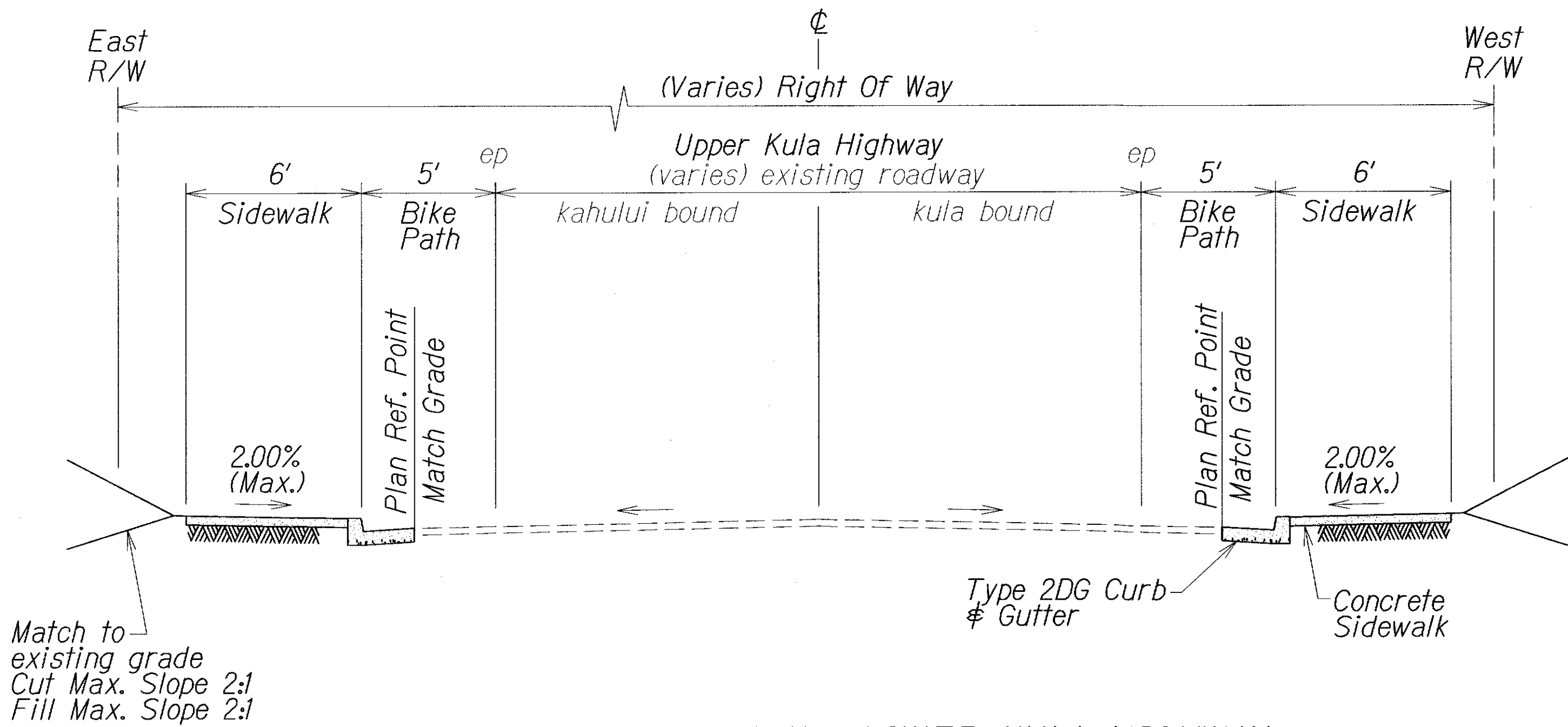
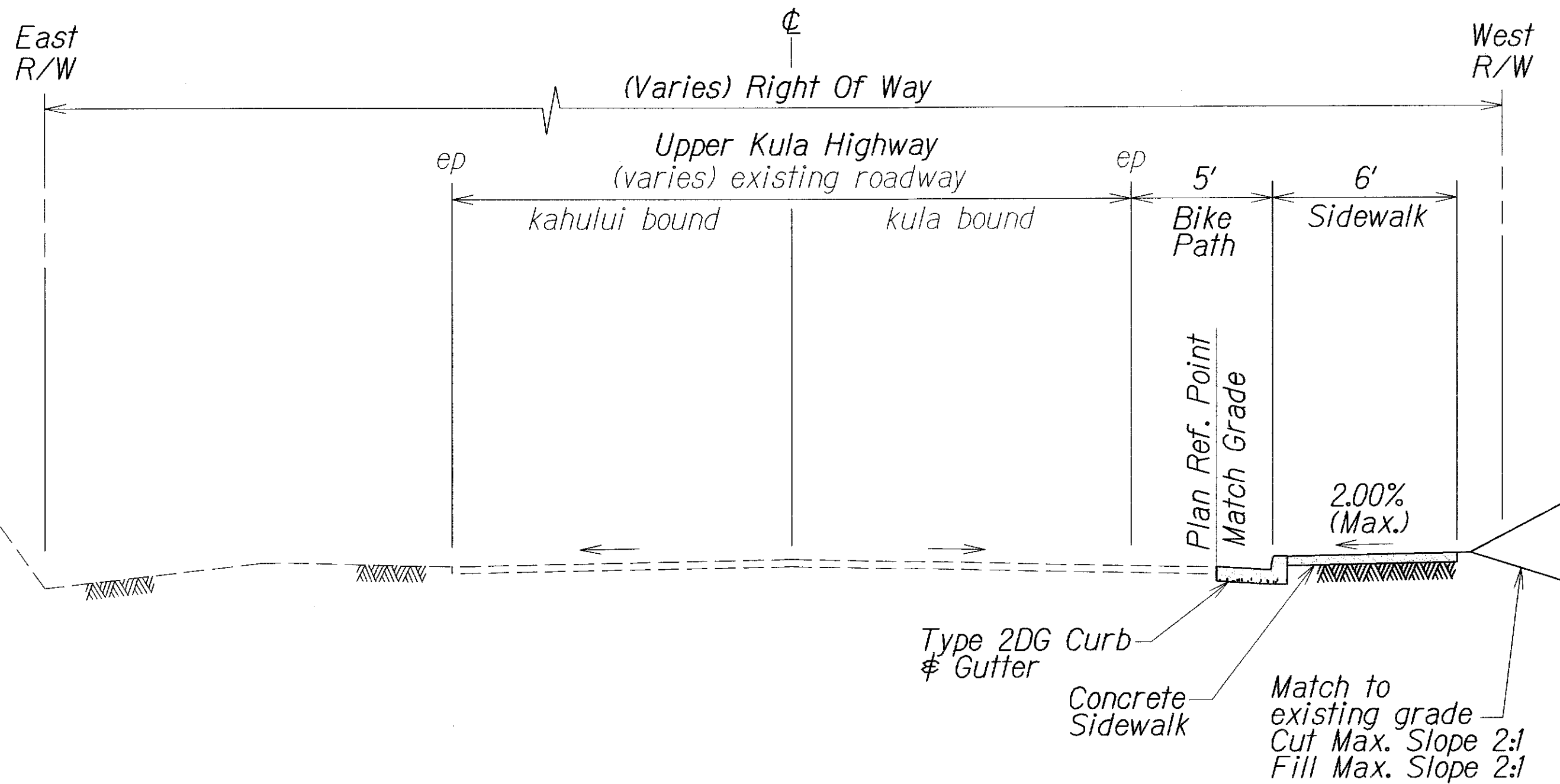


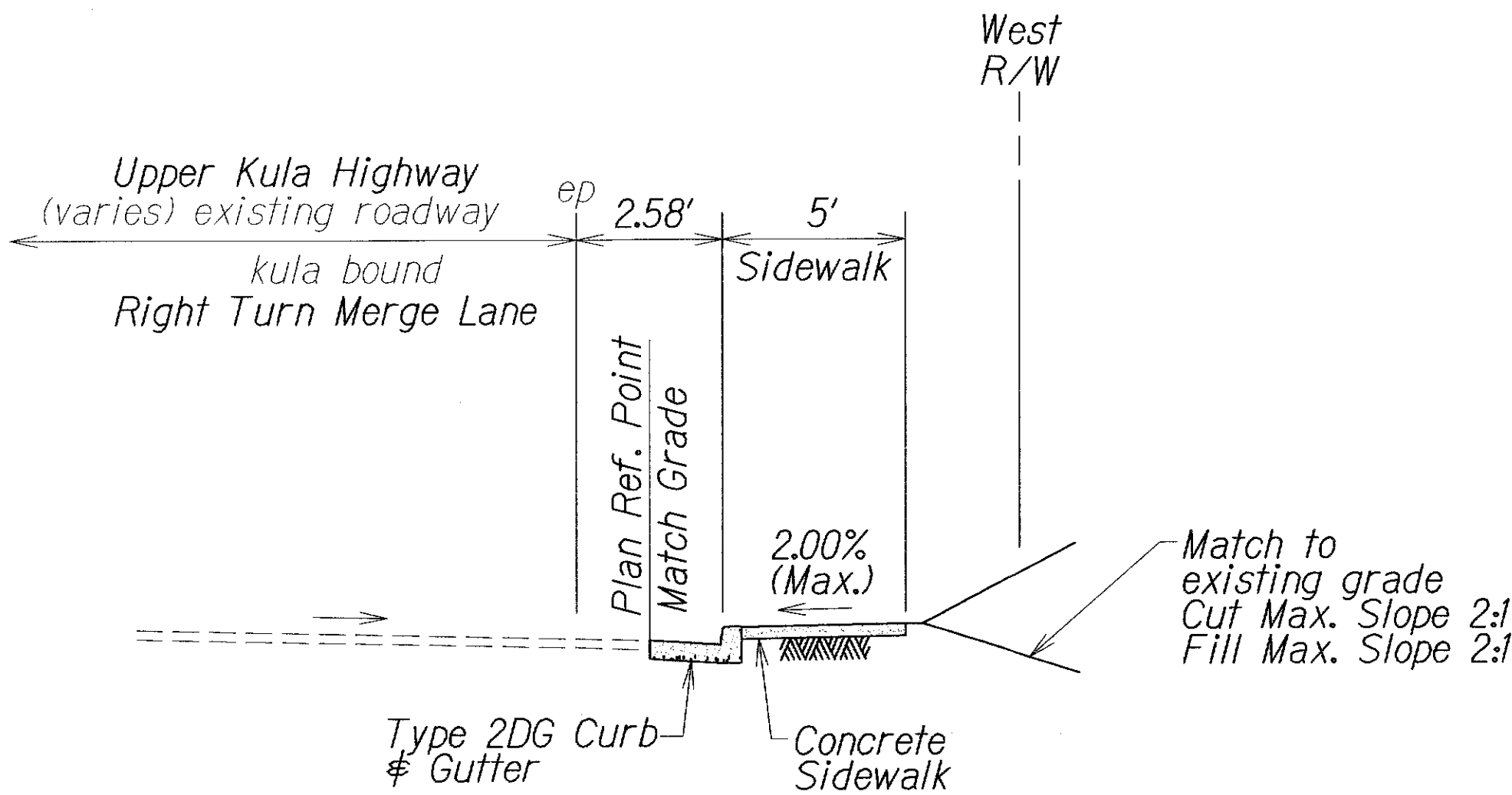
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-01-14	2014	ADD. 6	30



**TYPICAL ROAD SECTION - LOWER KULA HIGHWAY**  
**STA. 159+84± TO STA. 171+53±**  
 Scale: 1/4" = 1'-0"



**TYPICAL ROAD SECTION - LOWER KULA HIGHWAY**  
**STA. 171+89± TO STA. 176+91±**  
 Scale: 1/4" = 1'-0"



**TYPICAL ROAD SECTION - LOWER KULA HIGHWAY**  
**STA. 158+85± TO STA. 159+54±**  
**STA. 161+08± TO STA. 162+43±**  
 Scale: 1/4" = 1'-0"

- Notes:
1. All Bed Course and Subbase Under Sidewalk shall be Incidental to Item 634.1000.
  2. All Bed Course and Subbase Course Under Curb and Gutter shall be Incidental to Item No. 638.1000.

6/24/14 Added Notes.

DATE REVISION

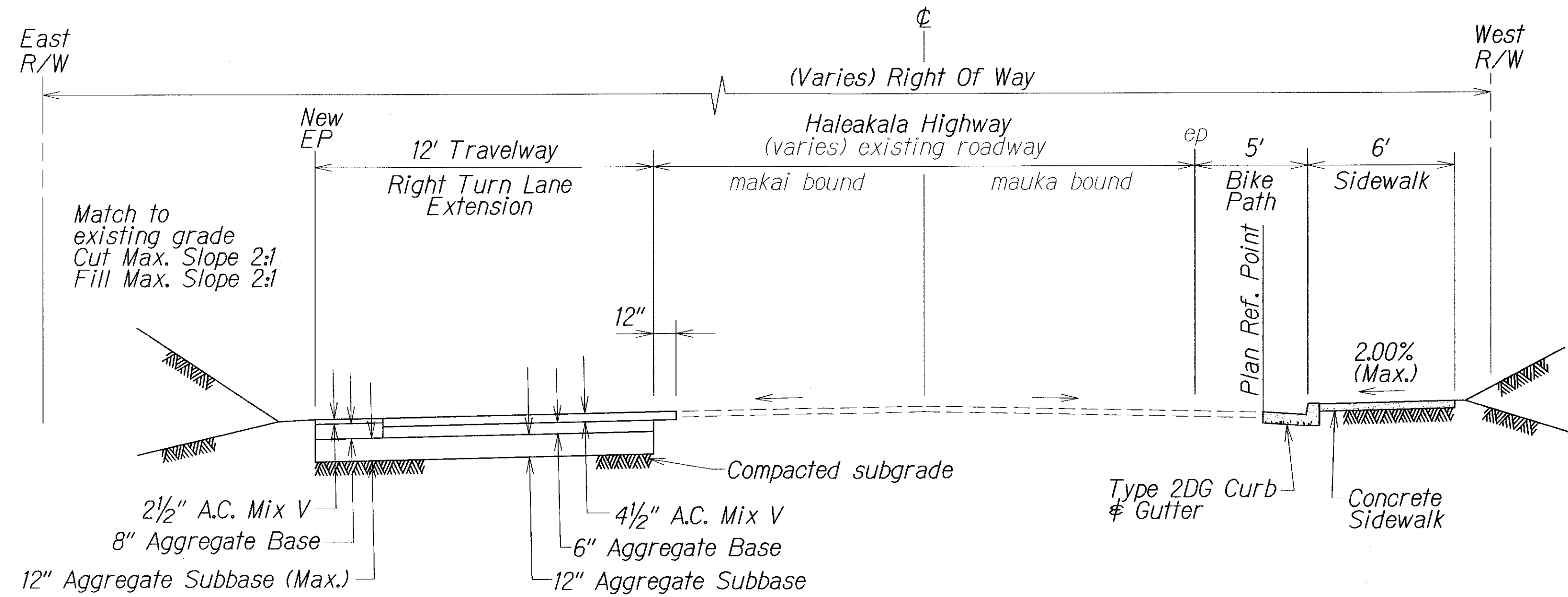
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL SECTIONS & DETAILS**  
  
HALEAKALA HIGHWAY INTERSECTION  
IMPROVEMENTS AT KULA HIGHWAY  
Project No. 37C-01-14  
  
Scale: As Shown      Date: April, 2014

SHEET No. 1 OF 3 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
6/24/14	DESIGNED BY	
NA	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-01-14	2014	ADD. 7	30



- NOTES:**
1. All Aggregate Base and Subbase shall be Incidental to Item No. 401.1000.
  2. All Bed Course and Subbase under Sidewalk shall be Incidental to Item No. 634.1000.
  3. All Bed Course and Subbase under Curb and Gutter shall be Incidental to Item No. 638.1000.

**TYPICAL ROAD SECTION - HALEAKALA HIGHWAY**  
 Scale: 1/4" = 1'-0"

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

6/24/14	Added Notes.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>TYPICAL SECTIONS &amp; DETAILS</b> <u>HALEAKALA HIGHWAY INTERSECTION</u> <u>IMPROVEMENTS AT KULA HIGHWAY</u> <u>Project No. 37C-01-14</u> Scale: As Shown      Date: April, 2014 SHEET No. 2 OF 3 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	37C-01-14	2014	8	30

4'-0" x 6'-6" FLAT WALL MANHOLE x 78" DEEP

NOTES:

- MANHOLE DESIGNED IN ACCORDANCE WITH AASHTO H-20-44 TRAFFIC BRIDGE LOADING USING 6,000 PSI COMPRESSIVE STRENGTH CONCRETE AND 60,000 PSI YIELD STRENGTH ASTM A-706 STEEL REINFORCEMENT PER CALCS. #30591.
- MANHOLE TO BE PLACED ON A 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.
- LIMITS OF COVER OVER ROOF SECTION IS 1'-0" TO 5'-0"
- INTERIOR WALLS AND CEILING TO BE PAINTED WHITE.
- PRODUCT TO BE STENCILED:  
BROOKS PRODUCTS  
DATE OF POUR  
PRODUCT MARK NO.

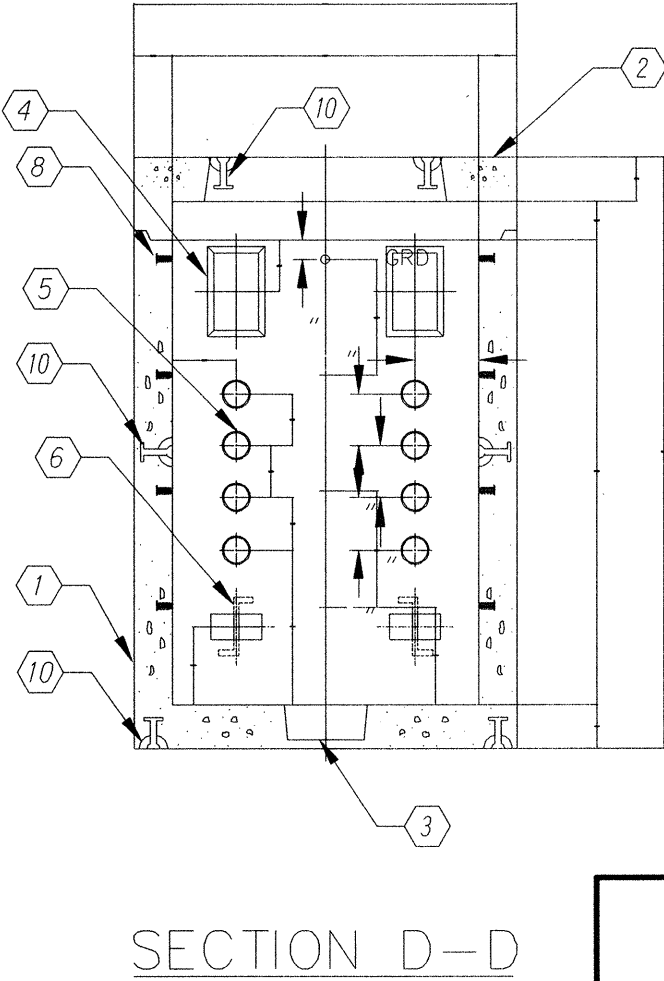
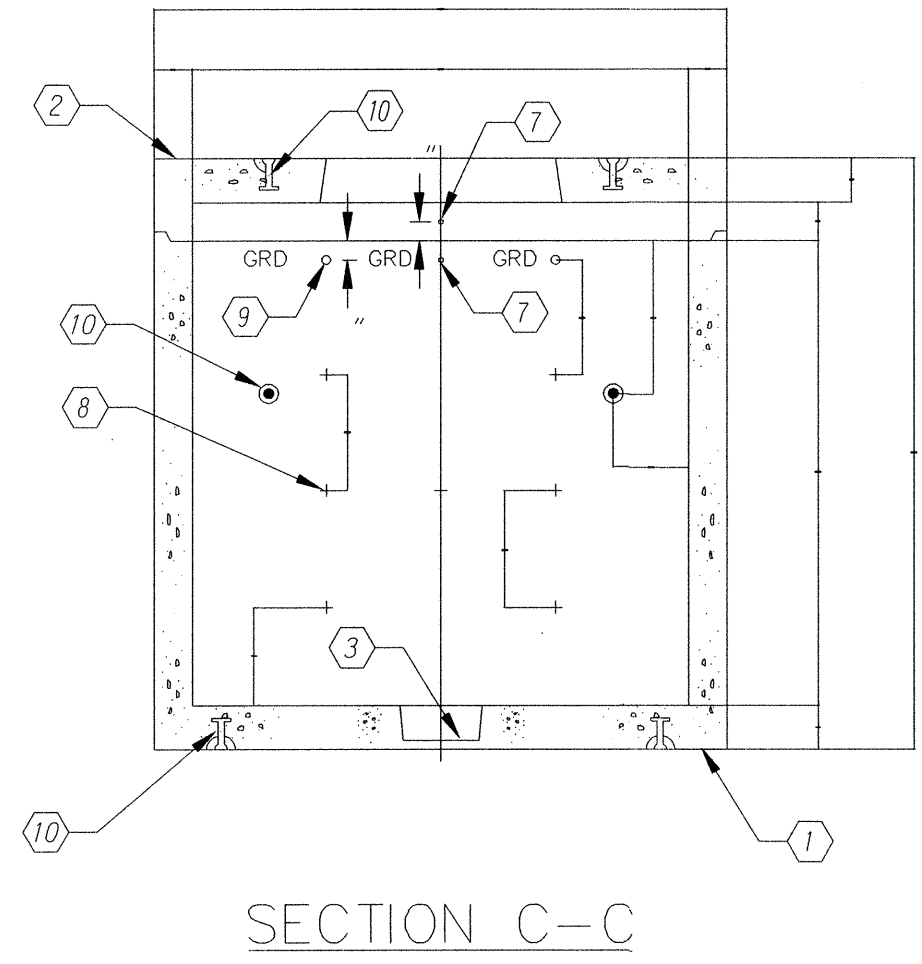
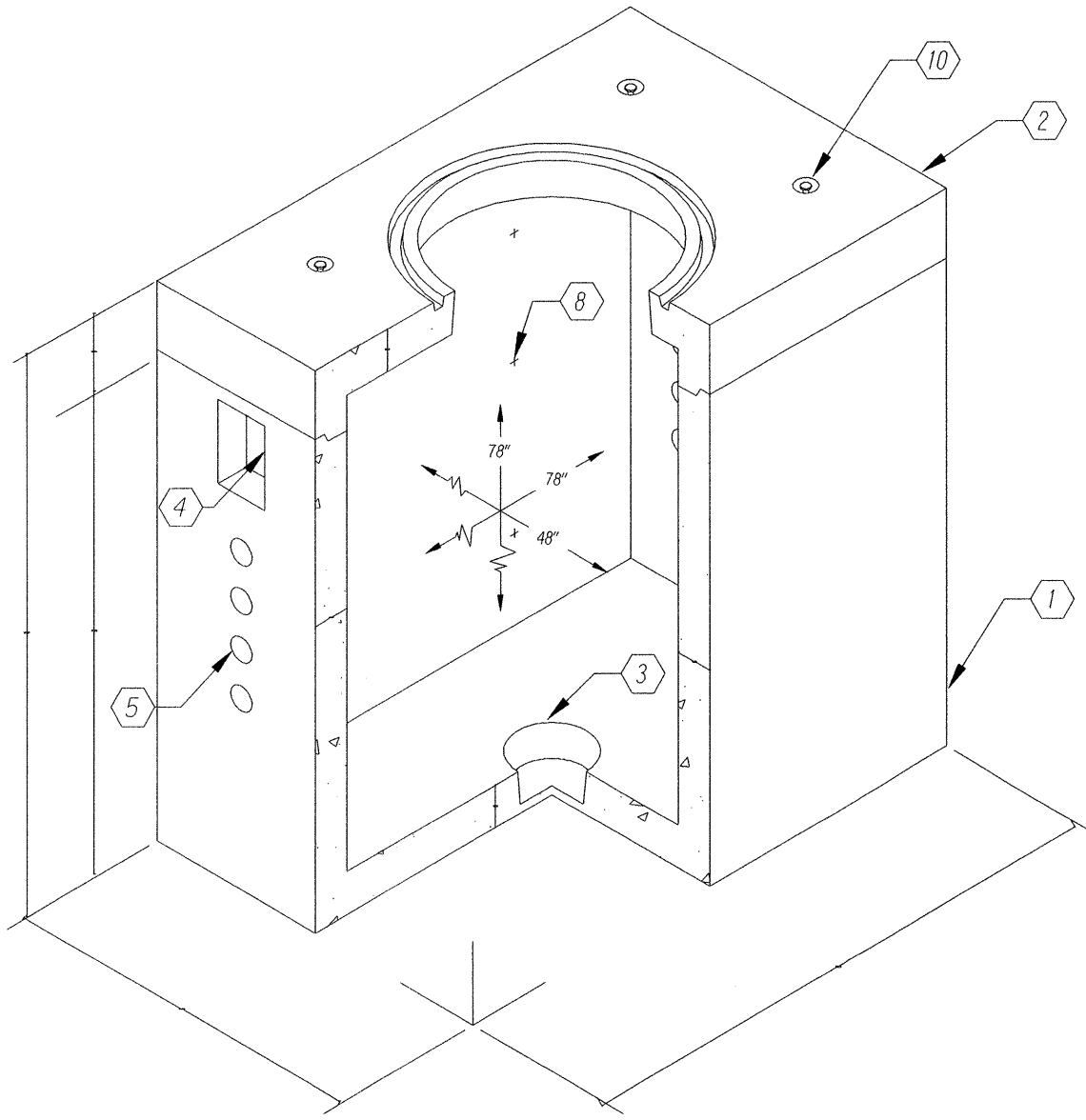
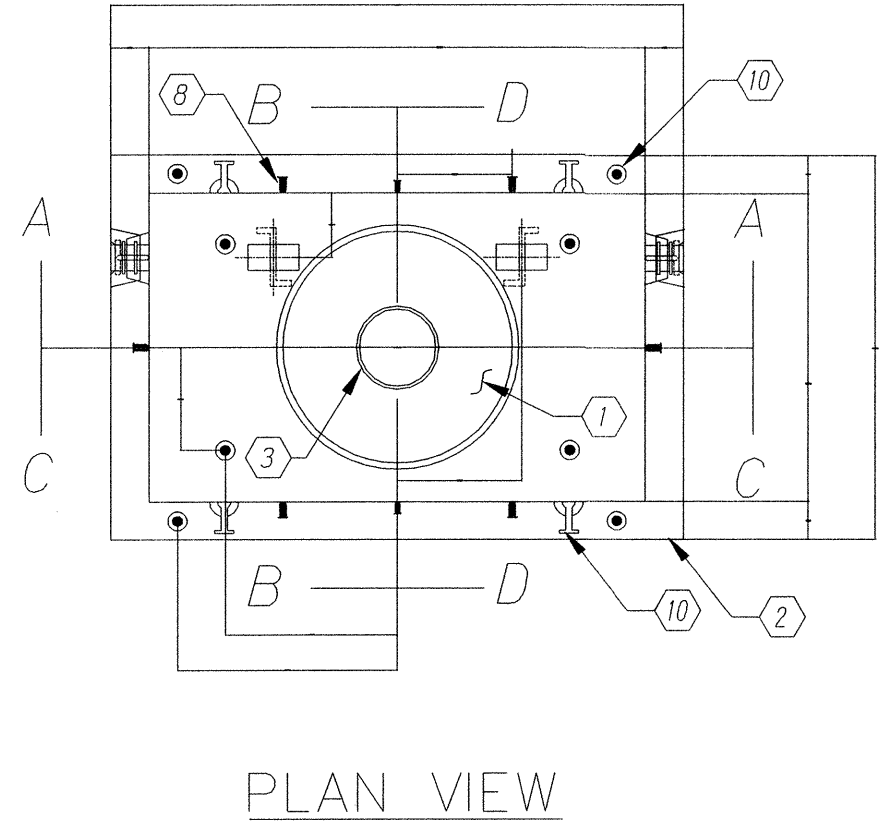
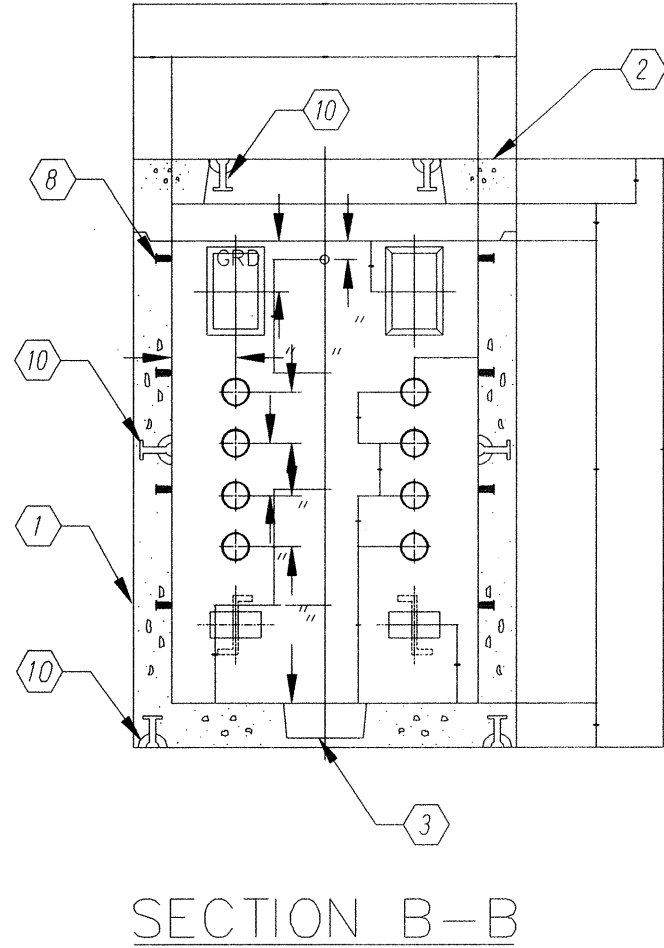
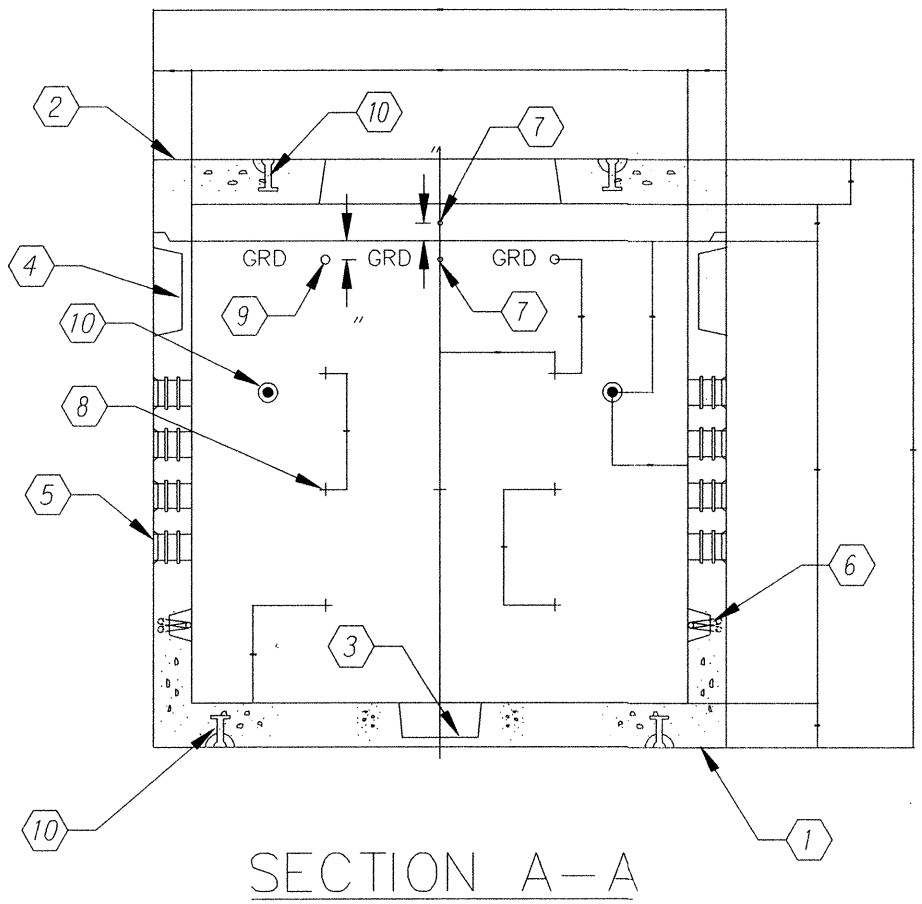
THE FOLLOWING MATERIALS ARE TO BE SHIPPED WITH EACH MANHOLE:

- (a) 7/8" x 1 3/4" GASKET (21 FT REQ'D.)
- (b) 1/2" x 2" HEX HEAD PLATED BOLTS (24 REQ'D.)
- (c) 1/2" x 1 1/4" HEX HEAD PLATED BOLTS (8 REQ'D.)
- (d) 1/2" HEAVY HEX GALVANIZED NUT (8 REQ'D.)
- (e) 47 HOLE CABLE RACKS (6)
- (f) "S" SUPPORTS (8 REQ'D.)
- (g) A-3383 LADDER STEPS (2 REQ'D.)
- (h) A-3600 LADDER 8' (1 REQ'D.)
- (i) BONDING RIBBON (1 @ 7'-0")
- (j) 1/4" x 3/4" HEX HEAD PLATED BOLTS (4 REQ'D.)
- (k) 1/4" FENDER WASHER (8 REQ'D.)

ORDERING INFORMATION:

500FM78-GT33 FOR ASSEMBLY AS SHOWN.  
APPROVED FOR GENERAL TELEPHONE SPECS.  
TOTAL WEIGHT OF ASSEMBLY SHOWN IS 17,153#.

- 500-B72-33, 72" BOTTOM SECTION (R500-B72-33) WT. 13,629#.
- 500-R6-33, 6" ROOF SECTION (R500-R6-33) WT. 3,524#.
- 12" x 13" DIA. SUMP x 4 1/2" DEEP. LOCATE AS FOLLOWS: LOCATE AS FOLLOWS: BOTTOM SECTION (1) CORE MTD.
- 7" x 12" K.O. x 4 1/2" DEEP. DRAFT AS FOLLOWS: 1" TYP.: BOTTOM SECTION (4) SHELL MTD.
- 4" DIA. TERMS. LOCATE AS FOLLOWS: BOTTOM SECTION (16) SHELL MTD.
- 7/8" DIA. x 3 3/8" GALV. PULL IRON W/LEGS (HPI1008). LOCATE AS FOLLOWS: BOTTOM SECTION (2) CORE MTD. ROOF SECTION (2) CORE MTD.
- Ø1/4" BRONZE INSERT WELDED TO THE INTEGRAL STEEL REBAR CAGE. LOCATE AS FOLLOWS: BOTTOM SECTION (2) CORE MTD. ROOF SECTION (2) CORE MTD.
- +1/2" PLASTIC INSERT. LOCATE AS FOLLOWS: BOTTOM SECTION (20) CORE MTD.
- Ø1/2" BRONZE INSERT WELDED TO THE INTEGRAL STEEL REBAR CAGE. LOCATE AS FOLLOWS: BOTTOM SECTION (6) CORE MTD.
- Ø2 TON x 3 3/8" GALV. RISS FOR HANDLING. LOCATE AS FOLLOWS: BOTTOM SECTION (4) CORE MTD., (4) SHELL MTD.; TOP SECTION (4) SURFACE MTD.



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

4'-0" X 6'-6" MANHOLE DETAILS

HALEAKALA HIGHWAY INTERSECTION  
IMPROVEMENTS AT KULA HIGHWAY  
Project No. 37C-01-14

Not to Scale      Date: April, 2014

SHEET No. 3 OF 3 SHEETS