail, see this sheet.
- Removing and reinstalling existing metal guardrail at Sta. 112+80 Lt. shall not be paid for separately, but shall be considered incidental to Contract Item 206.2020 Structural Excavation for Drainage Systems.
- Demolishing, removing, and disposing existing headwall structures and gutter from Sta. 122+02.5 Rt. to Sta. 122+40 Rt. shall not be paid for separately, but shall be considered incidental to Contract Item 604.5238 Modified Type "D" Catch Basin.
- Gutter Transition at Sta. 122+33.5 shall not be paid for separately, but shall be considered incidental to Contract Item 604.5238 Modified Type "D" catch basin.
- Clearing and grubbing shall not be paid for separately, but shall be considered incidental to contract item 206.2020 Structural Excavation for Drainage Systems.
- 30 foot concrete ditch transition at Sta 112+40 o/s 47.5' Lt. shall not be paid for separately, but shall be considered incidental to contract item 640.6400 Lined 2.75-ft X 2.0-ft Rectangular Drainage Ditch.
- Grade to drain on sht. H8 shall not be paid for separately, but shall be considered incidental to Contract Item 640.6400 Lined 2.75-ft X 2.0-ft Rectangular Drainage Ditch.
- For added reinforcing around existing and new culverts, see Standard Plan H-04.
- For Type "P" Cast Iron Frame and Cover and Manhole Rung details, see Standard Plan H-08.
- Concrete shall be Class A unless otherwise noted.
- Chamfer all exposed concrete edges 1".

ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
CHECKED BY	
QUANTITIES BY	
REVISIONS	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE SUMMARY
HANA HIGHWAY
DRAINAGE IMPROVEMENTS
WEST KUIAIA ROAD TO VALLEY ISLE MEMORIAL PARK
Federal Aid Project No. STP-036-I(13)
Scale: As Shown Date: AUGUST, 1998

SHEET No. HI OF 12 SHEETS