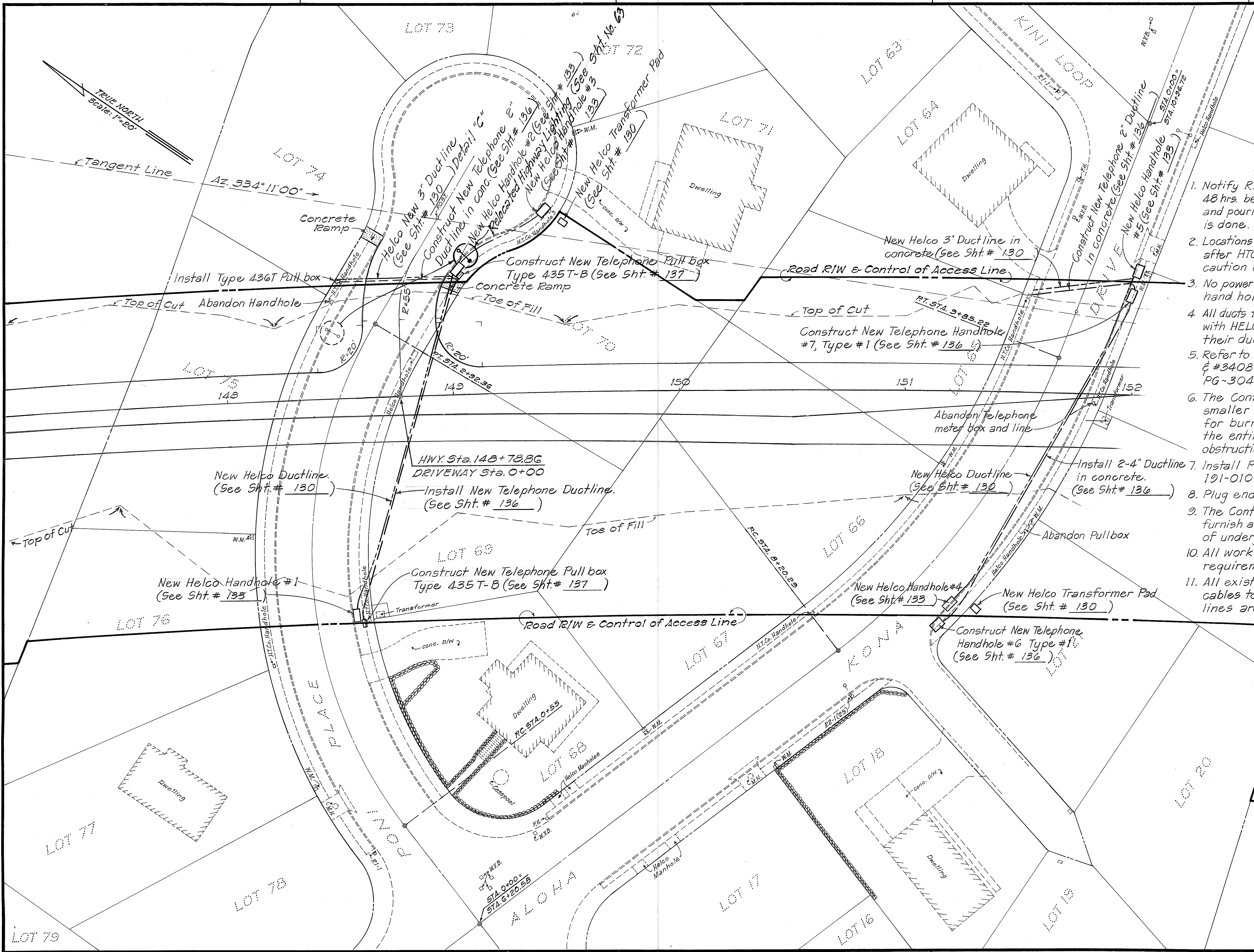


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	134	214



- CONTRACTOR NOTES**
1. Notify R. Hanlin, Construction Assistant, at 329-4756, 48 hrs. before any excavation work near HTCO cables and pouring of concrete for hand holes and ductline is done.
 2. Locations of pull boxes and hand holes to be determined after HTCO & HELCO buried cables are exposed. Use caution during excavation.
 3. No power cables shall enter HTCO pull boxes or hand holes.
 4. All ducts to be concrete jacketed. Use common trench with HELCO wherever feasible. Check with HELCO for their duct requirements.
 5. Refer to HTCO standard drawings, #34024, #34029 & #34080 for meter box, Type #1 hand hole and PG-3048 pull box.
 6. The Contractor shall pass a Test Mandrel 1/2 inch smaller in diameter than the conduit to check for burrs and other obstructions throughout the entire length of each conduit. All burrs, obstructions and foreign matters are to be removed.
 7. Install Polypropylene pulling line (EMBO No. 191-01026) or equivalent in ducts.
 8. Plug ends of all ducts.
 9. The Contractor for the highway project shall furnish all labor and materials for the installation of underground Telephone duct system.
 10. All work to conform to State Highways Division requirements.
 11. All existing ducts, pull boxes, meter boxes and cables to be abandoned after cable and service lines are relocated by HTCO personnel.

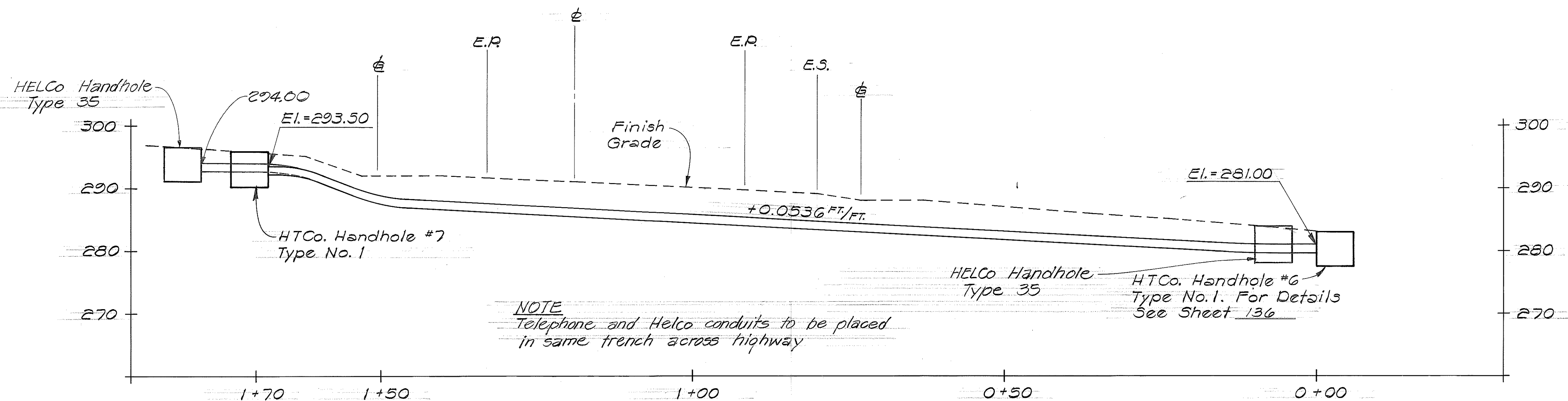
Approved: *[Signature]* Date: 8/24/82
HAWAIIAN TELEPHONE COMPANY

Approved: *[Signature]* Date: 8/24/82
HAWAII ELECTRIC LIGHT COMPANY, INC.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TELEPHONE & ELECTRIC CONDUIT
RELOCATIONS AT
KONA HEIGHTS SUBDIVISION**
HB12 FAP ROUTE 11
PALANI RD. TO KILOHANA SUBD.
PROJECT NO. F-011-1(14)
NORTH KONA, HAWAII
Scale: As Noted Date: Apr. 1982
SHEET NO. 1 OF 1 SHEETS

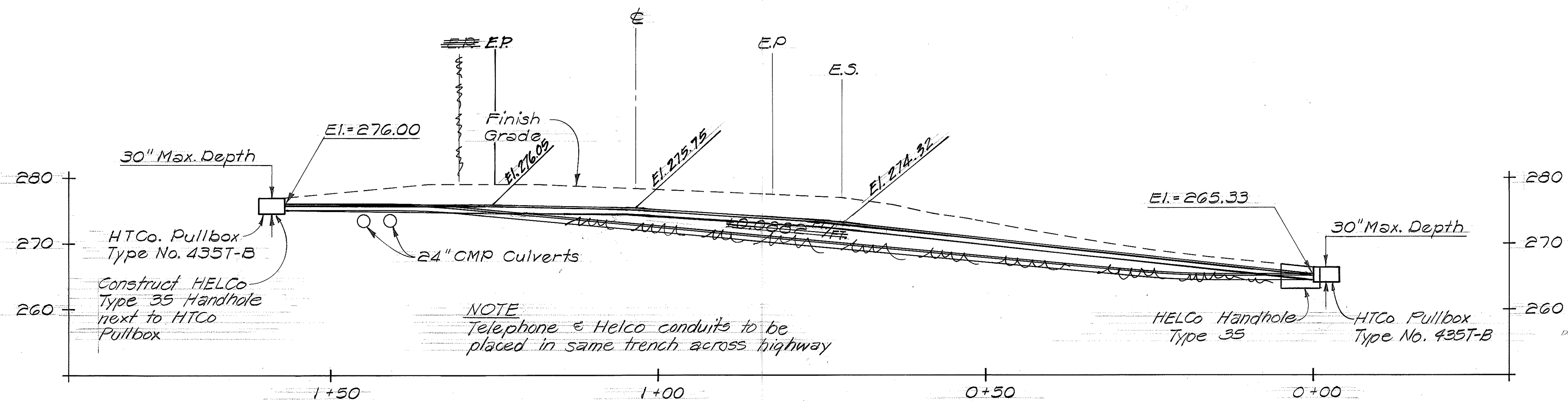
ORIGINAL PLAN	DATE: May 21
DRAWN BY: J.C.	DESIGNED BY: J.C.
CHECKED BY: J.C.	NOTED BY: J.C.
NO. 2000-22	NO. 2000-22

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-(14)	1982	135	214



ELECTRIC & TELEPHONE CONDUIT AT HWY. STA. 151+78±
KONA HEIGHTS SUB'D. - ALOHA KONA DRIVE

Scale: Hor. = 1" = 10'
 Vert. = 1" = 10'



ELECTRIC & TELEPHONE CONDUIT AT HWY. STA. 148+86±
KONA HEIGHTS SUB'D. - PONI PLACE

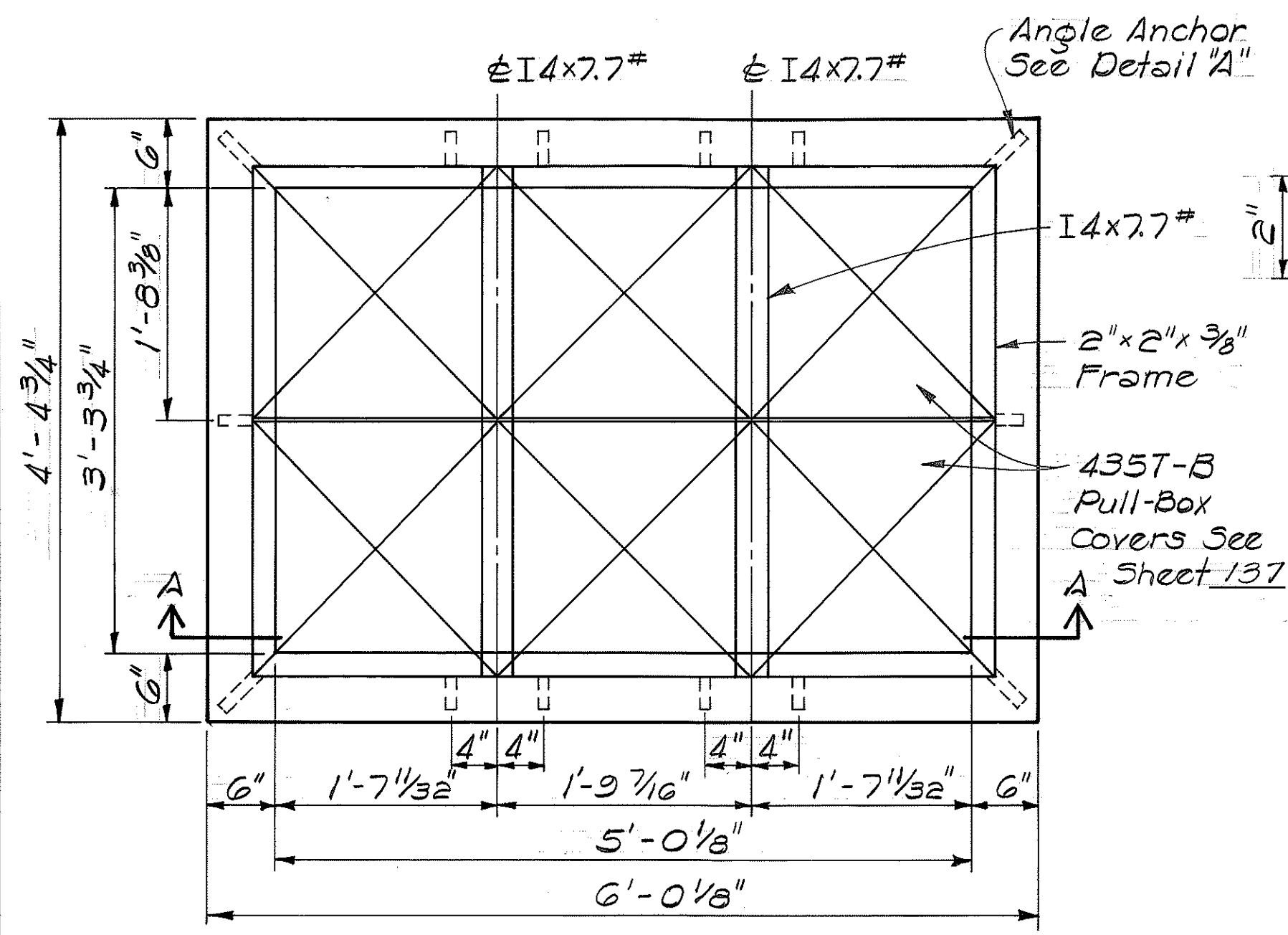
Scale: Hor. = 1" = 10'
 Vert. = 1" = 10'

Approved: *[Signature]* Date: 8/24/82
 HAWAIIAN TELEPHONE COMPANY

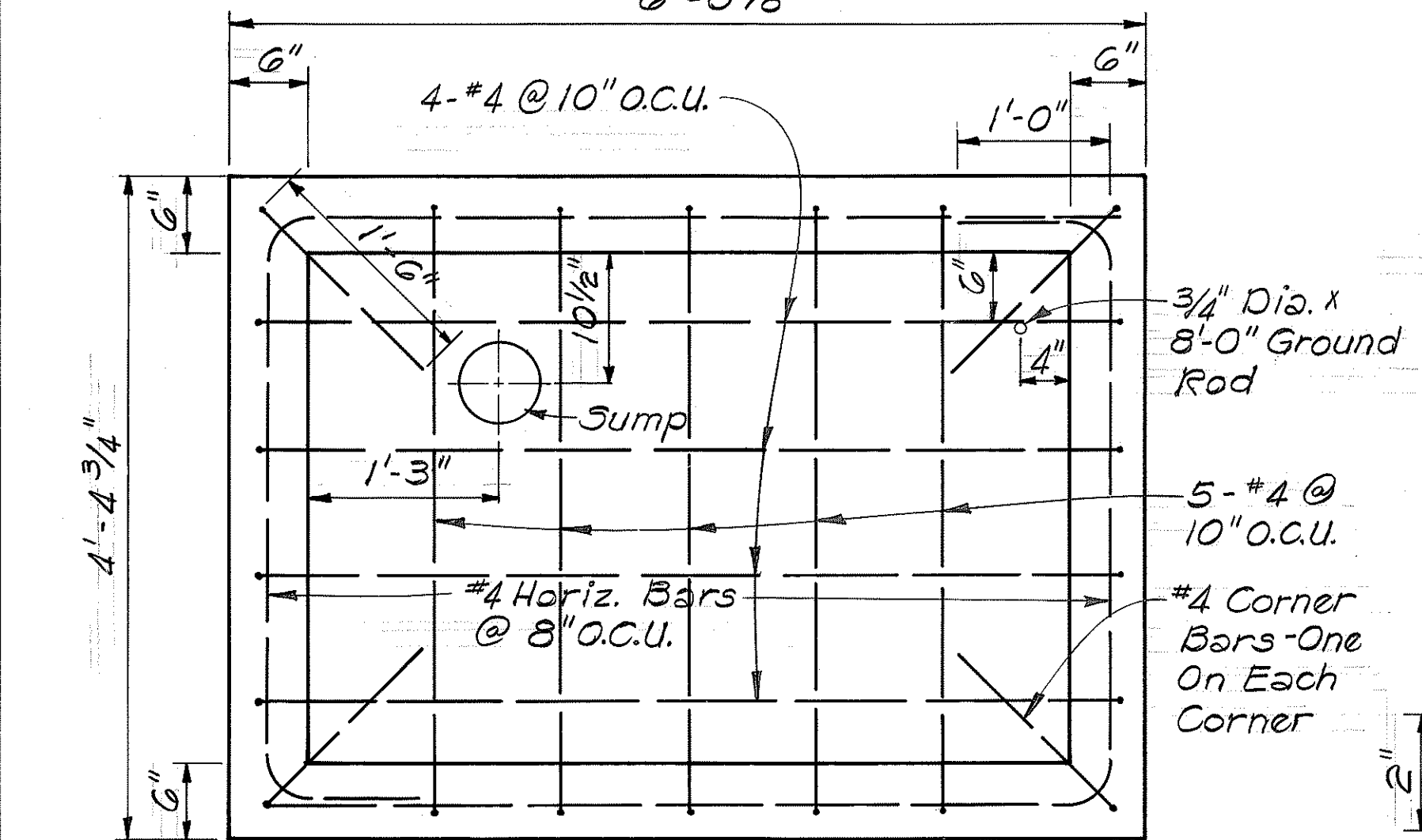
Approved: *[Signature]* Date: 8/24/82
 HAWAII ELECTRIC LIGHT COMPANY, INC.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
**ELECTRIC & TELEPHONE
 CONDUIT CROSSING
 AT KONA HEIGHTS SUB'D**
 HBR FAP ROUTE II
 PALANI RD. TO KILOHANA SUB'D
 PROJECT NO. F-011-1(14)
 NORTH KONA, HAWAII
 Scale: As Noted Date: Aug. 1982
 SHEET NO. OF SHEETS

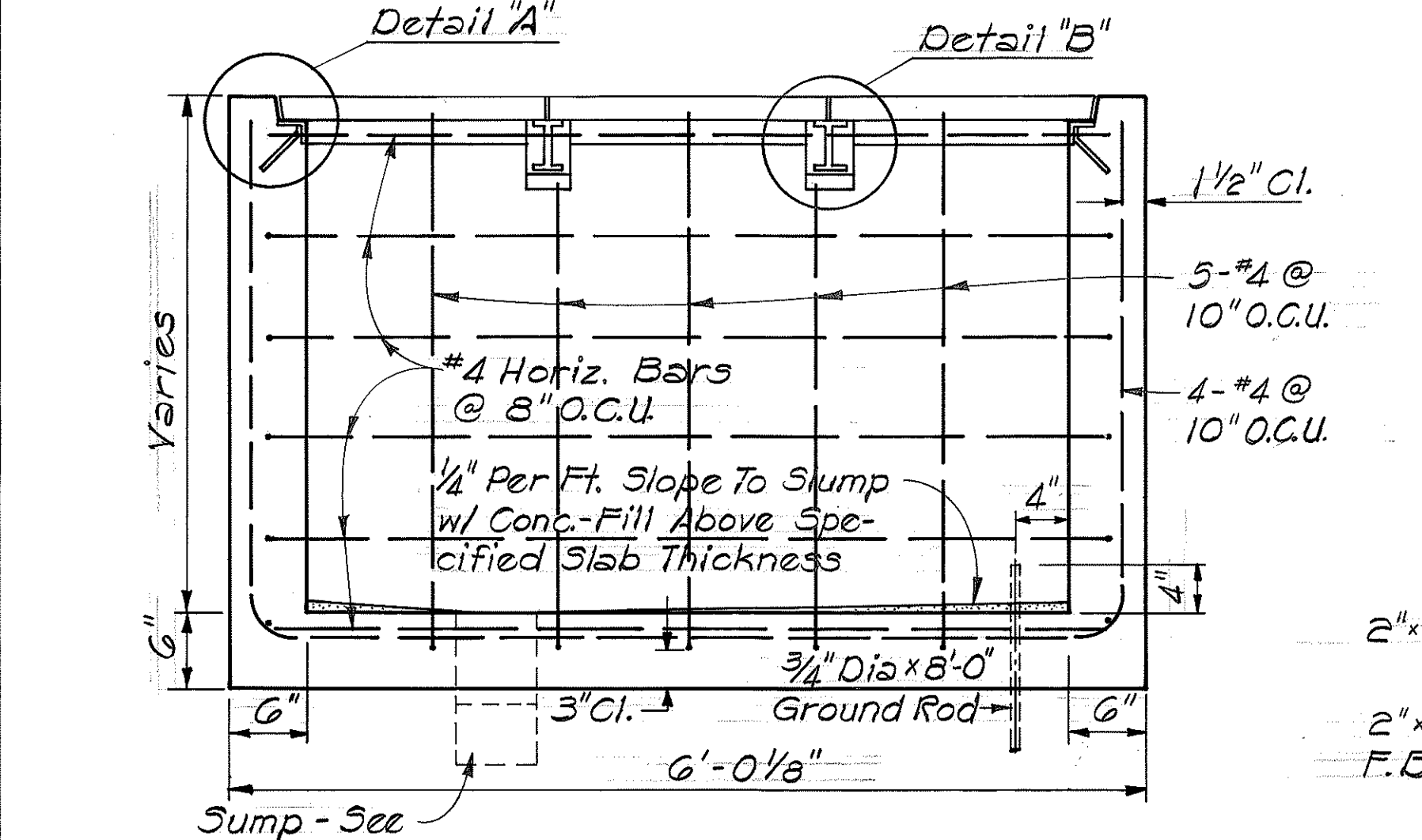
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-(14)	1982	136	214



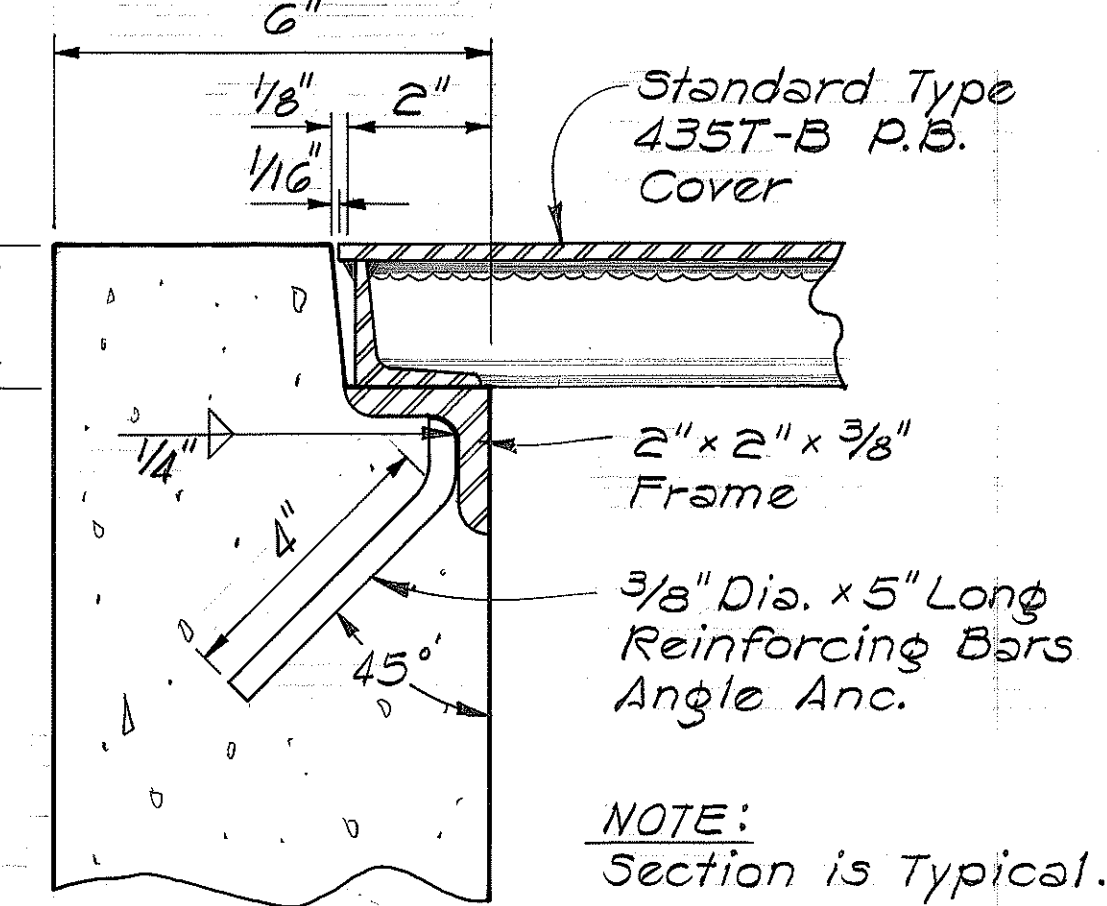
TOP PLAN
Scale: 1" = 1'-0"



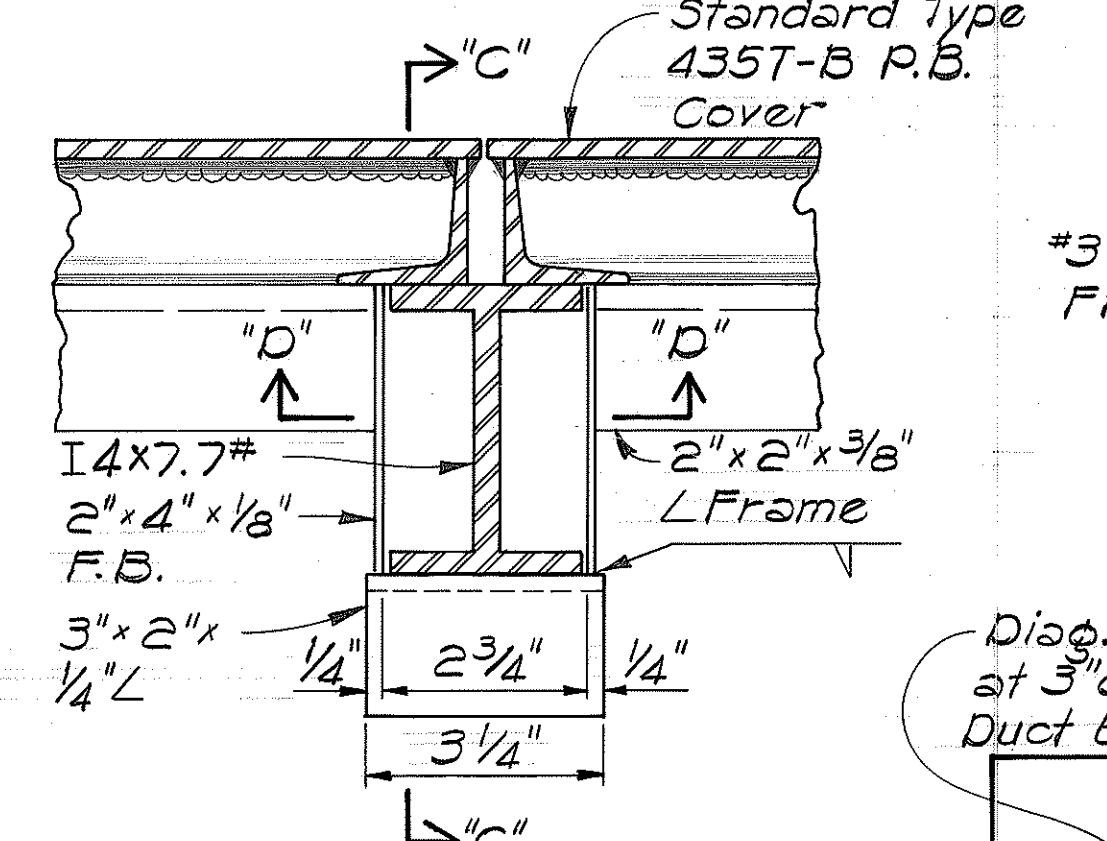
FLOOR PLAN
Scale: 1" = 1'-0"



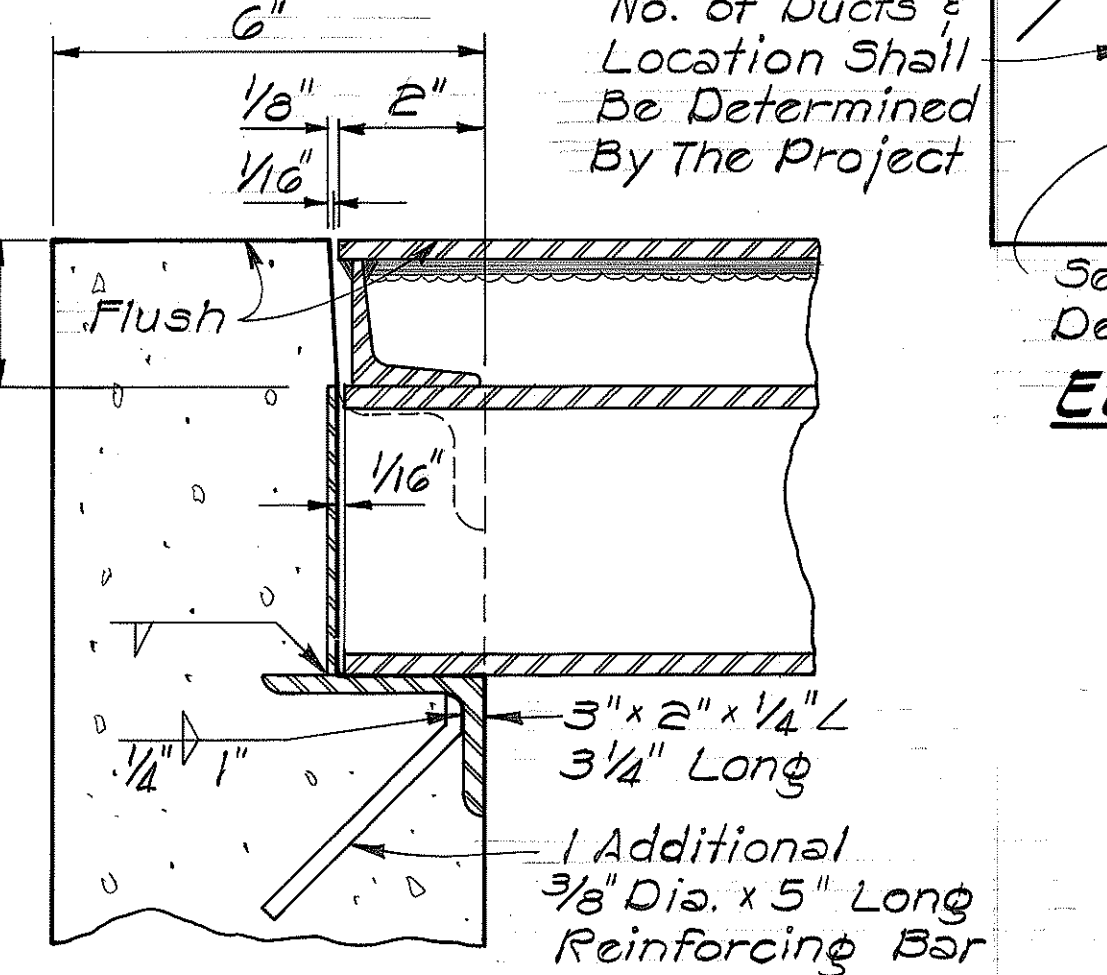
SECTION 'A-A'
HANDHOLE TYPE #1
(3'-4 3/4" x 5'-0 1/8" Inside)
Scale: 1" = 1'-0"



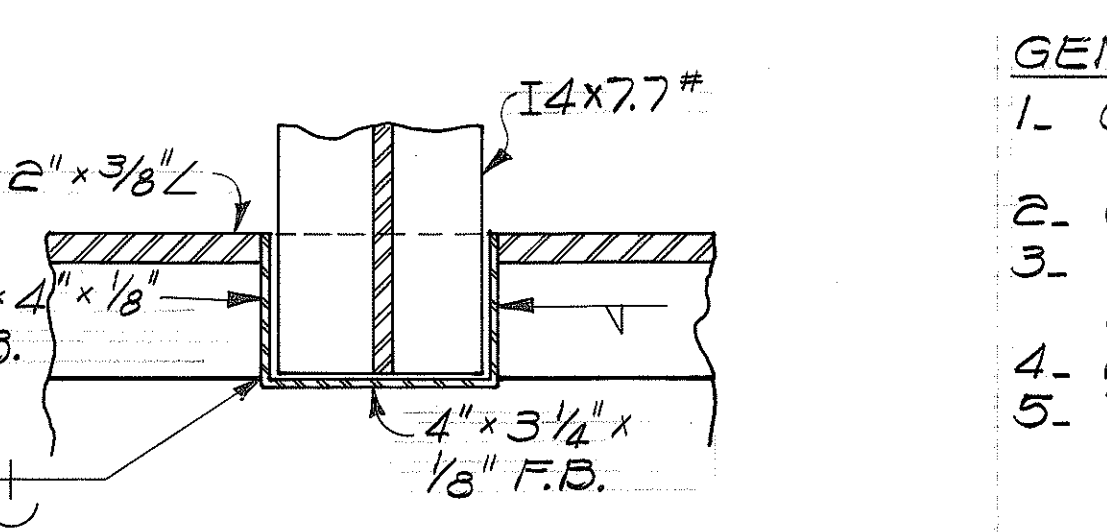
DETAIL 'A'
Scale: 3/8" = 1"



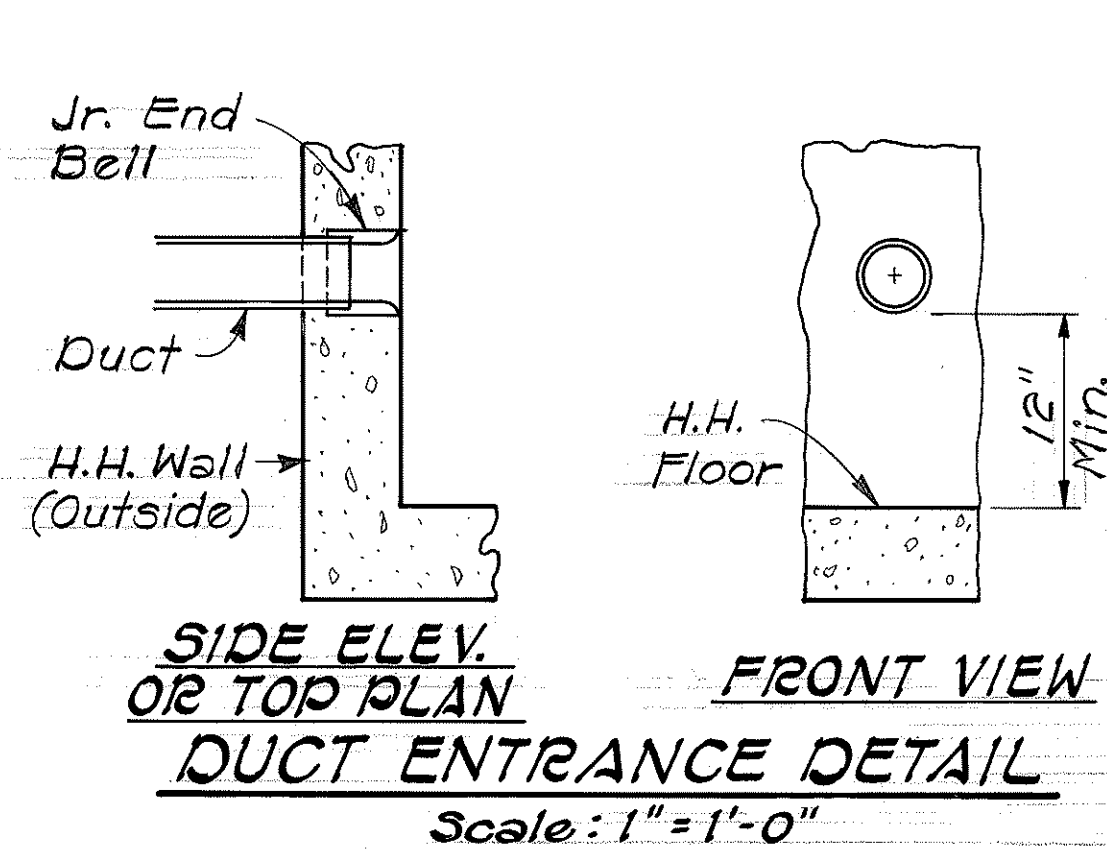
DETAIL 'B'
Scale: 3/8" = 1"



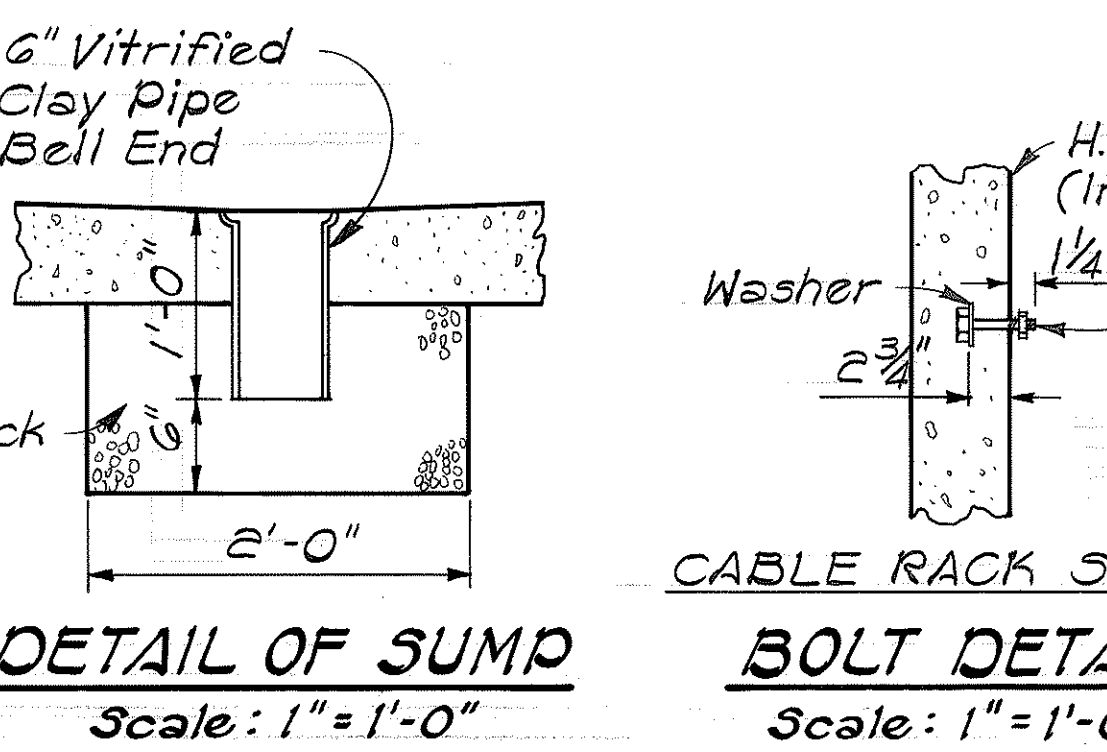
SECTION 'C-C'
Scale: 3/8" = 1"



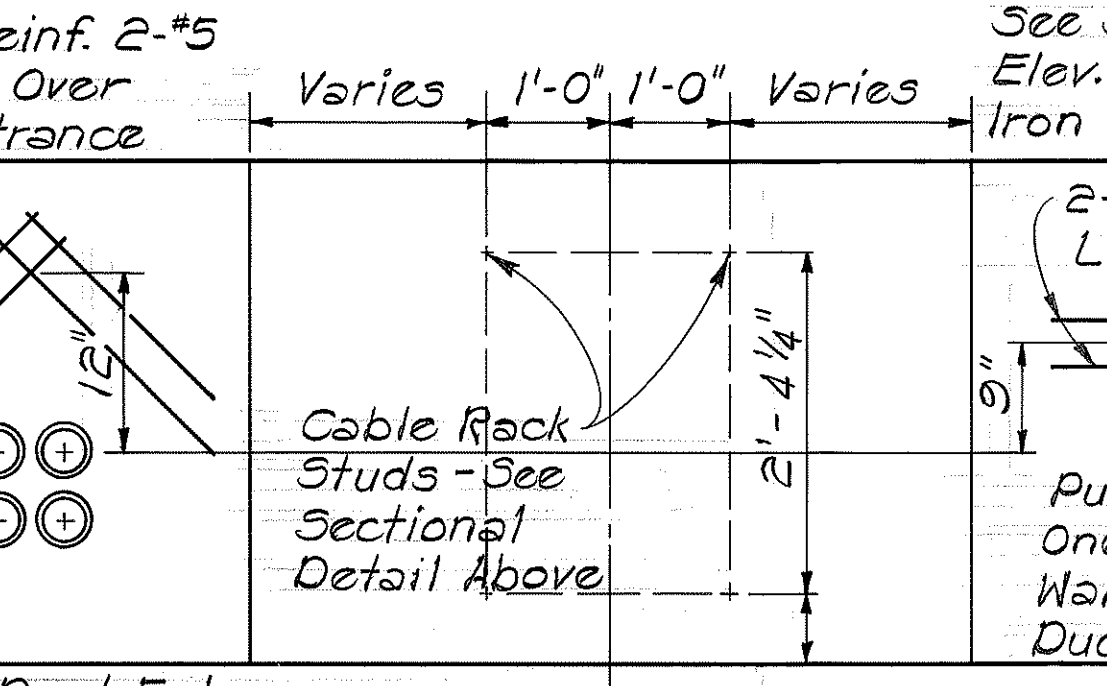
SECTION 'D-D'
Scale: 3/8" = 1"



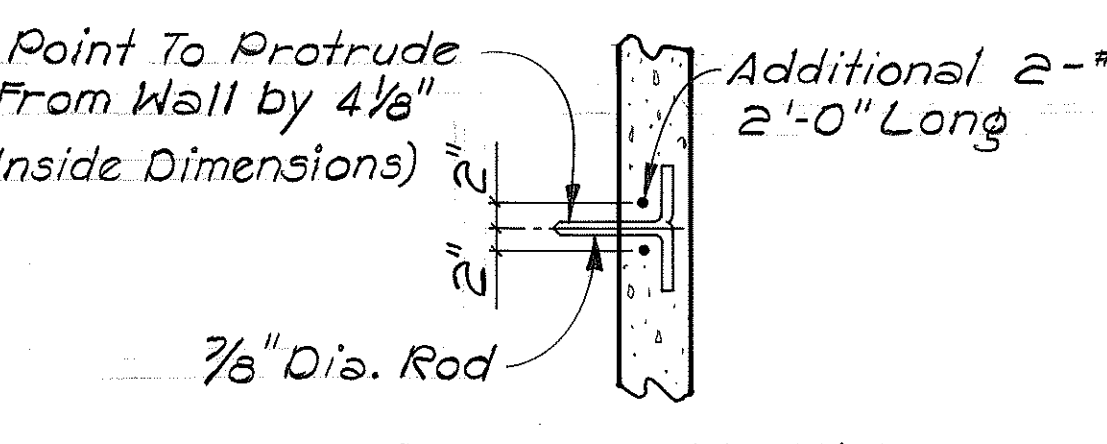
DUCT ENTRANCE DETAIL
Scale: 1" = 1'-0"



DETAIL OF SUMP
Scale: 1" = 1'-0"



ELEVATION OF INSIDE WALLS - H.H. TYPE 1
N.T.S.

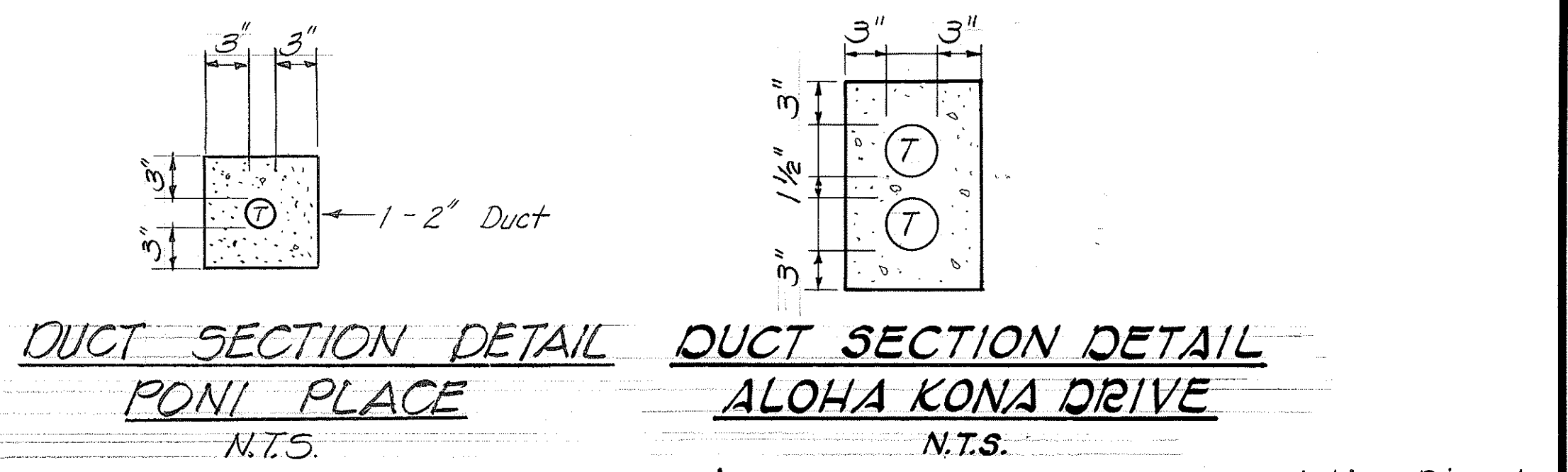


SECTIONAL ELEV. OF PULL-IN IRON
Scale: 3/4" = 1'-0"

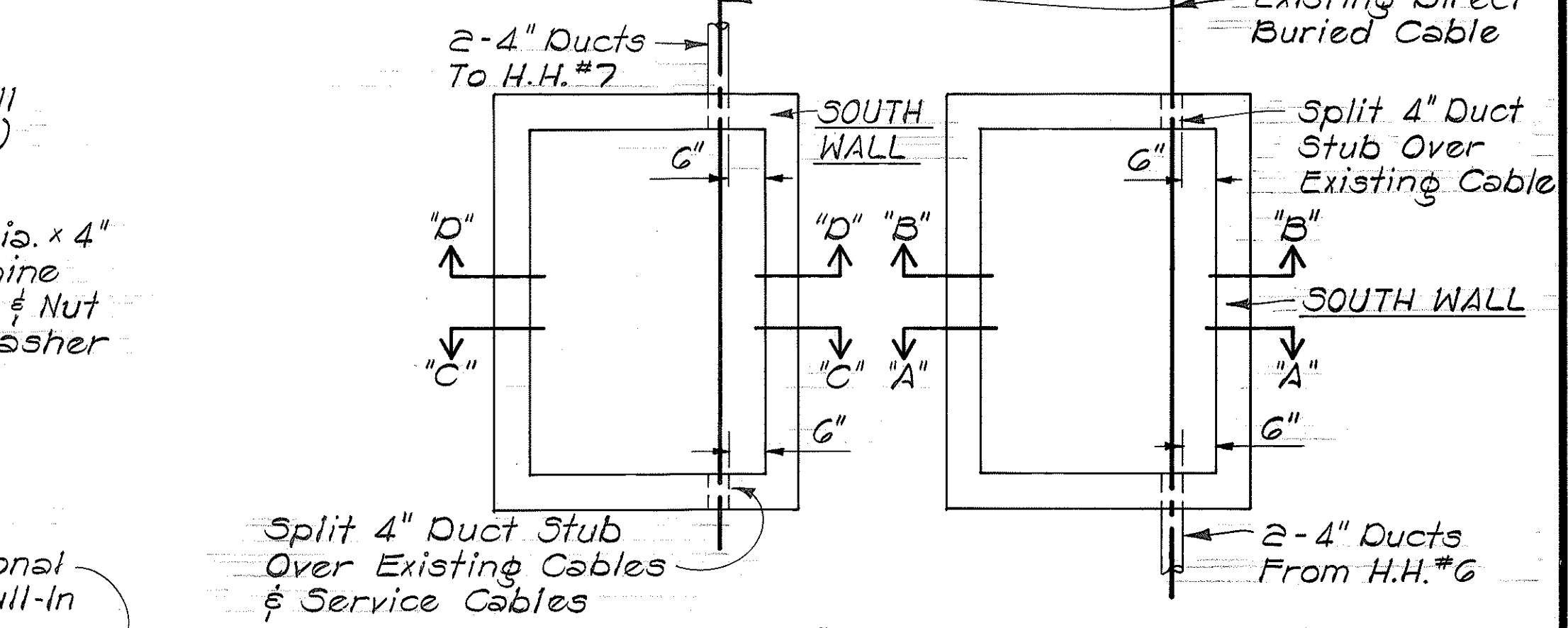
GENERAL NOTES

1. Conc. Finish: Floors - Wood Floated Finish - Exposed
Wall Surfaces and Edges - Smooth and Free From Defects
2. Conc. To Develop Compressive Strength 3000 P.S.I. In 28 Days.
3. Steel Work All Structural Steel Shall Be Hot Dip Galvanized After Fabrication.
4. For Duct Line Construction, See this sheet.
5. The Handhole is Designed For Installation In Areas Other Than Roadways.

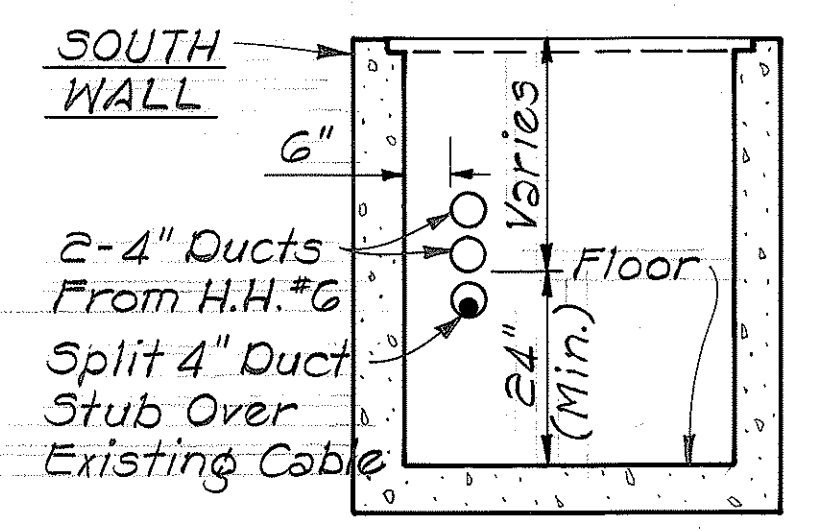
Approved: *[Signature]* Date: 8-22-82
HAWAIIAN TELEPHONE COMPANY



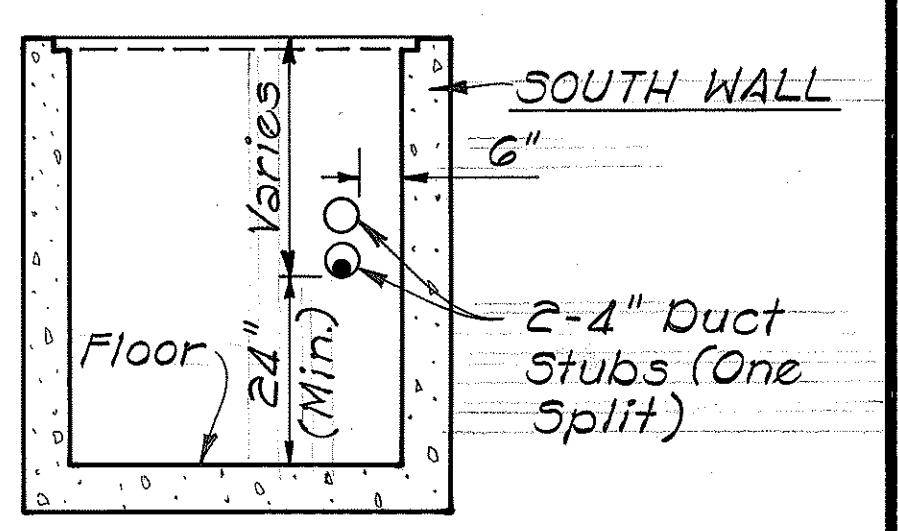
DUCT SECTION DETAIL PONI PLACE
N.T.S.



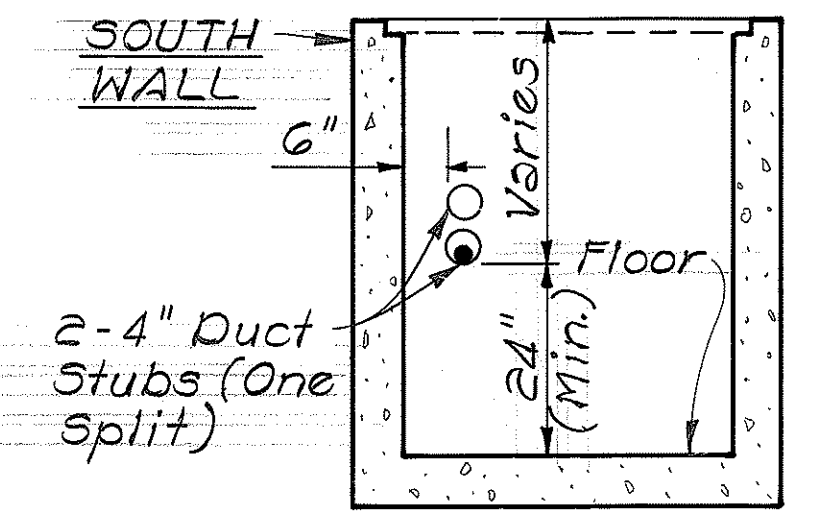
PLAN VIEW - H.H. #6
Scale: 1/2" = 1'-0"



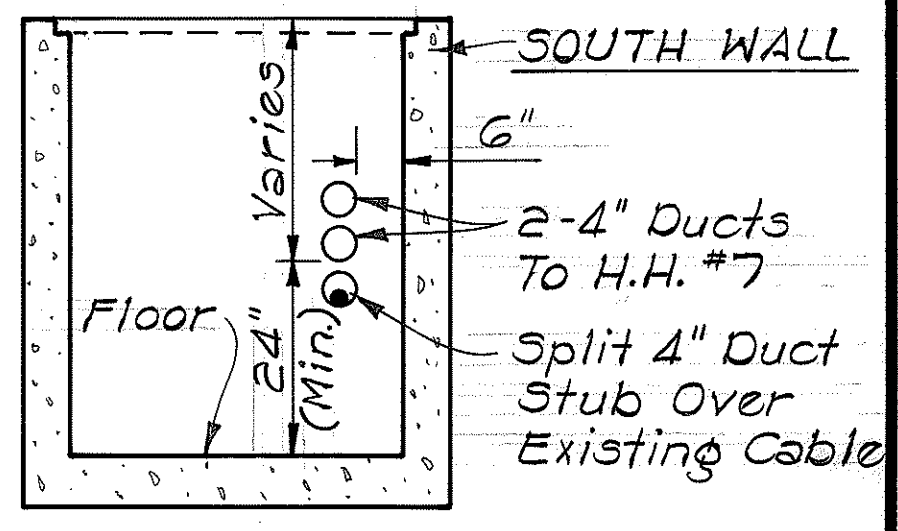
SECTION 'A-A'
N.T.S.



SECTION 'B-B'
N.T.S.



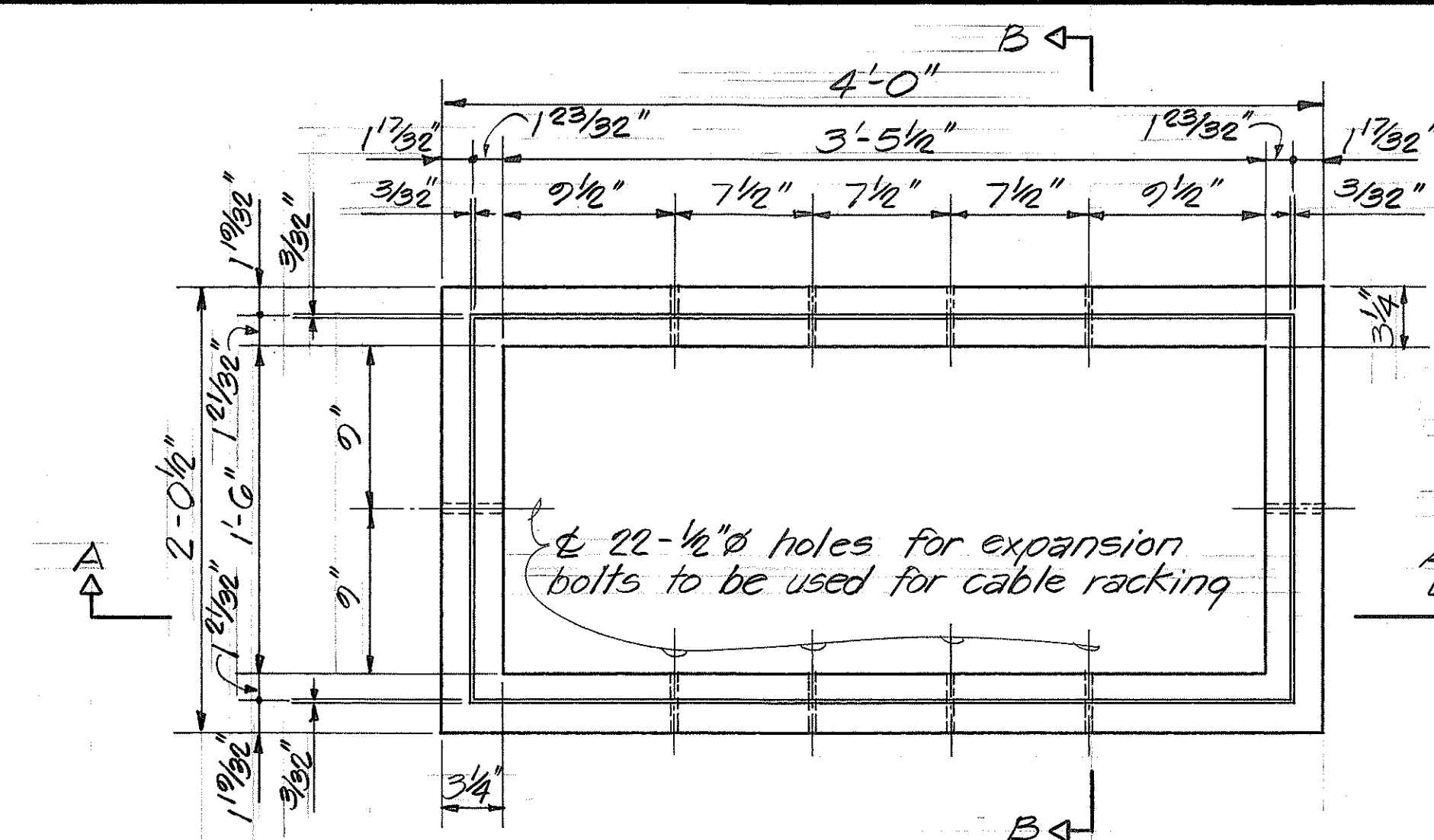
SECTION 'C-C'
N.T.S.



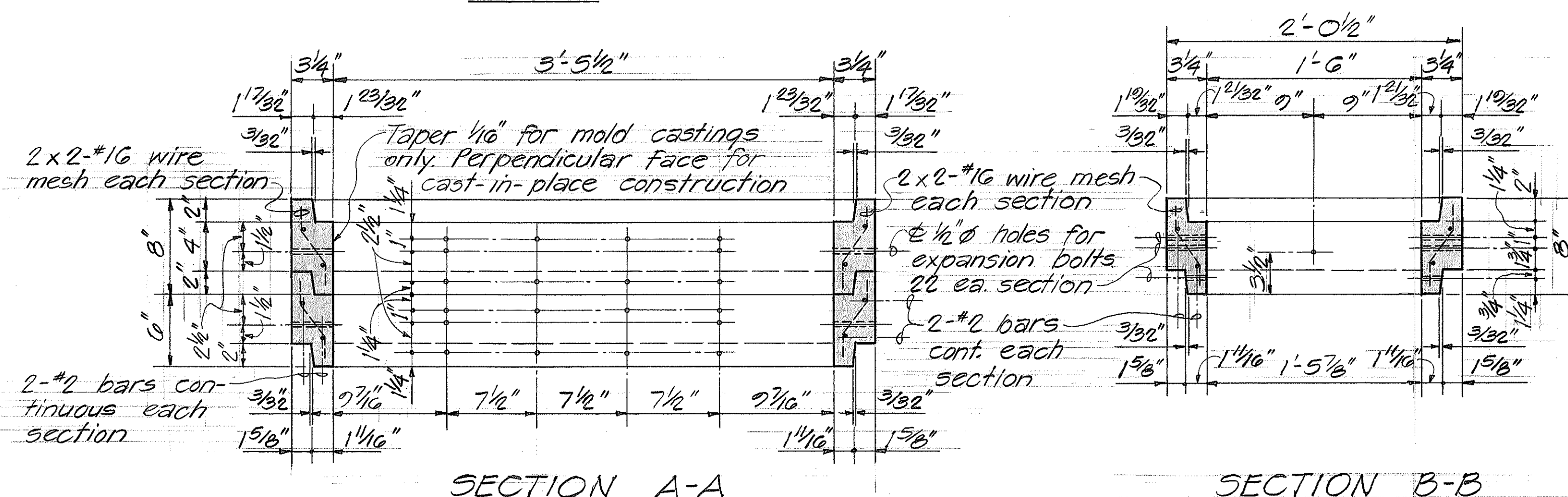
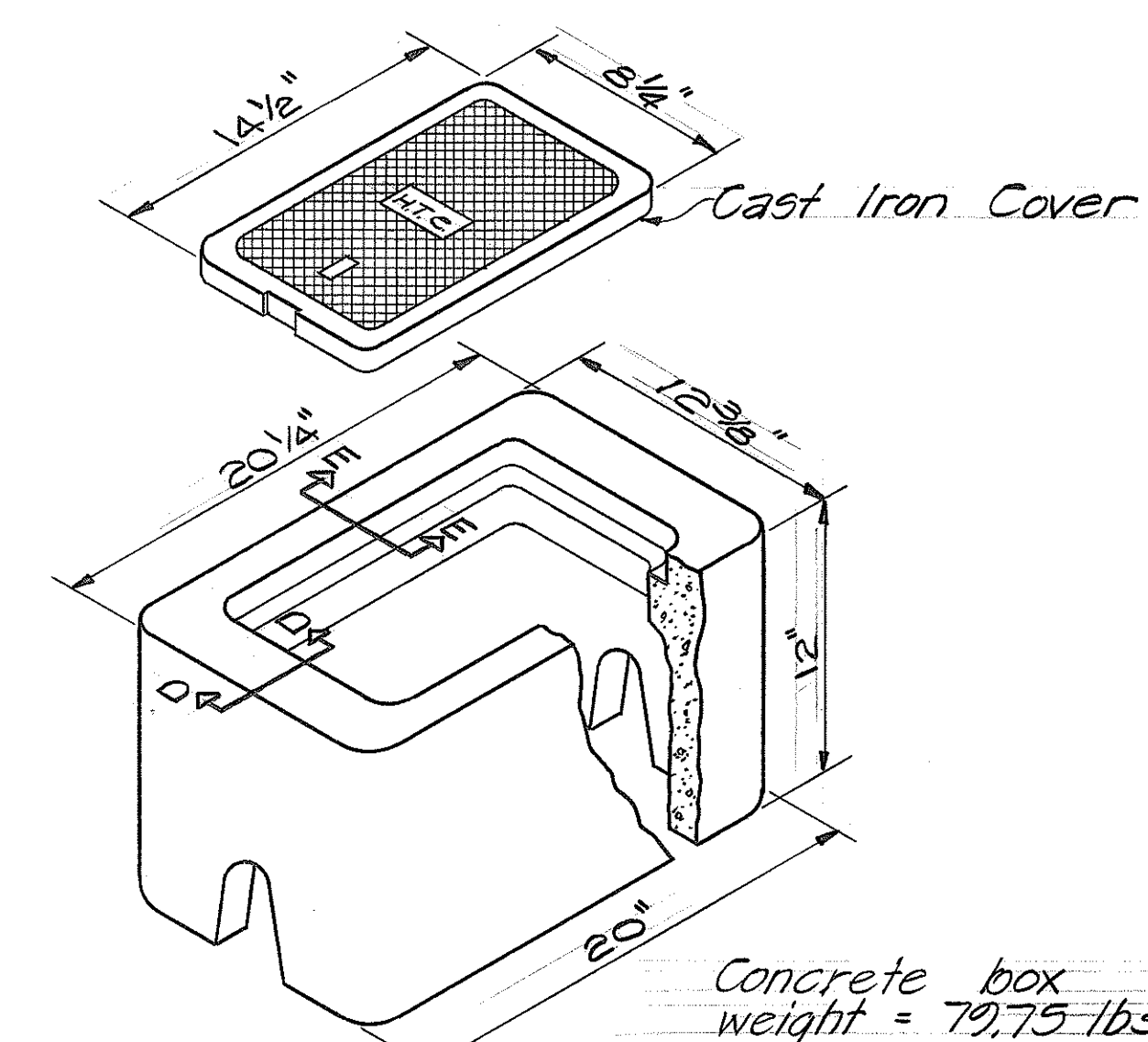
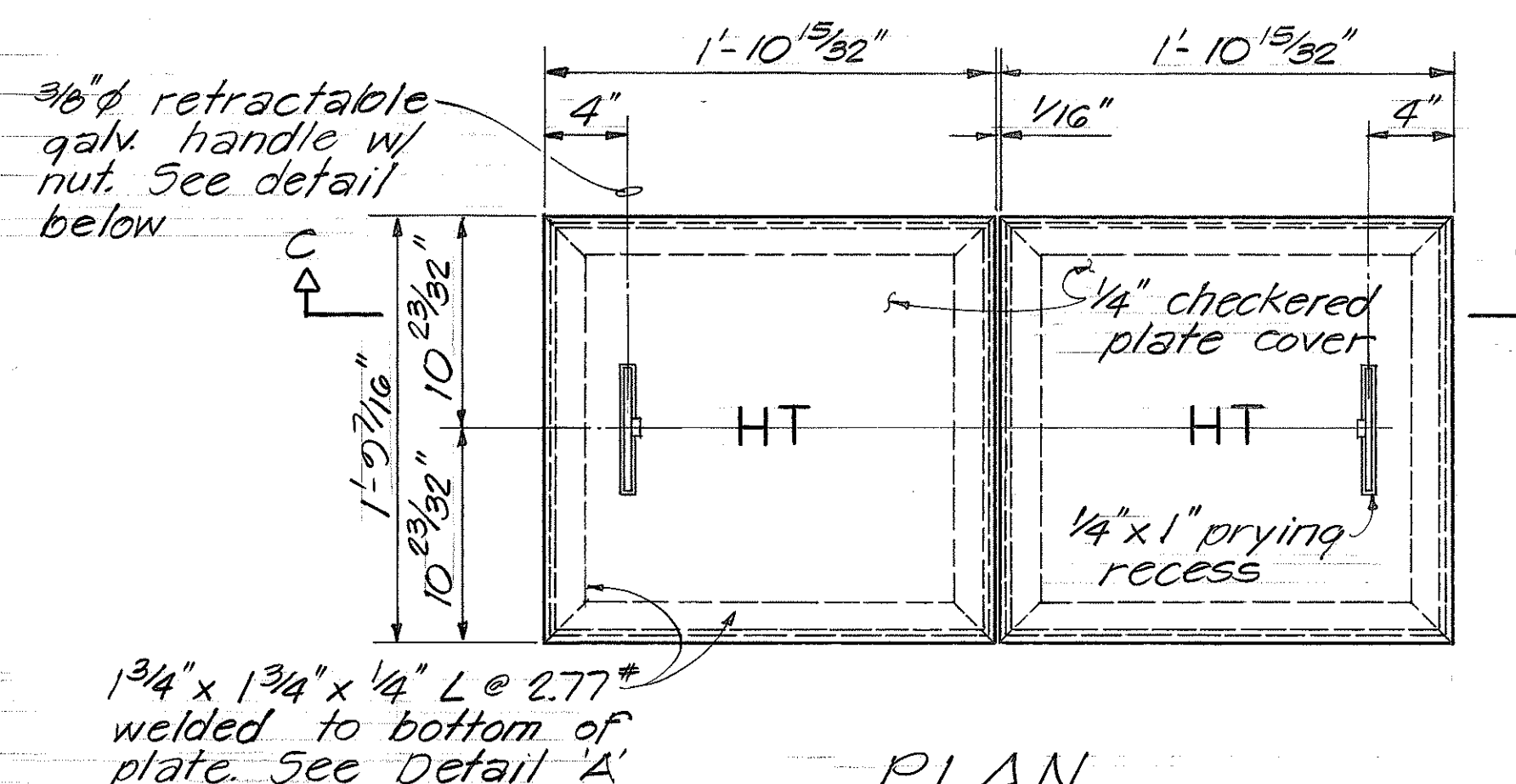
SECTION 'D-D'
N.T.S.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MISCELLANEOUS DETAILS
HAWAIIAN TELEPHONE COMPANY
UNDERGROUND CABLE INSTALLATION
AT KONA HEIGHTS SUB'D.
HBR FAP ROUTE 11
PALANI RD. TO KILOHANA SUB'D
PROJECT NO. F-011-(14)
NORTH KONA, HAWAII
Scale: As Noted Date: Aug. 1982
SHEET NO. OF SHEETS

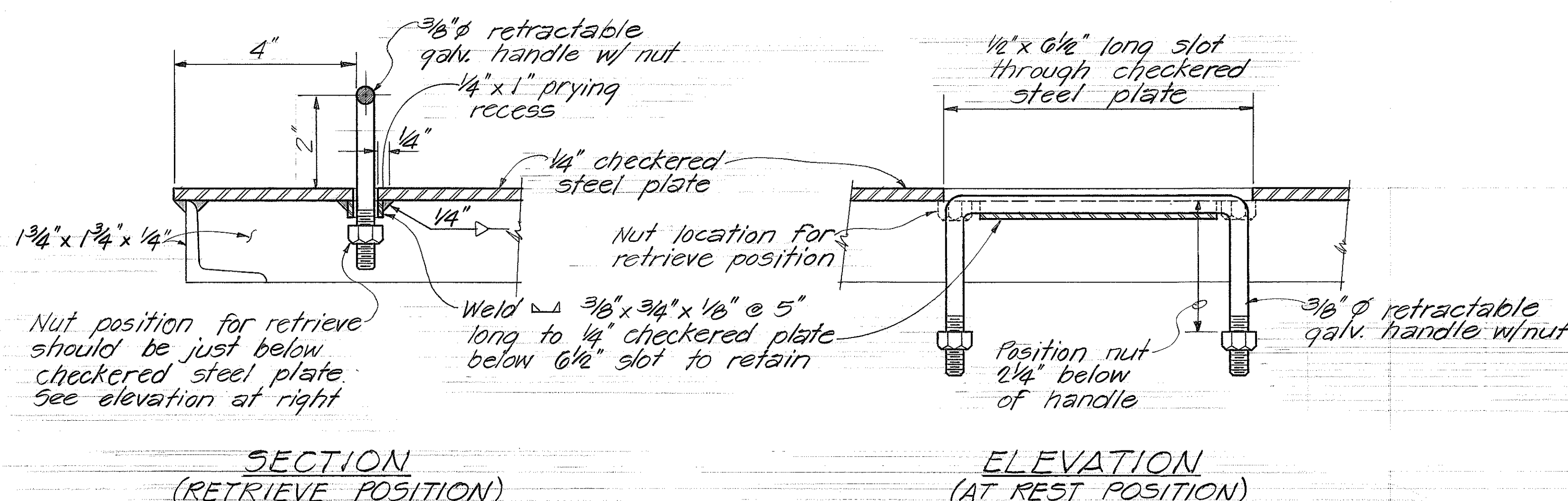
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-011-1(14)	1982	137	214



NOTE
Concrete compressive strength 3000 psi in 28 days



PULLBOX #435 T-B
Scale: 1/2" = 1'-0"



RETRACTABLE HANDLE DETAIL
Scale: 6" = 1'-0"

TYPICAL 435 T-B PULLBOX

CHECKERED STEEL PLATE COVER
(For Light Loading Areas - Approx. Weight = 15 lbs.)

NOTE
After fabrication of cover, apply 2 coats of ZRC (Zinc rich coating) to both sides.

INSTALLATION NOTES

1. A minimum of two (2) precast sections must be used on all installations.
2. The minimum layers of bricks to be used shall always be at least one (1) layer lower than the lowest duct entering the pullbox. At no time, however, shall there be less than two (2) layers of bricks on each installation.
3. At no time shall cement mortar, wood or any other material be used between precast sections. Leveling or raising of boxes to grade must be done at brickwork section using cement mortar. The permanent installation of wooden wedges to accomplish this purpose will not be accepted.

SECTION "D-D"
Scale: 3/16" = 1'-0"

SECTION "E-E"
Scale: 3/16" = 1'-0"

TYPICAL 436 T PULLBOX
(Refer to H.T.Co. Std. Drwg. # 34024)

Approved: *H. J. ...* Date: 8-24-82

HAWAIIAN TELEPHONE COMPANY

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

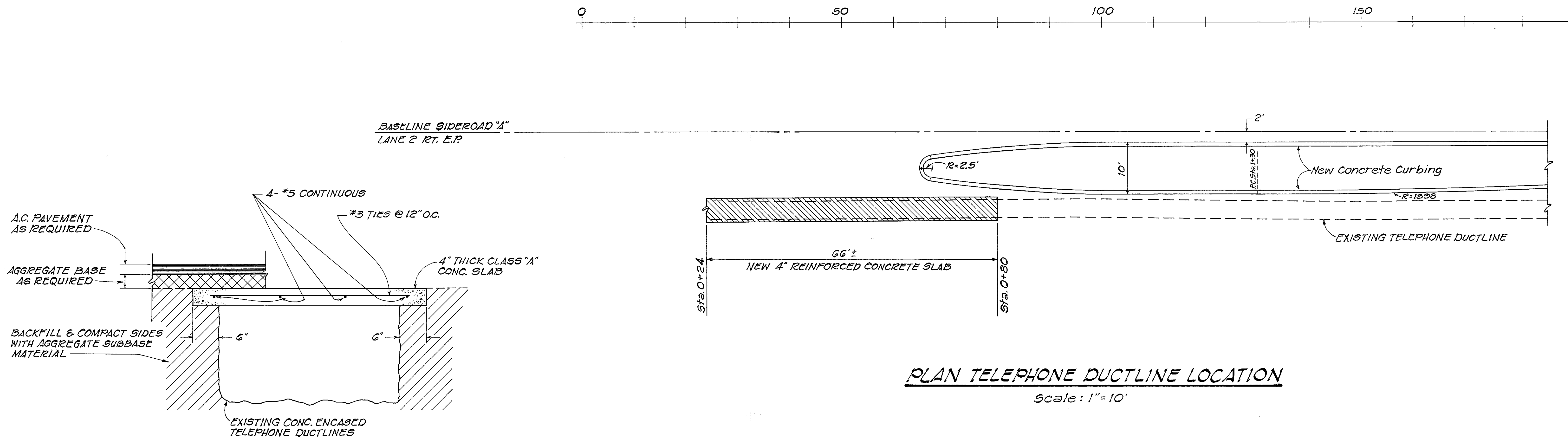
H.T.CO. PULLBOX DETAILS

HBR FAP ROUTE 11
PALANI RD TO KILOHANA SUBD.
PROJECT NO. F-011-1(14)
NORTH, KONA, HAWAII

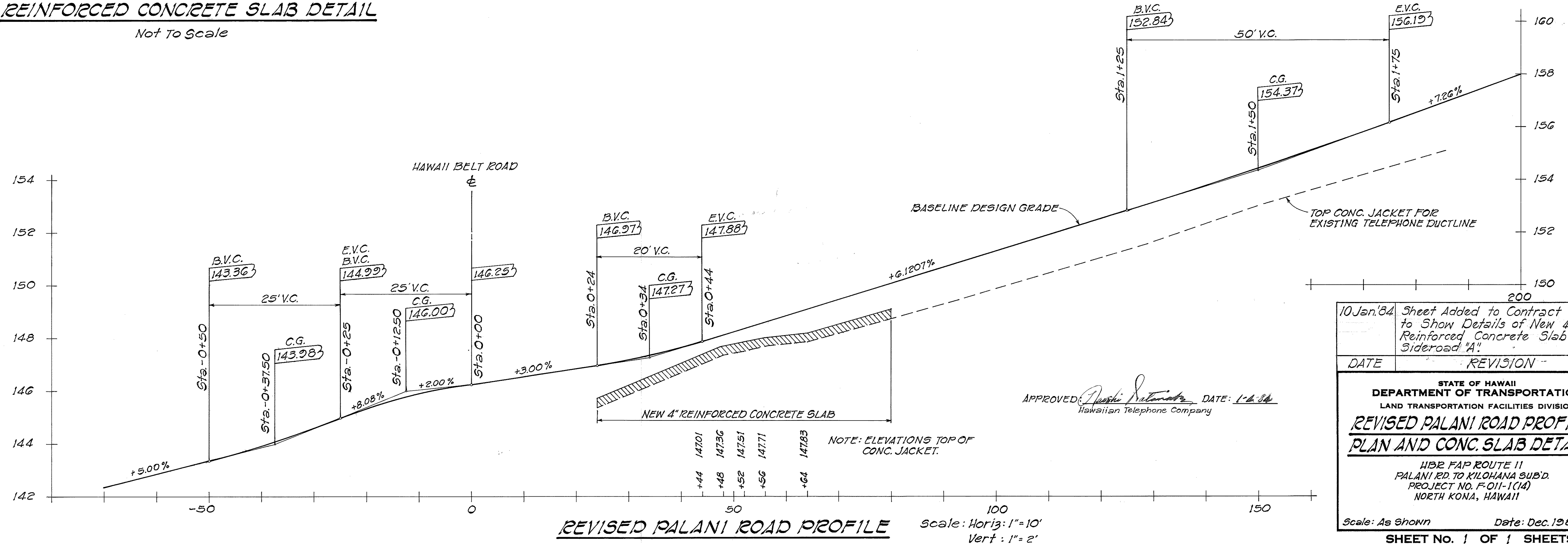
Scale: As Noted Date: Aug. 1982

SHEET NO. OF SHEETS

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



REINFORCED CONCRETE SLAB DETAIL
Not to Scale



10 Jan '84	Sheet Added to Contract Plan to Show Details of New 4" Reinforced Concrete Slab at Sideroad 'A'
DATE	REVISION

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 LAND TRANSPORTATION FACILITIES DIVISION
REVISED PALANI ROAD PROFILE,
PLAN AND CONC. SLAB DETAIL
 HBE FAP ROUTE 11
 PALANI RD TO KILOHANA SUB'D.
 PROJECT NO. F-011-1(14)
 NORTH KONA, HAWAII

Scale: As Shown Date: Dec. 1983
 SHEET No. 1 OF 1 SHEETS

ORIGINAL PLAN	DATE
SURVEYED BY	
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	