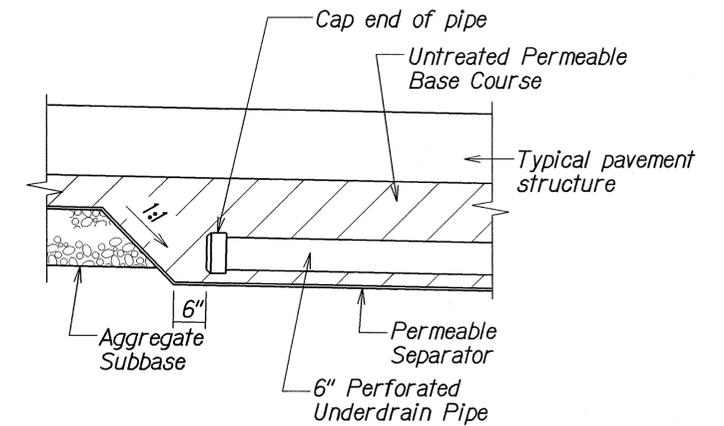


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H2-1(33)	2007	C.O. 60	168

6" LONGITUDINAL UNDERDRAIN PIPE	UNDERDRAIN OUTLET CONNECTION	UNDERDRAIN CLEANOUT	6" TRANSVERSE UNDERDRAIN PIPE
UNDERDRAIN PIPE SCHEDULE RAMP "MH-2"			
7+50 Rt. to 9+50± Rt.	9+50± Rt. Type "2"	7+50 Rt.	9+00
9+50 Rt. to 12+50± Rt.	12+50± Rt. Type "2"	11+00 Rt.	12+00
15+50 Rt. to 18+75± Rt.	18+75± Rt. Type "1"	16+50 Rt.	17+00
19+50 Rt. to 22+00± Rt.	22+00± Rt. Type "1"	20+75 Rt.	21+50
22+00 Rt. to 25+00± Rt.	25+00± Rt. Type "1"	23+50 Rt.	
25+00 Rt. to 28+48± Rt.	28+48± Rt. Type "1"	26+75 Rt.	26+50
31+00 Rt. to 31+50± Rt.	31+50± Rt. Type "1"		31+00
UNDERDRAIN PIPE SCHEDULE RAMP "HM-1"			
8+00 Lt. to 10+20± Lt.	10+20± Lt. Type "1"	9+00 Lt.	10+00
10+20 Lt. to 15+50± Lt.	15+50± Lt. Type "2"	13+00 Lt.	15+00

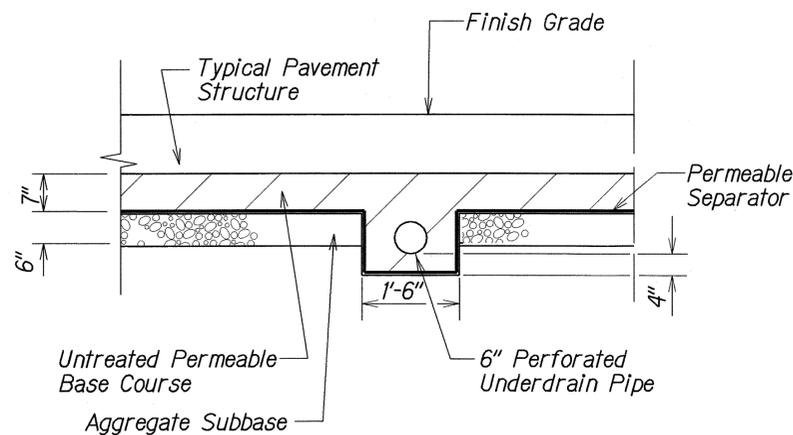
NOTES

1. Connection between Transverse Underdrain and Longitudinal Underdrain shall be considered incidental to Item No. 605.1000 6-Inch Underdrain.
2. Cap at end of underdrain pipe shall be considered incidental to Item No. 605.1000 6-Inch Underdrain.
3. Sawcutting of existing concrete gutter and patching with non-shrink grout shall be considered incidental to Item No. 605.2100 Type 1 Underdrain Outlet and Item No. 605.2200 Type 2 Underdrain Outlet.



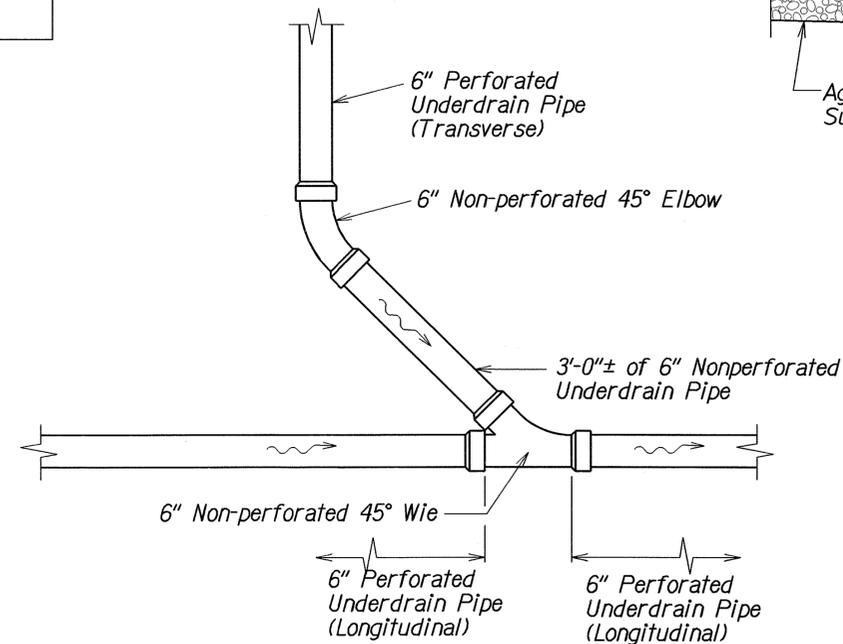
TYPICAL DETAILS OF 6" UNDERDRAIN END

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



TYPICAL DETAILS OF 6" TRANSVERSE UNDERDRAIN TRENCH

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



PLAN

TYPICAL DETAILS OF CONNECTION TO TRANSVERSE UNDERDRAIN

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

4/15/08 Amended underdrain limits in Table.

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS

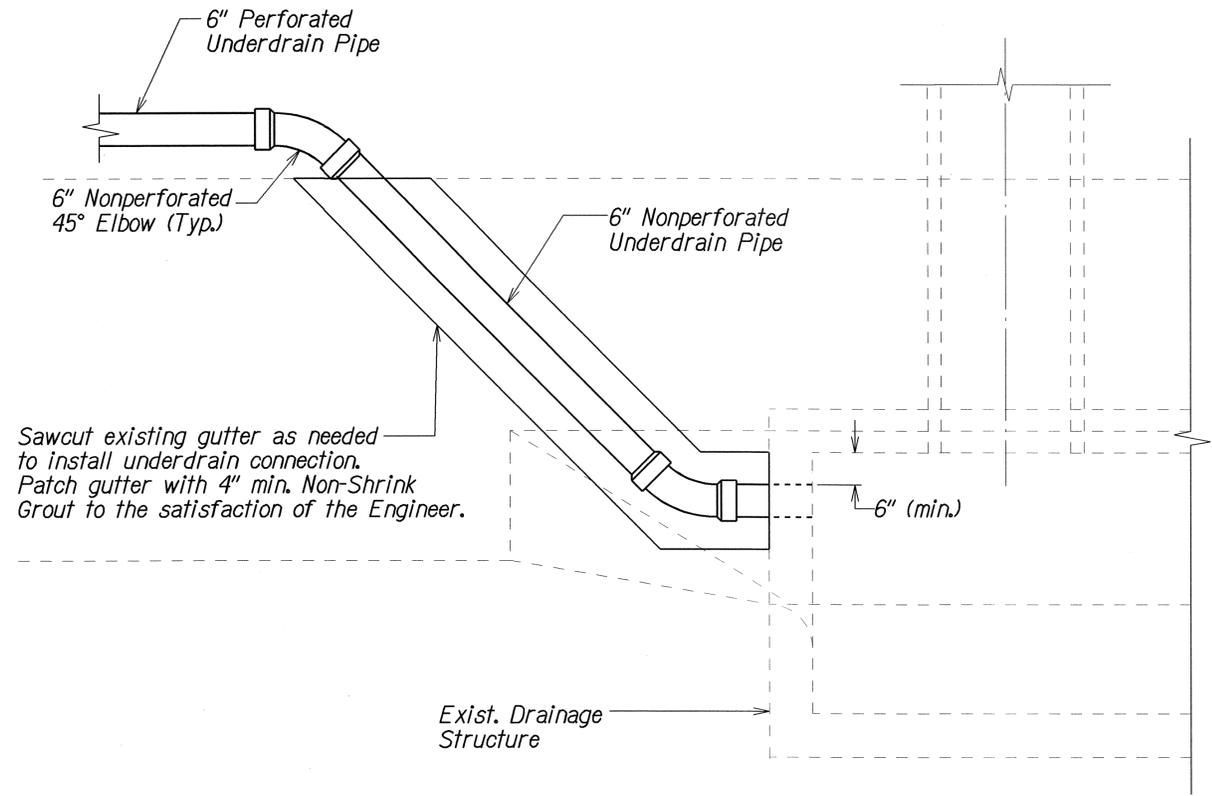
INTERSTATE ROUTE H-2 REHABILITATION
Waipio Interchange & Mililani Interchange
On/Off Ramps, Ka Uka Blvd, Meheula Parkway
Overpass, & Kipapa Stream Bridge
Federal Aid Project No. IM-H2-1(33)
Scale: As Shown Date: Dec. 2006

SHEET No. HI OF 4 SHEETS

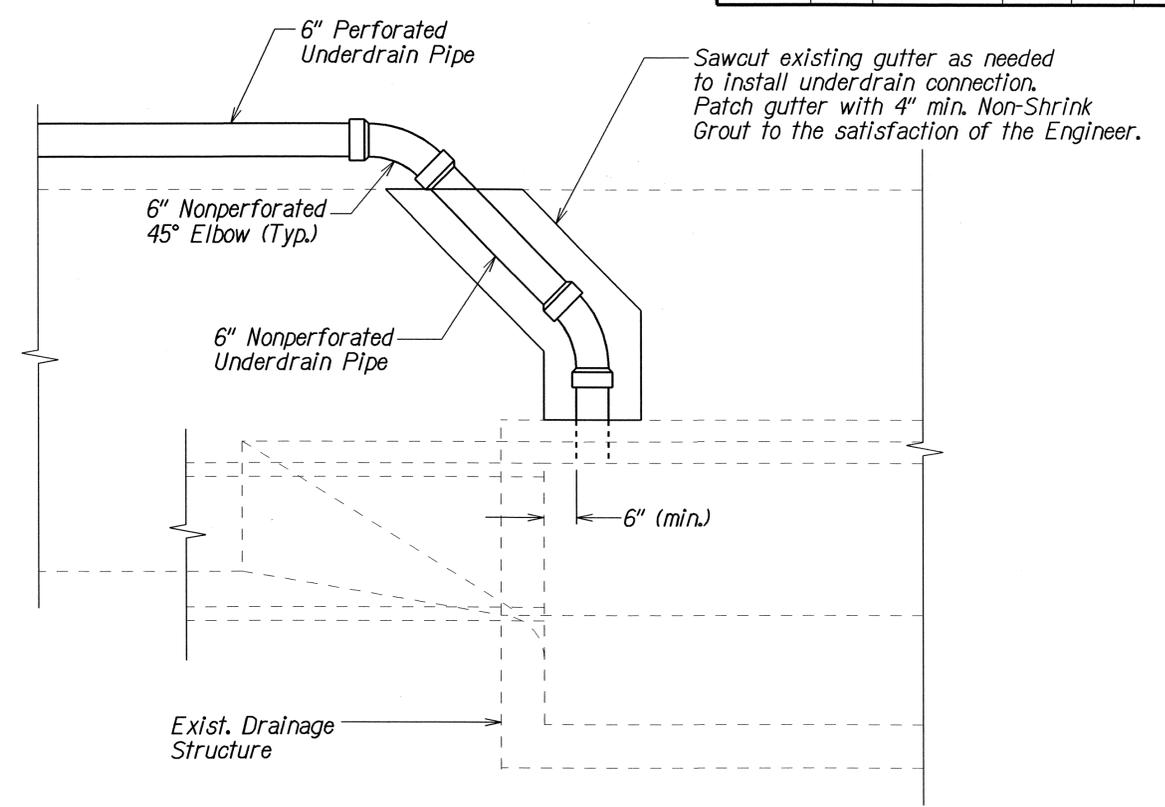
C.O. 60

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DESIGNED BY	
TRACED BY	
NOTE BOOK	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

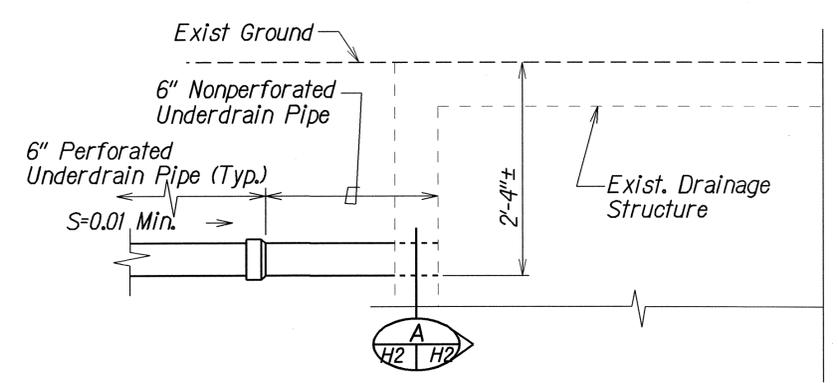
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H2-1(33)	2007	61	168



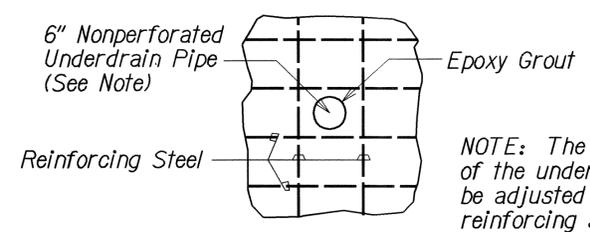
PLAN



PLAN

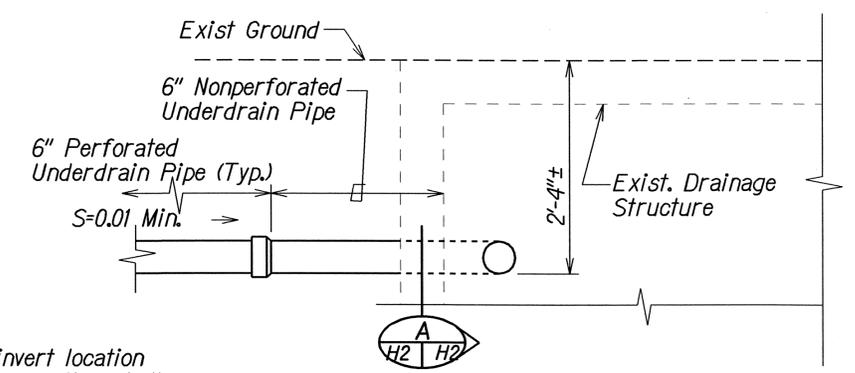


ELEVATION



SECTION

NOTE: The exact invert location of the underdrain connection shall be adjusted to pass between the reinforcing steel.



ELEVATION

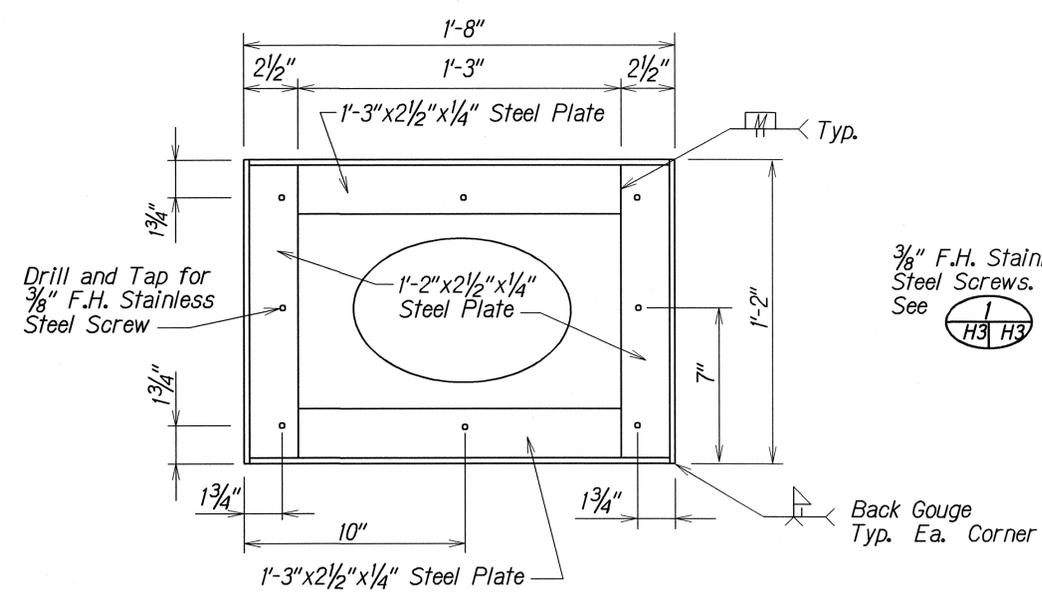
DETAILS OF TYPE "1" UNDERDRAIN OUTLET

DETAILS OF TYPE "2" UNDERDRAIN OUTLET

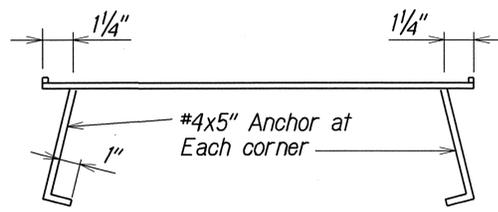
ORIGINAL PLAN	DATE	5/15/07
SURVEY PLOTTED BY		
DRAWN BY		
DESIGNED BY		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS
INTERSTATE ROUTE H-2 REHABILITATION
Waipio Interchange & Milliani Interchange,
On/Off Ramps, Ka Uka Blvd. & Meheula Parkway
Overpasses, & Kipapa Stream Bridge
Federal Aid Project No. IM-H2-1(33)
Scale: 3/4"=1'-0" Date: Dec. 2006
SHEET No. H2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-H2-1(33)	2007	62	168

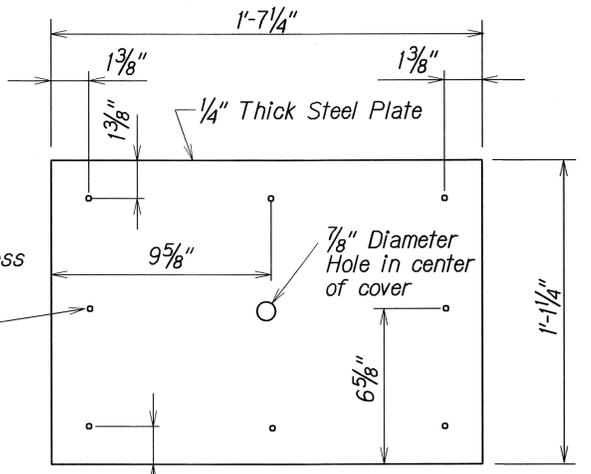


PLAN



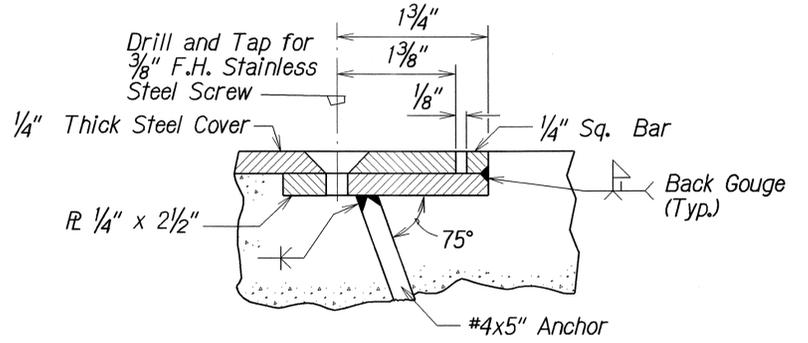
SECTION

DETAILS OF STEEL FRAME



PLAN

DETAIL OF STEEL COVER

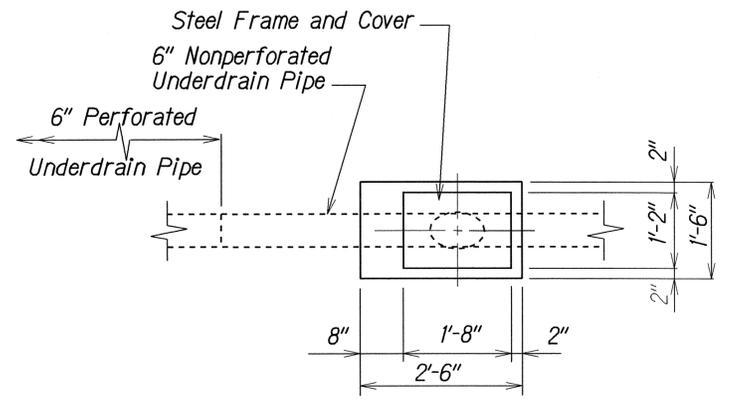


DETAIL Full Size 1 H3 H3

NOTE: All Steel Parts shall be zinc-coated in accordance with the requirements of ASTM A123.

DETAILS OF STEEL FRAME AND COVER FOR CLEANOUT

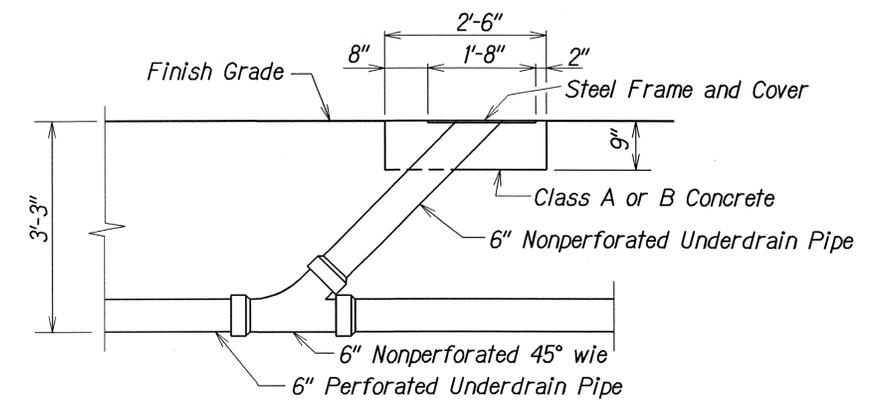
Scale: 3"=1'-0"



PLAN

TYPICAL DETAILS OF CLEANOUT

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

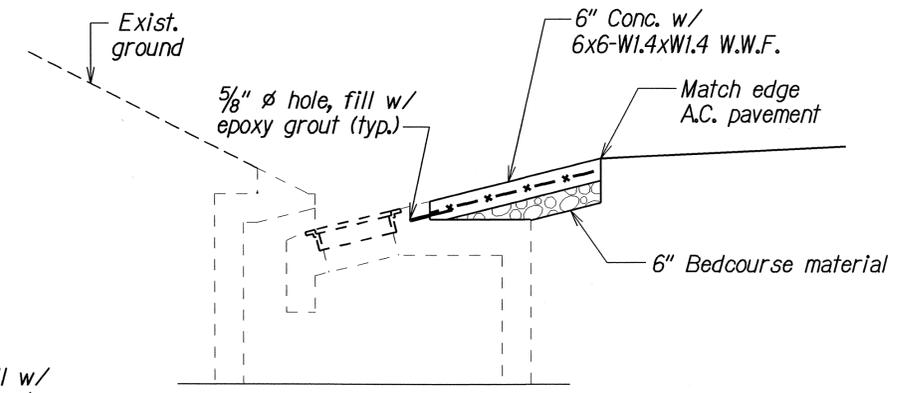
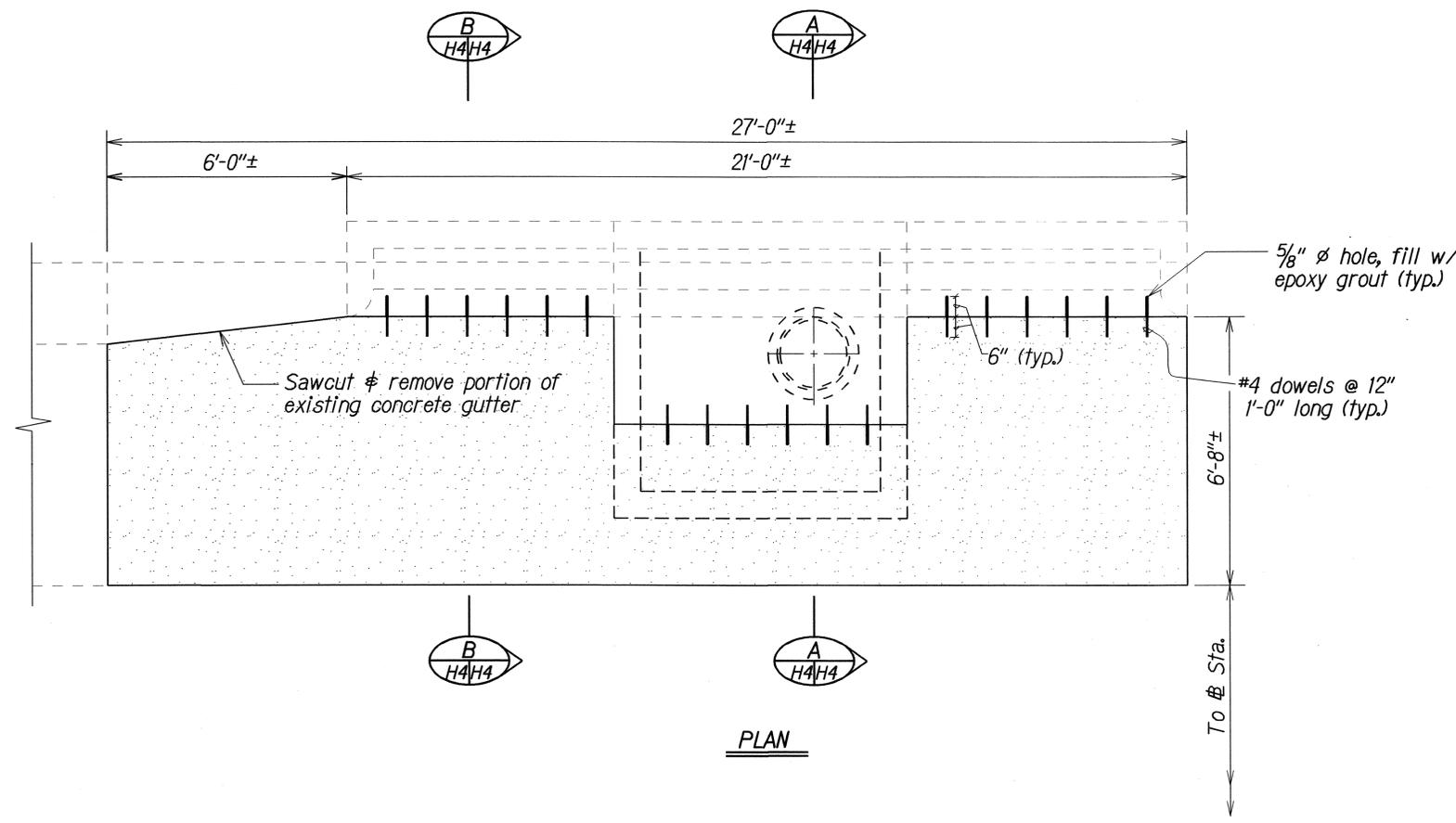


ELEVATION

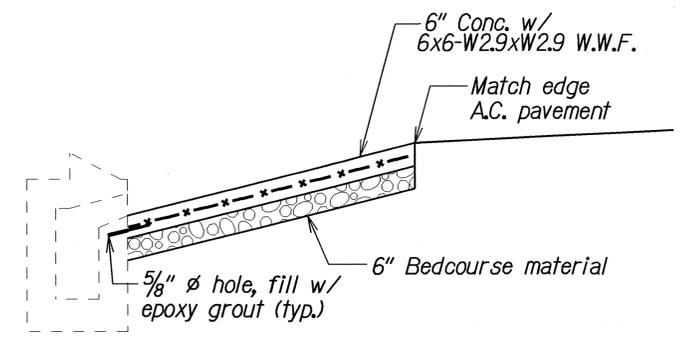
ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DRAINAGE DETAILS
INTERSTATE ROUTE H-2 REHABILITATION
Waipio Interchange & Milliani Interchange,
On/Off Ramps, Ka Uka Blvd. & Meheula Parkway
Overpasses, & Kipapa Stream Bridge
Federal Aid Project No. IM-H2-1(33)
Scale: As Shown Date: December 2006
SHEET No. H3 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1M-H2-1(33)	2007	63	168



SECTION A
H4/H4



SECTION B
H4/H4

REPAIR OF EXISTING CONCRETE GUTTER

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
0131006-412	
06/22/06/06	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

INTERSTATE ROUTE H-2 REHABILITATION
Waipio Interchange & Milliani Interchange,
On/Off Ramps, Ka Uka Blvd. & Meheula Parkway
Overpasses, & Kipapa Stream Bridge
Federal Aid Project No. 1M-H2-1(33)
Scale: 1/2"=1'-0" Date: August, 2006

SHEET No. H4 OF 4 SHEETS