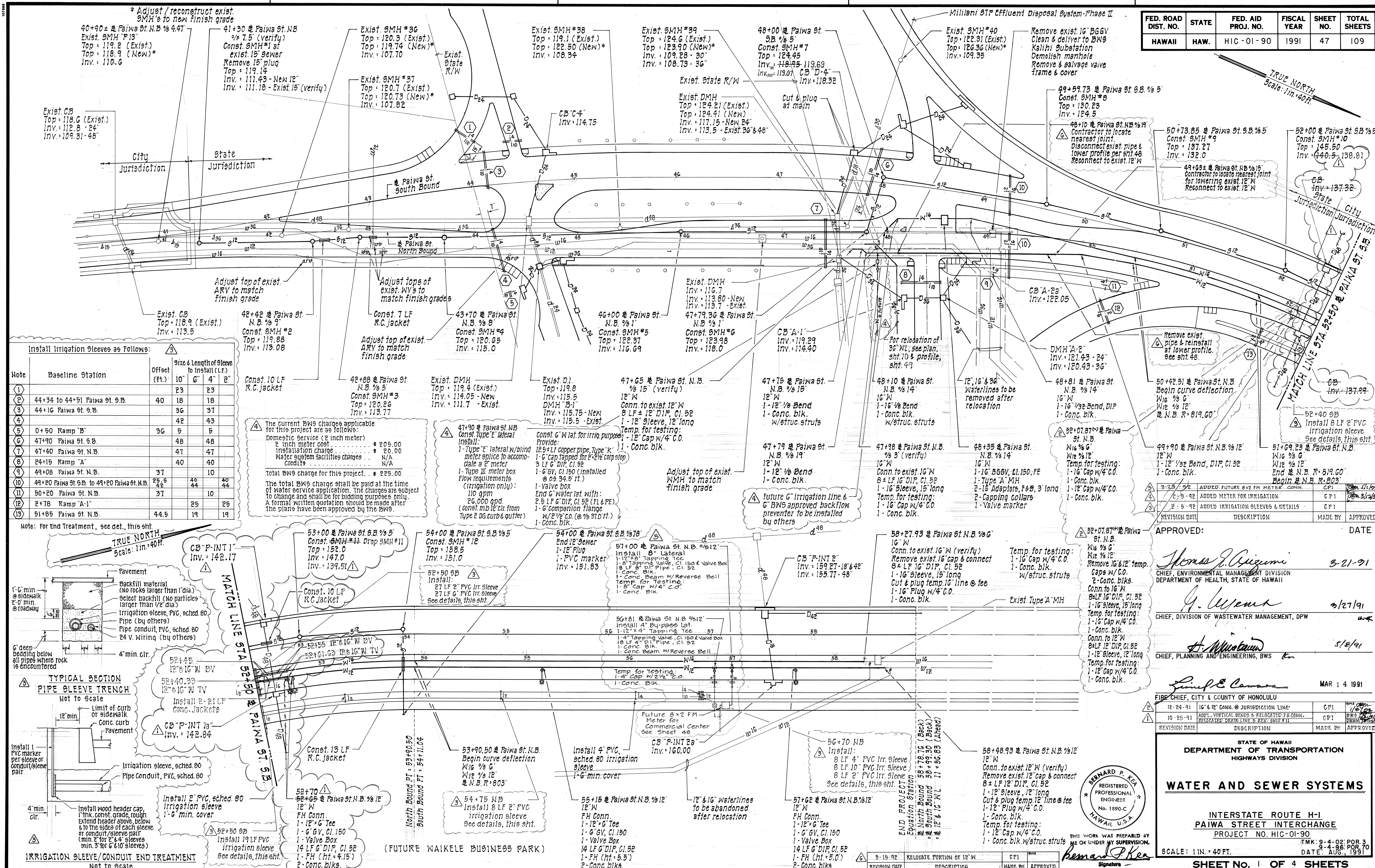
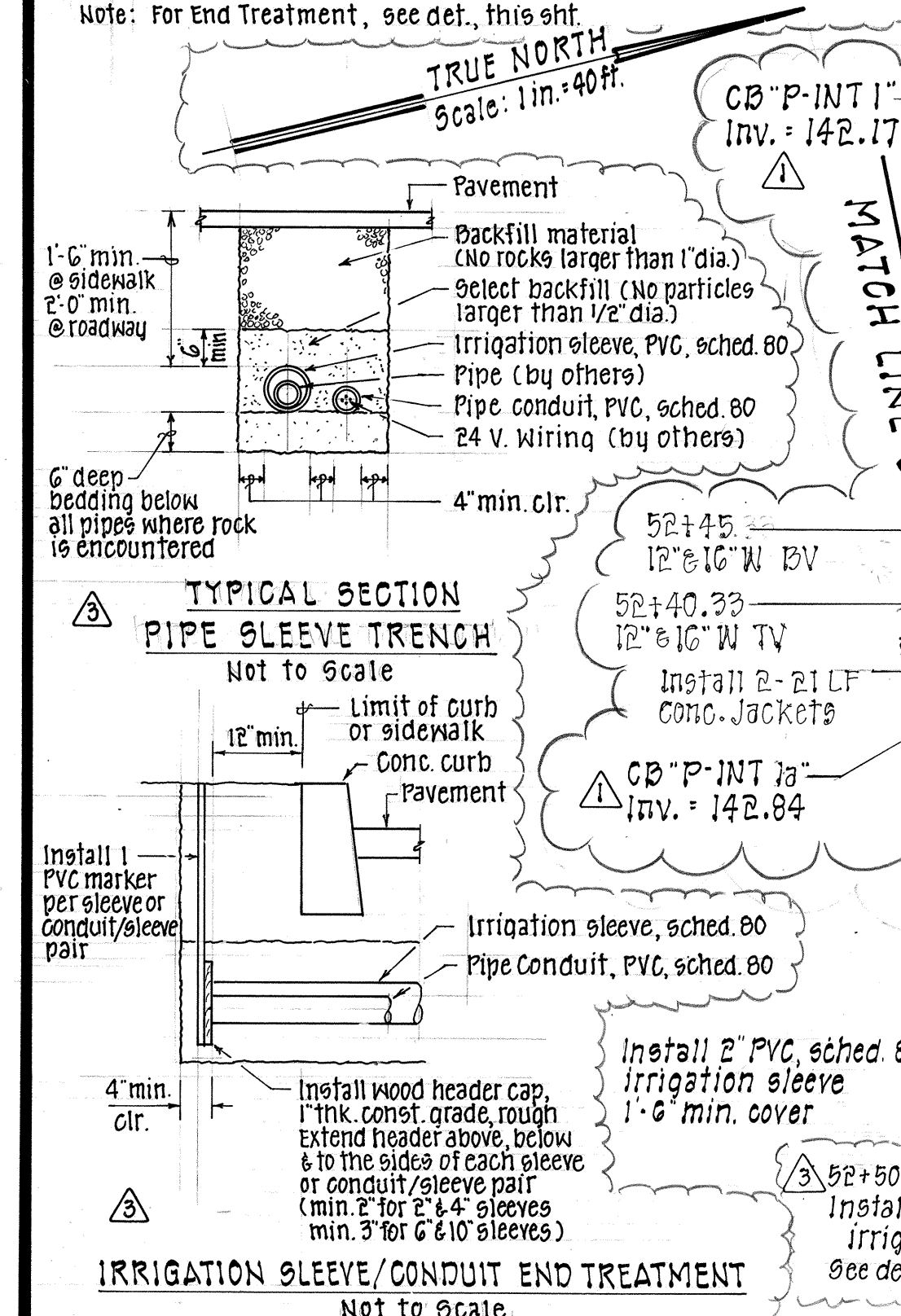


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HIC-01-90	1991	47	109



Install Irrigation Sleeves as Follows:

Note	Baseline Station	Offset (ft.)	Size & Length of Sleeve to Install (L.F.)
1	44+34 to 44+51 Paiawa St. S.B.	40	18 18
2	44+16 Paiawa St. S.B.	36	37 37
3	0+50 Ramp B	36	5 5
4	47+90 Paiawa St. S.B.	48	48 48
5	47+40 Paiawa St. N.B.	47	47 47
6	24+16 Ramp A	40	40 40
7	49+08 Paiawa St. N.B.	37	40 40
8	49+20 Paiawa St. S.B. to 49+20 Paiawa St. N.B.	25.5	44 44
9	50+20 Paiawa St. N.B.	37	10 10
10	2+78 Ramp A-1	25	25 25
11	51+85 Paiawa St. N.B.	44.5	19 19



APPROVED: *Thomas J. O'Connell* 3-21-91
 CHIEF, ENVIRONMENTAL MANAGEMENT DIVISION
 DEPARTMENT OF HEALTH, STATE OF HAWAII

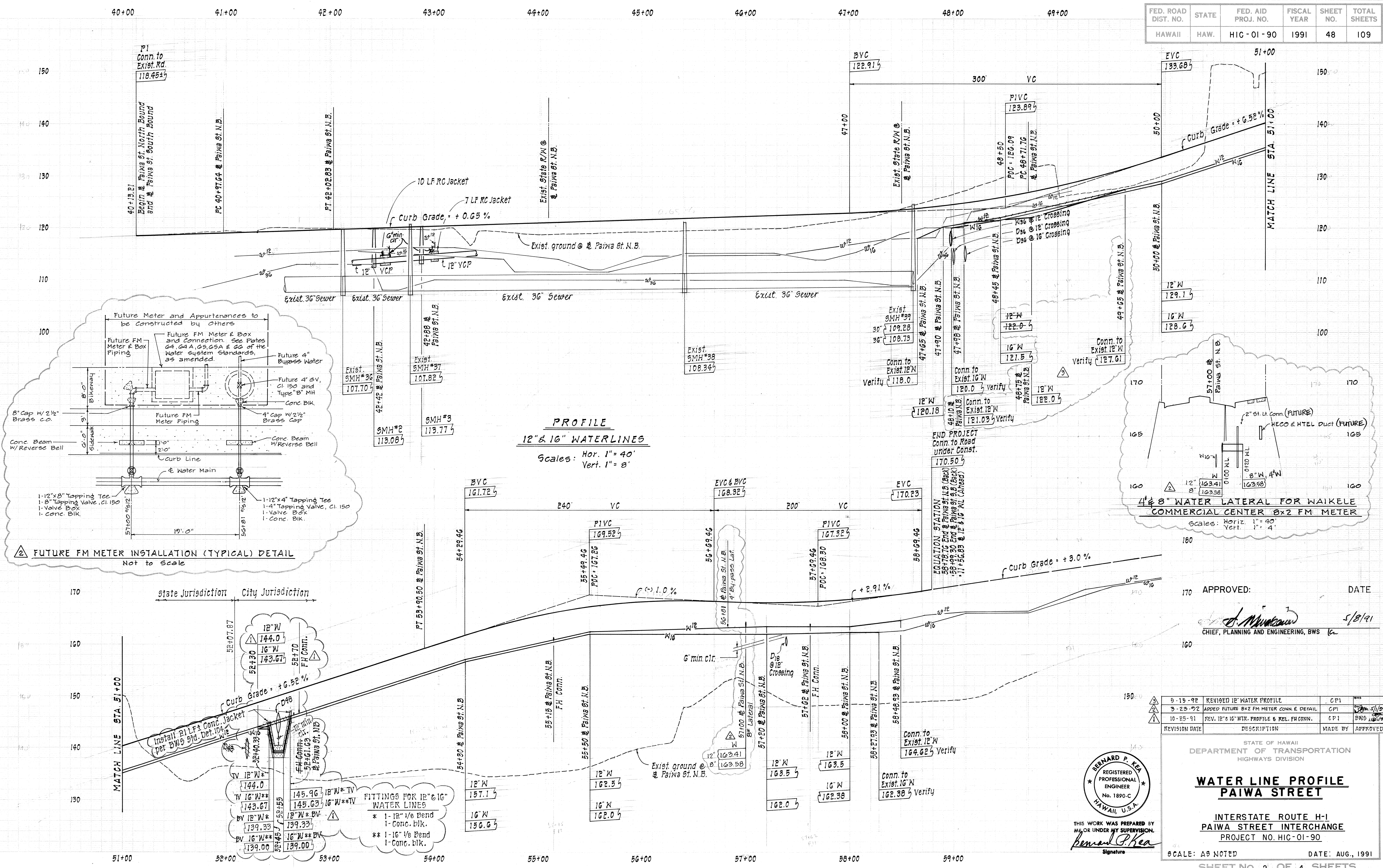
G. W. Wynn 2/27/91
 CHIEF, DIVISION OF WASTEWATER MANAGEMENT, DPW

H. W. Wynn 5/8/91
 CHIEF, PLANNING AND ENGINEERING, BWS

James E. Camara MAR 14 1991
 FIRE CHIEF, CITY & COUNTY OF HONOLULU

12-24-91 16\"/>

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HIC-01-90	1991	48	109



APPROVED: *[Signature]* DATE: 5/8/91
 CHIEF, PLANNING AND ENGINEERING, BWS

REVISION DATE	DESCRIPTION	MADE BY	APPROVED
5-15-92	REVISED 12" WATER PROFILE	CPI	
3-23-92	ADDED FUTURE 8x2 FM METER CONN. & DETAIL	CPI	
10-25-91	REV. 12" & 16" WTR. PROFILE & REL. FM CONN.	CPI	



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

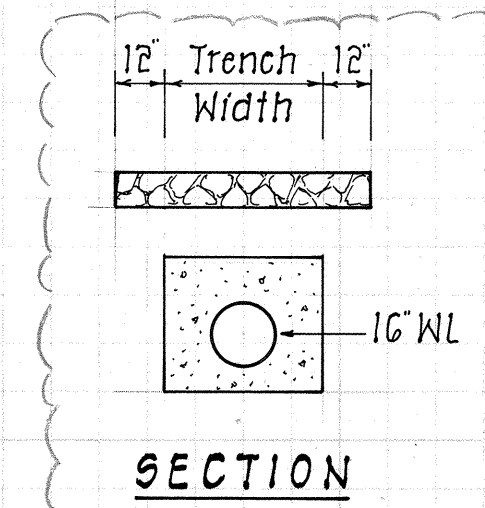
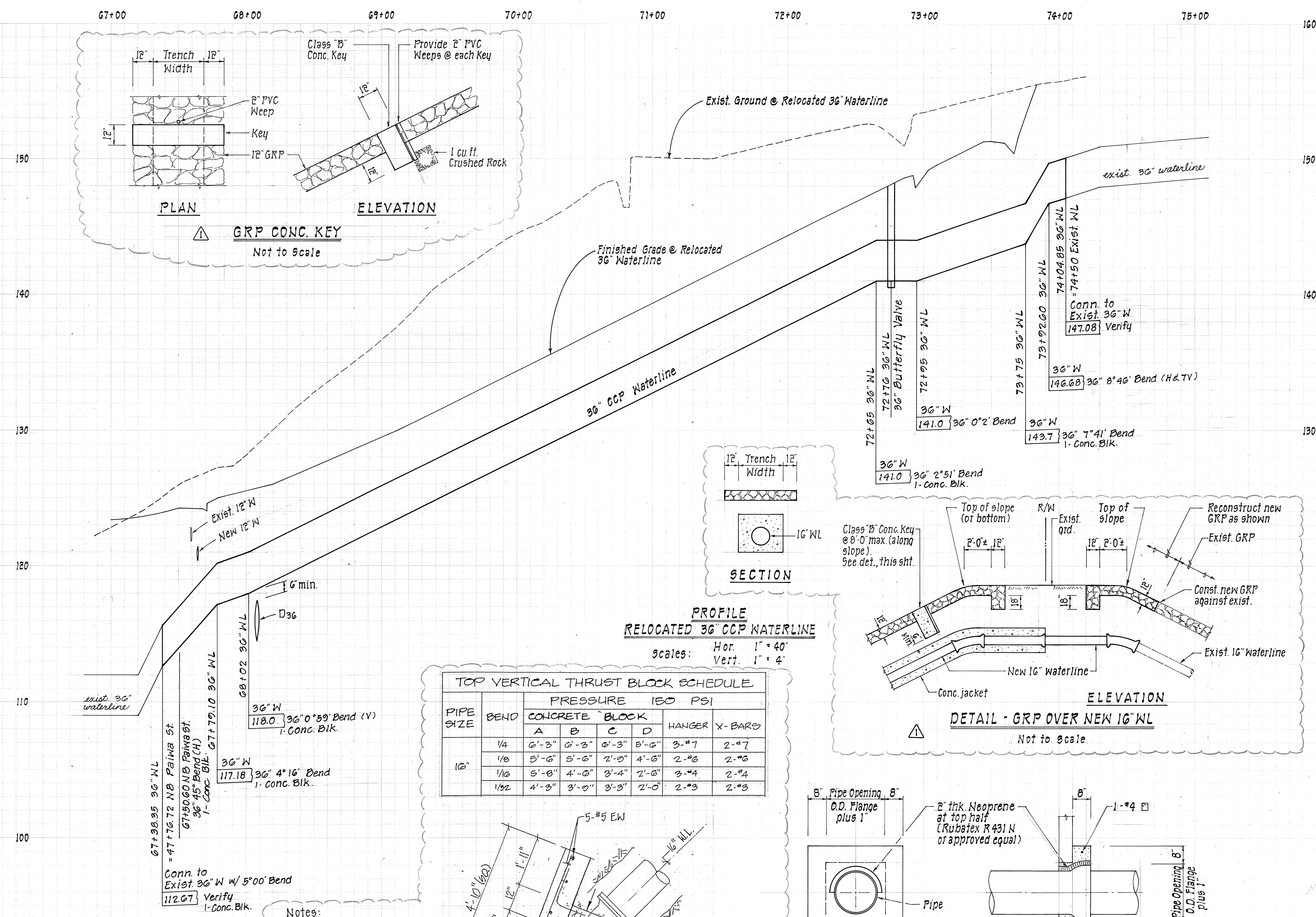
**WATER LINE PROFILE
 PAIWA STREET**

INTERSTATE ROUTE H-1
 PAIWA STREET INTERCHANGE
 PROJECT NO. HIC-01-90

SCALE: AS NOTED DATE: AUG., 1991
 SHEET NO. 2 OF 4 SHEETS

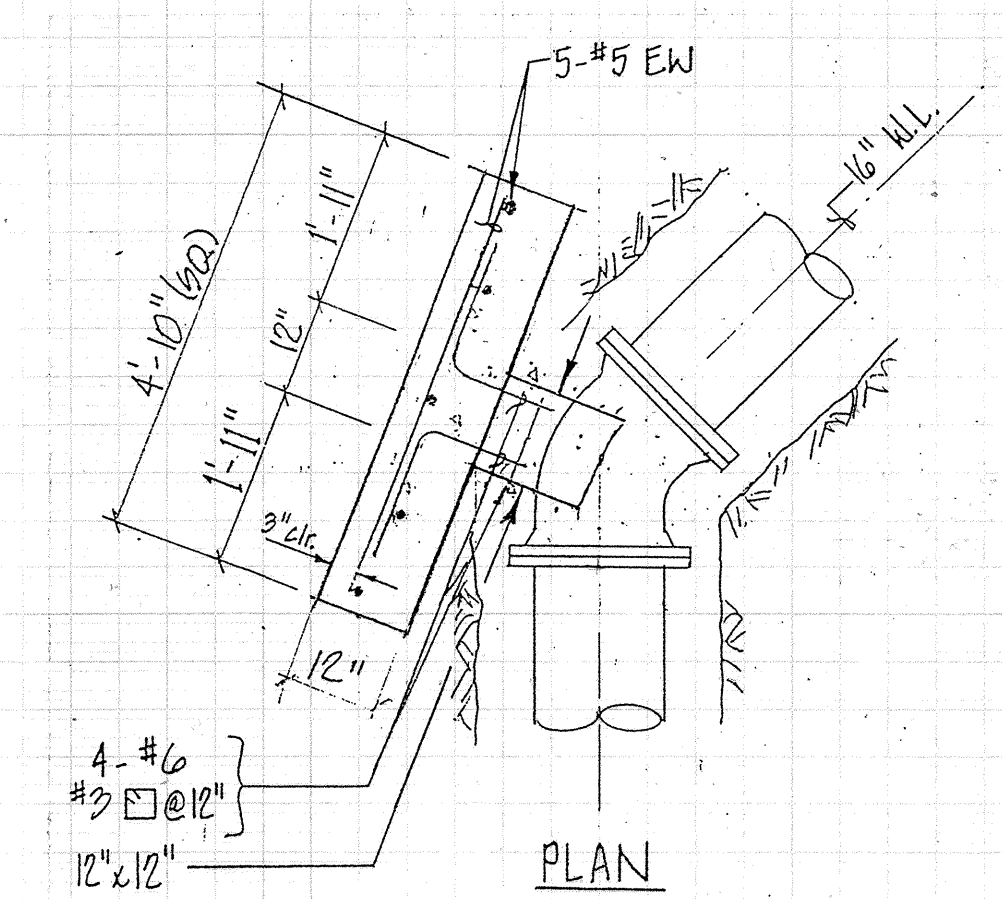
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HIC - 01 - 90	1991	49	109

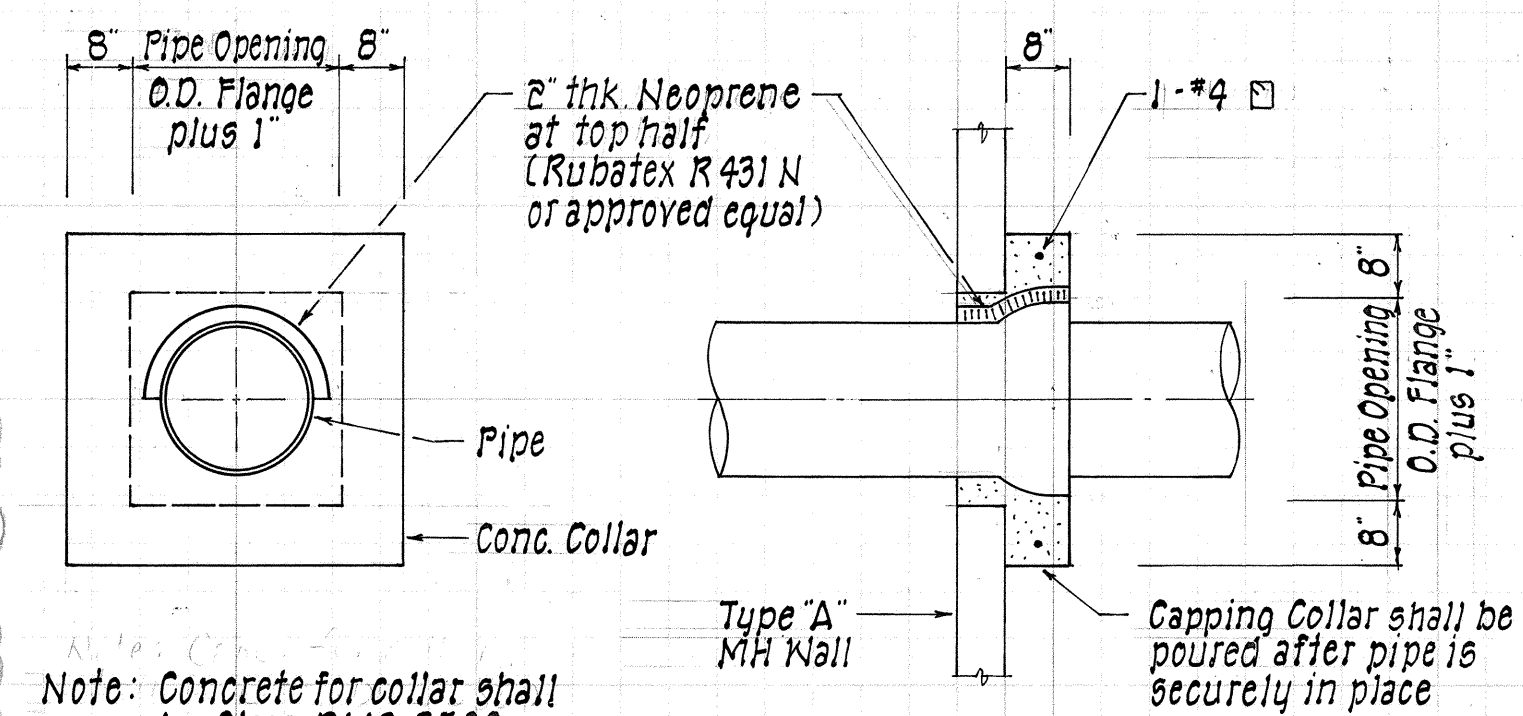


PROFILE
RELOCATED 36" CCP WATERLINE
Scales: Hor. 1" = 40'
Vert. 1" = 4'

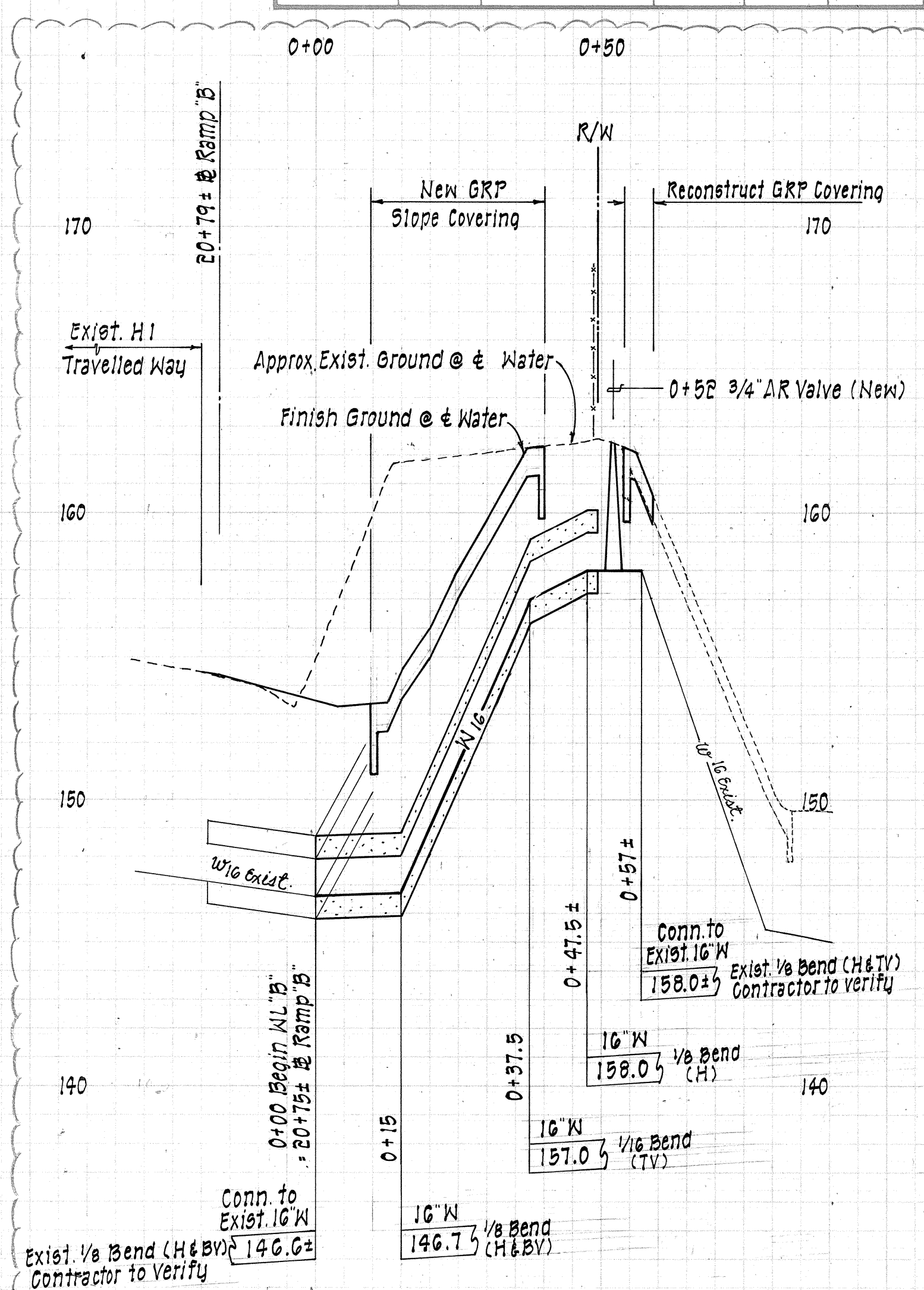
PIPE SIZE	BEND	PRESSURE 150 PSI				HANGER	X-BARS
		A	B	C	D		
16"	1/4	6'-3"	6'-3"	6'-3"	5'-6"	3-#7	2-#7
	1/8	5'-6"	5'-6"	2'-0"	4'-6"	2-#8	2-#8
	1/8	5'-0"	4'-6"	3'-4"	2'-6"	3-#4	2-#4
	1/8	4'-3"	3'-0"	3'-3"	2'-0"	2-#3	2-#3



THRUST BLOCK FOR 16" 1/8 BEND (H)
Not to Scale



ELEVATION
CAPPING COLLAR DETAIL
Not to Scale



APPROVED: *[Signature]* DATE: *[Date]*
CHIEF, PLANNING AND ENGINEERING, BWS



1 - 30 - 98	ADDED PROFILE WL 'B' & RELEVANT DETAILS	CP1	MADE BY	APPROVED
REVISION DATE	DESCRIPTION			

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER LINE PROFILE

INTERSTATE ROUTE H-1
PAIWA STREET INTERCHANGE
PROJECT NO. HIC-01-90

SCALE: AS NOTED DATE: AUG., 1991
SHEET NO. 3 OF 4 SHEETS

DATE: _____
DRAWN BY: _____
DESIGNED BY: _____
CHECKED BY: _____
NO. _____

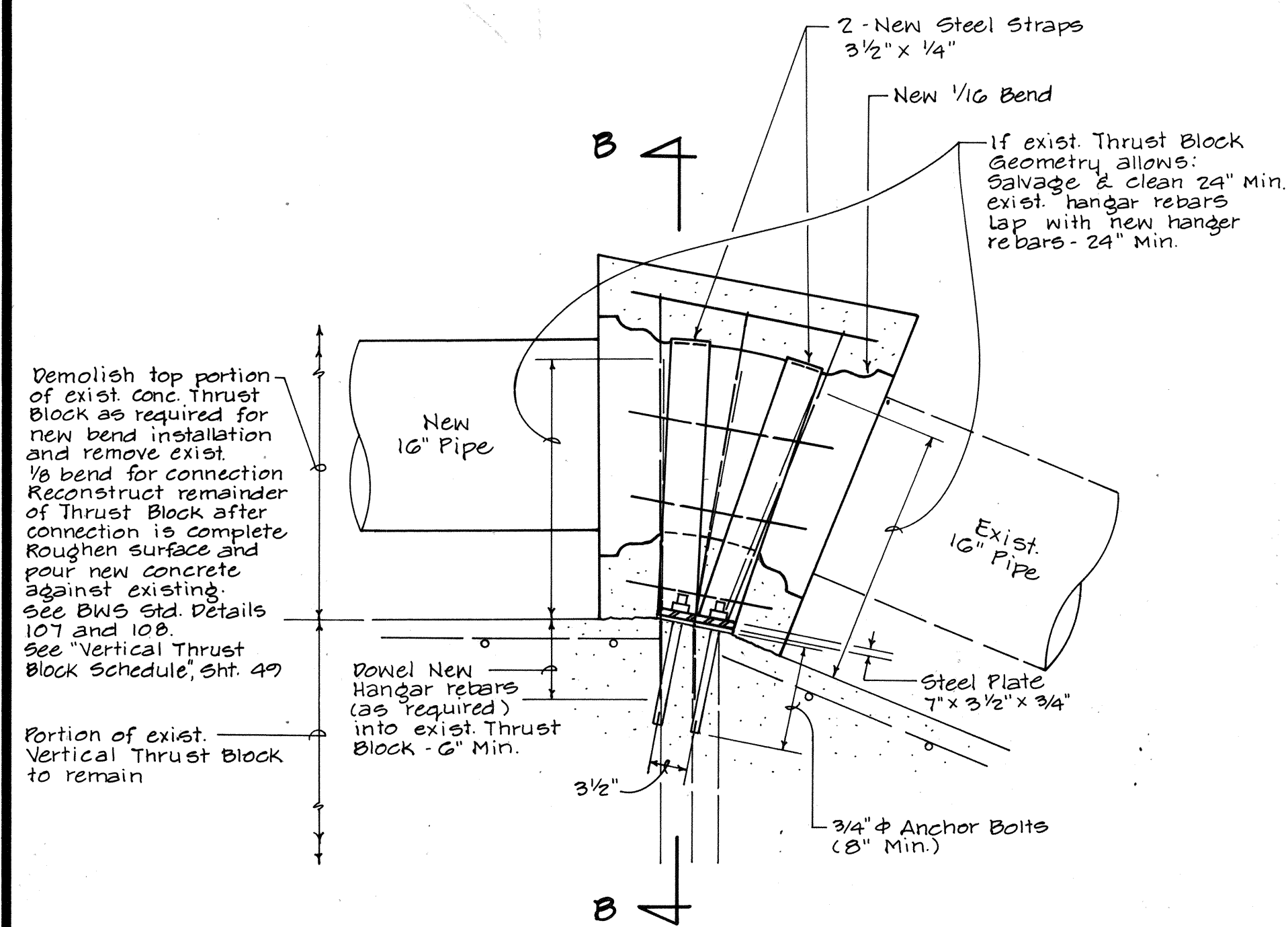
NOTE:

1. ACTUAL FIELD CONDITIONS ARE TO BE VERIFIED DURING INSTALLATION. ANY DESIGN CHANGES NECESSITATED DUE TO FIELD CONDITIONS SHALL BE THE RESPONSIBILITY OF THE ENGINEER WHO PREPARED THE PLANS.
2. DIMENSIONS IN SCHEDULE REFER TO PLATE 107, WATER SYSTEM STR 5, VOL. 2, DATED 1985, BWS, C & C OF HONO.

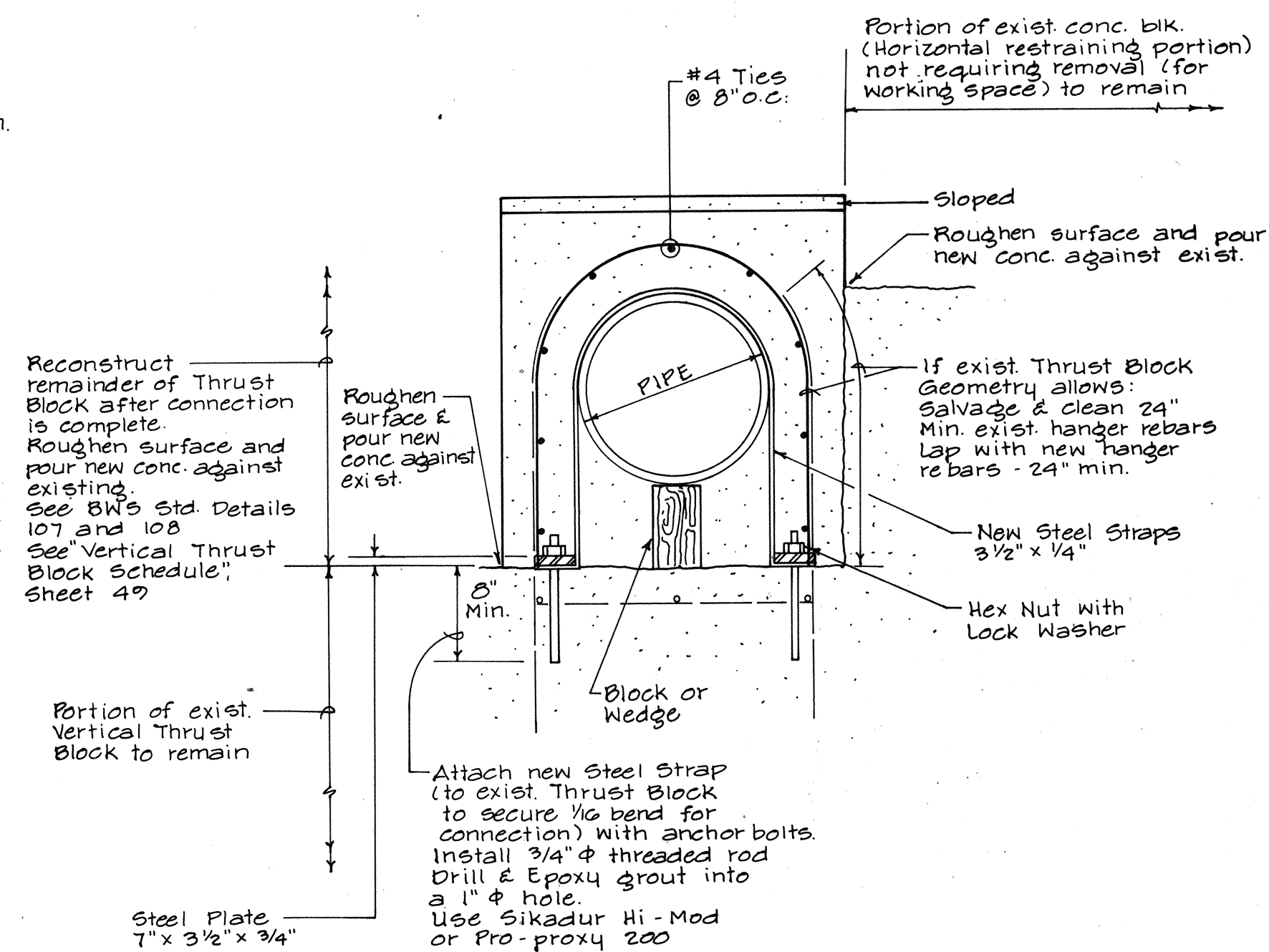
VERTICAL THRUST BLOCK SCHEDULE
NOT TO SCALE

- Notes:
- a. Conc. shall be f_c = 3000 psi
 - b. Rebar shall be f_y = 40 000 psi
 - c. Rebar cover to be:
a. 3" clear for footing
b. 2" clear for shaft

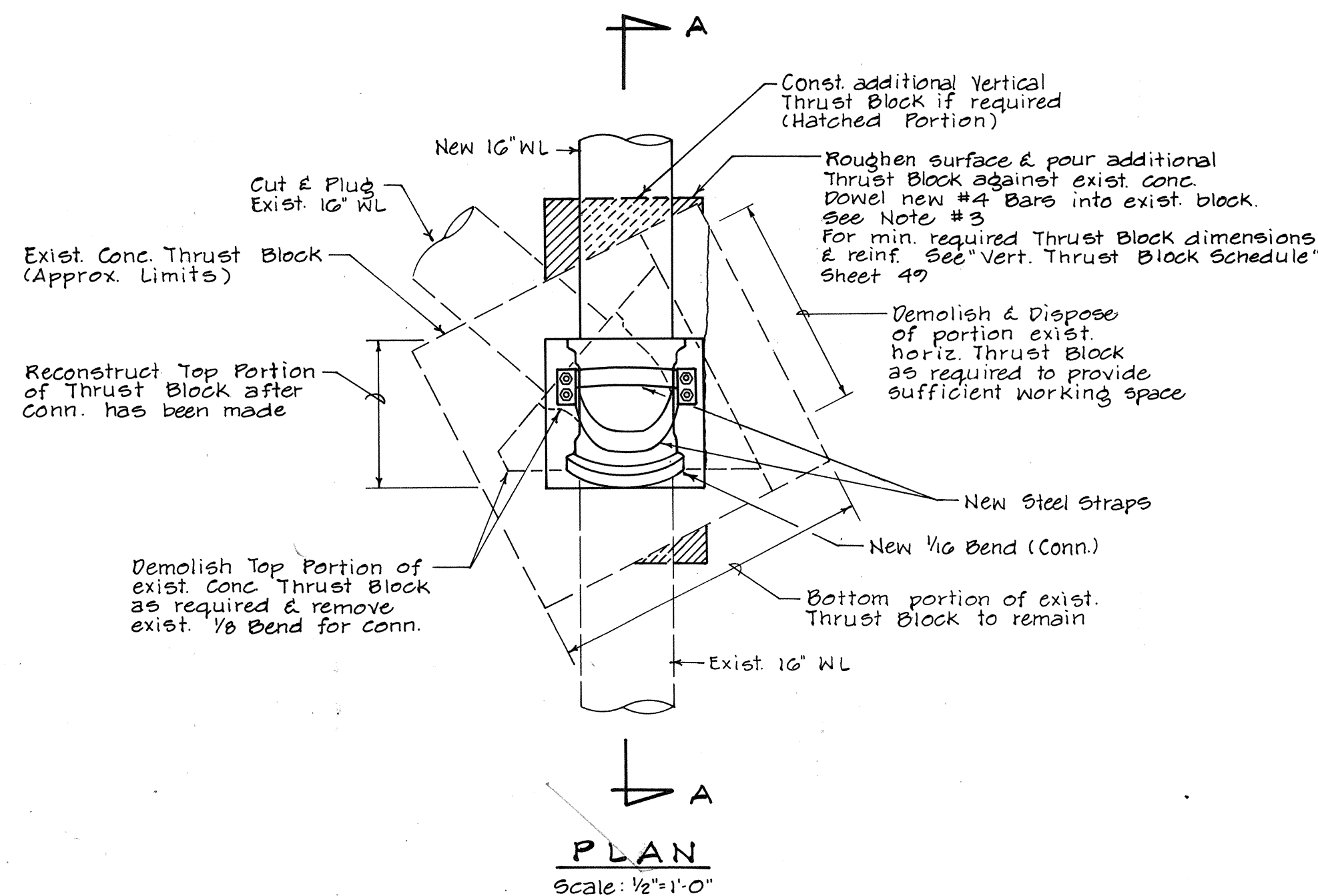
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HIC-01-90	1991	49 S-1	109



SECTION A-A
Scale: 1"=10'



SECTION B-B
Scale: 1"=10'



DETAIL - THRUST BLOCK IMPROVEMENTS

NOTES:

- THE EXISTING BLOCK CONFIGURATION, SIZE AND ORIENTATION SHOWN ARE AN APPROXIMATE ESTIMATION OF THE EXISTING THRUST BLOCK GEOMETRY. THE CONTRACTOR SHALL VERIFY THE ACTUAL EXISTING THRUST BLOCK DIMENSIONS AND ALIGNMENT PRIOR TO DEMOLISHING REQUIRED PORTIONS OF THE EXISTING BLOCK AND PRIOR TO CONNECTION.
- AFTER THE CONTRACTOR HAS VERIFIED THE EXISTING THRUST BLOCK GEOMETRY AND DETERMINED WHAT PORTIONS, IF ANY, REQUIRE REMOVAL, ADDITIONAL IMPROVEMENTS TO THE THRUST BLOCK SHALL BE CONSTRUCTED SO THAT THE FINISHED THRUST BLOCK CONFORMS WITH THE MINIMUM SIZE, DIMENSIONS AND REINFORCING REQUIREMENTS SHOWN ON THE "VERT. THRUST BLOCK SCHEDULE," SHEET 49. THIS WORK SHALL BE DONE, AND ANY ADDED CONCRETE CURED, PRIOR TO REMOVING THE EXISTING BEND OR DEMOLISHING ANY PORTION OF THE EXISTING THRUST BLOCK FOR THE CONNECTION.
- THE CONTRACTOR SHALL ADEQUATELY BRACE THE NEW 16" 1/16 BEND AND 16" PIPE (BOTH NEW AND EXISTING) PRIOR TO AND AFTER CONNECTION TO PREVENT MOVEMENT OF THE WATER LINE UNTIL THE RECONSTRUCTED PORTIONS OF THE THRUST BLOCK HAVE CURED.
- INSTRUCTIONS TO DOWEL NEW REINFORCING INTO THE EXISTING THRUST BLOCK ARE AS FOLLOWS:
 - DRILL 3/4" DIAMETER HOLE INTO EXISTING CONCRETE BLOCK AND DOVETAIL HOLE.
 - EMBED #4 REBAR 6" MINIMUM INTO EXISTING BLOCK. FILL WITH SIKADUR HI-MOD OR PRO-POXY 200.
 - LAP REBARS 24" MINIMUM WITH NEW REINFORCING.
- FOR ADDITIONAL DETAILS, SEE BWS STANDARD DETAILS 107, 108 AND "VERTICAL THRUST BLOCK SCHEDULE," SHEET 49.

APPROVED:

[Signature] 2/31/92
CHIEF, PLANNING & ENGINEERING, BWS DATE

3-24-92	ADDED THIS SHEET	CPI	—
REVISION DATE	DESCRIPTION	MADE BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER DETAILS

INTERSTATE ROUTE H-1
PAIWA STREET INTERCHANGE
PROJECT NO. HIC-01-90

SCALE: AS NOTED DATE: AUG., 1991

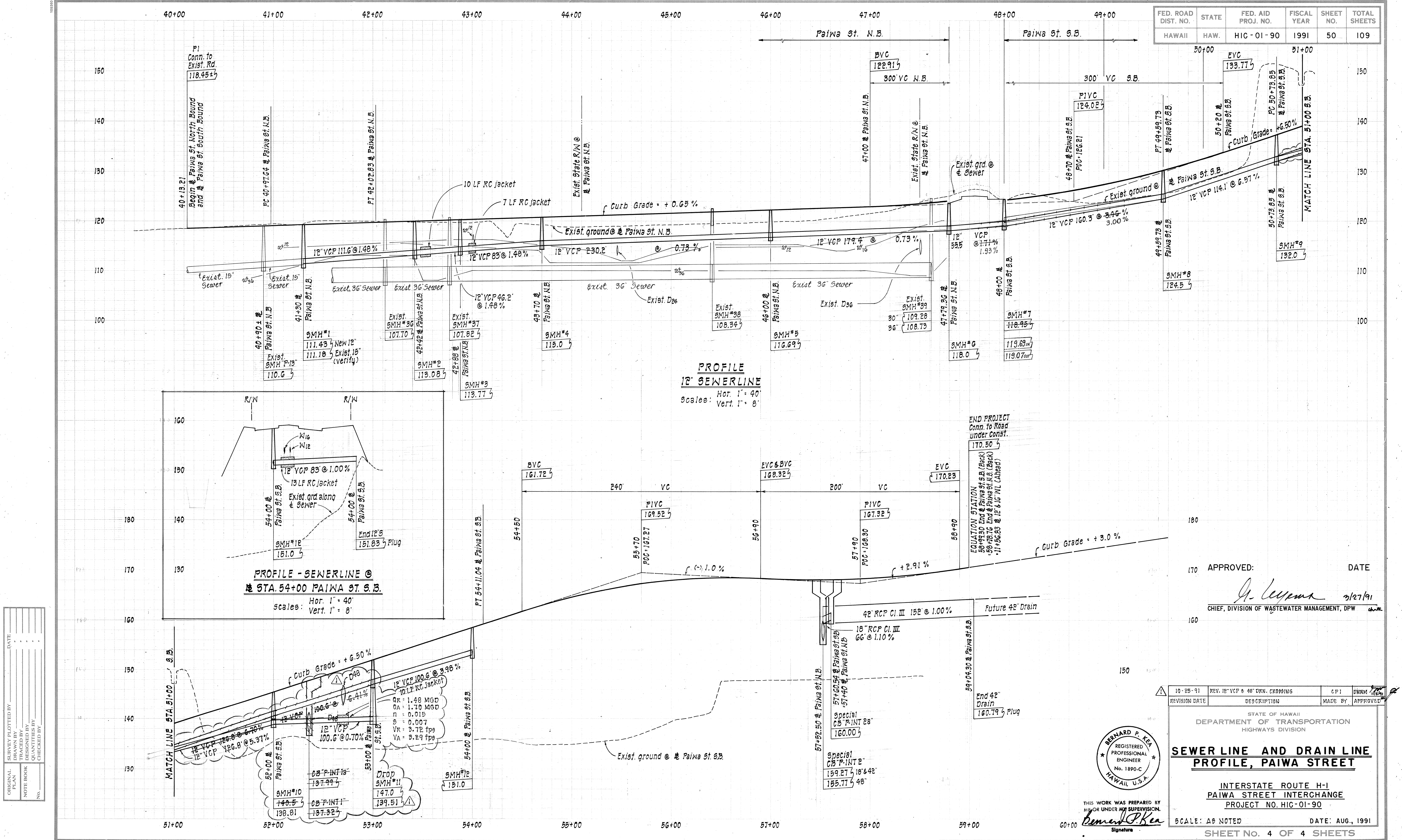
SHEET NO. 3A OF 4 SHEETS



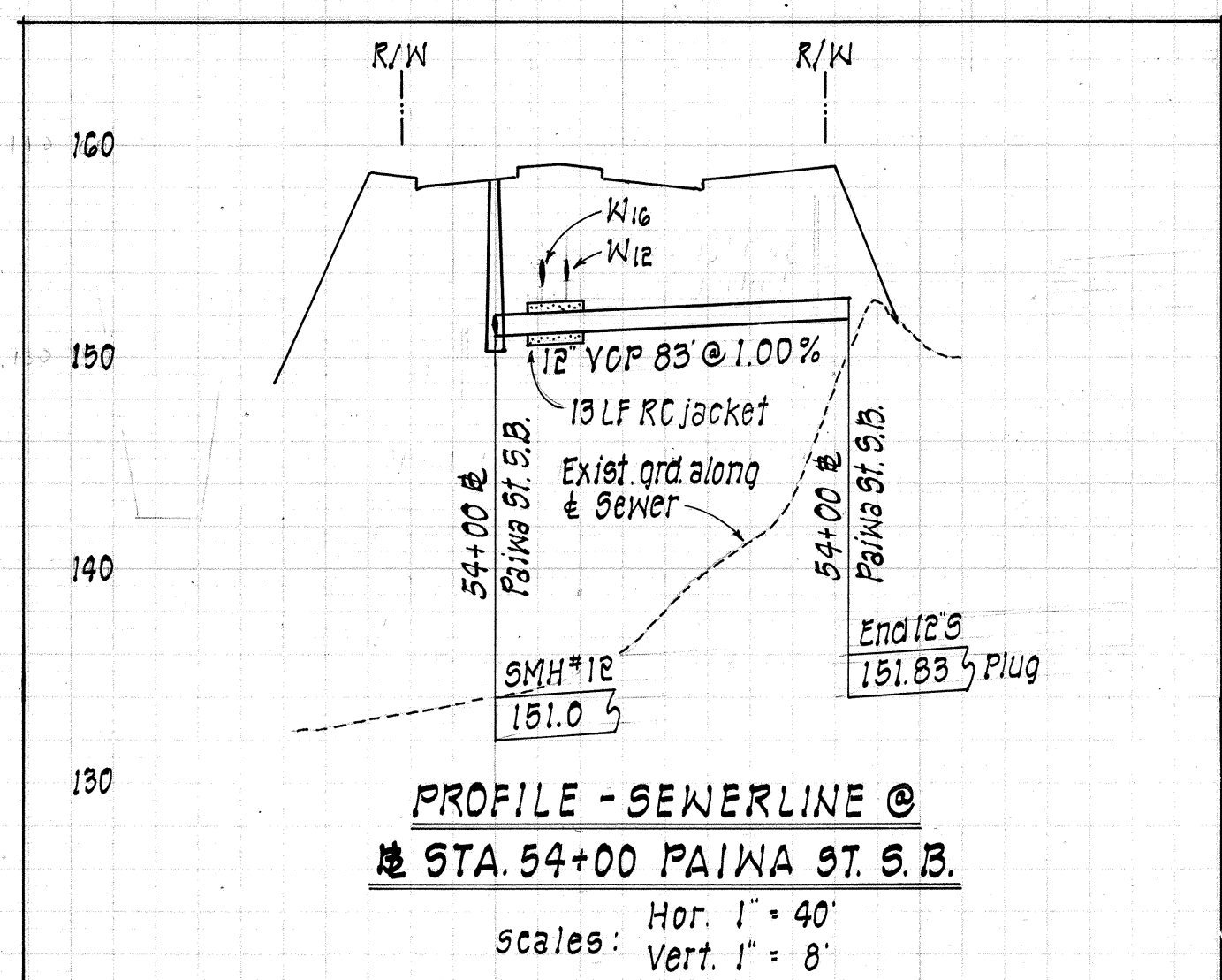
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.
[Signature]
Signature

DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
No.	

DATE	
ORIGINAL PLAN	
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	
NO.	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HIC-01-90	1991	50	109



APPROVED: *[Signature]* 3/27/91
 CHIEF, DIVISION OF WASTEWATER MANAGEMENT, DPW

BERNARD P. KEA
 REGISTERED PROFESSIONAL ENGINEER
 No. 1890-C
 HAWAII, U.S.A.

10-25-91	REV. 12" VCP @ 48" DWN. CK09917G	CPI	DWNM 
REVISION DATE	DESCRIPTION	MADE BY	APPROVED

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEWER LINE AND DRAIN LINE
PROFILE, PAIWA STREET

INTERSTATE ROUTE H-1
PAIWA STREET INTERCHANGE
PROJECT NO. HIC-01-90

SCALE: AS NOTED DATE: AUG., 1991

SHEET No. 4 OF 4 SHEETS

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
**SEWER LINE AND DRAIN LINE
 PROFILE, PAIWA STREET**
 INTERSTATE ROUTE H-1
 PAIWA STREET INTERCHANGE
 PROJECT NO. HIC-01-90
 SCALE: AS NOTED
 DATE: AUG., 1991
 SHEET NO. 4 OF 4 SHEETS