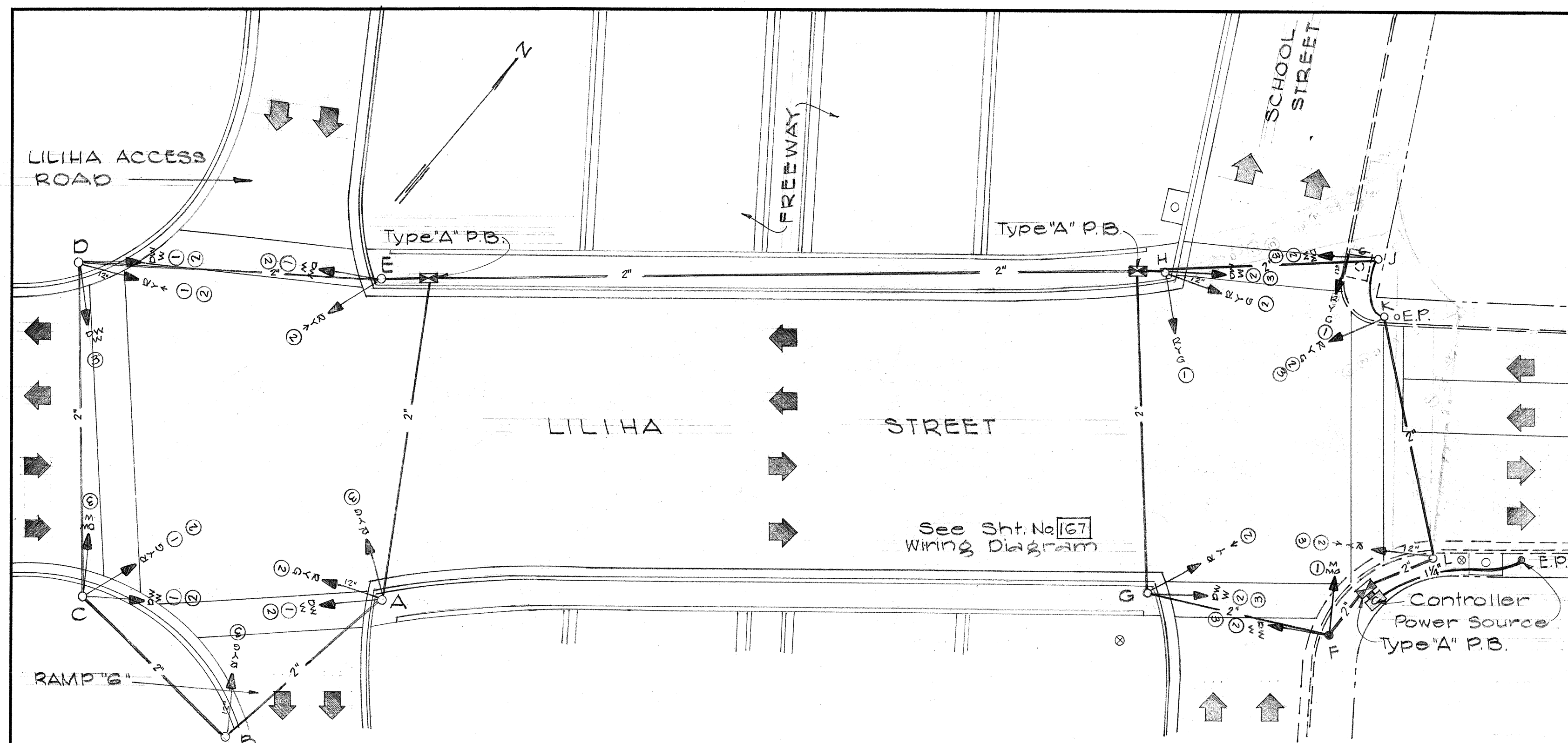
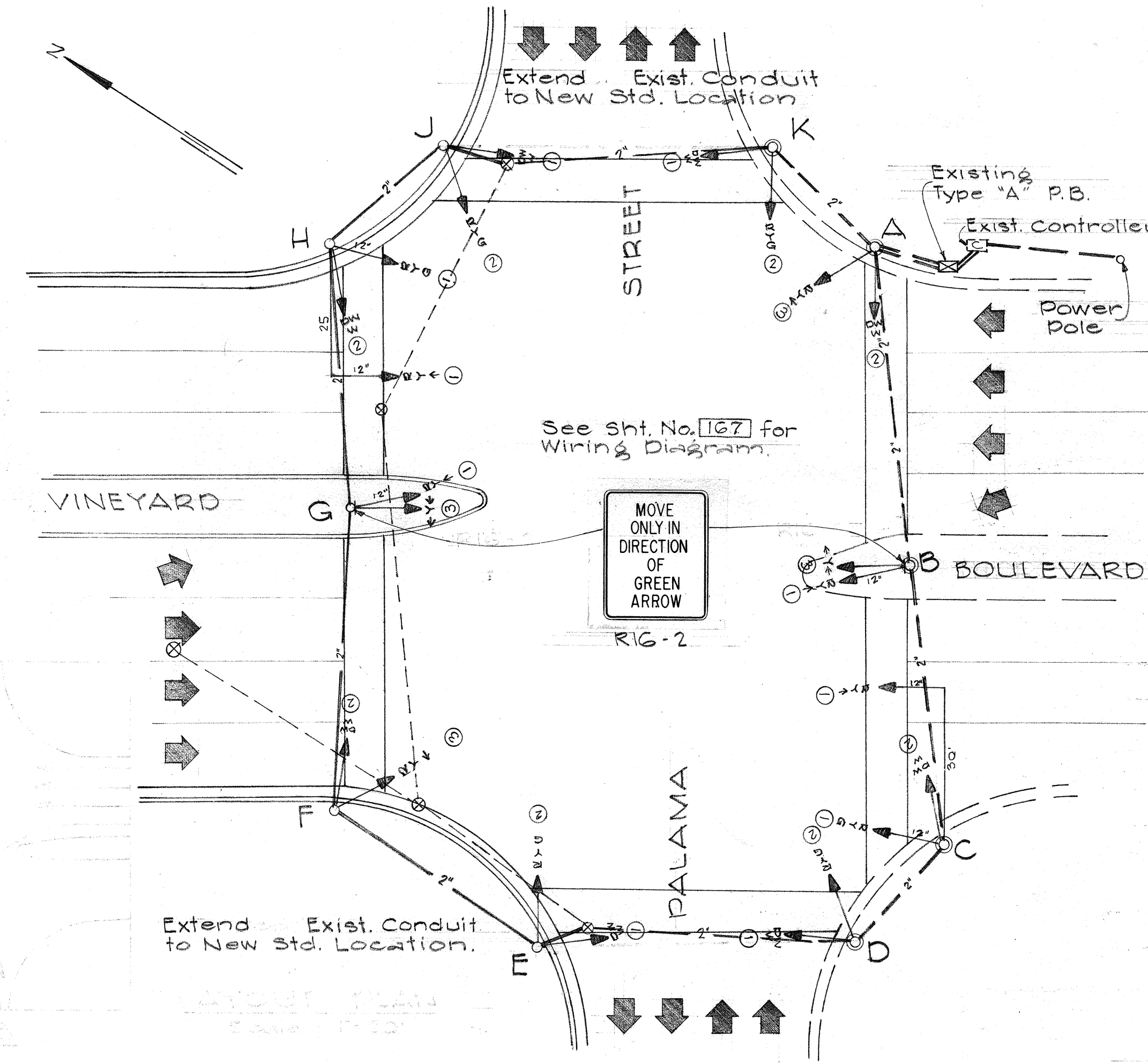


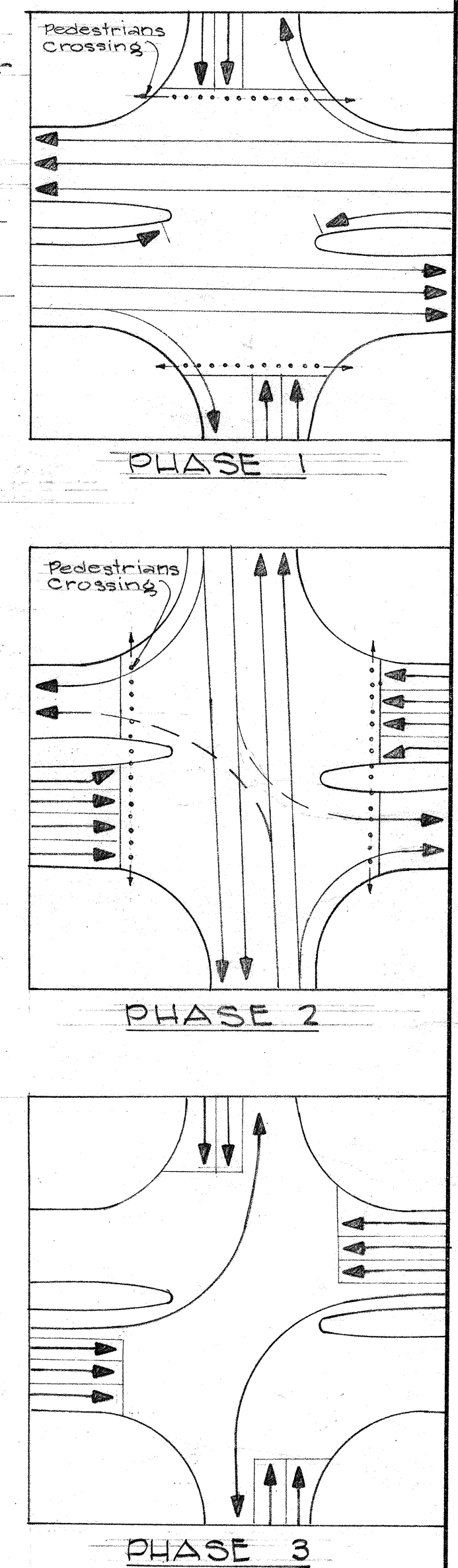
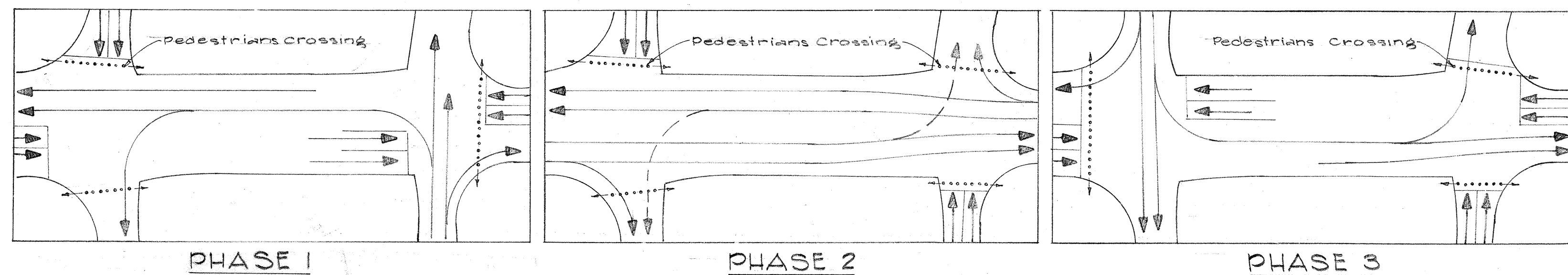
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(3)	1963	136	246
		U-098-1(4)	1963	61	88



LAYOUT PLAN
Scale 1"=20'



LAYOUT PLAN
Scale 1"=20'



TRAFFIC SIGNAL LEGEND

EXISTING

- ⊠ Controller box
- ⊙ Existing traffic signal standard to be replaced by 10-foot standard.
- ⊙ Existing traffic signal standard to be replaced by mast arm standard.
- ⊙ Traffic signal standard to be removed.
- Conduit to remain (size as indicated).
- Conduit to be abandoned.
- ⊠ Type "A" Pullbox
- ⊙ E.P. Electric Pole

NEW

- ⊠ Controller Box
- ⊙ 10 foot Traffic Signal Standard
- ⊙ 8 foot Traffic Signal Standard
- ⊙ Mast Arm Traffic Signal Standard (Mast Arm length as indicated).
- Steel Conduit (Size as indicated).
- Temporary Overhead Cable.
- ⊙ 12" Traffic Signal
- ⊙ 8" Traffic Signal
- ⊠ Type "A" Pullbox

NOTES:

- The existing traffic signal system at the intersection of Vineyard Boulevard, Palama Street and the Liliha Street detour traffic signal system shall remain in operation until such time that the new signal systems can be placed in operation.
- Exact location of the traffic signal standards, pullboxes, and controller shall be determined by the project engineer.
- Existing underground conduits shall be abandoned or removed as directed by the project engineer (All costs incidental to the item of "Roadway Excavation").
- Pavement markings by others.
- The existing traffic signal system at the intersection of the existing Houghtalling Street and existing Vineyard Street will be dismantled by State Highway Maintenance personnel. The Contractor shall notify the Engineer before commencing work which will necessitate removal of the signals.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL SYSTEM
LAYOUT PLAN

VINEYARD BLVD. PALAMA ST.
LILIHA ST. - LILIHA ACCESS RD. - SCHOOL ST.
LUNALILO FREEWAY

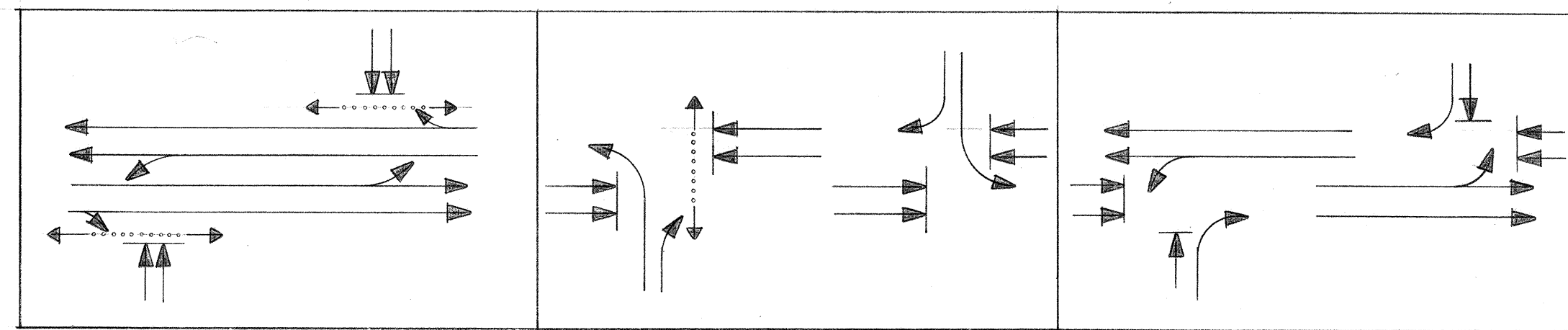
PROJ. NO. U-098-1(4)
PROJ. NO. U-072-1(3)

Scale: 1"=20'

SHEET No. 1 OF 4 SHEETS

W 0 9 8 1 0 4 0 0 . 6 1

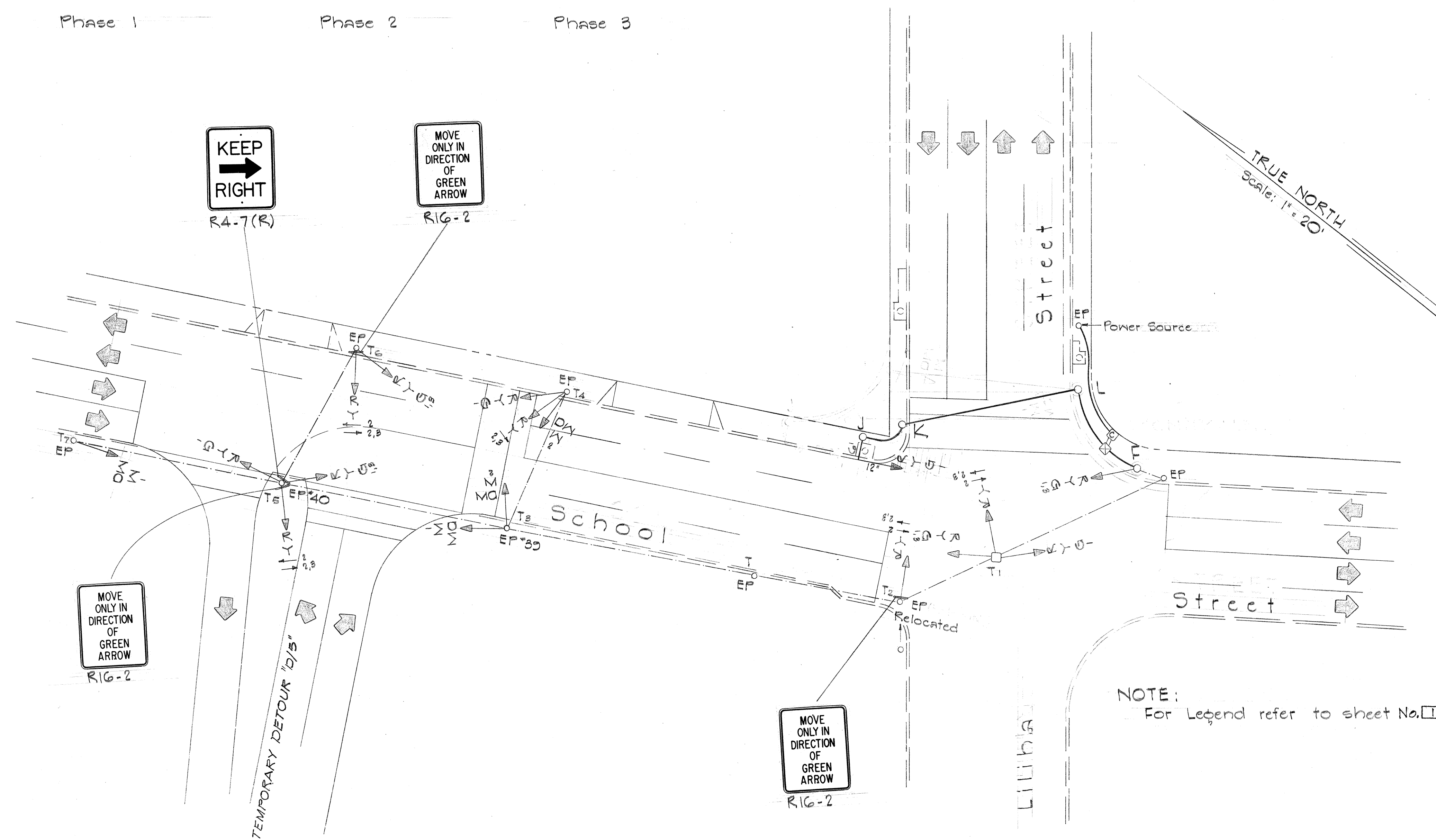
W 0 7 2 1 0 3 0 0 . 1 3 6



Phase 1

Phase 2

Phase 3



GENERAL NOTES

1. The existing City and County traffic signal system at the intersection of Liliha St. and School St. shall remain in operation until such time the detour traffic signals at that intersection (Traffic signals: J, K, L, F, T, and T₂) can be placed in operation.
2. Liliha St. shall not be closed until the detour and the detour traffic signal system is in operation.
3. The Department's electrician will furnish, install, and remove the temporary portion of the detour traffic signal system. The temporary portion of the detour traffic system is composed of traffic signals: F, T₁, T₂, T₃, T₄, T₅, T₆, and T₇, and the wiring between traffic signals F, T₁, T₁T₂, T₂T₃, T₃T₄, T₄T₅, T₅T₆, and T₆T₇.
4. The Contractor shall notify the Department of Traffic, City and County of Honolulu prior to doing any dismantling of the existing traffic signals.

NOTE:
For Legend refer to sheet No. 165

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL SYSTEM

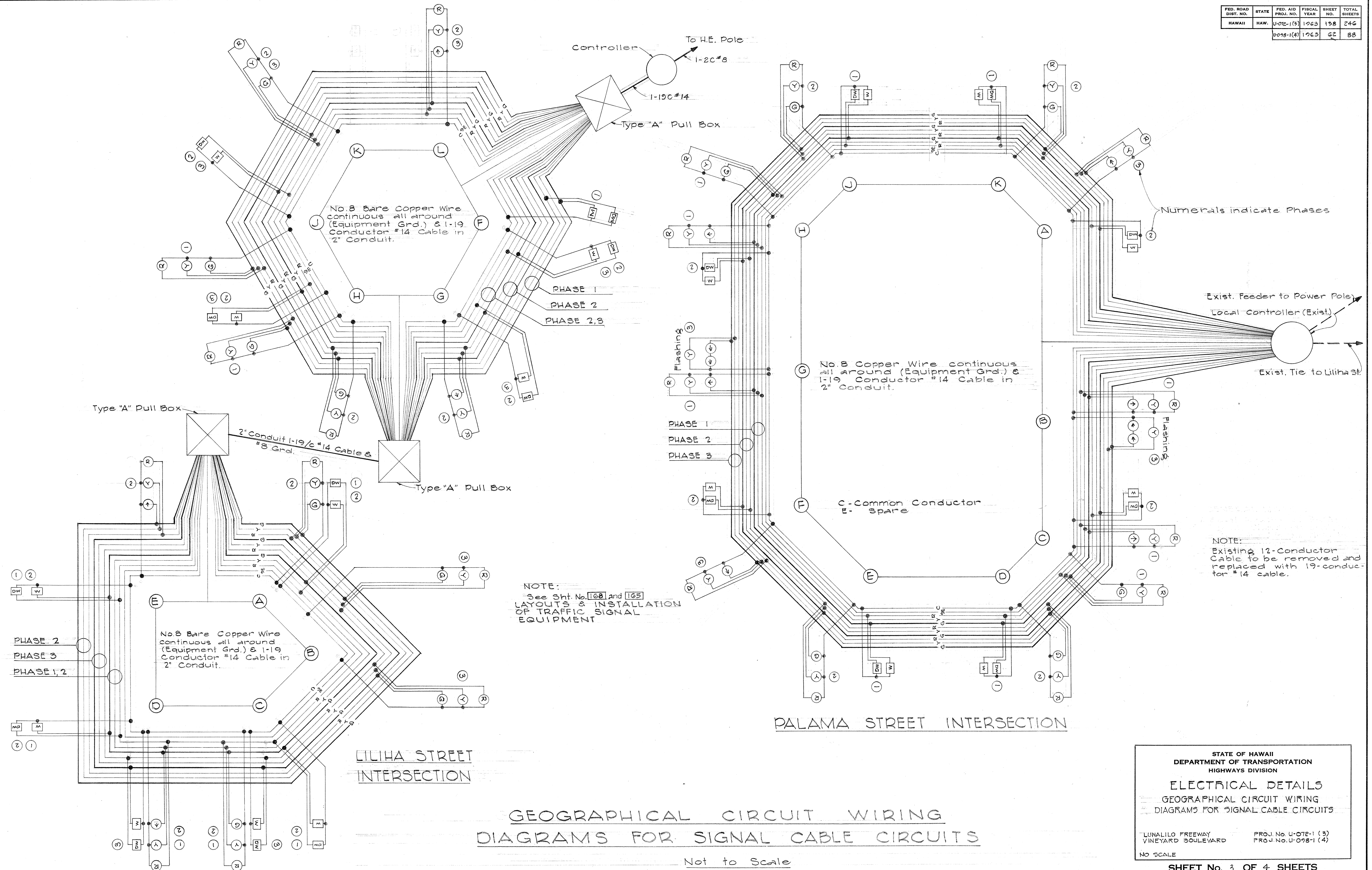
LAYOUT PLAN
LILIHA STREET DETOUR

LUNALILO FREEWAY PROJ. NO. U-072-1(3)
Scale: 1" = 20' 1963

SHEET No. 2 OF 4 SHEETS

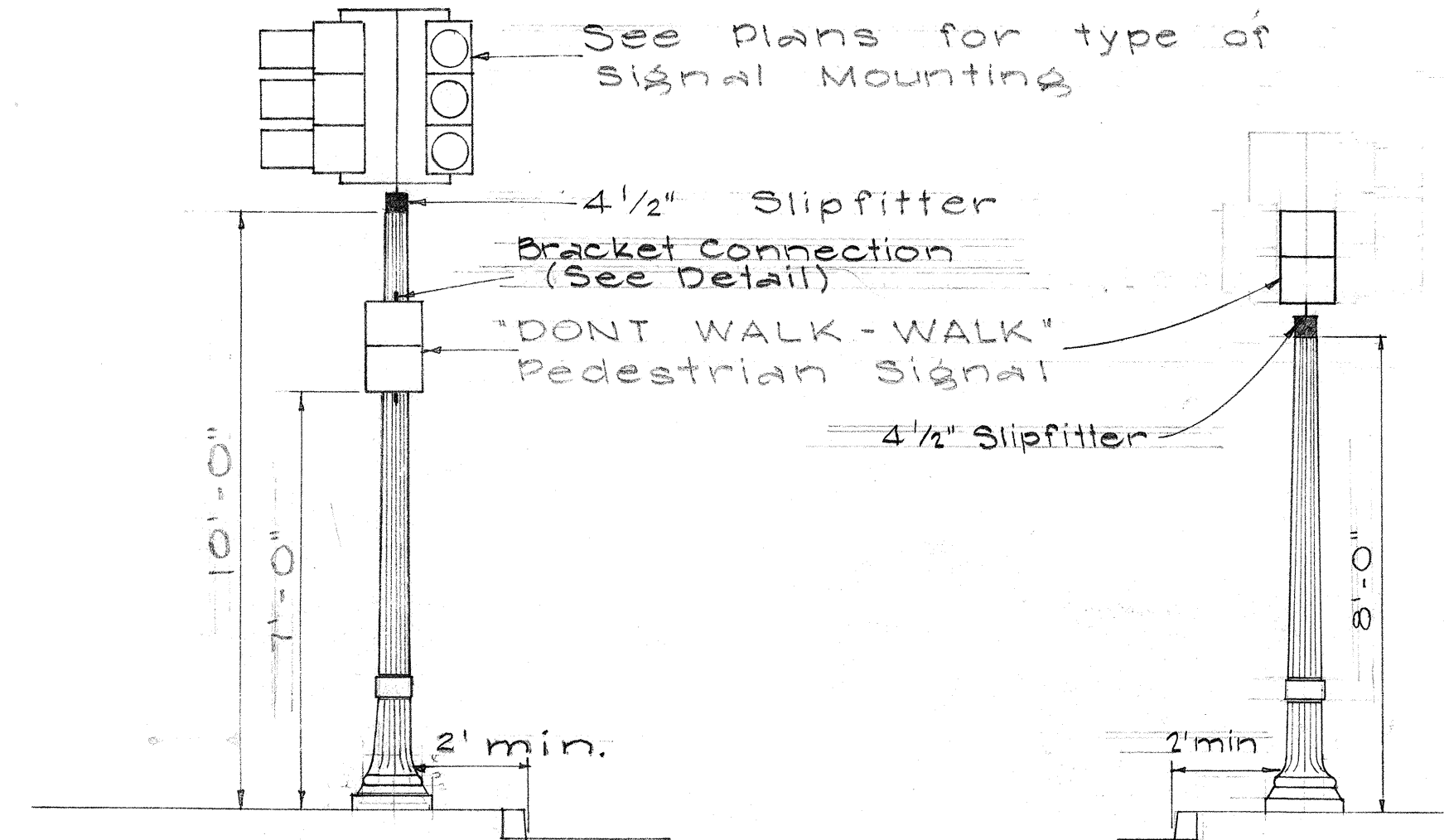
SURVEY PLOTTED BY	DATE
DESIGNED BY	"
TRACED BY	"
DESIGNED BY	"
QUANTITIES BY	"
CHECKED BY	"
ORIGINAL PLAN	No.
NOTE BOOK	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(3)	1963	138	246
		U-078-1(4)	1963	62	88



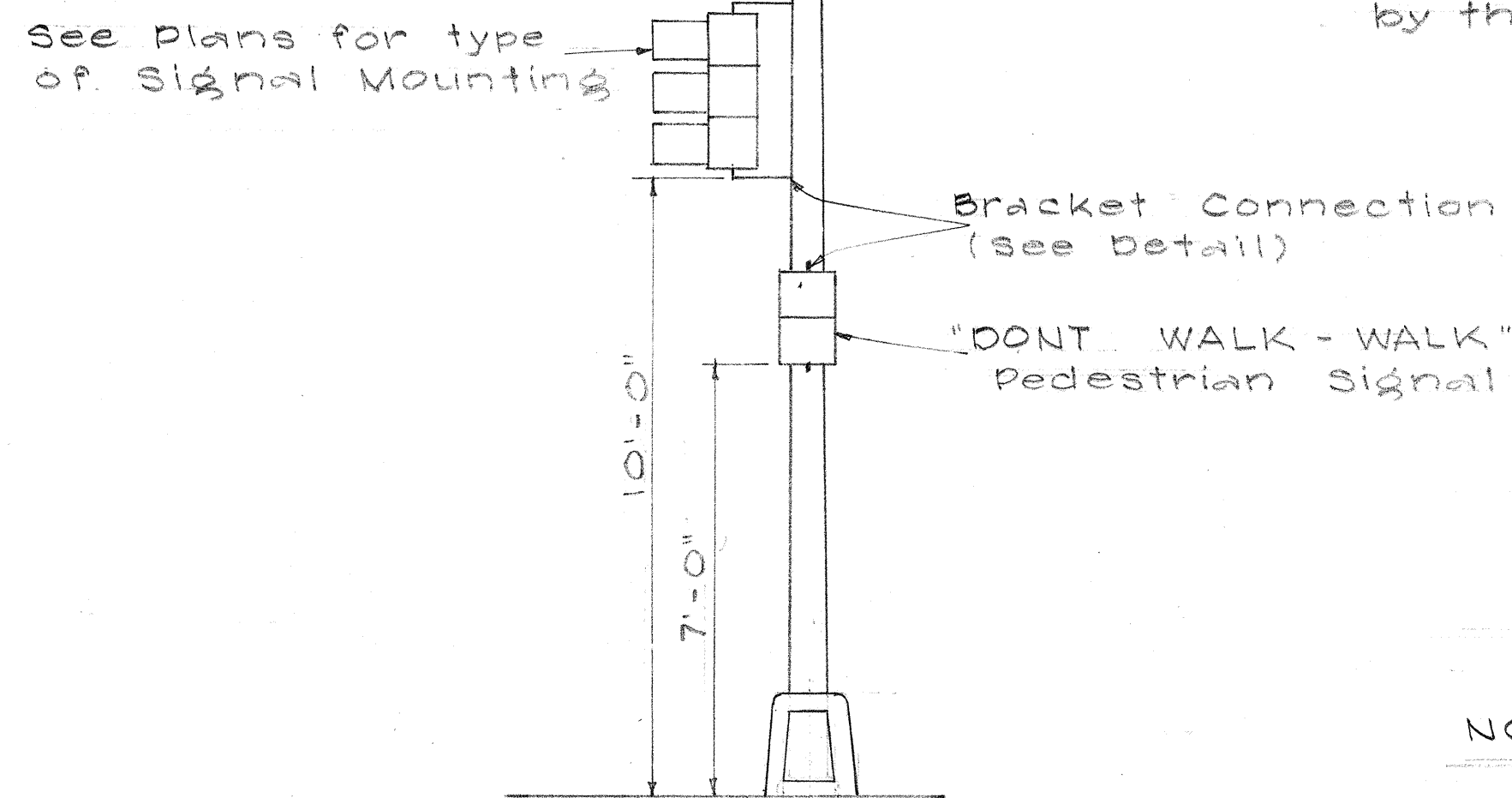
DESIGNED BY	DATE
DRAWN BY	"
CHECKED BY	"
NOTED BY	"
ORIGINAL PLAN	"
NO.	"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(3)	1963	139	246
		U-098-1(4)	1963	63	88
		F-070-1(2)	1963	67	73



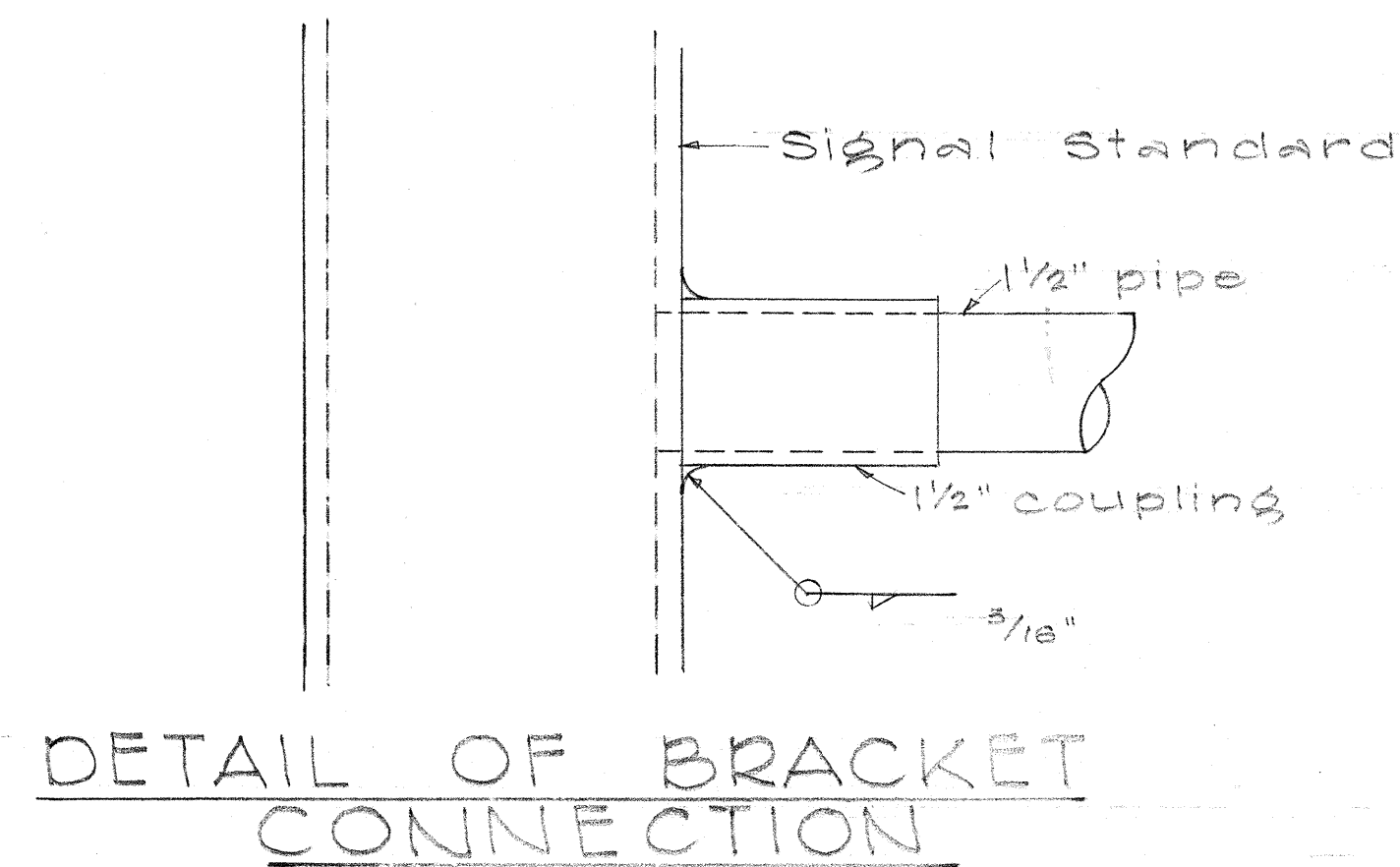
ON 10-FOOT STANDARDS

ON 8-FOOT STANDARDS

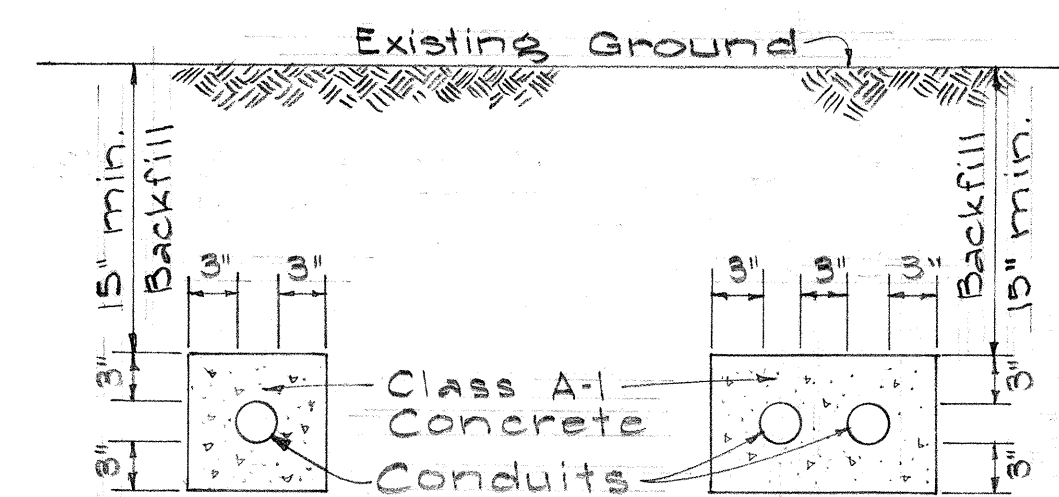


ON MAST-ARM STANDARDS

TYPICAL EQUIPMENT MOUNTING

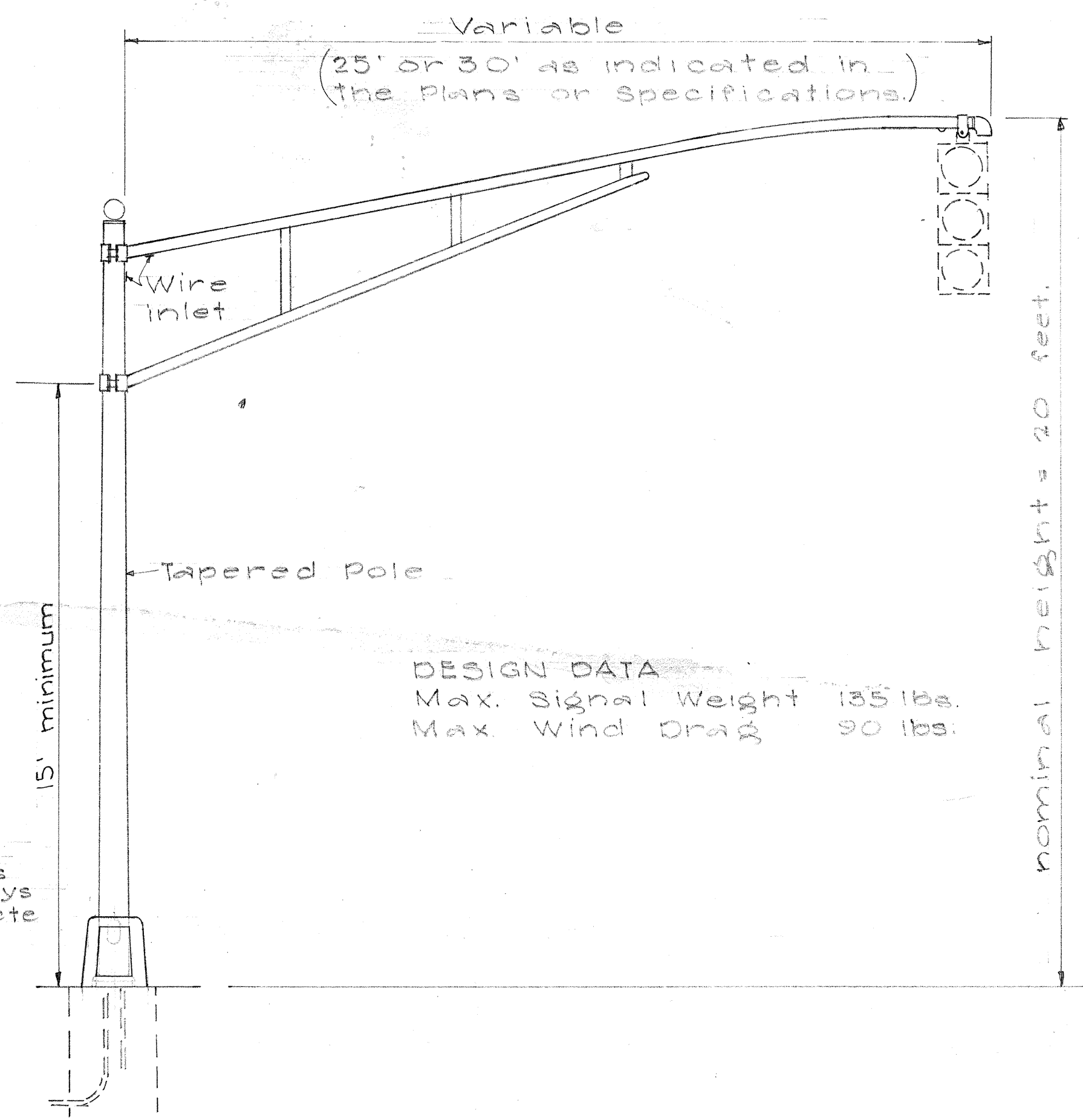


DETAIL OF BRACKET CONNECTION



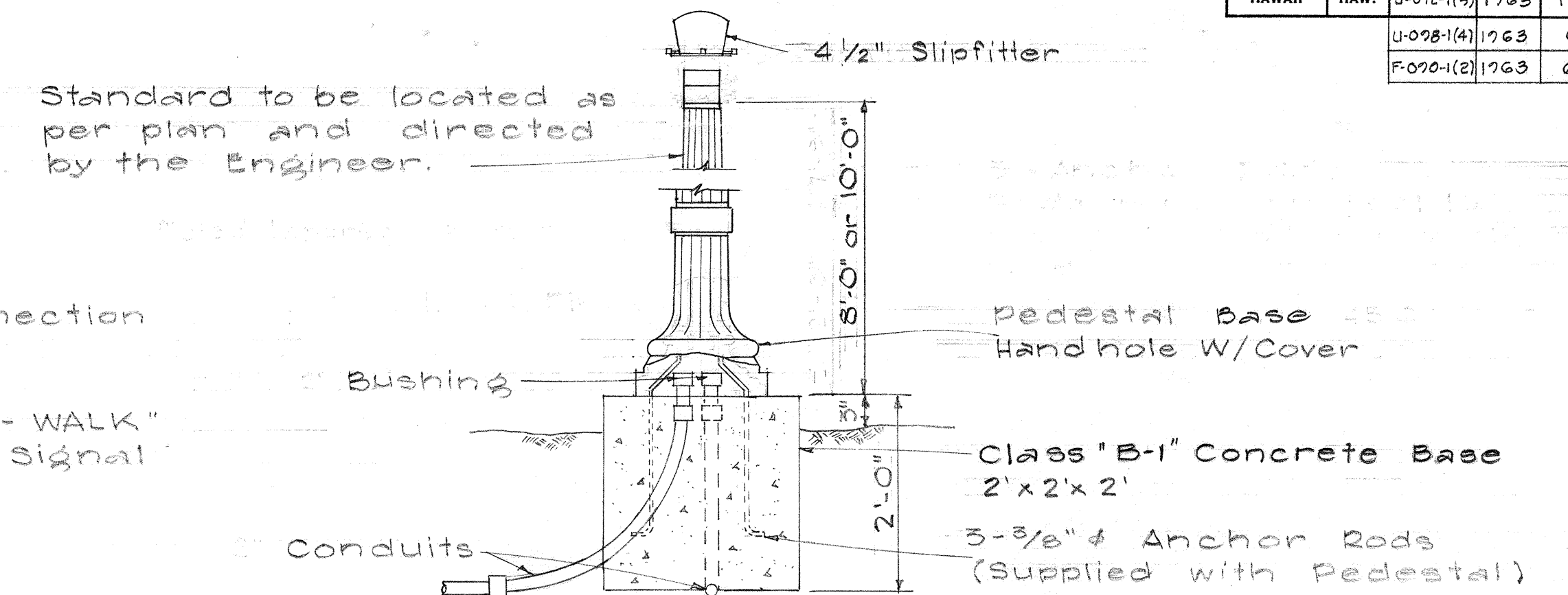
TYPICAL DETAIL OF STEEL CONDUITS & ASBESTOS CEMENT CONDUITS ENCASED IN CONCRETE

NOTE: Conduits under paved sidewalks shall be Asbestos Cement conduit concrete encased as shown. Conduits under roadways shall be steel conduit concrete encased as shown.



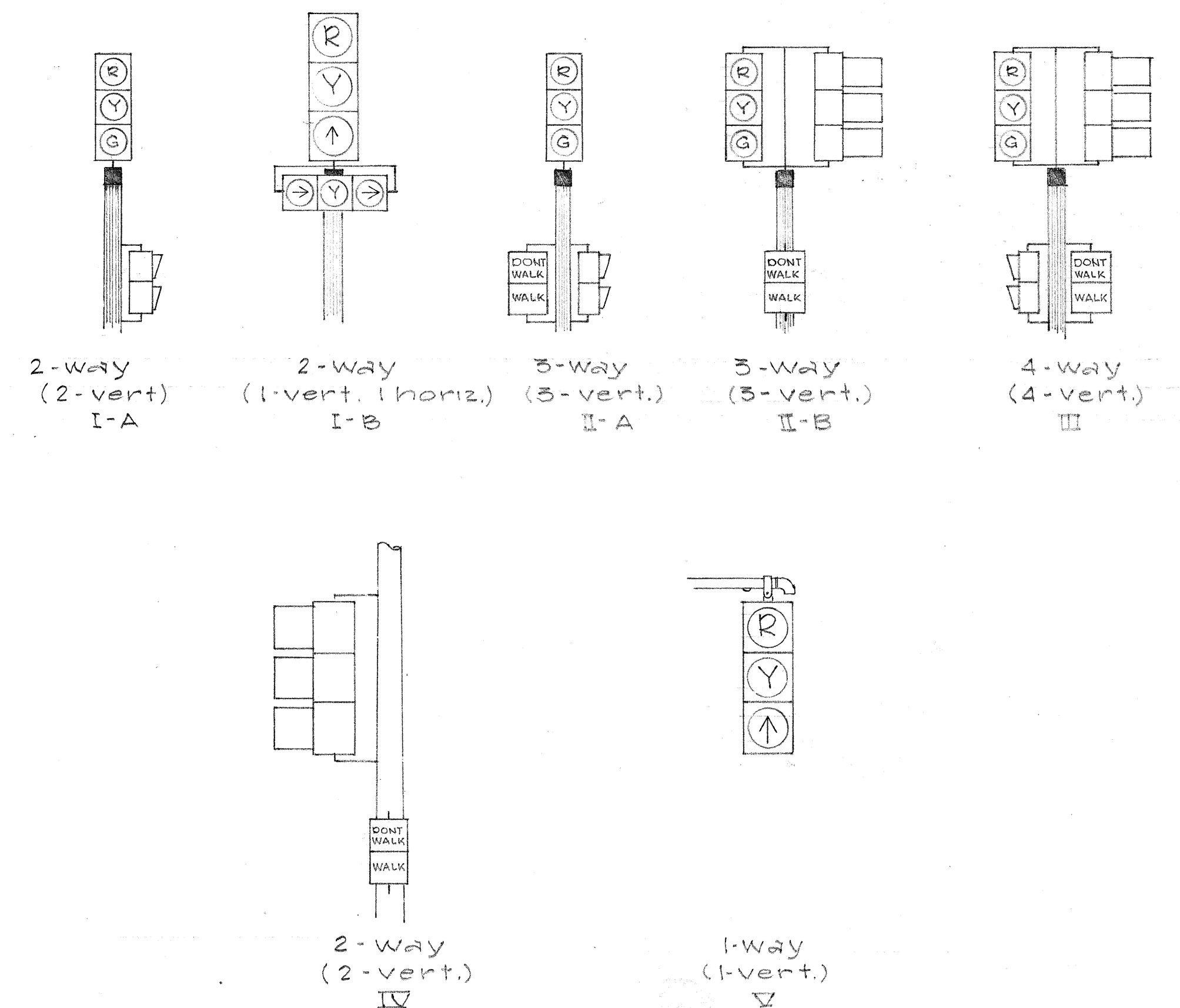
MAST ARM STANDARD

DESIGN DATA
Max. Signal Weight 135 lbs.
Max. Wind Drag 90 lbs.



TRAFFIC SIGNAL POLE & BASE

NOTE: Controller pedestal and base shall be as detailed above except the shaft shall be 4 ft. in length.



TYPICAL VEHICULAR AND PEDESTRIAN SIGNAL MOUNTINGS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

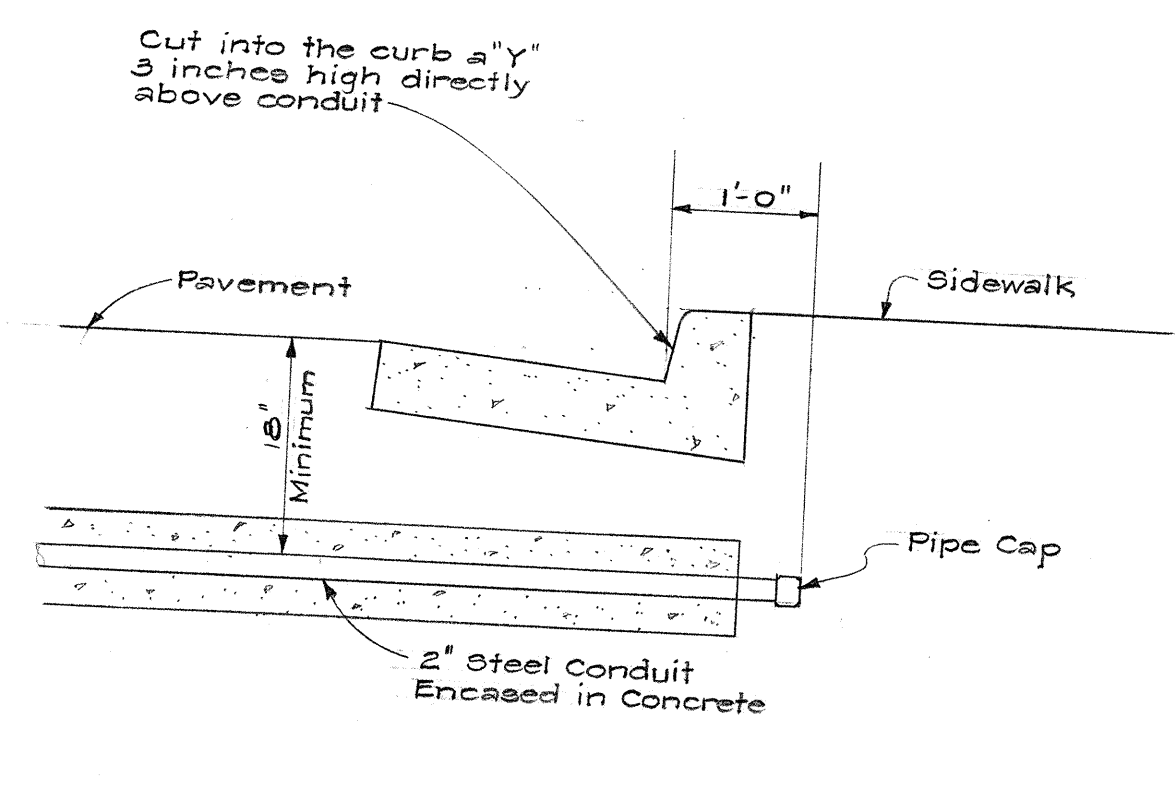
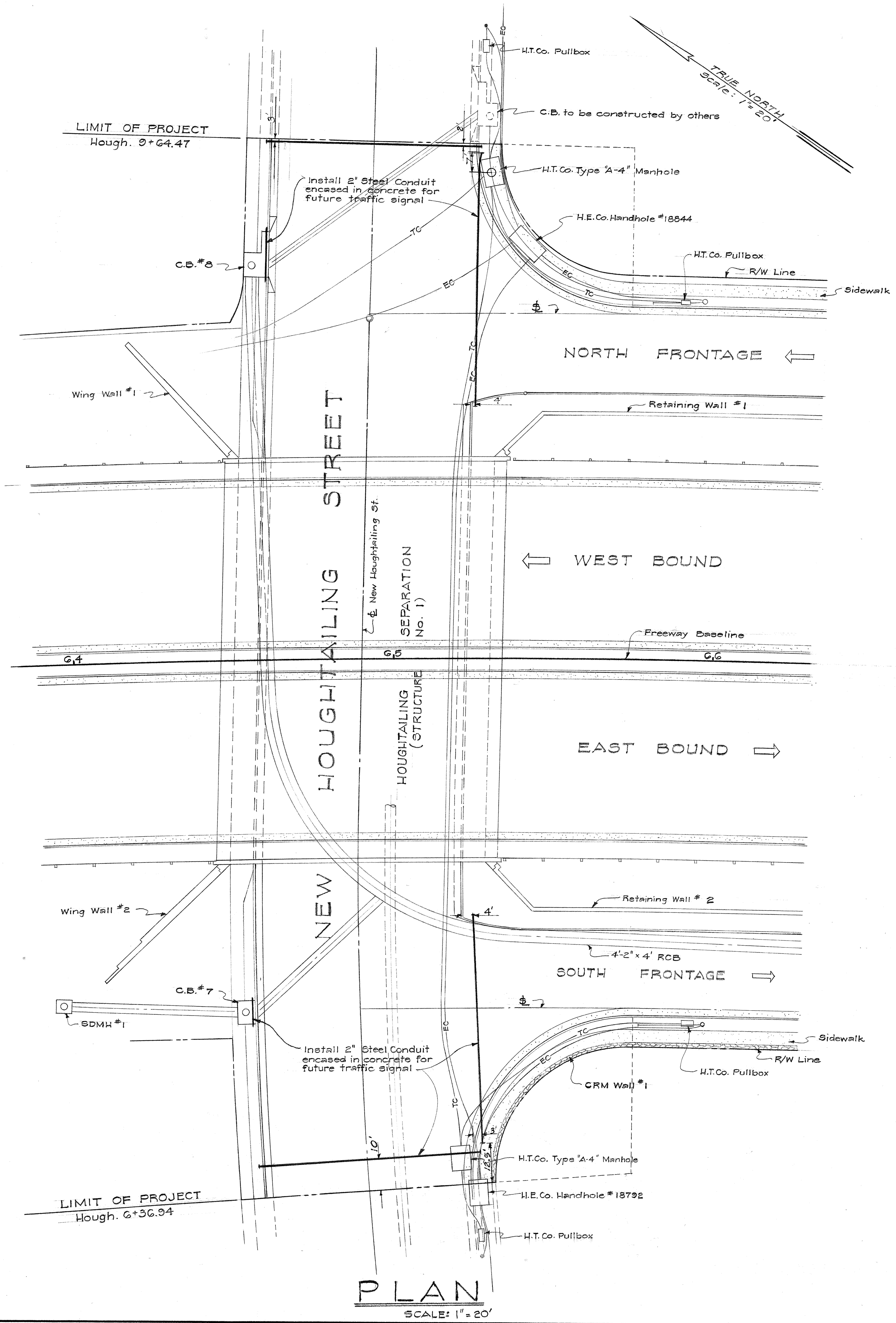
MISCELLANEOUS DETAILS TRAFFIC SIGNAL SYSTEM

LILIHA STREET PROJ. NO. F-030-1(2)
LUNALILO FREEWAY PROJ. NO. U-072-1(3)
VINEYARD BOULEVARD PROJ. NO. U-098-1(4)

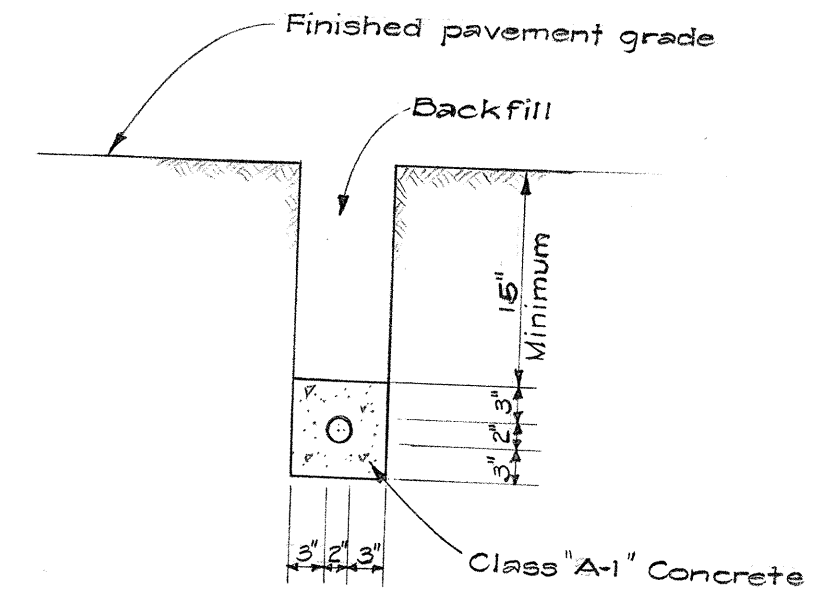
NO SCALE

SHEET No. 4 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	U-072-1(3)	1963	140	246



DETAIL OF CONDUIT TERMINATING AT CURB
Scale: 3/4" = 1'-0"



DETAIL OF CONDUIT ENCASED IN CONCRETE
Scale: 3/4" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INSTALLATION OF TRAFFIC
SIGNAL STEEL CONDUITS

LUNALILO FREEWAY PROJ. No. U-072-1(3)

SCALE: AS SHOWN DATE: 1963