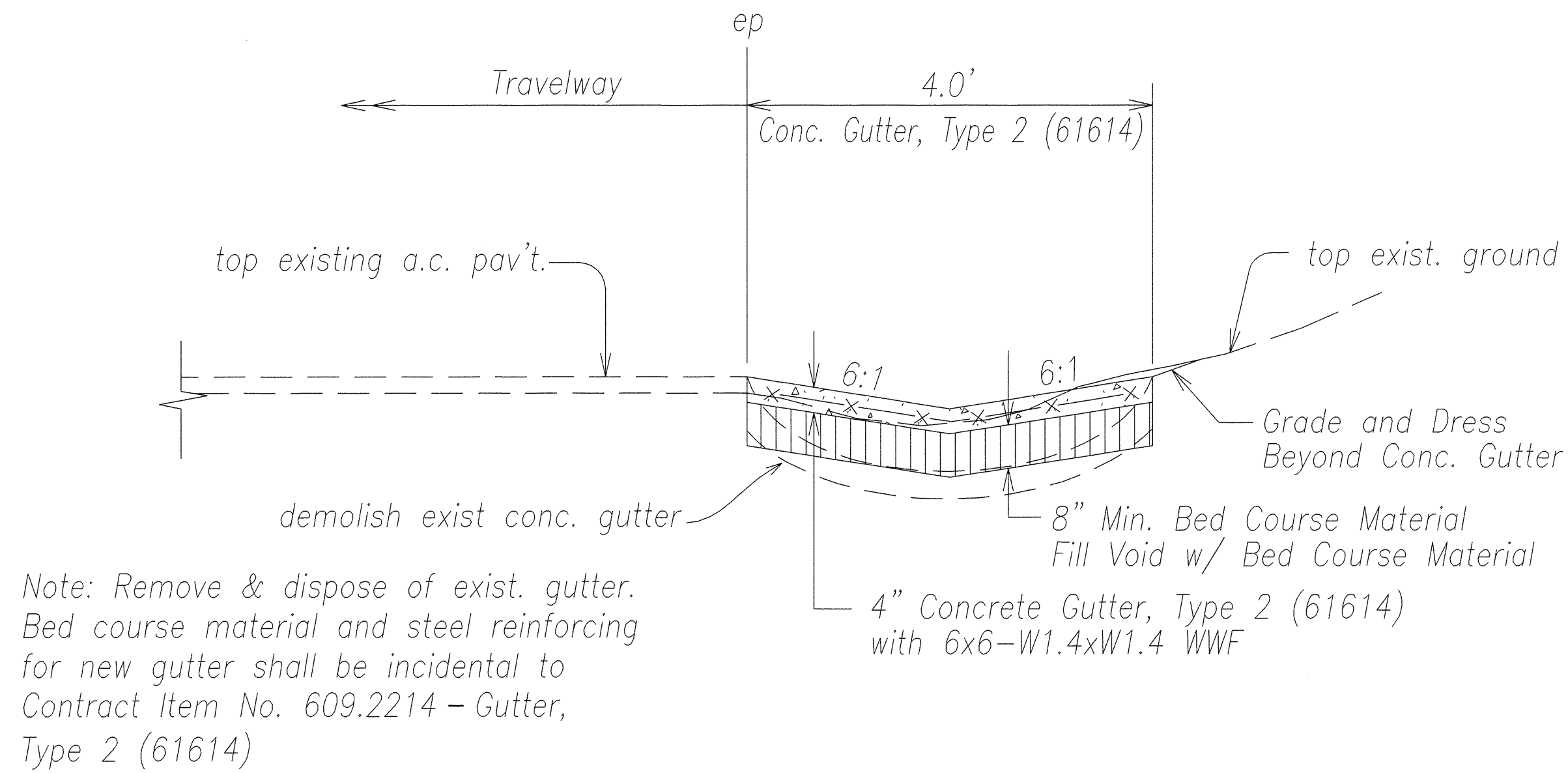
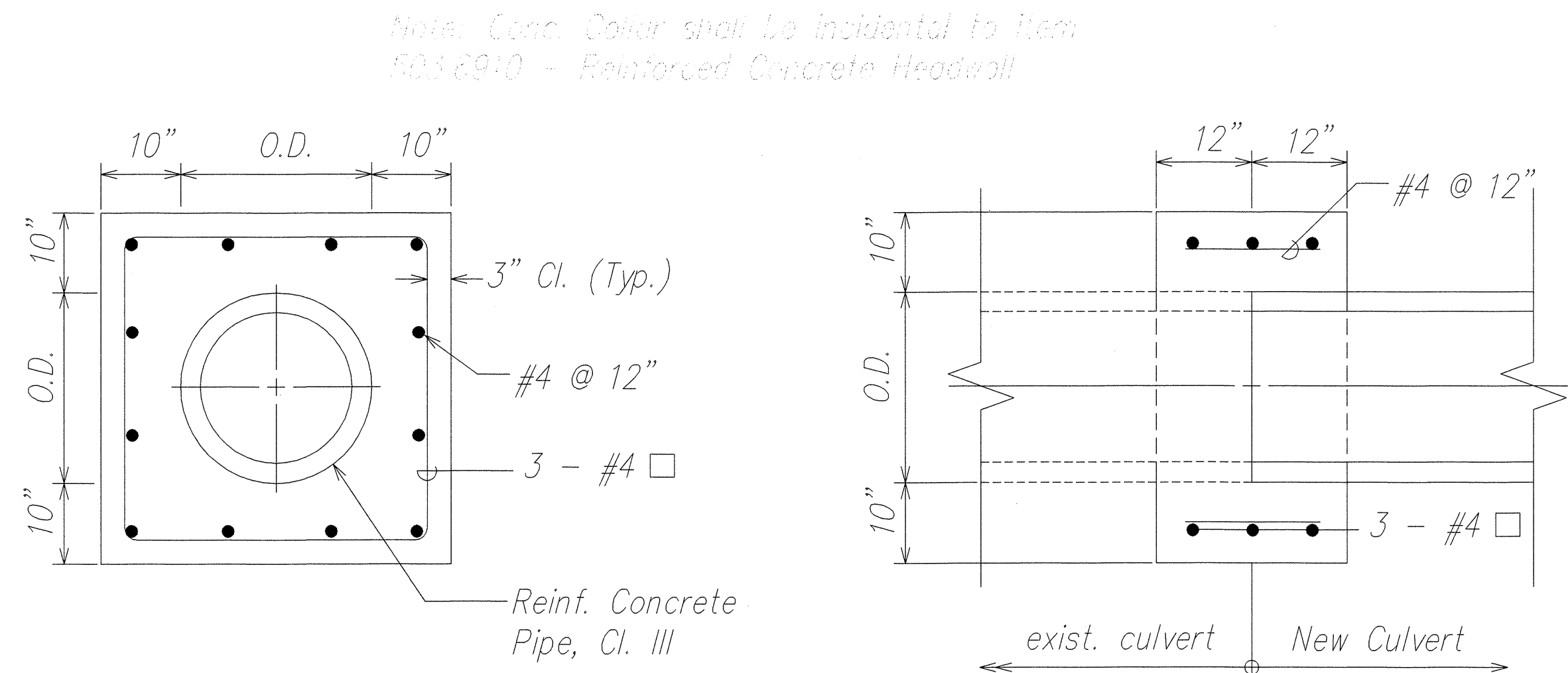


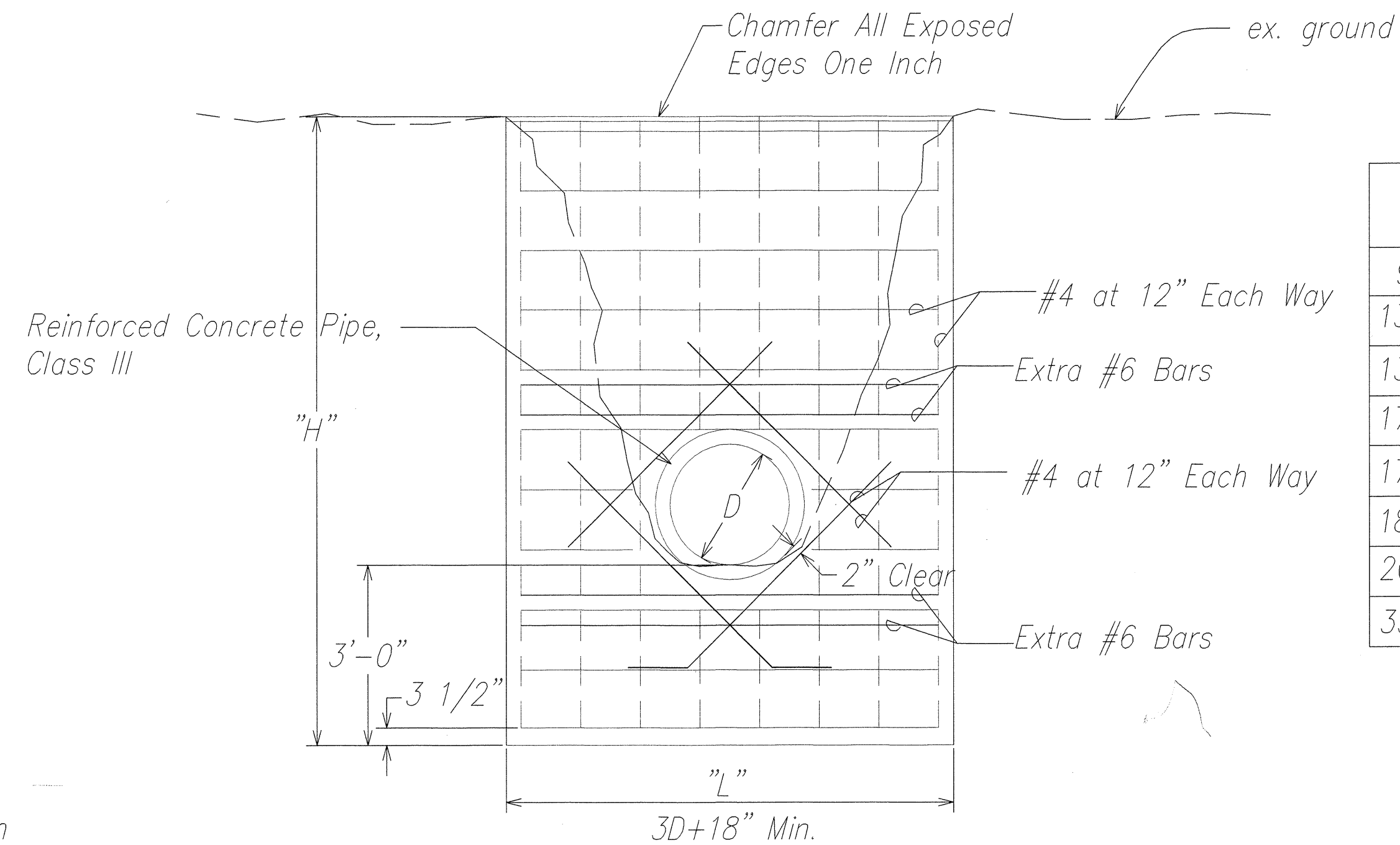
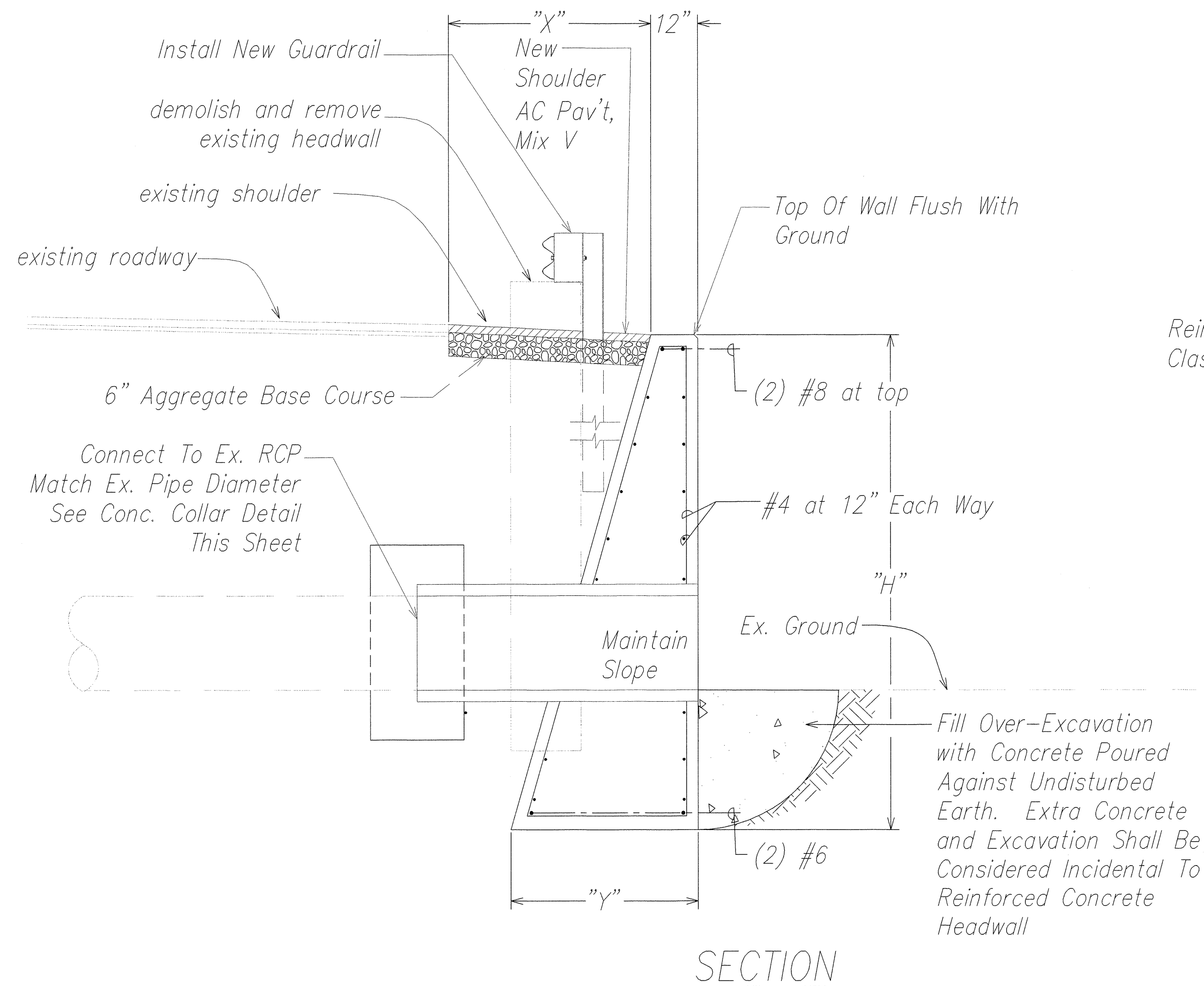
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-03-99	2002	24	86



DETAIL – NEW CONCRETE GUTTER, TYPE 2 (61614)
AT STA. 466+30 TO STA. 468+40 o/s RT.
Not to Scale



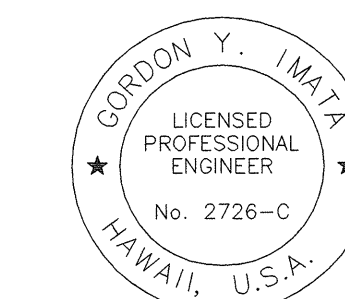
ELEVATION
SECTION
REINFORCED CONCRETE COLLAR
SCALE: 3/4" = 1'-0"



ELEVATION
CONCRETE HEADWALL DETAIL
SCALE: 1/2" = 1'-0"

Station	Culvert Size	H (ft)	L (ft)	X (ft)	Y (ft)
9+50 o/s Lt.	18"	10.22	6.0	14.0	4.0
13+15 o/s Lt.	18"	6.18	6.0	9.0	3.0
13+20 o/s Rt.	18"	6.46	6.0	1.0	3.0
17+50 o/s Lt.	18"	6.86	6.0	9.0	3.0
17+60 o/s Rt.	18"	5.87	6.0	2.0	3.0
18+35 o/s Lt.	18"	6.52	6.0	11.0	3.0
20+60 o/s Lt.	24"	8.90	7.5	11.0	3.5
33+28 o/s Lt.	24"	8.95	7.5	11.0	3.5

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	JAN. 2001
QUANTITIES BY	TRACED BY	JAN. 2001
CHECKED BY	NOTED BY	
No. 2726-C		



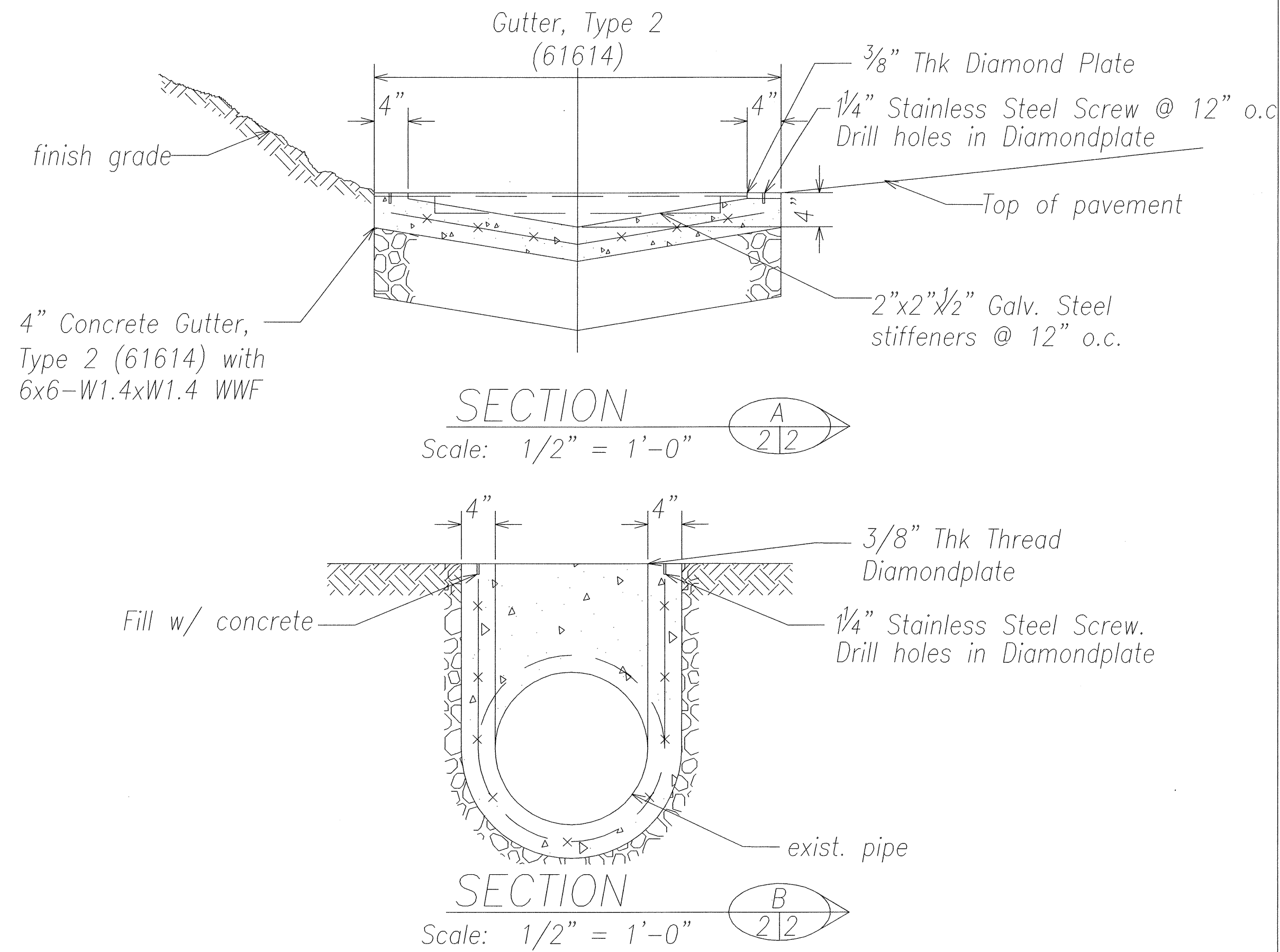
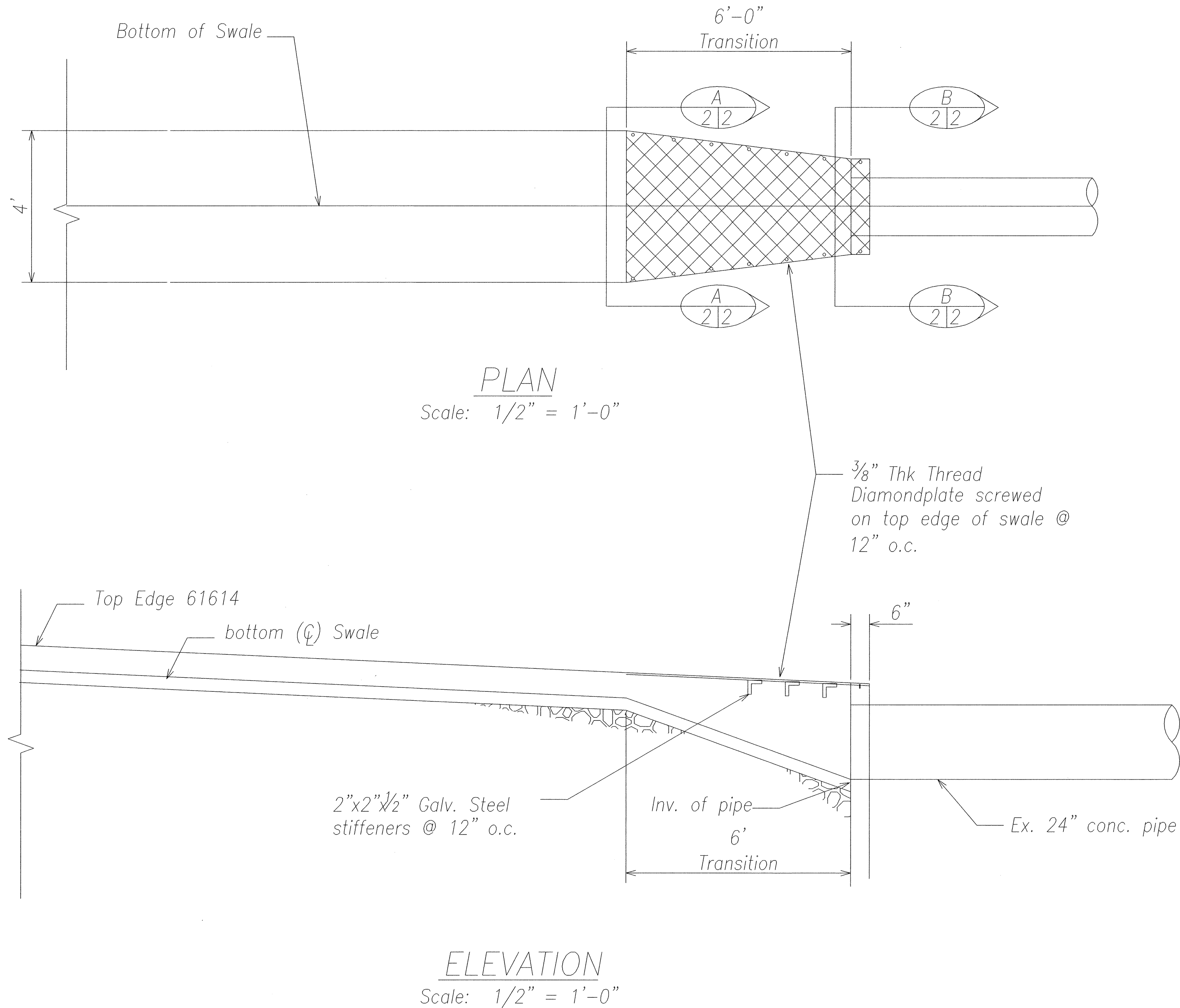
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
[Signature]

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HEADWALL AND GUTTER DETAIL

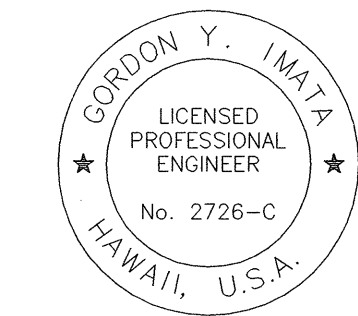
KUHIO HIGHWAY
SHOULDER IMPROVEMENTS
Haena to Princeville
Project No. 560A-03-99
Scale: As shown Date: February, 2002
SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	560A-03-99	2002	25	86



- Notes:
1. Thread diamondplate and stiffeners shall be hot dip galvanized after fabrication.
 2. Furnishing & installing diamondplate, screws, stiffeners, concrete and screw hole drilling shall be considered incidental to Contract Item No. 609.2214- Gutter, Type 2 (61614)

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE: 1. 100% design	DRAWN BY	JAN. 2001
2. 100% design	DESIGNED BY	JAN. 2001
3. 100% design	CHECKED BY	



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Gordon Y. Inata

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HEADWALL AND GUTTER DETAIL

KUHIO HIGHWAY
SHOULDER IMPROVEMENTS
Haena to Princeville
Project No. 560A-03-99
Scale: As Shown Date: February, 2002
SHEET No. 2 OF 2 SHEETS