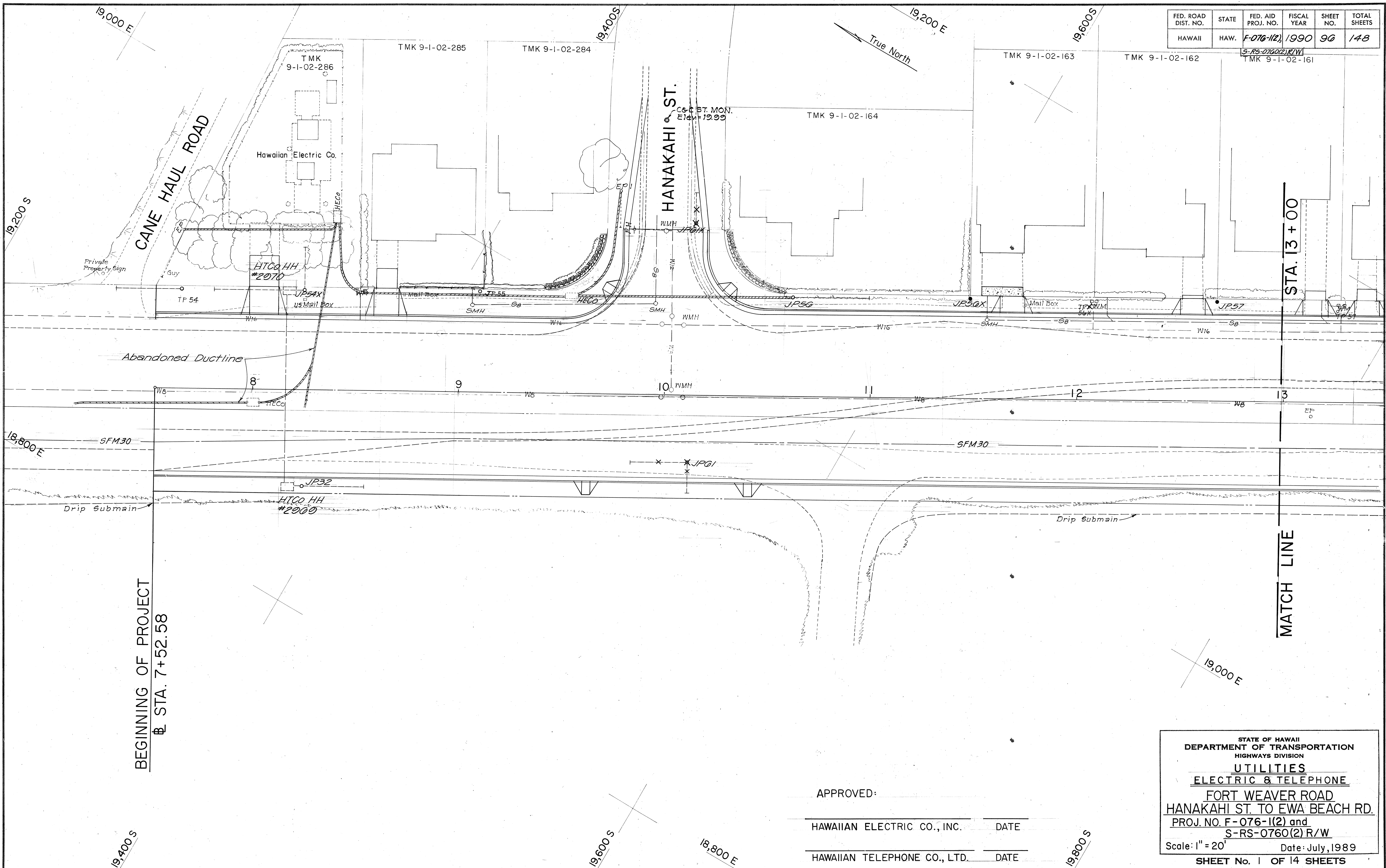


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	96	148

S-RS-0760(2) R/W
TMK 9-1-02-161



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
PLAN	DRAWN BY	
NOTE BOOK	DESIGNED BY	
QUANTITIES BY	CHECKED BY	
No.		

BEGINNING OF PROJECT
@ STA. 7+52.58

MATCH LINE

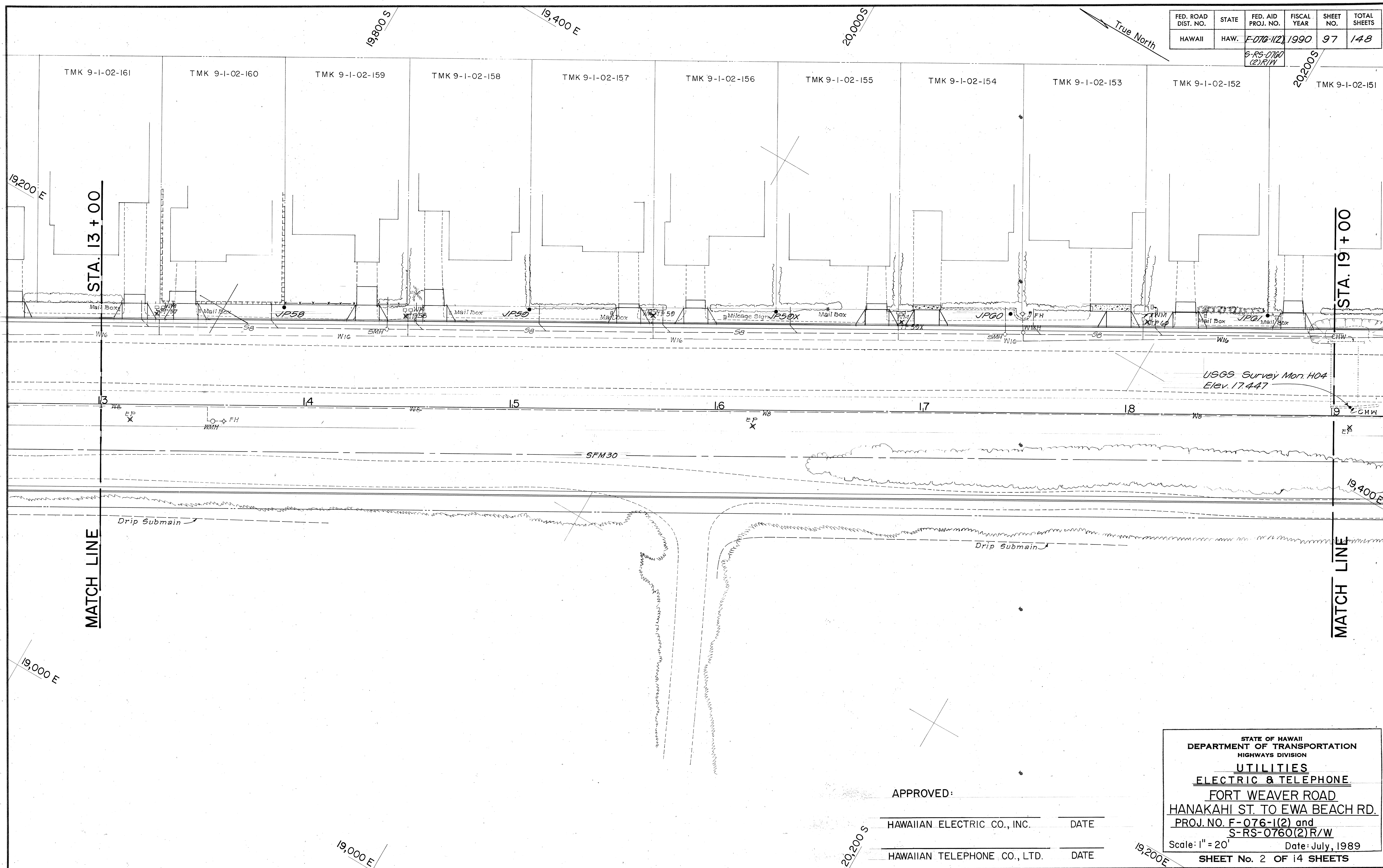
APPROVED:

HAWAIIAN ELECTRIC CO., INC. DATE

HAWAIIAN TELEPHONE CO., LTD. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
PROJ. NO. F-076-1(2) and
S-RS-0760(2) R/W
Scale: 1" = 20' Date: July, 1989
SHEET No. 1 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	97	148
		S-RS-0760(2)R/W			



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

APPROVED:

HAWAIIAN ELECTRIC CO., INC. _____ DATE _____

HAWAIIAN TELEPHONE CO., LTD. _____ DATE _____

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITIES
ELECTRIC & TELEPHONE

FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.

PROJ. NO. F-076-1(2) and
S-RS-0760(2)R/W

Scale: 1" = 20' Date: July, 1989

SHEET No. 2 OF 14 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	"
No.	DESIGNED BY	"
	QUANTITIES BY	"
	CHECKED BY	"



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2) S-RS-0760 (2) R/W	1990	98	148

True North

STA. 19 + 00

STA. 24 + 50

MATCH LINE

MATCH LINE

APPROVED:

HAWAIIAN ELECTRIC CO., INC. DATE

HAWAIIAN TELEPHONE CO., LTD. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
PROJ. NO. F-076-1(2) and
S-RS-0760(2) R/W
Scale: 1" = 20' Date: July, 1989
SHEET No. 3 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	99	148

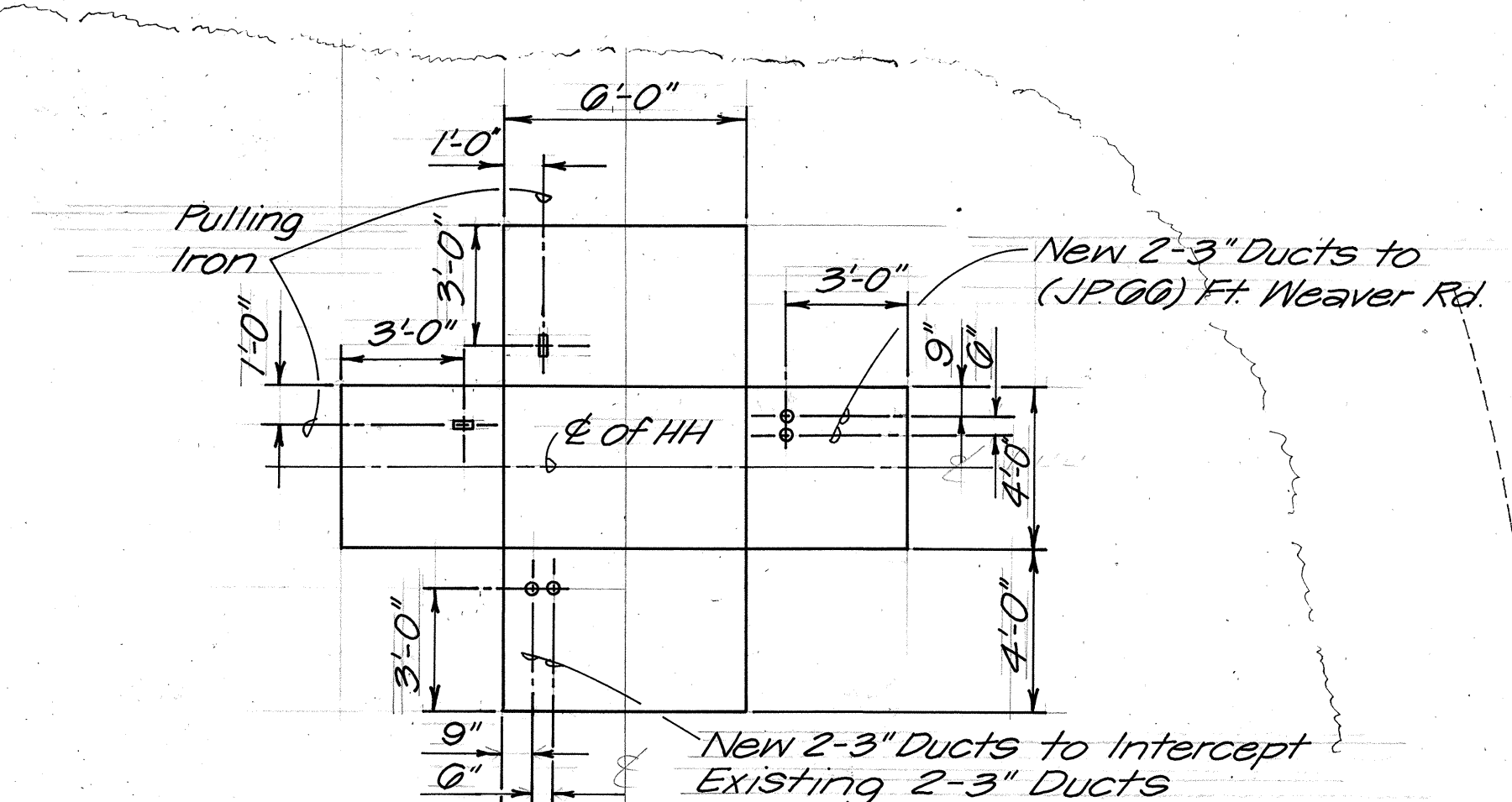
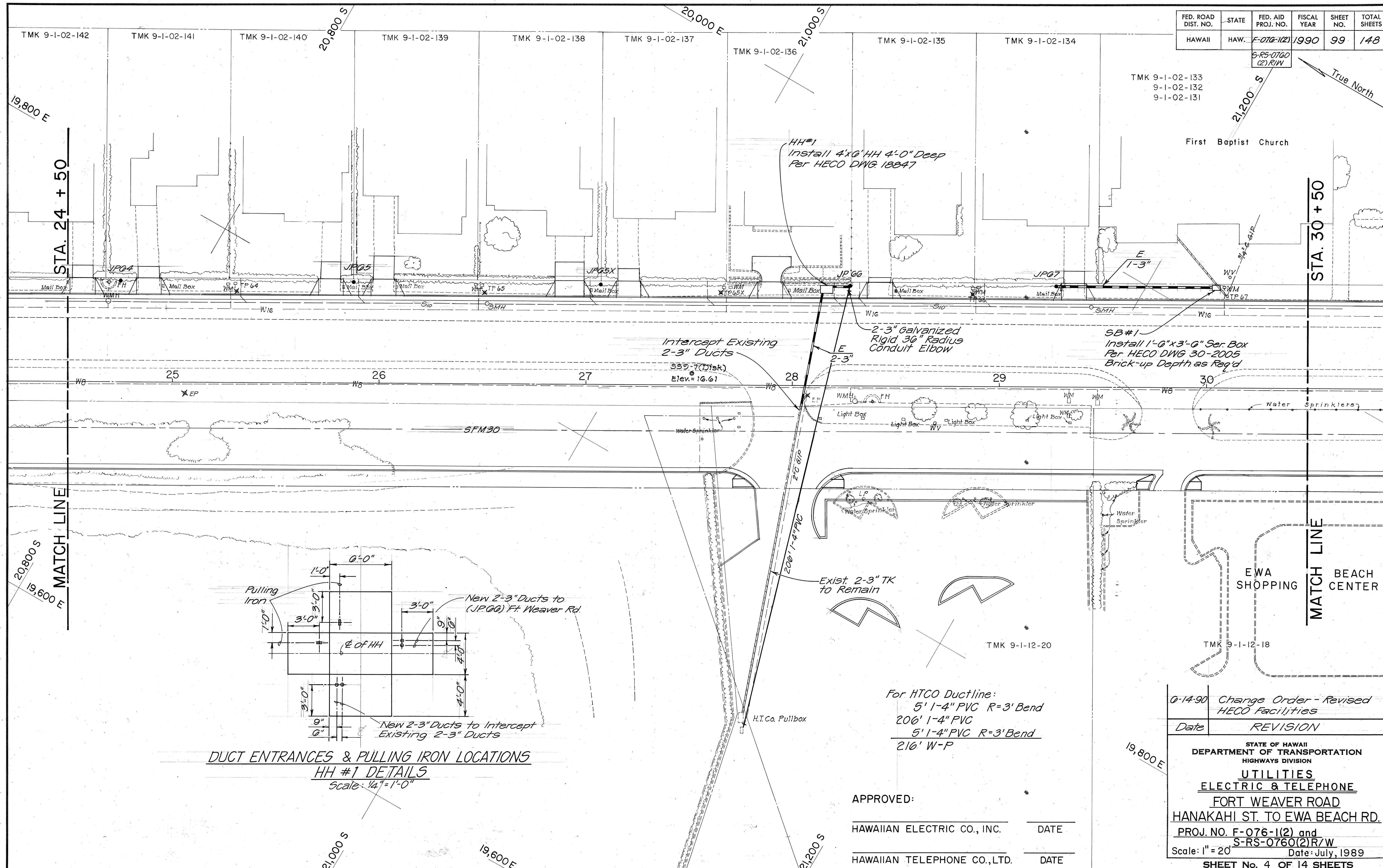
S-RS-0760
(2) R/W

TMK 9-1-02-133
9-1-02-132
9-1-02-131

First Baptist Church

STA. 30 + 50

STA. 24 + 50



DUCT ENTRANCES & PULLING IRON LOCATIONS
HH #1 DETAILS
Scale: 1/4" = 1'-0"

For HECO Ductline:
5' 1-4" PVC R=3' Bend
206' 1-4" PVC
5' 1-4" PVC R=3' Bend
216' W-P

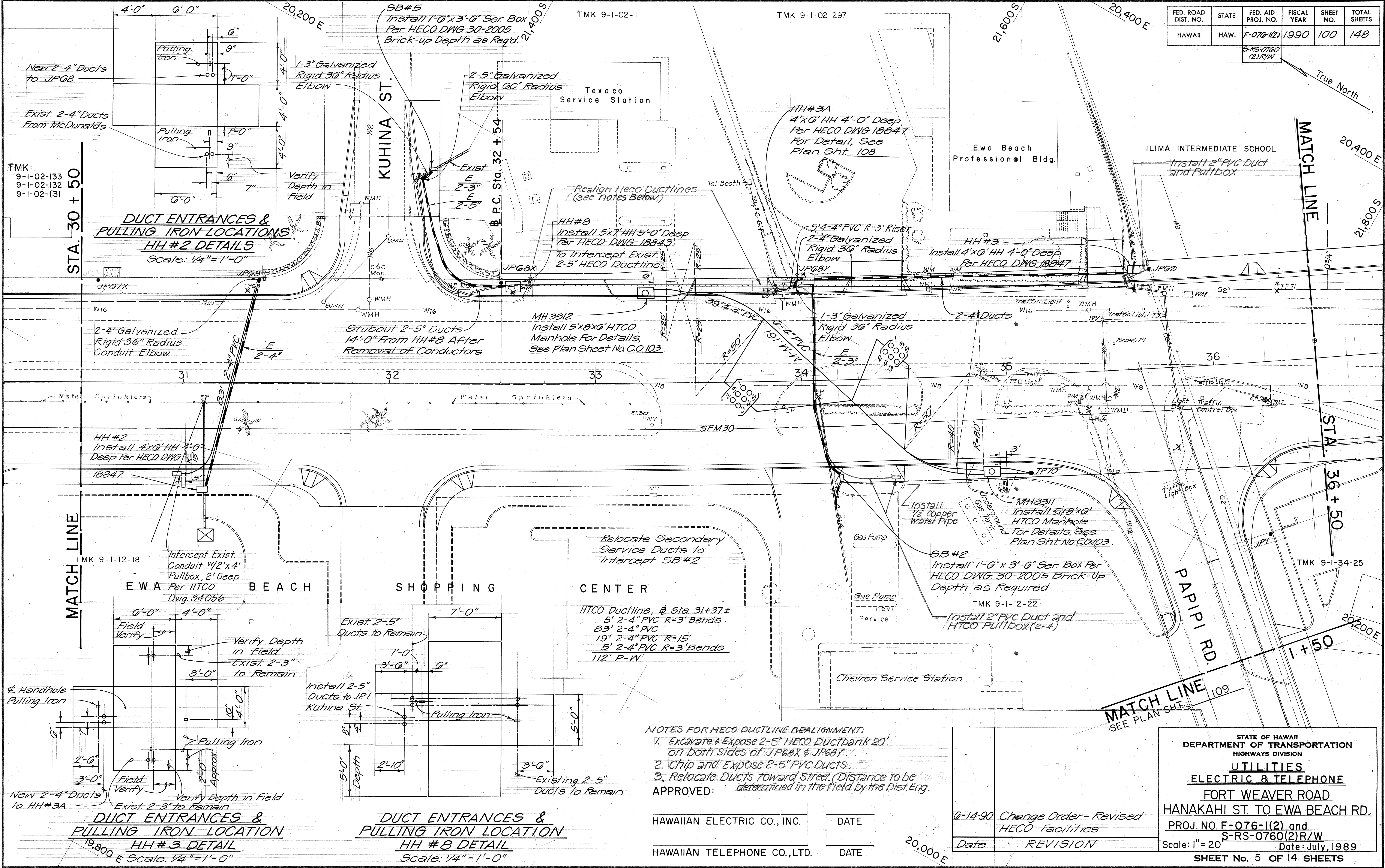
APPROVED:
HAWAIIAN ELECTRIC CO., INC. _____ DATE _____
HAWAIIAN TELEPHONE CO., LTD. _____ DATE _____

0-14-90	Change Order - Revised HECO Facilities
Date	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION UTILITIES ELECTRIC & TELEPHONE FORT WEAVER ROAD HANAKAHI ST. TO EWA BEACH RD. PROJ. NO. F-076-1(2) and S-RS-0760(2)R/W Scale: 1" = 20' Date: July, 1989 SHEET No. 4 OF 14 SHEETS	

C.O.99

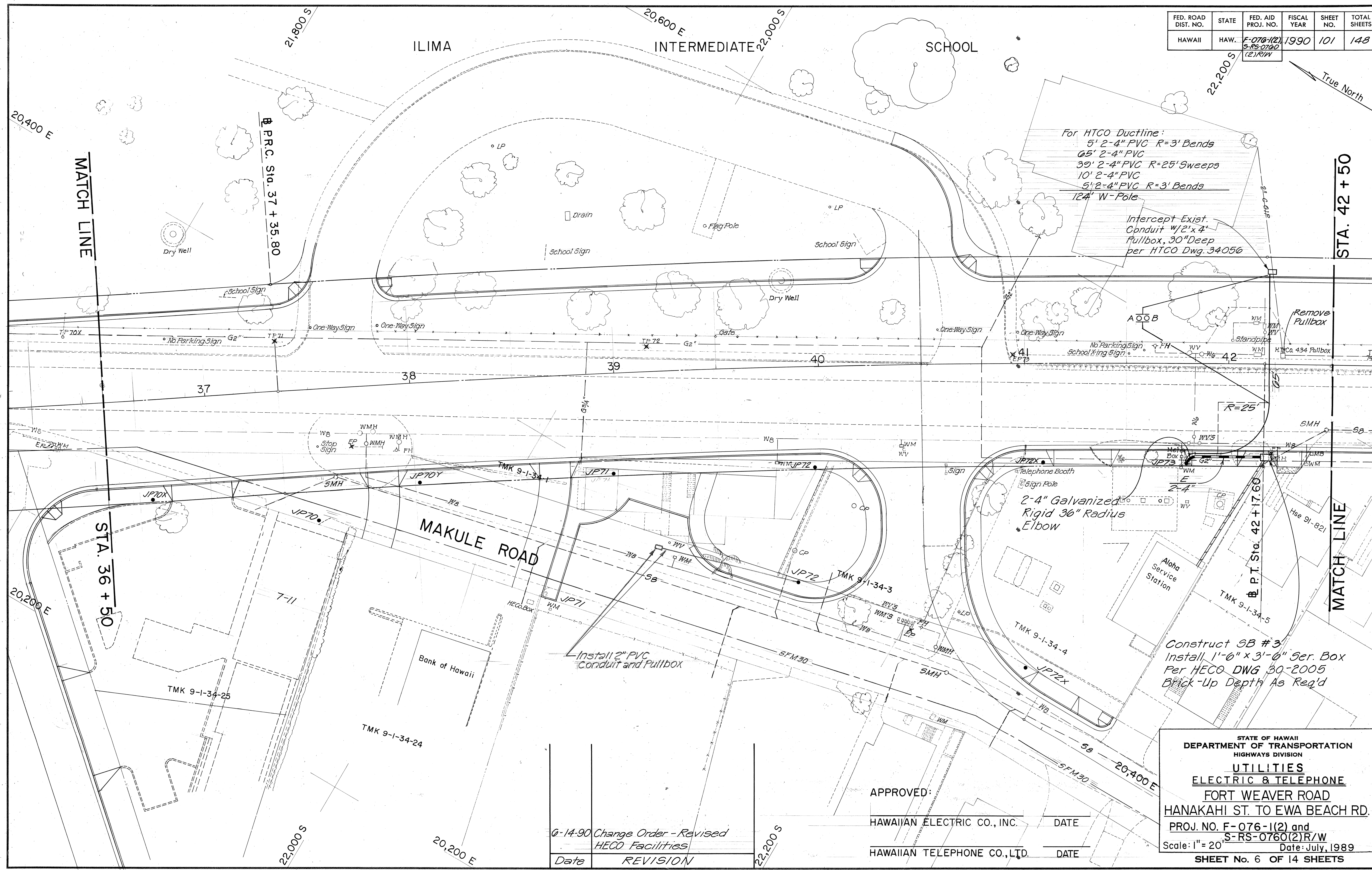
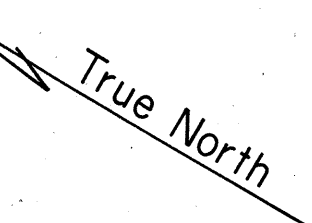
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DESIGNED BY	_____	_____
NOTED BY	_____	_____
CHECKED BY	_____	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	100	148



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2) S-RS-0760 (2) R/W	1990	101	148



For HECO Ductline:
 5' 2-4" PVC R=3' Bends
 05' 2-4" PVC
 30' 2-4" PVC R=25' Sweeps
 10' 2-4" PVC
 5' 2-4" PVC R=3' Bends
 124' W-Pole

Intercept Exist.
 Conduit w/2"x4"
 Pullbox, 30" Deep
 per HECO Dwg. 34056

2-4" Galvanized
 Rigid 36" Radius
 Elbow

Construct SB #3
 Install 1'-0" x 3'-0" Ser. Box
 Per HECO DWG 30-2005
 Brick-Up Depth As Req'd

Install 2" PVC
 Conduit and Pullbox

APPROVED:
 HAWAIIAN ELECTRIC CO., INC. DATE
 HAWAIIAN TELEPHONE CO., LTD. DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
 PROJ. NO. F-076-1(2) and
 S-RS-0760(2)R/W
 Scale: 1" = 20' Date: July, 1989
SHEET No. 6 OF 14 SHEETS

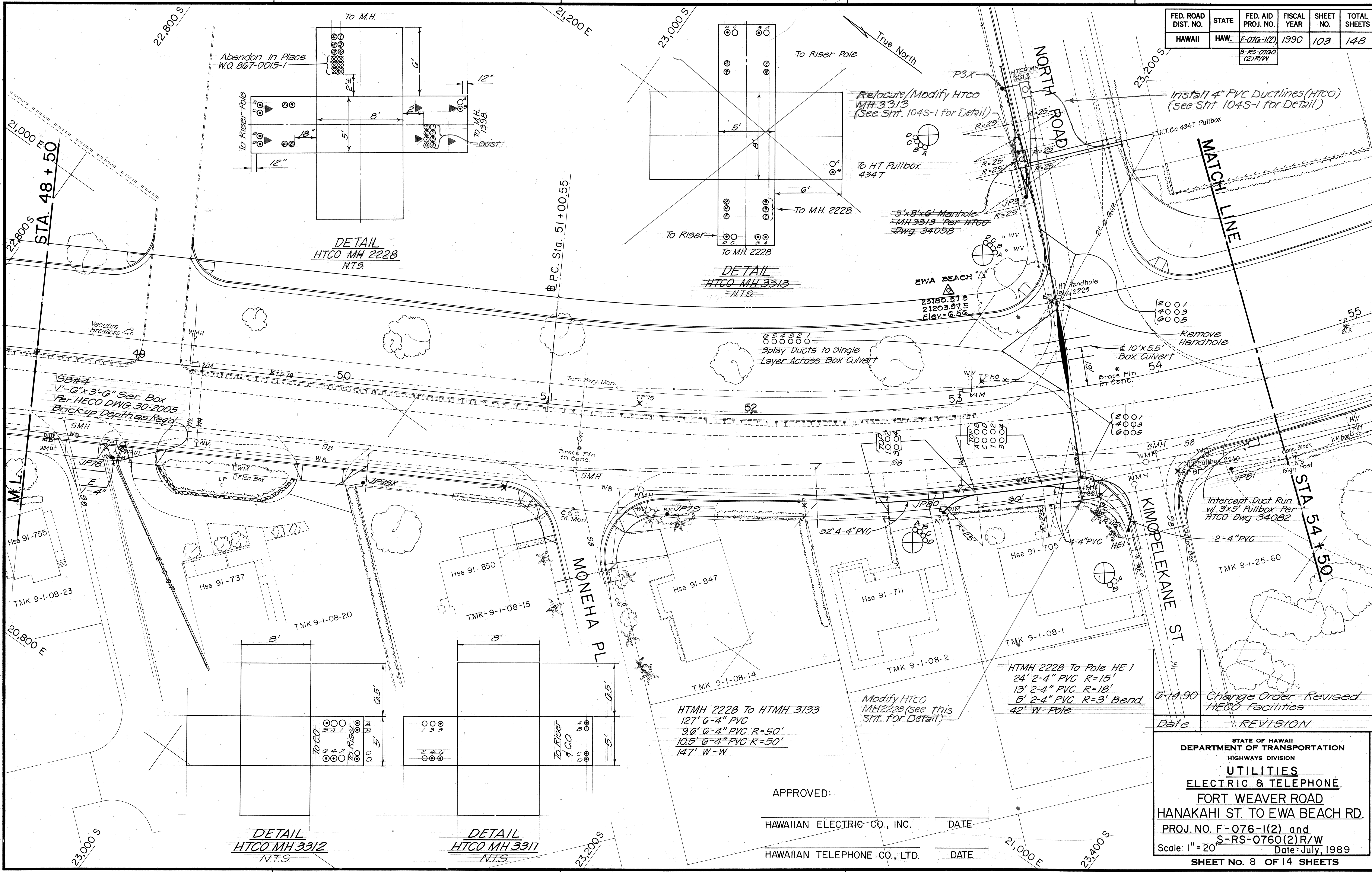
0-14-90	Change Order - Revised HECO Facilities
Date	REVISION

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
NOTED BY	_____
CHECKED BY	_____
NO.	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	103	148
S-RS-0760 (2) R/W					

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO.	

DATE	



APPROVED:

HAWAIIAN ELECTRIC CO., INC. DATE

HAWAIIAN TELEPHONE CO., LTD. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
PROJ. NO. F-076-1(2) and
S-RS-0760(2)R/W
Scale: 1" = 20' Date: July, 1989
SHEET No. 8 OF 14 SHEETS

Date
REVISION

0-14-90 Change Order - Revised HECO Facilities

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	104	148
		S-RS-0760 (2) R/W			

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DRAWN BY		
DESIGNED BY		
CHECKED BY		
DATE		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITIES
ELECTRIC & TELEPHONE

FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.

PROJ. NO. F-076-1(2) and
S-RS-0760(2) R/W

Scale: 1" = 20' Date: July, 1989

SHEET No. 9 OF 14 SHEETS

APPROVED:

HAWAIIAN ELECTRIC CO., INC.

DATE

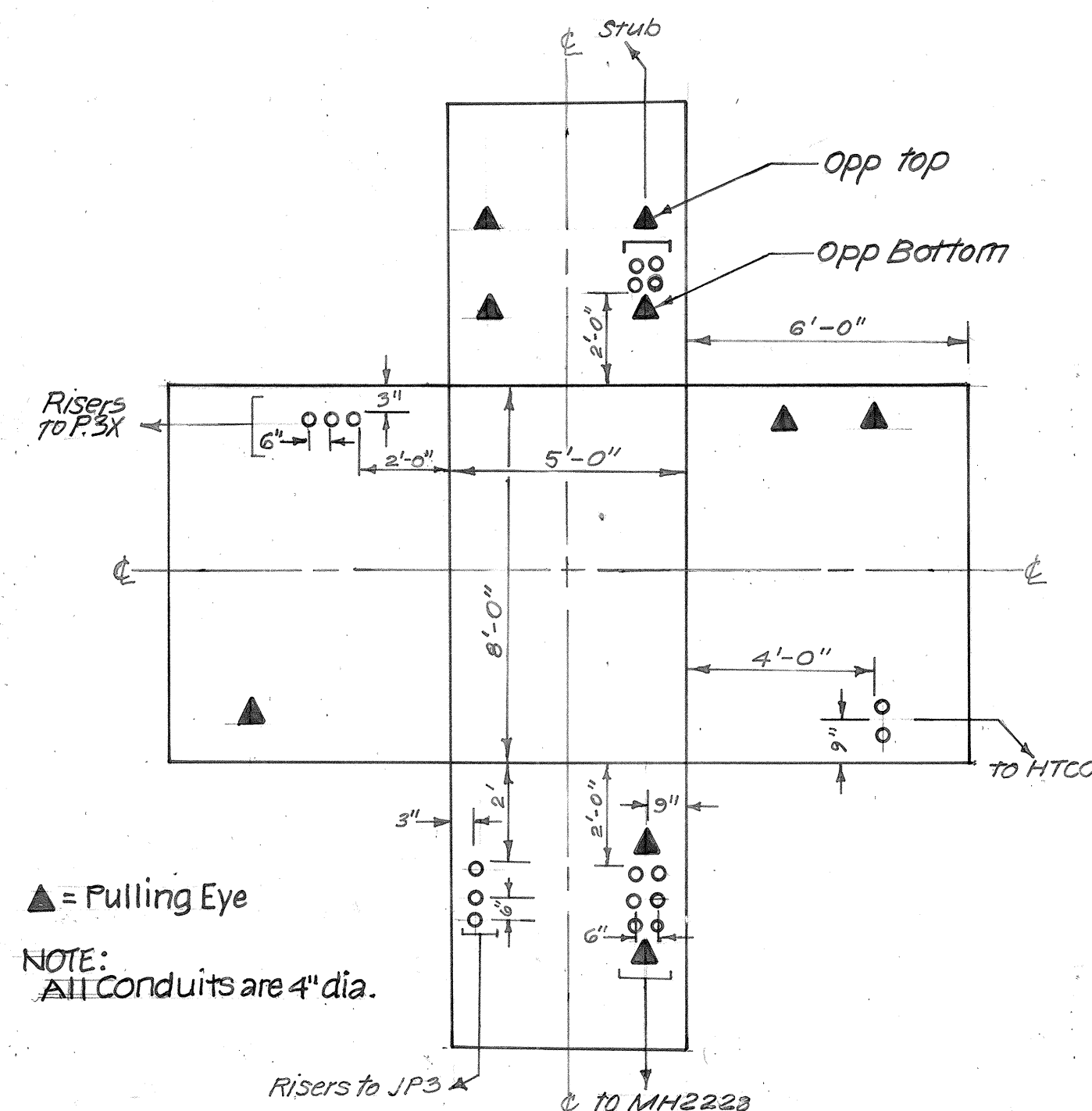
APPROVED:

HAWAIIAN TELEPHONE CO., LTD.

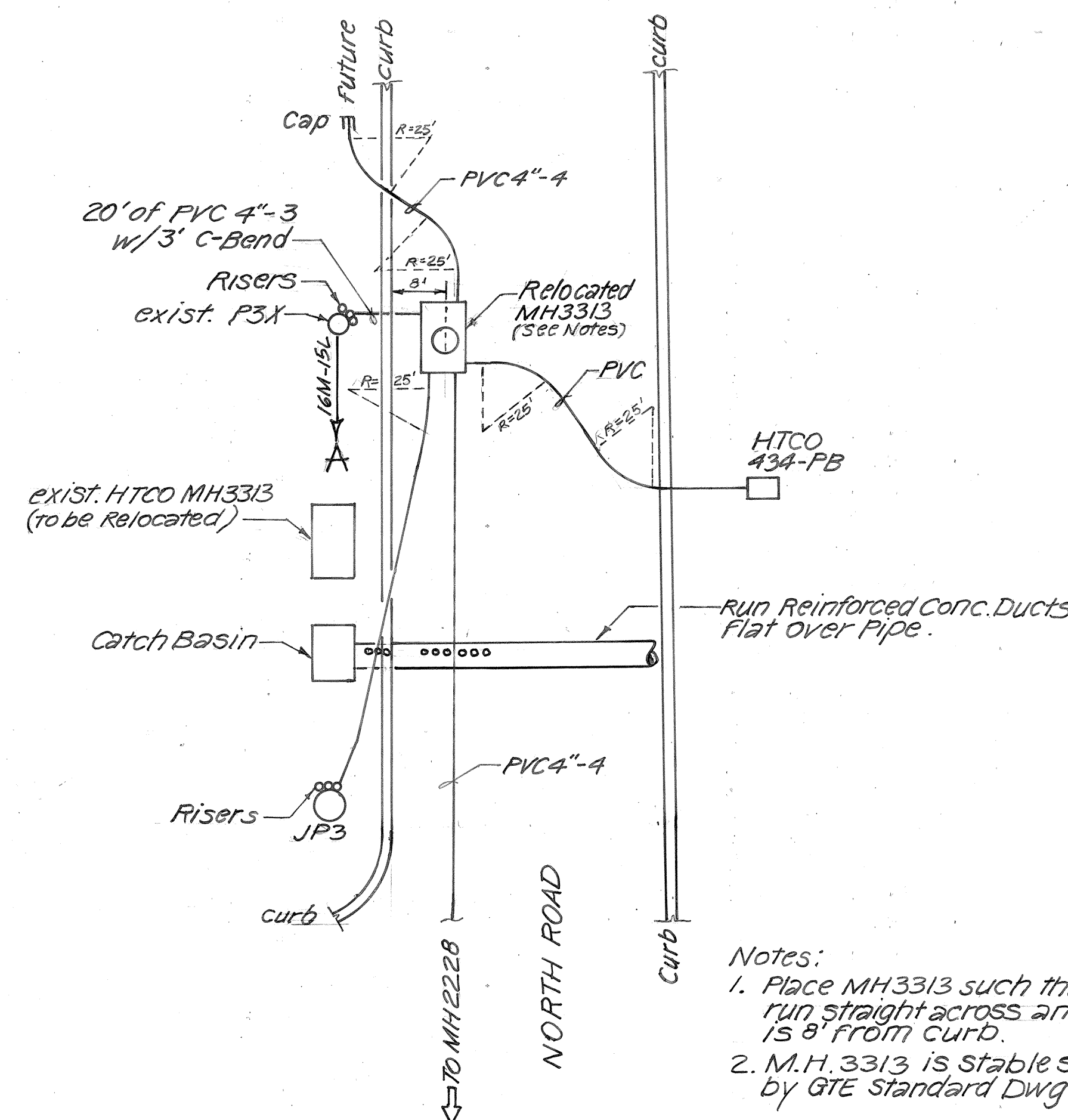
DATE

"AS-BUILT"

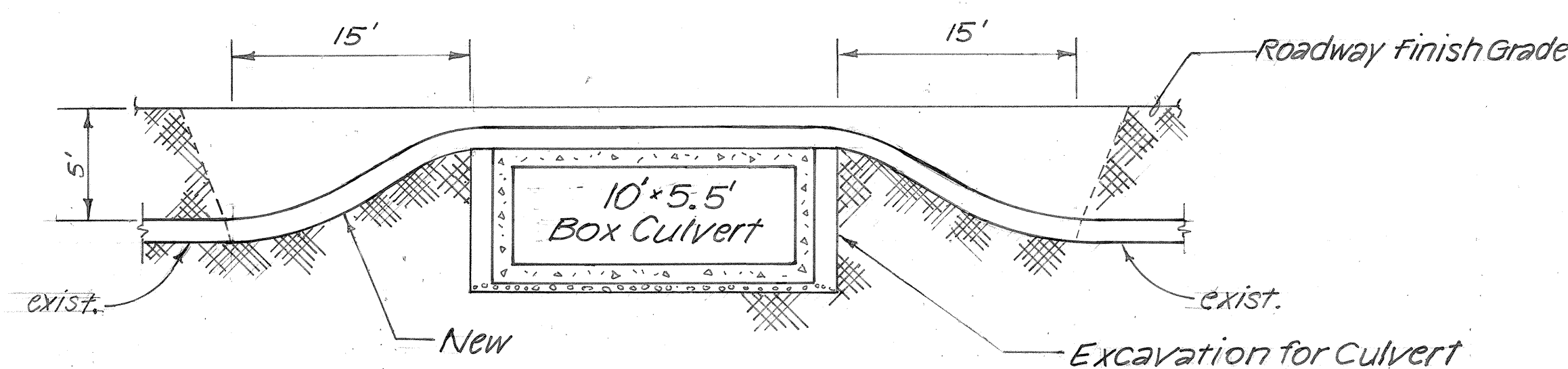
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				



DETAIL
HTCO MH3313
N.T.S.

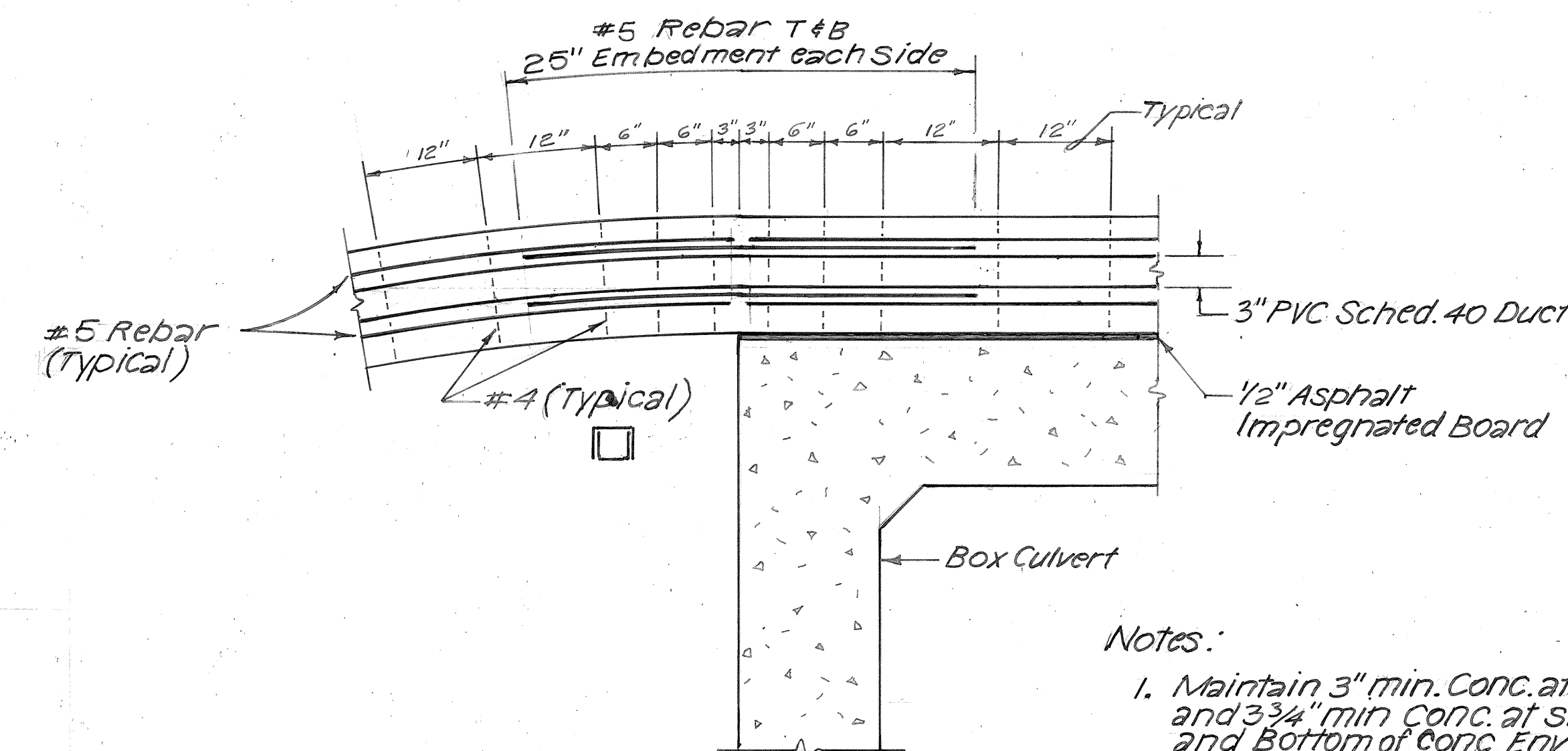


PLAN
N.T.S.



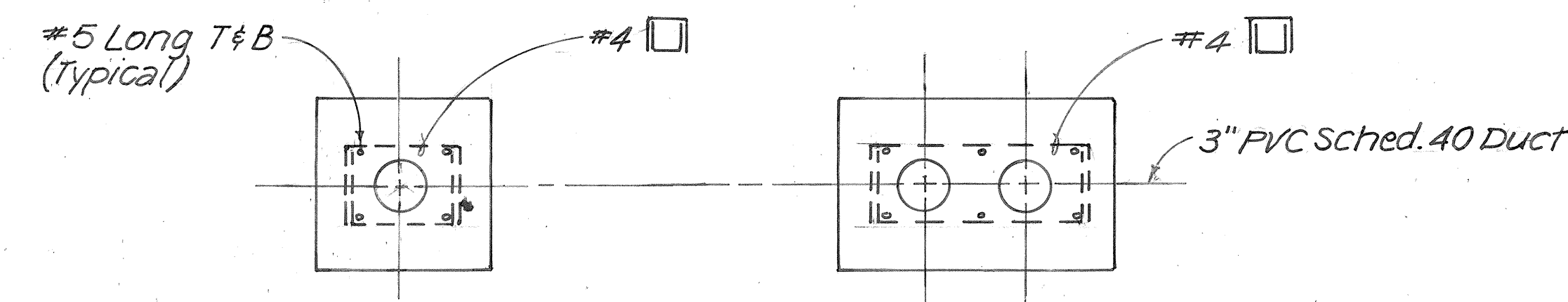
REINFORCED CONCRETE JACKET ACROSS BOX CULVERT *
N.T.S.

* LENGTH OF JACKET VARIES:
at Sta. 56+00: 40± ft.
at Sta. 58+10: 53± ft.
at Sta. 66+30: 50± ft.



- Notes:
1. Maintain 3" min. Conc. at top and 3-3/4" min. Conc. at sides and bottom of Conc. Envelope.
 2. Conc. Cover for Rebars shall be 2" at top and sides and 3" at bottom of Envelope.

TYPICAL SECTION
BOX CULVERT DUCTLINE CROSSING DUCT BANK-ONE-HIGH
N.T.S.



TYPICAL SECTIONS
REINFORCED DUCT BANKS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
Hanalei Street to Ewa Beach Road
Project No. F-076-1(2) & S-RS-0760(2) R/W

SHEET No. OF SHEETS

AS-BUILT

104S-1

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	105	148
S-RS-0760 (2) R/W					

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DESIGNED BY	DRAWN BY	
NOTED BY	TRACED BY	
CREATED BY	QUANTITIES BY	

NO.	
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APPROVED:

HAWAIIAN ELECTRIC CO., INC.

DATE

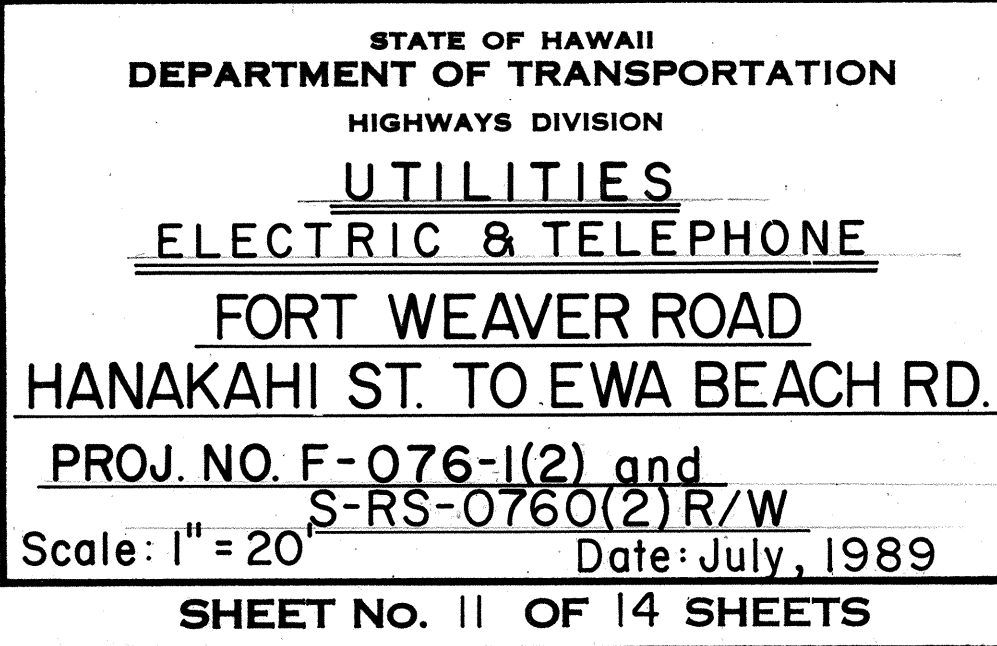
APPROVED:

HAWAIIAN TELEPHONE CO., LTD.

DATE

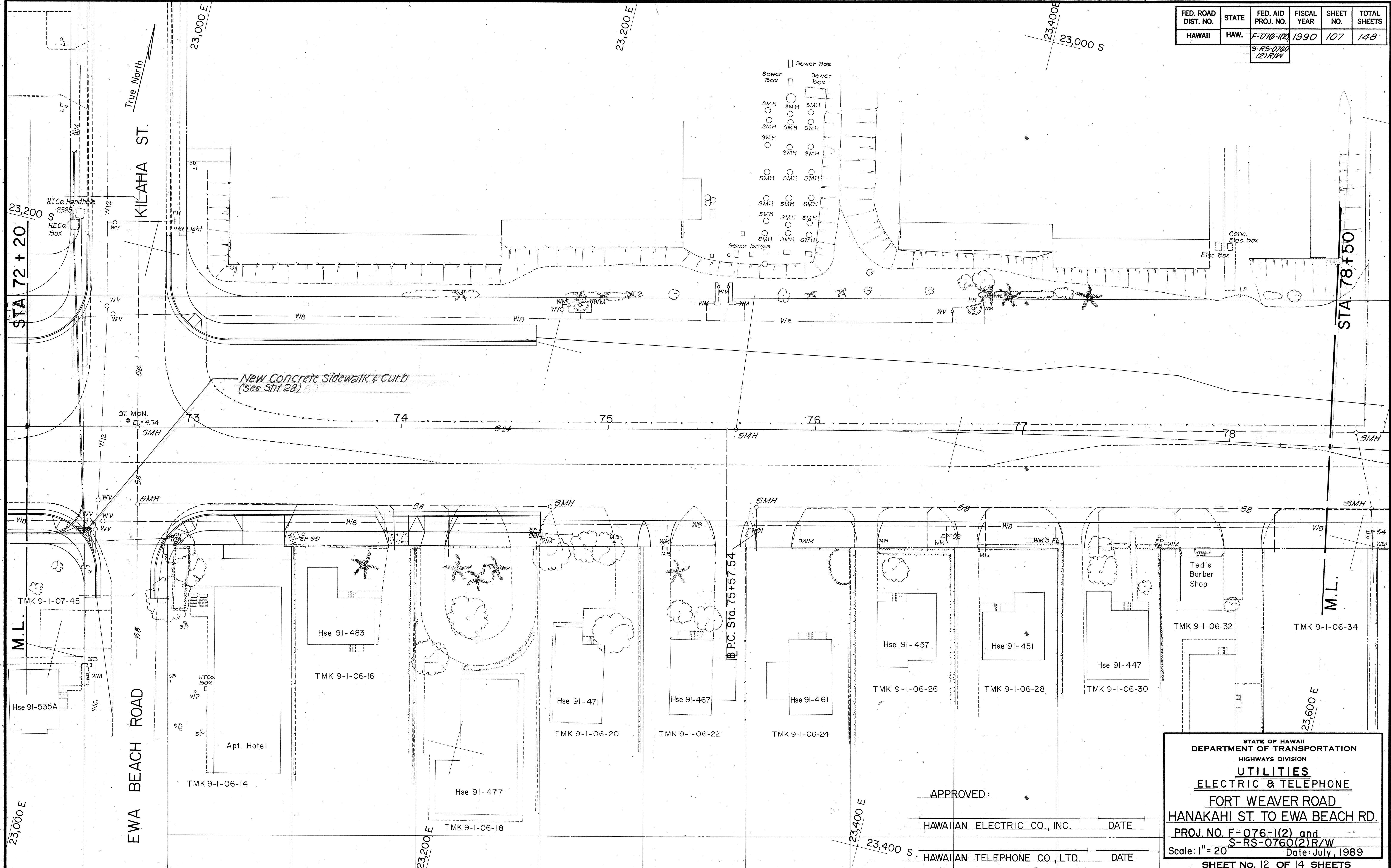
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
PROJ. NO. F-076-1(2) and
S-RS-0760(2) R/W
Scale: 1" = 20' Date: July, 1989
SHEET No. 10 OF 14 SHEETS

S-RS-0760
(2) R/W



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	107	148
		S-RS-0760(2)R/W			

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	" " " "
No.	DESIGNED BY	" " " "
	QUANTITIES BY	" " " "
	CHECKED BY	" " " "



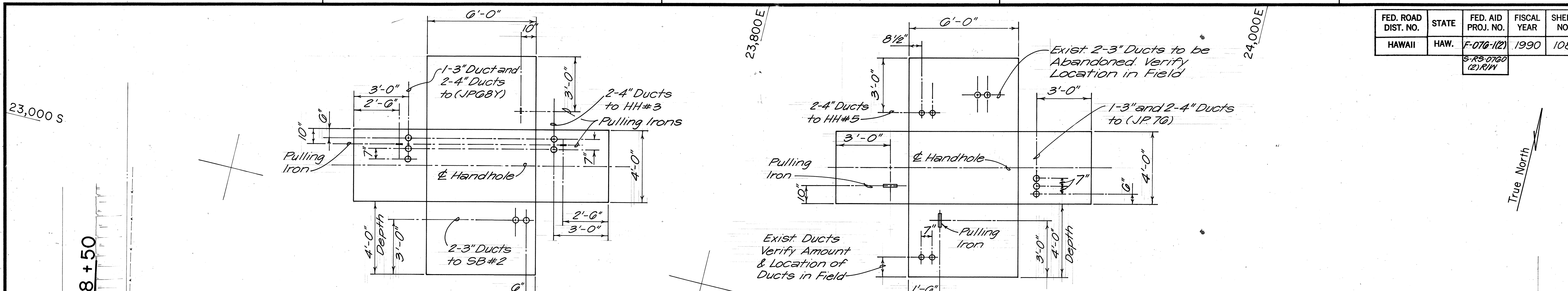
APPROVED:

HAWAIIAN ELECTRIC CO., INC. DATE

HAWAIIAN TELEPHONE CO., LTD. DATE

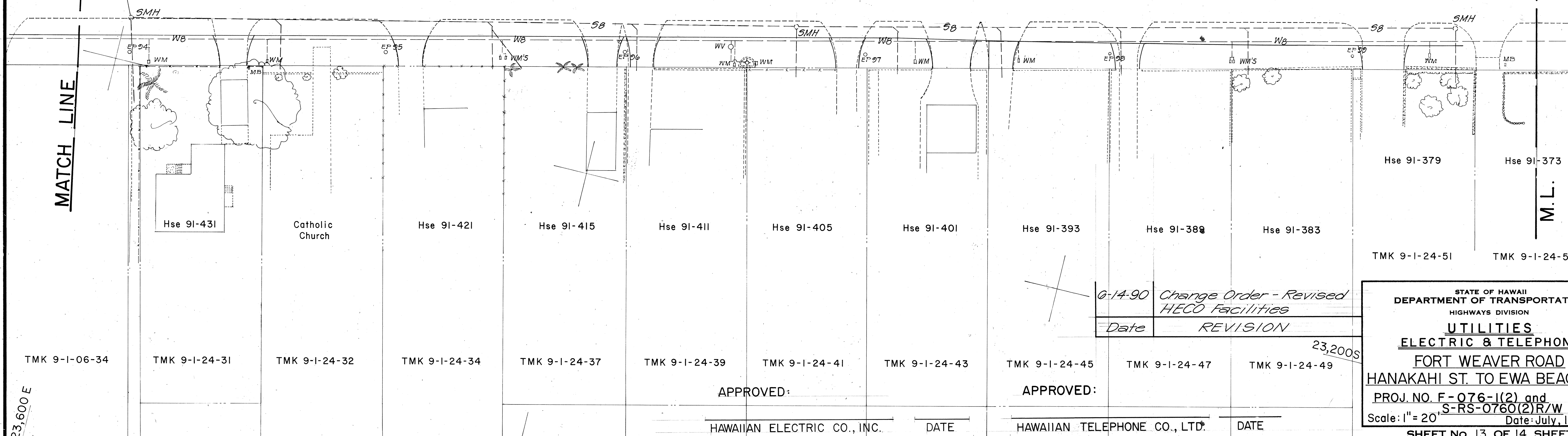
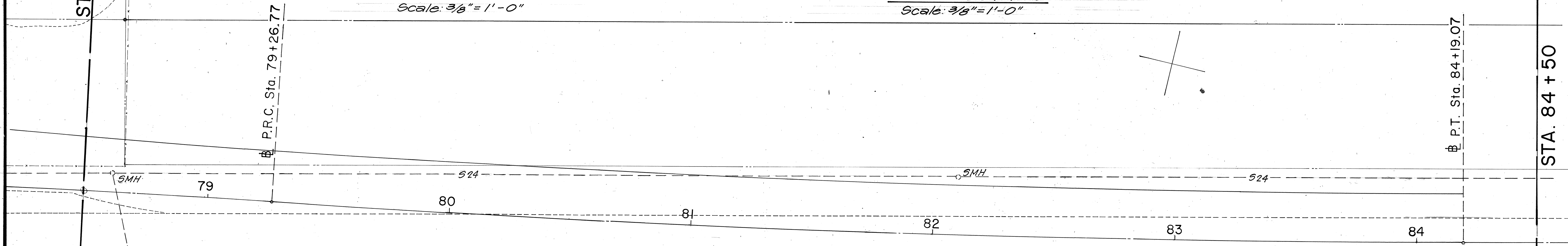
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
PROJ. NO. F-076-1(2) and
S-RS-0760(2)R/W
Scale: 1" = 20' Date: July, 1989
SHEET No. 12 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	108	148
S-RS-0760 (2) R/W					



DUCTS ENTRANCES & PULLING IRON LOCATIONS
HH #3A DETAILS
 Scale: 3/8" = 1'-0"

DUCT ENTRANCES & PULLING IRON LOCATIONS
HH #4 DETAILS
 Scale: 3/8" = 1'-0"



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
DRAWN BY	DESIGNED BY	
NOTED BY	CHECKED BY	
NO.		

0-14-90	Change Order - Revised HECO Facilities
Date	REVISION

APPROVED:

APPROVED:

HAWAIIAN ELECTRIC CO., INC.

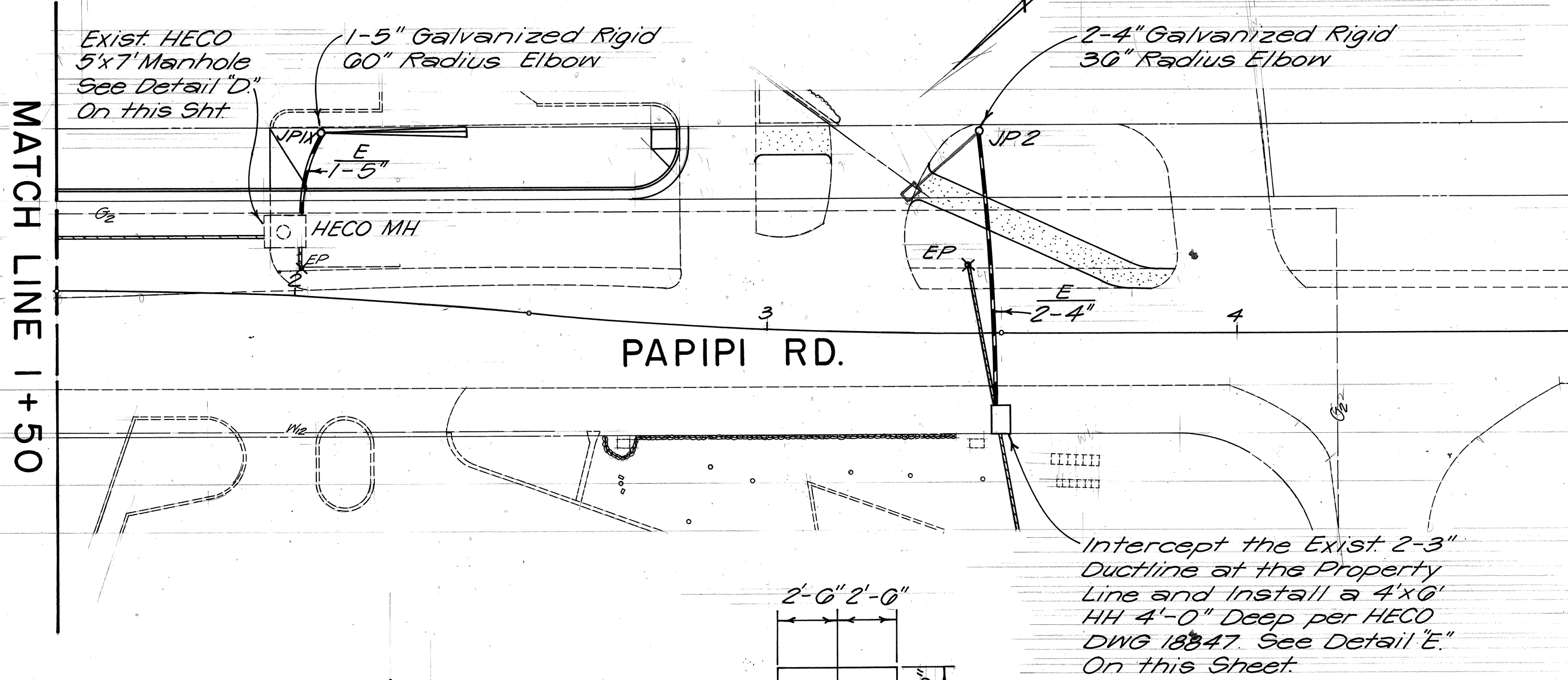
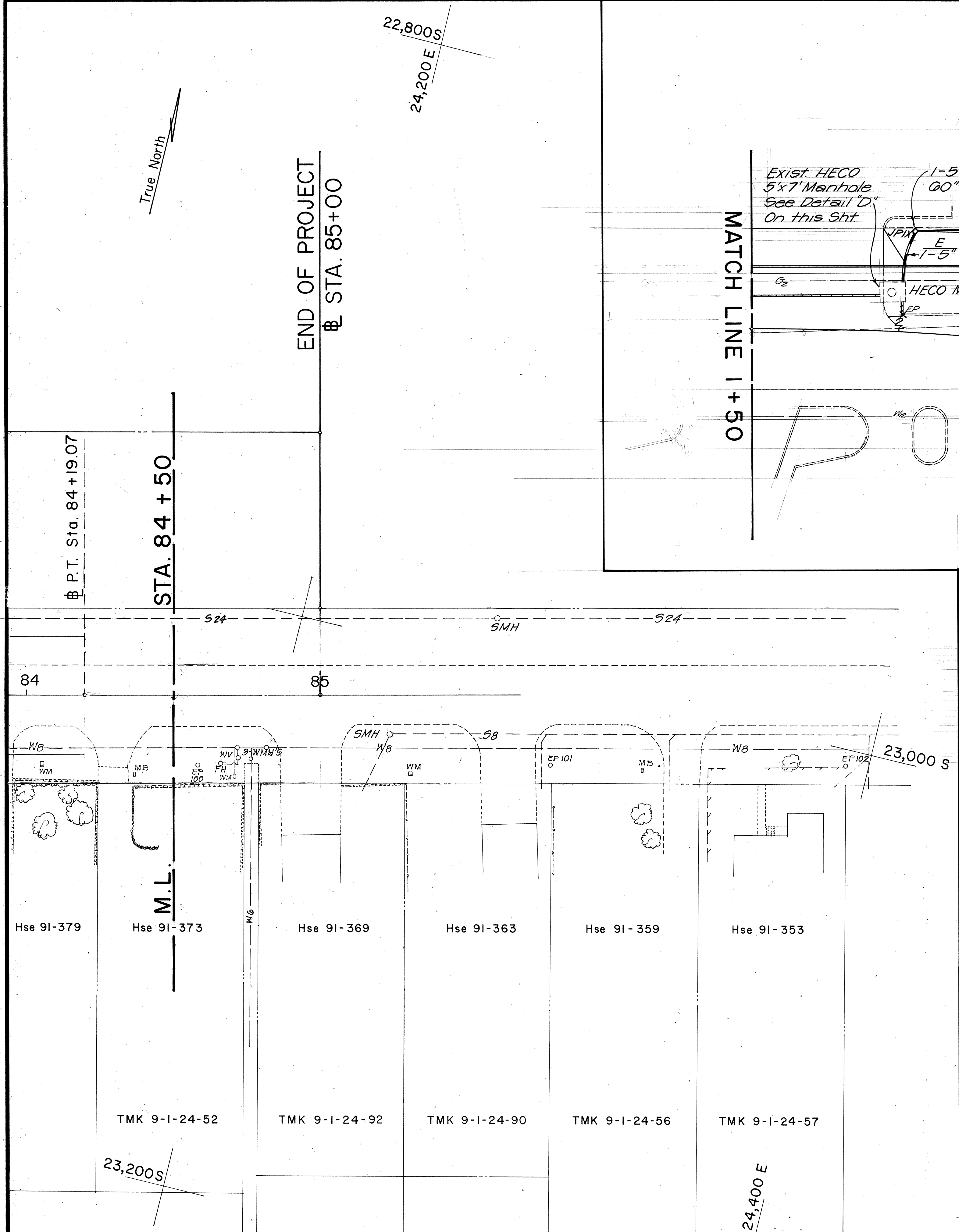
HAWAIIAN TELEPHONE CO., LTD.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

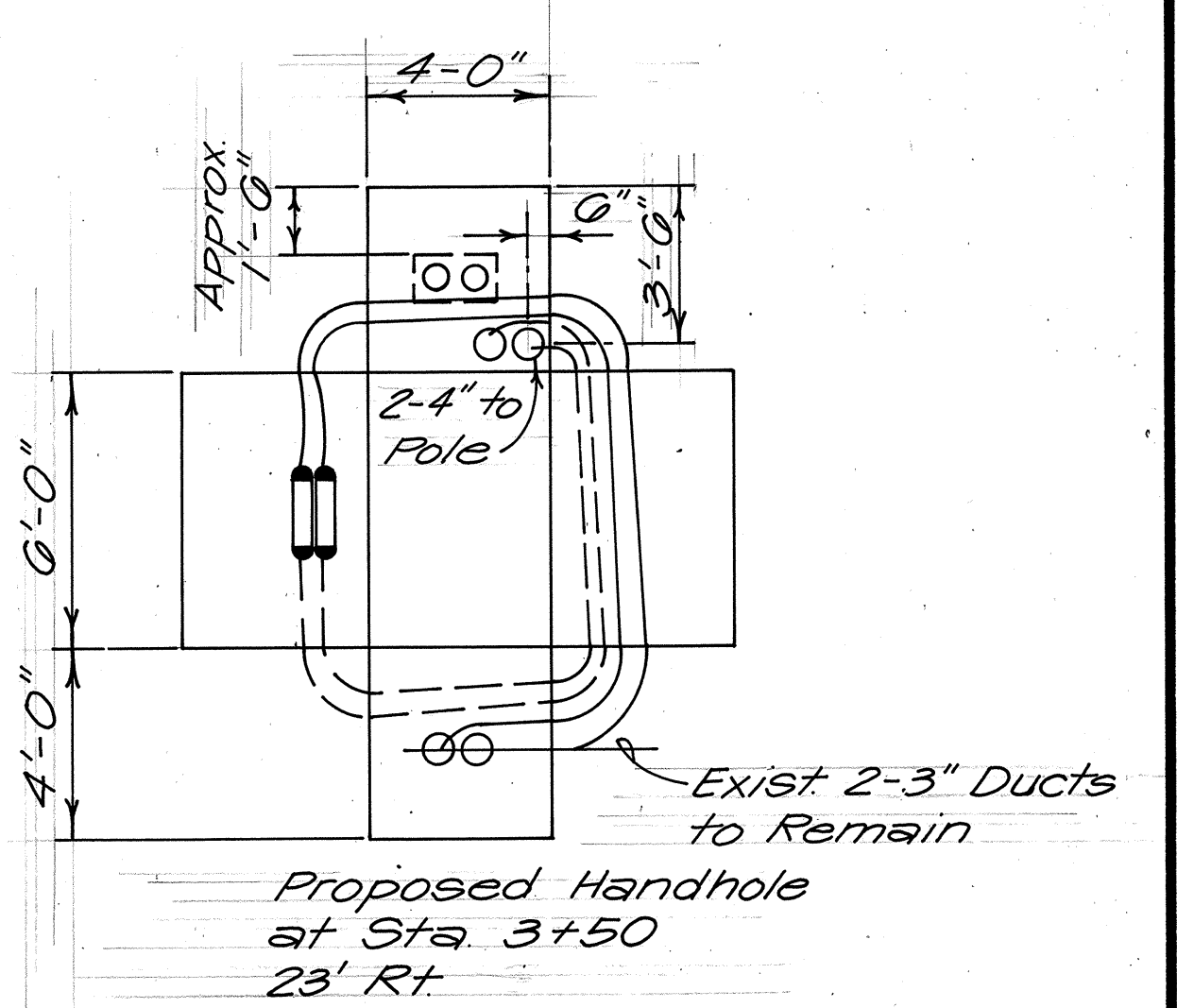
UTILITIES
ELECTRIC & TELEPHONE
FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.
PROJ. NO. F-076-1(2) and
S-RS-0760(2) R/W
Scale: 1" = 20' Date: July, 1989
SHEET No. 13 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-076-1(2)	1990	109	148
S-RS-0760 (2) R/W					

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	" "
No.	DESIGNED BY	" "
	QUANTITIES BY	" "
	CHECKED BY	" "



DETAIL "D"
N.T.S.



DETAIL "E"
N.T.S.

APPROVED:
HAWAIIAN ELECTRIC CO., INC. DATE
HAWAIIAN TELEPHONE CO., LTD. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITIES
ELECTRIC & TELEPHONE

FORT WEAVER ROAD
HANAKAHI ST. TO EWA BEACH RD.

PROJ. NO. F-076-1(2) and
S-RS-0760(2) R/W

Scale: 1"=20' Date: July, 1989

SHEET No. 14 OF 14 SHEETS