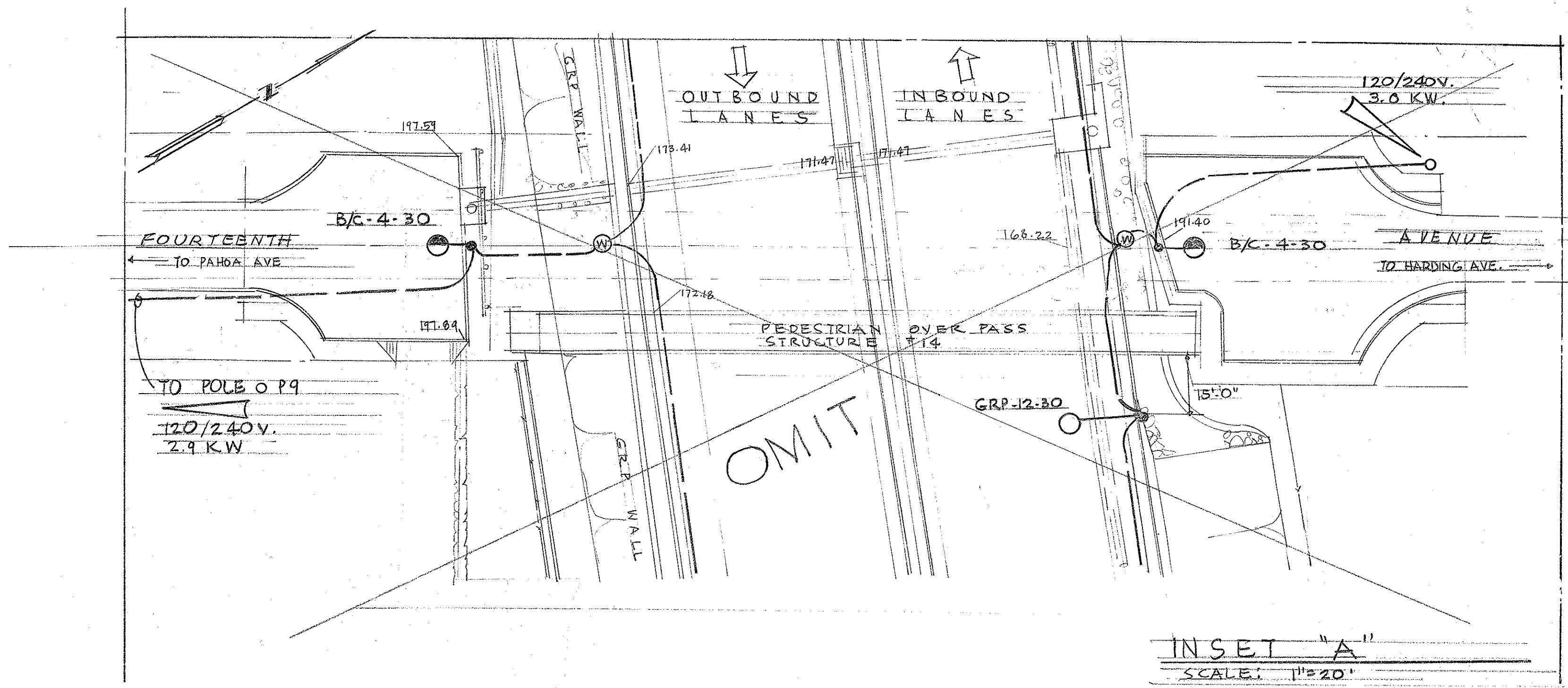
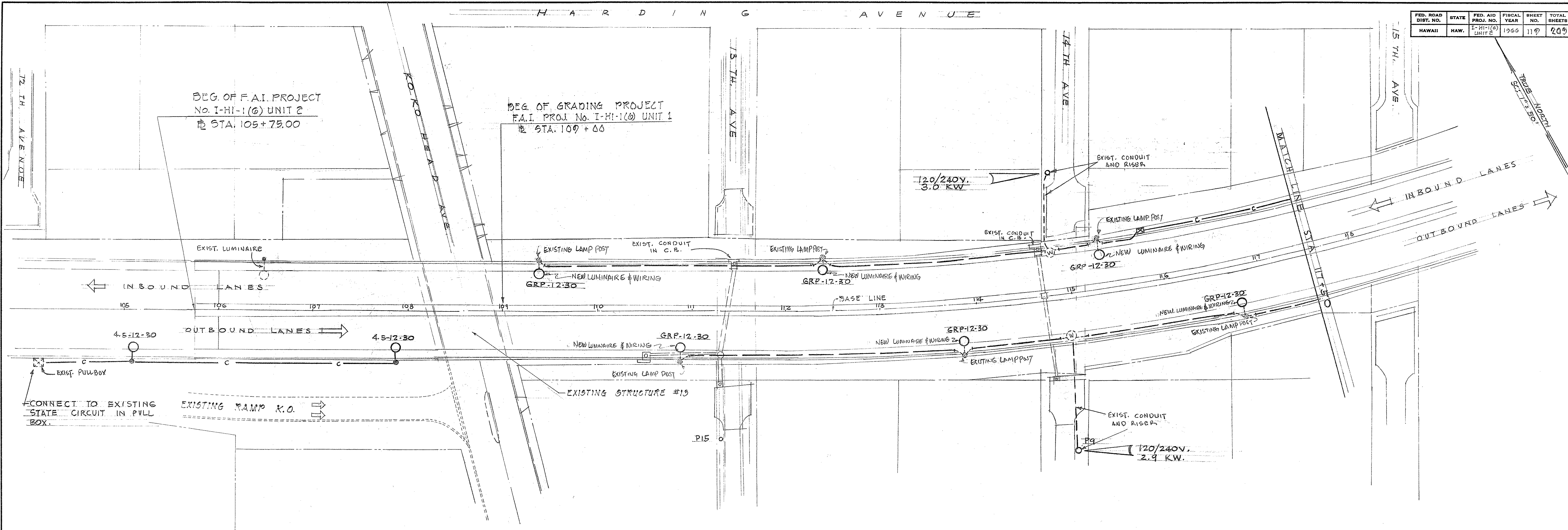
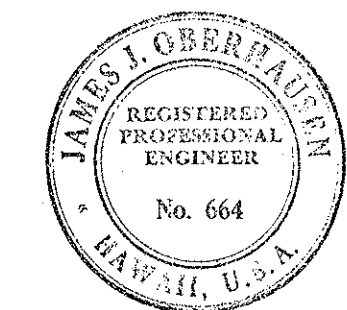


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(6) UNIT 2	1966	119	209



DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
No.	_____

This work was prepared by me or under my supervision.
James J. Oberbauer
 J. J. Oberbauer



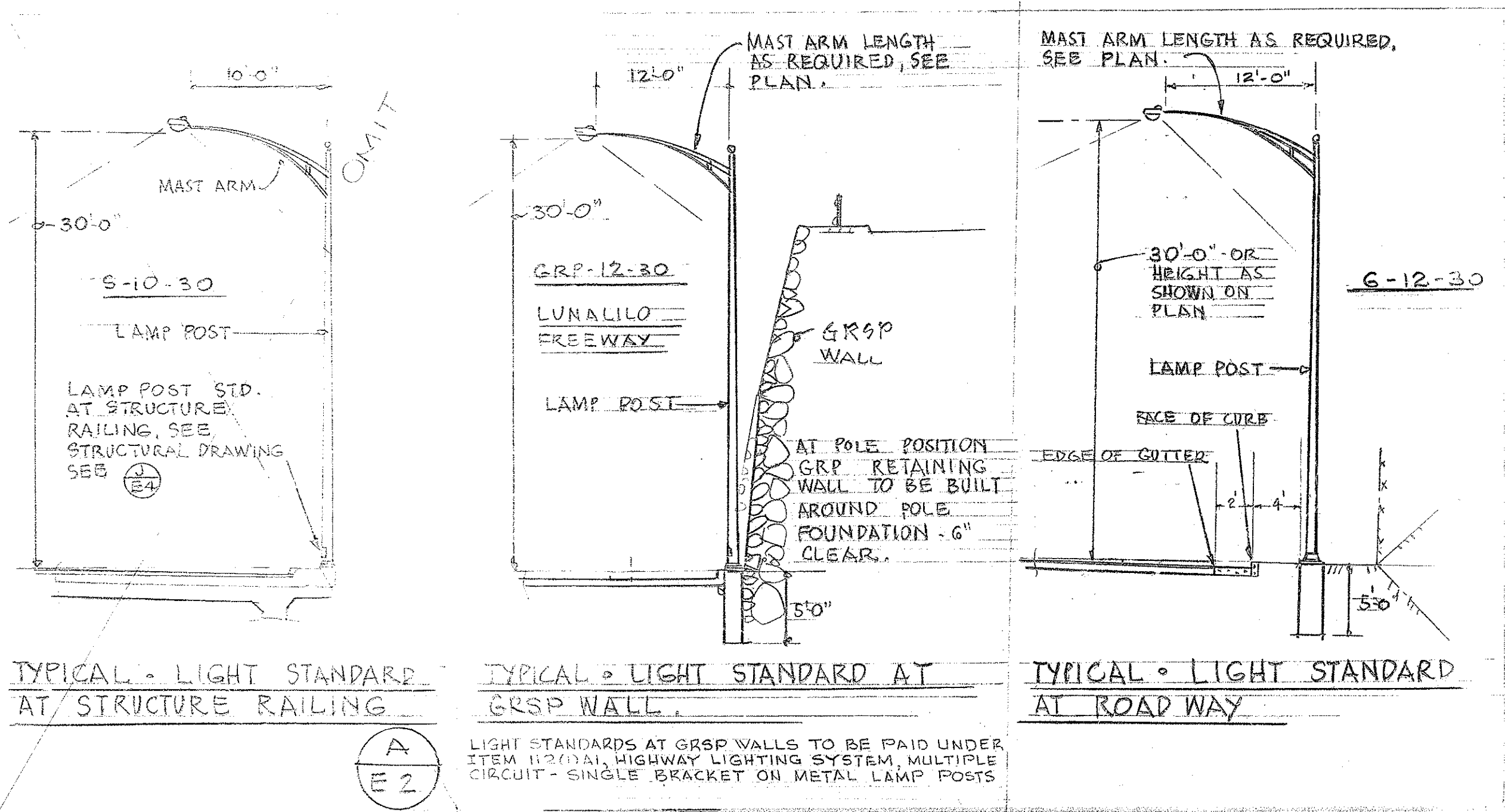
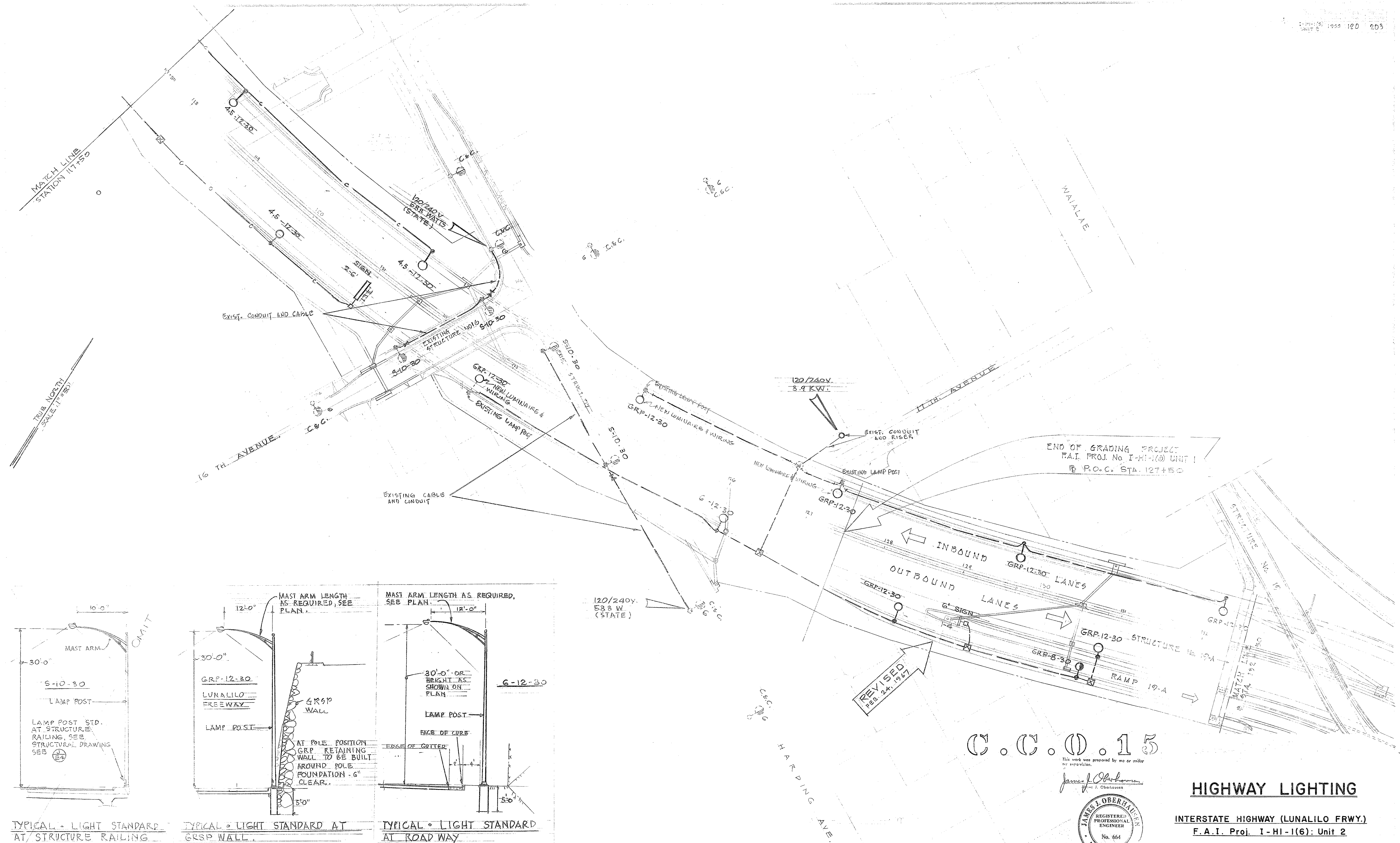
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

HIGHWAY LIGHTING

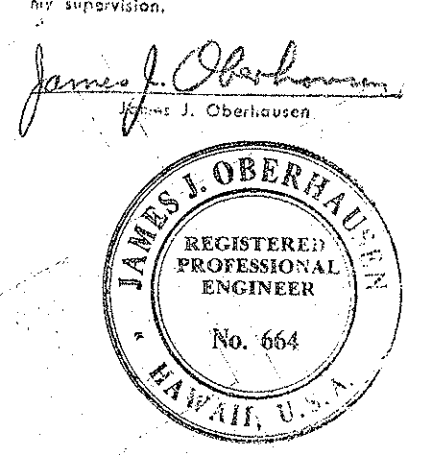
INTERSTATE HIGHWAY (LUNALILO FRWY.)
 F.A.I. Proj. I-HI-1(6): Unit 2

Scale as Noted January 1966

SHEET No. 119 OF 7 SHEETS



C.C.O. 15



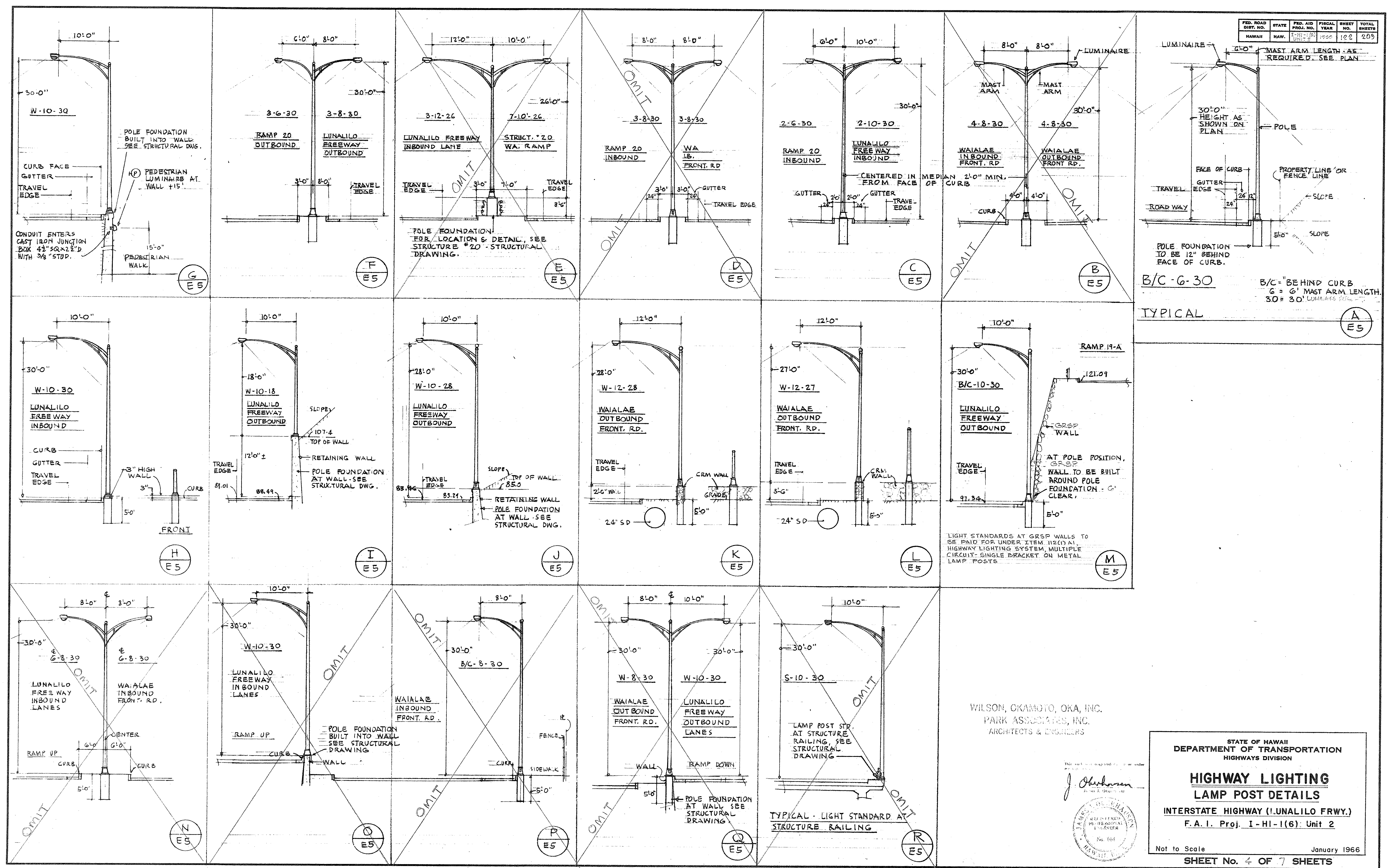
HIGHWAY LIGHTING

INTERSTATE HIGHWAY (LUALILO FRWY.)
F.A.I. Proj. I-HI-1(6): Unit 2

Scale: 1" = 50' January 1966

56

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

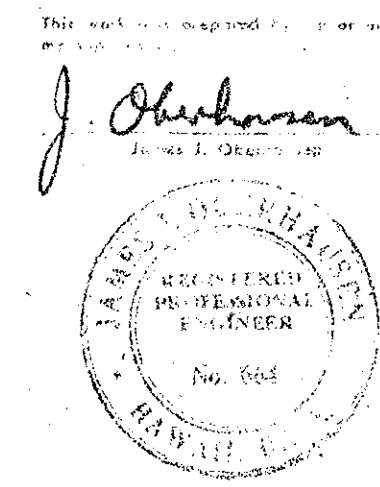
HIGHWAY LIGHTING
LAMP POST DETAILS

INTERSTATE HIGHWAY (LUNALILO FRWY.)
F.A.I. Proj. I-HI-1(6) Unit 2

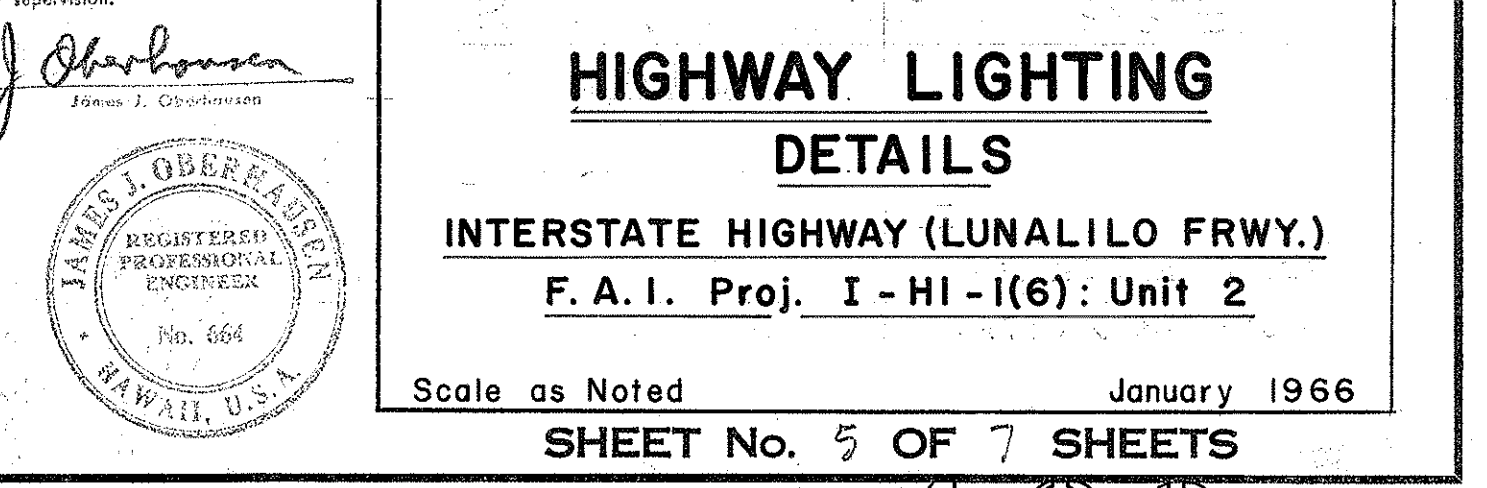
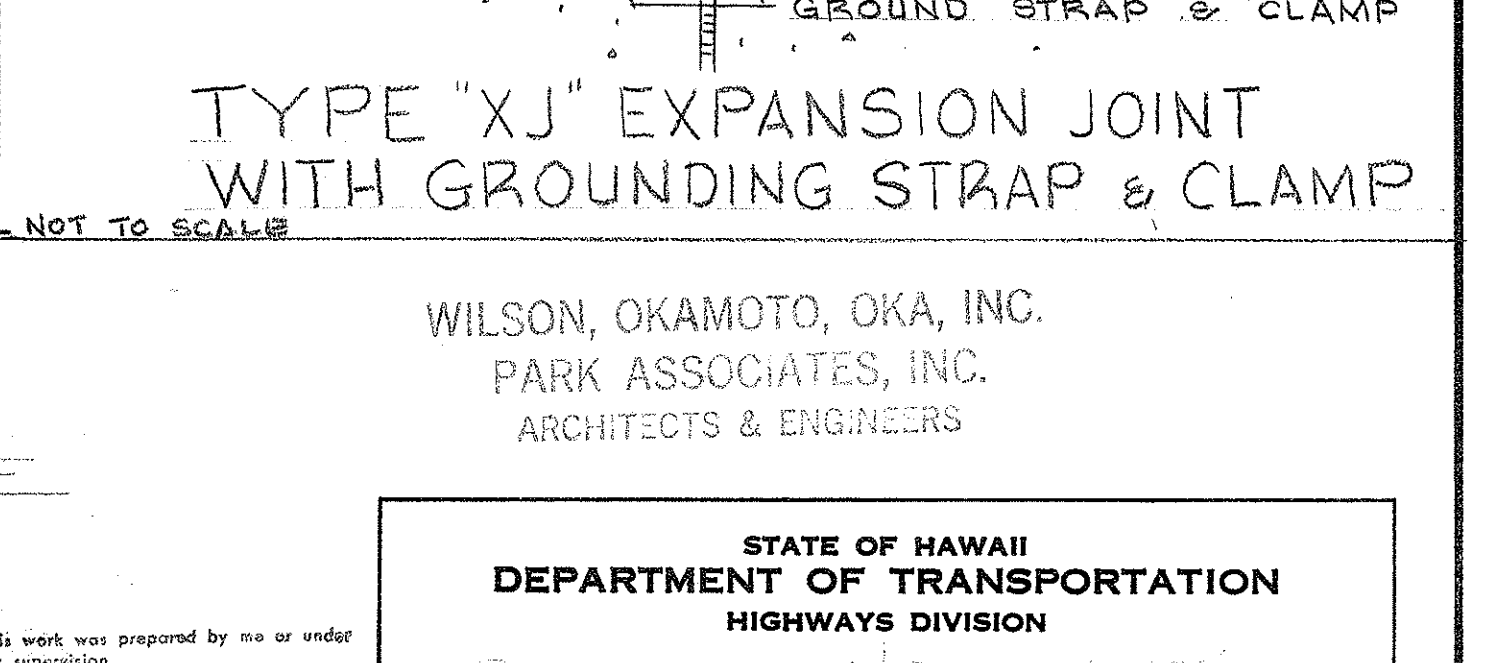
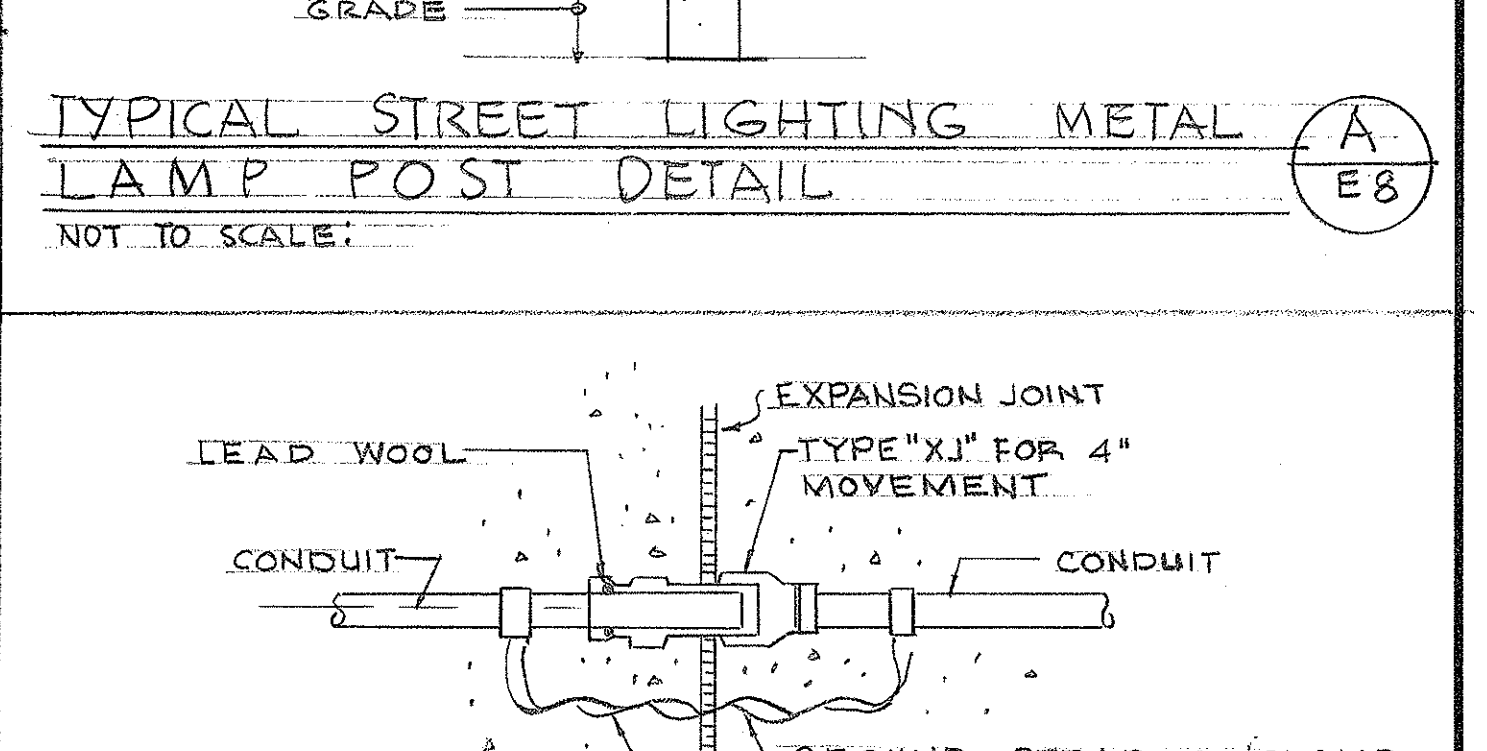
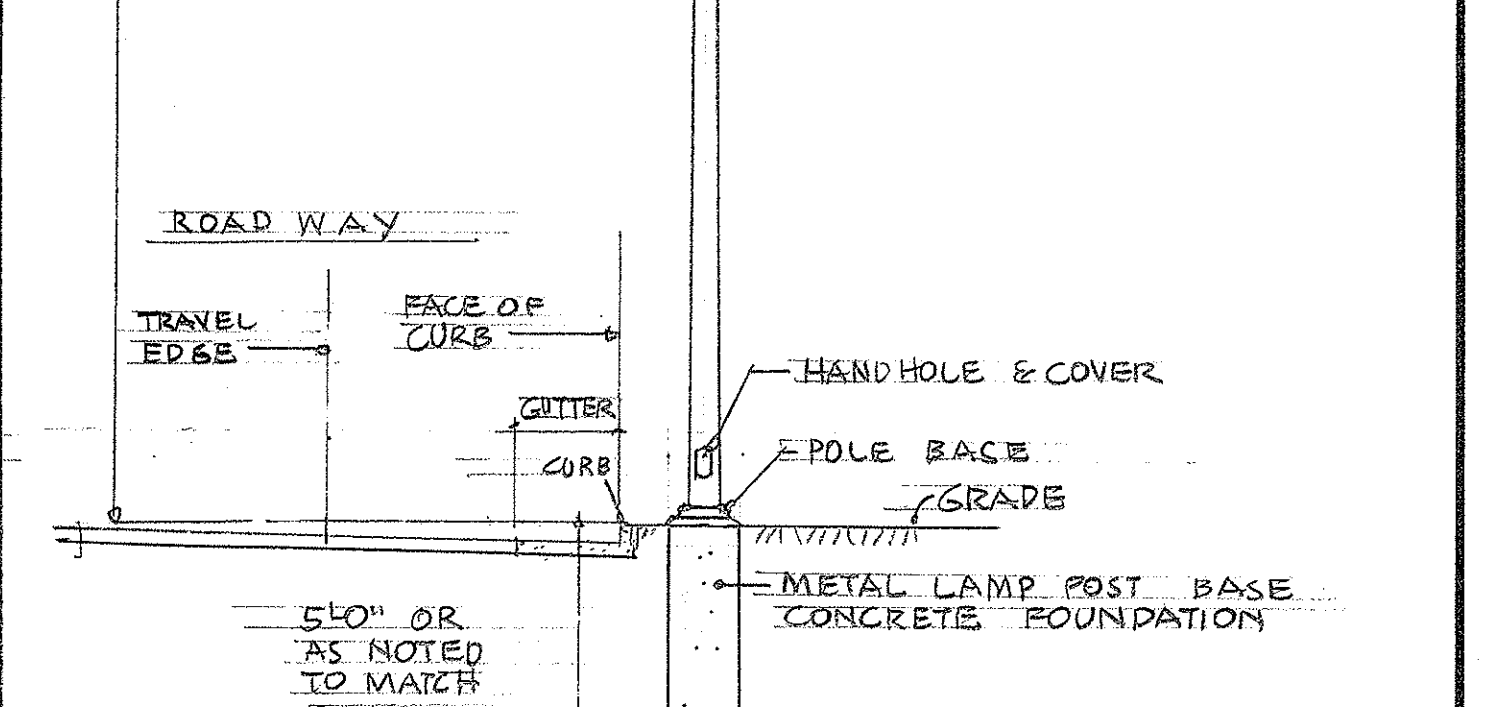
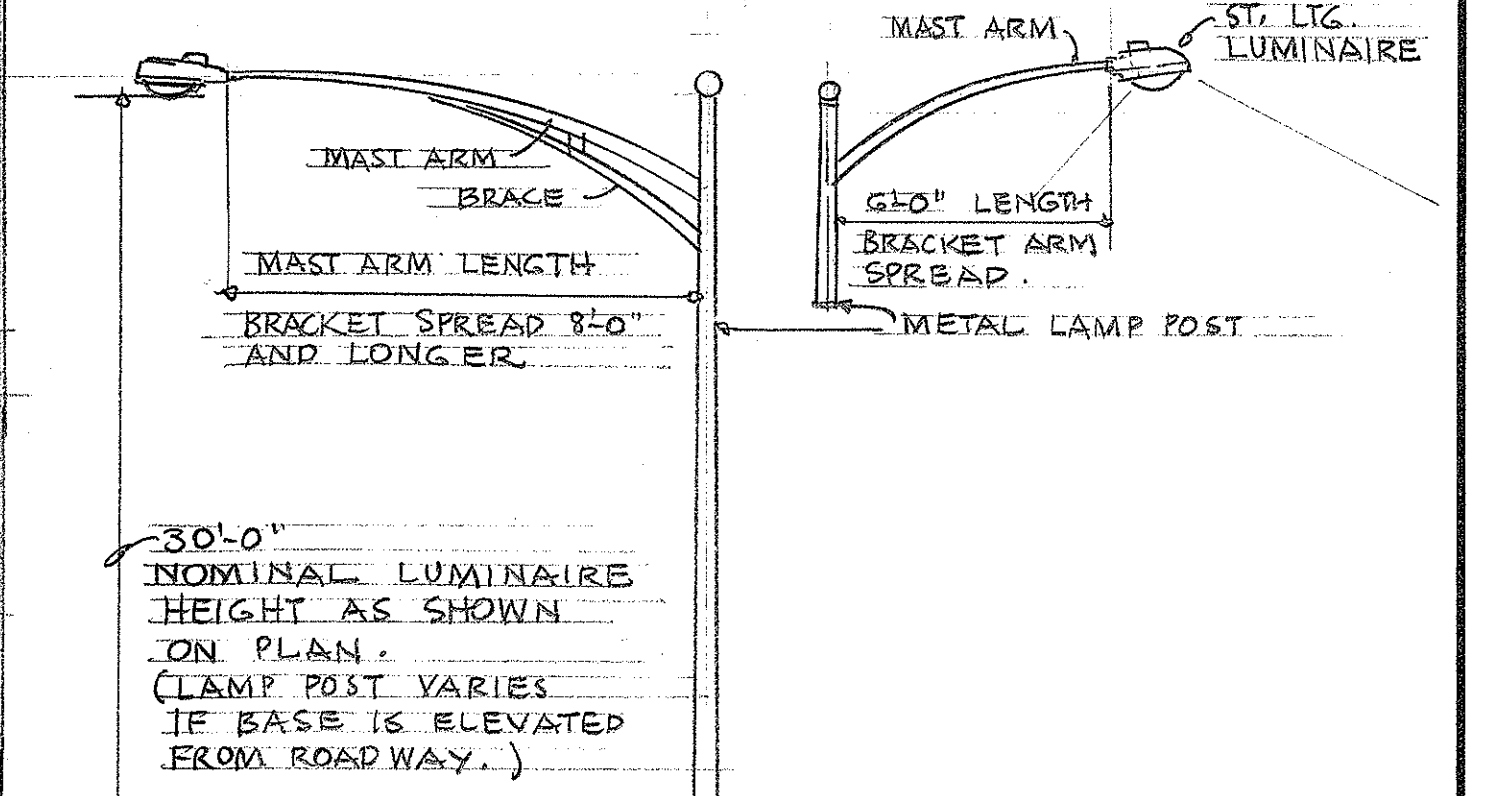
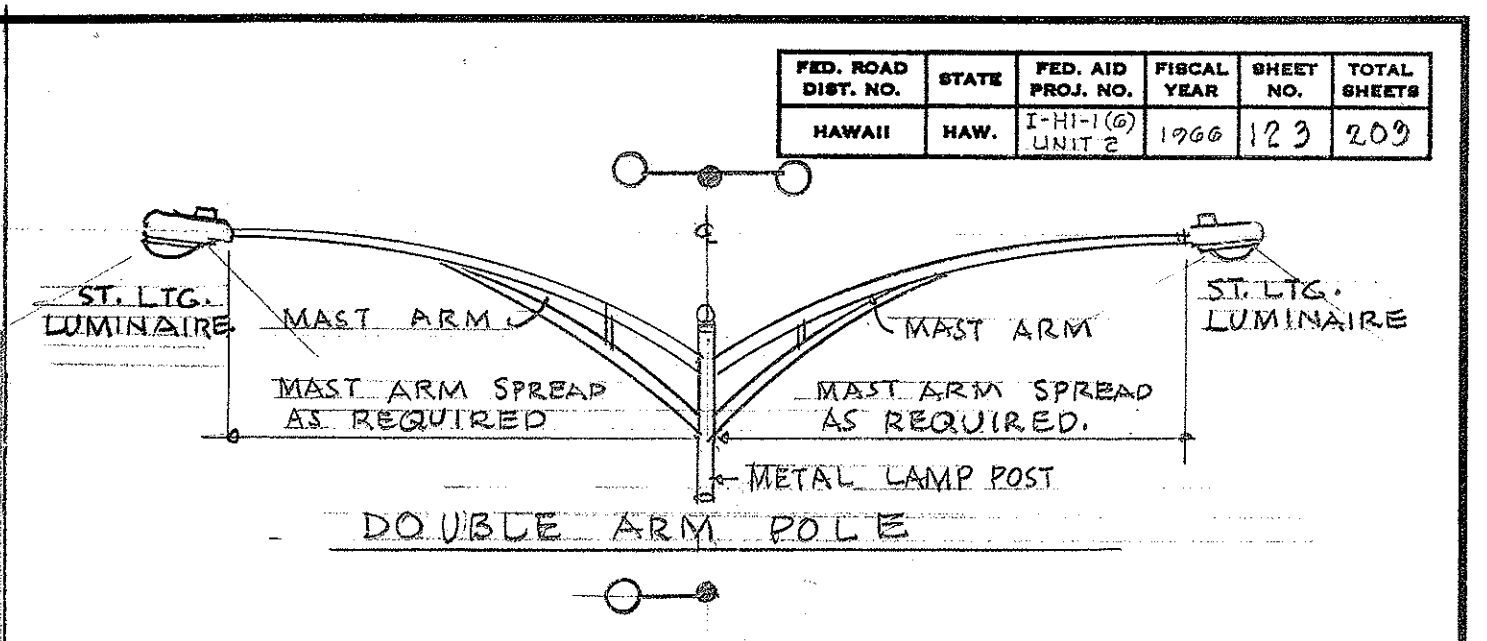
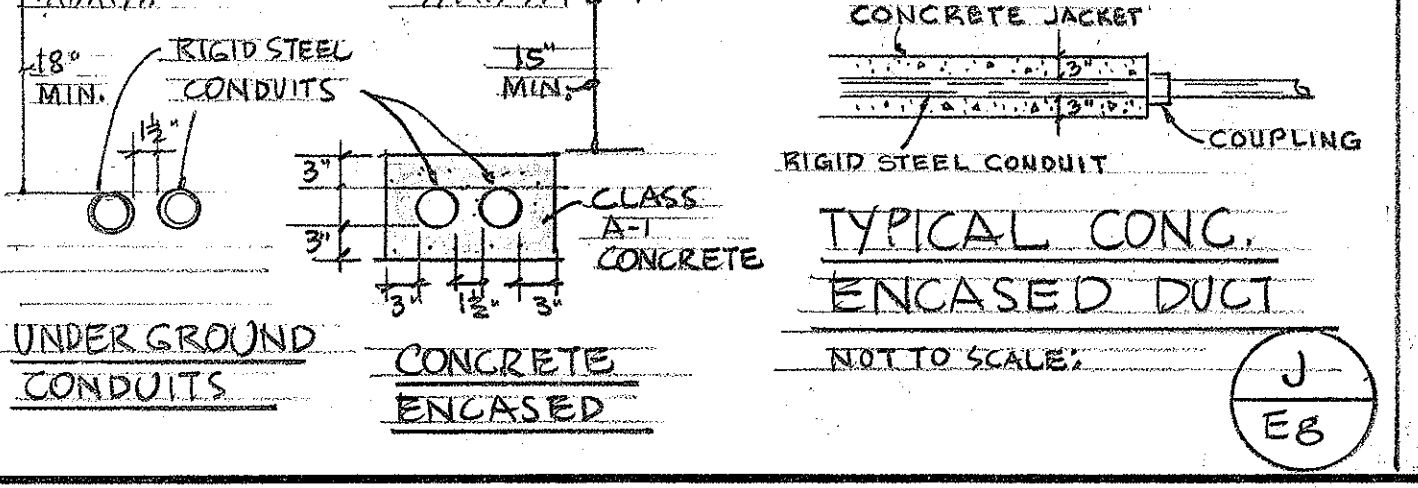
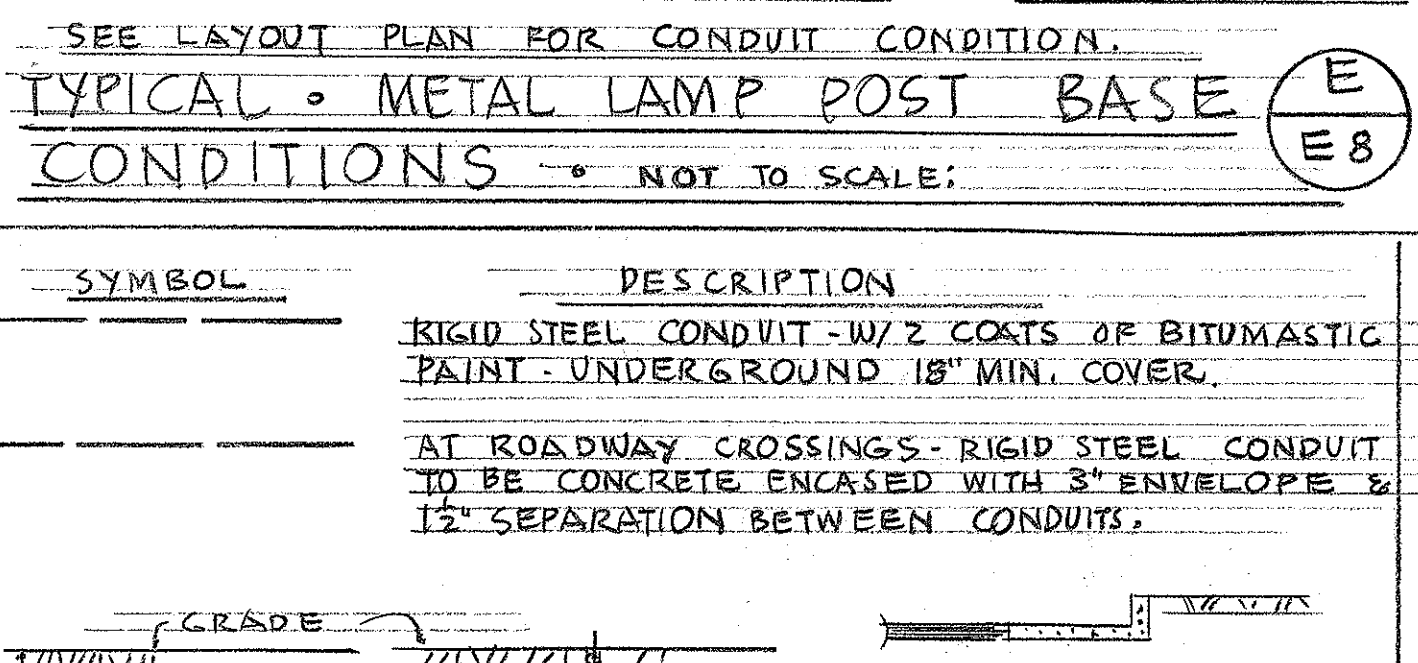
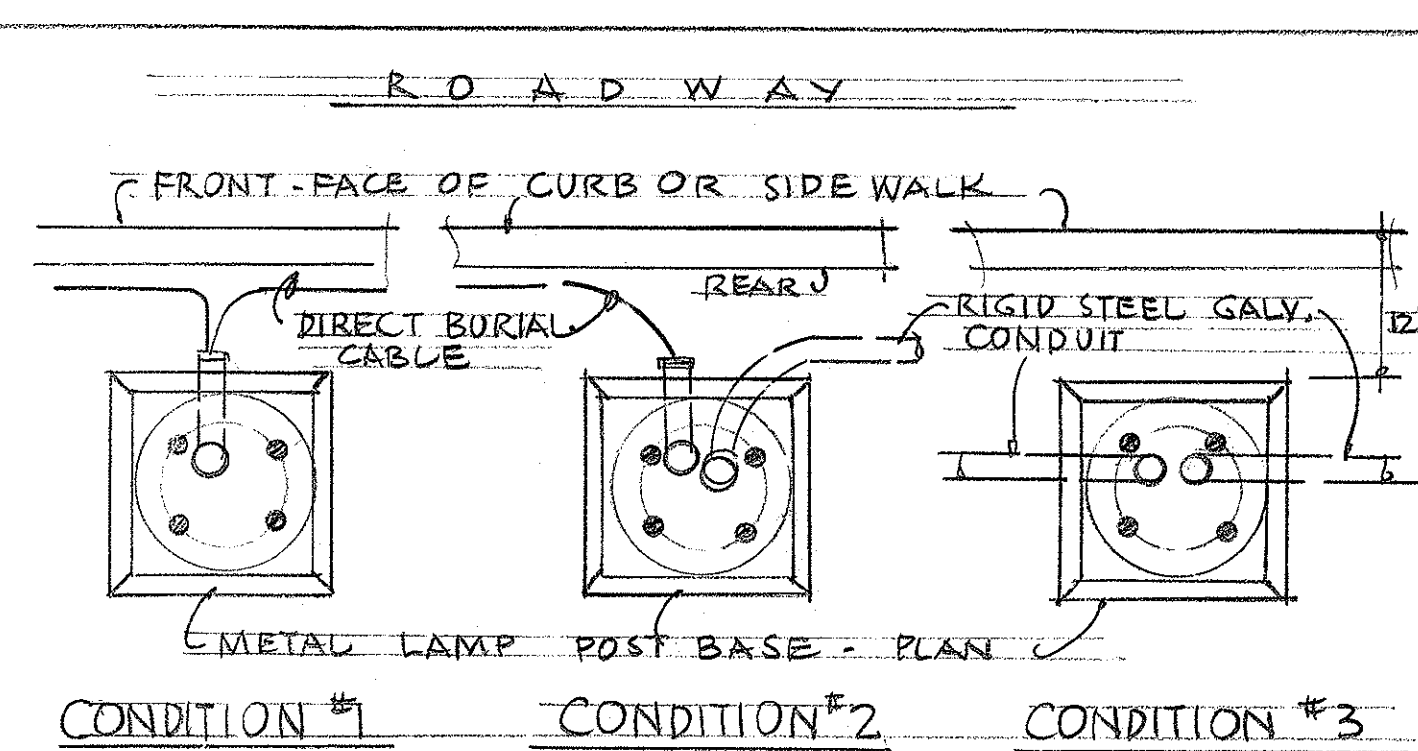
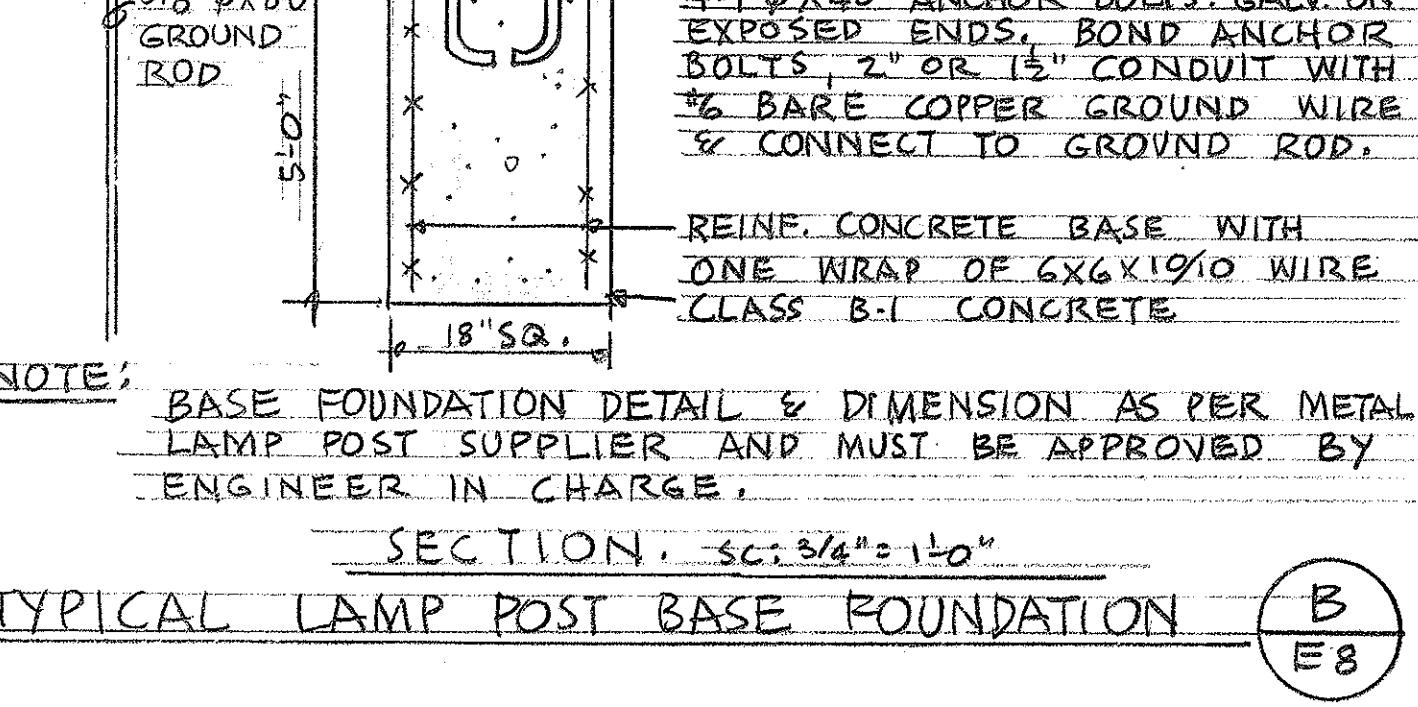
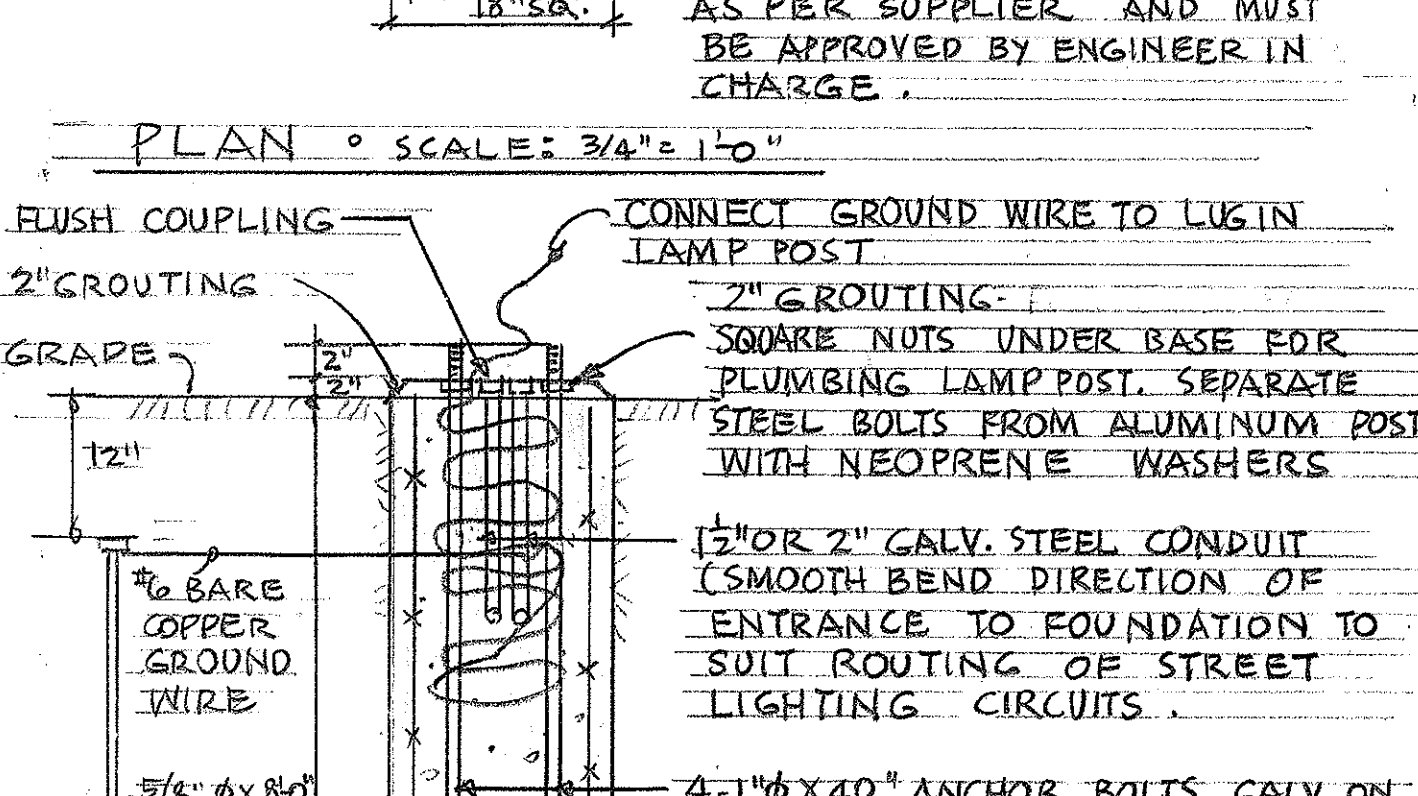
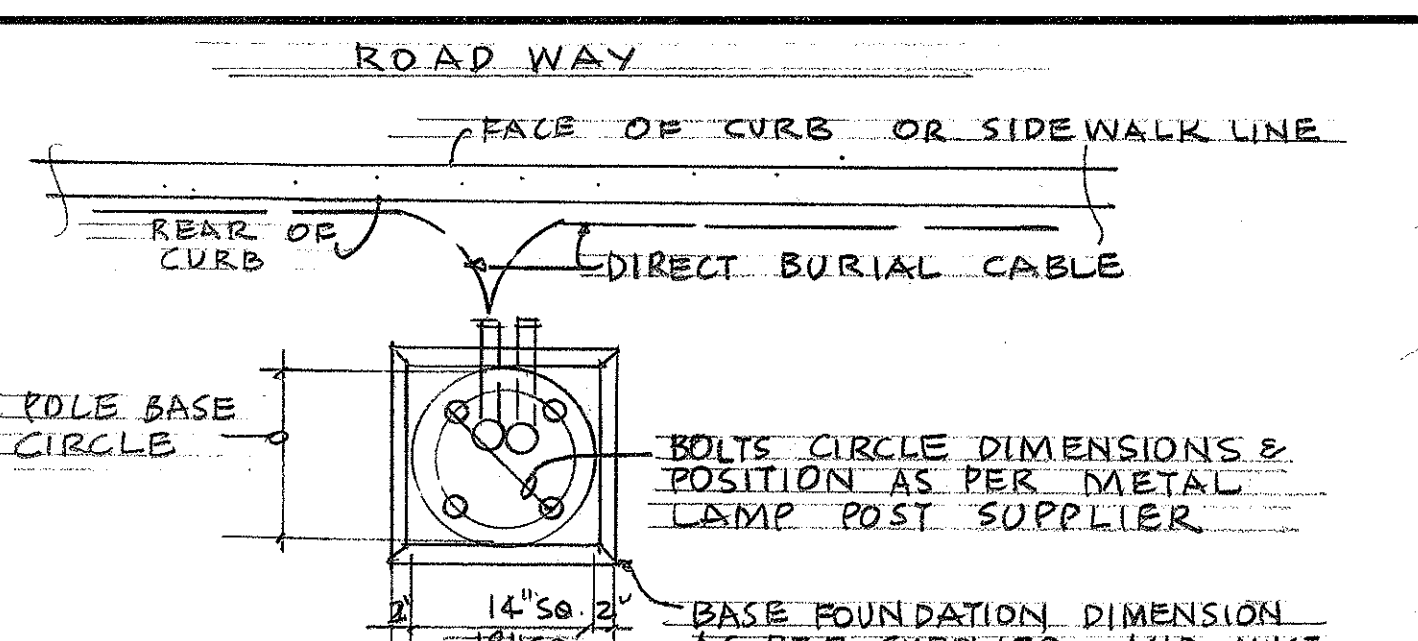
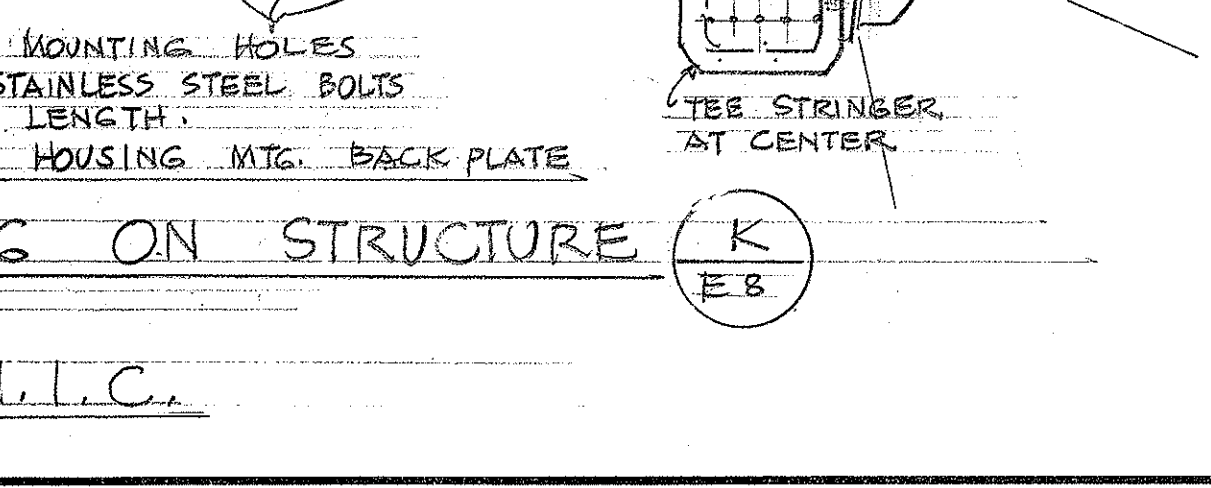
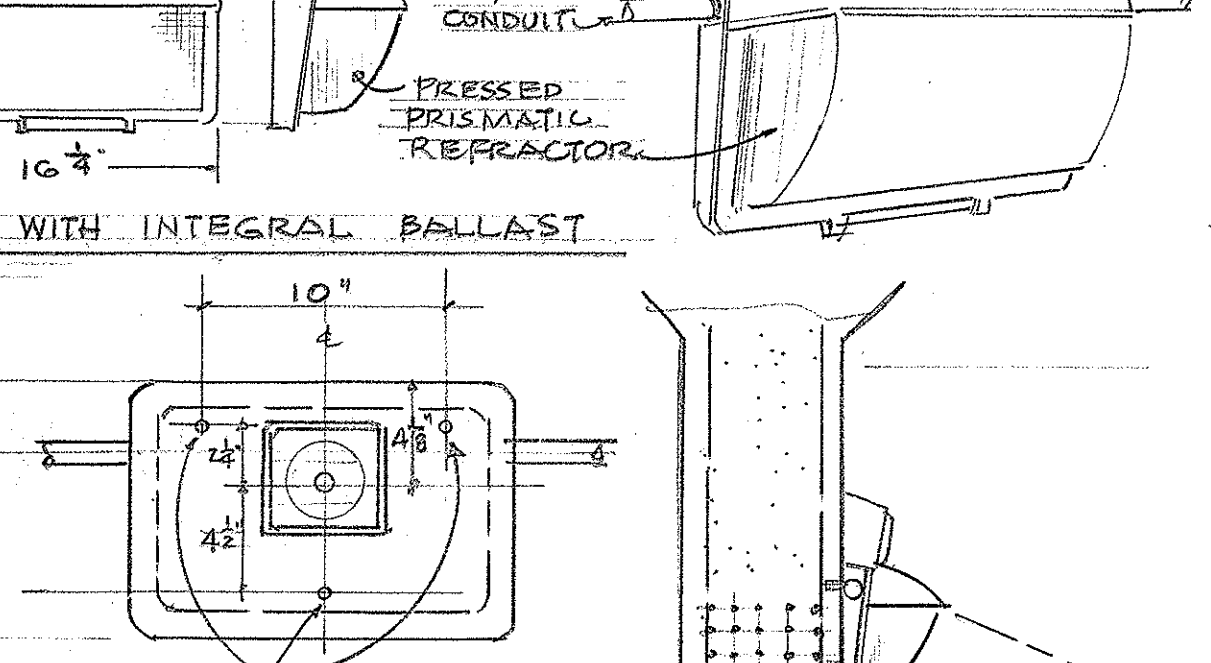
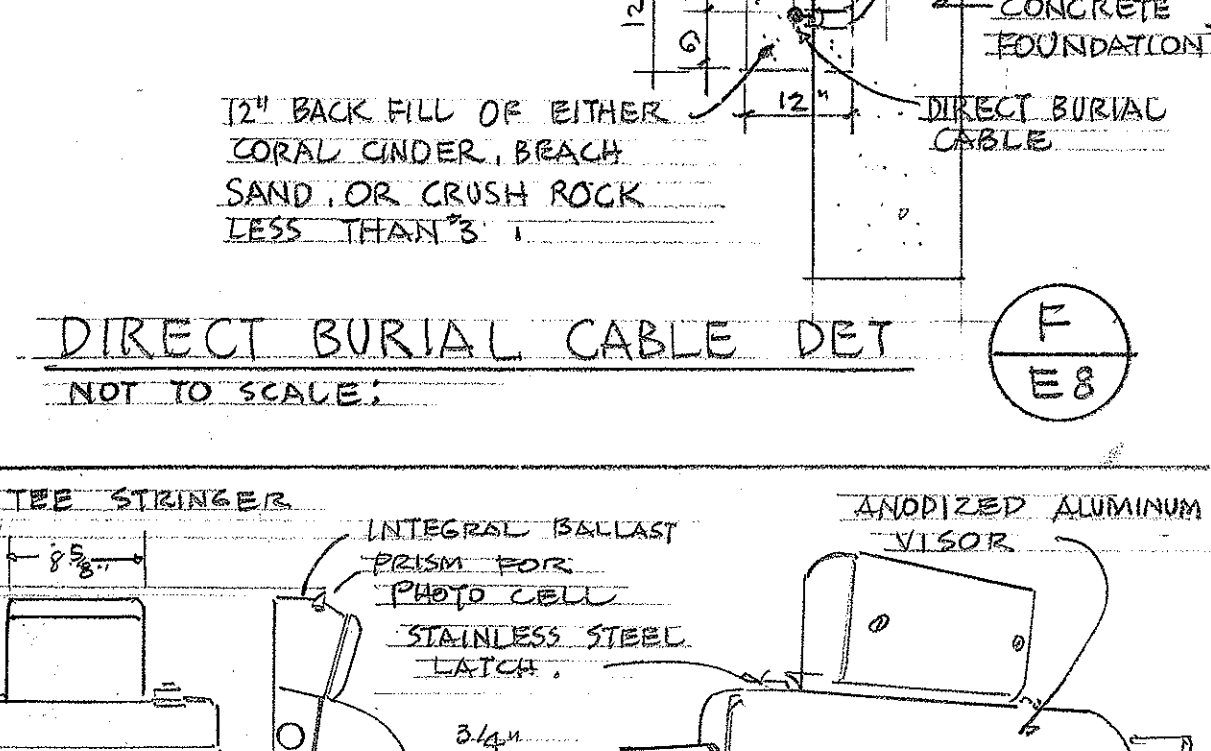
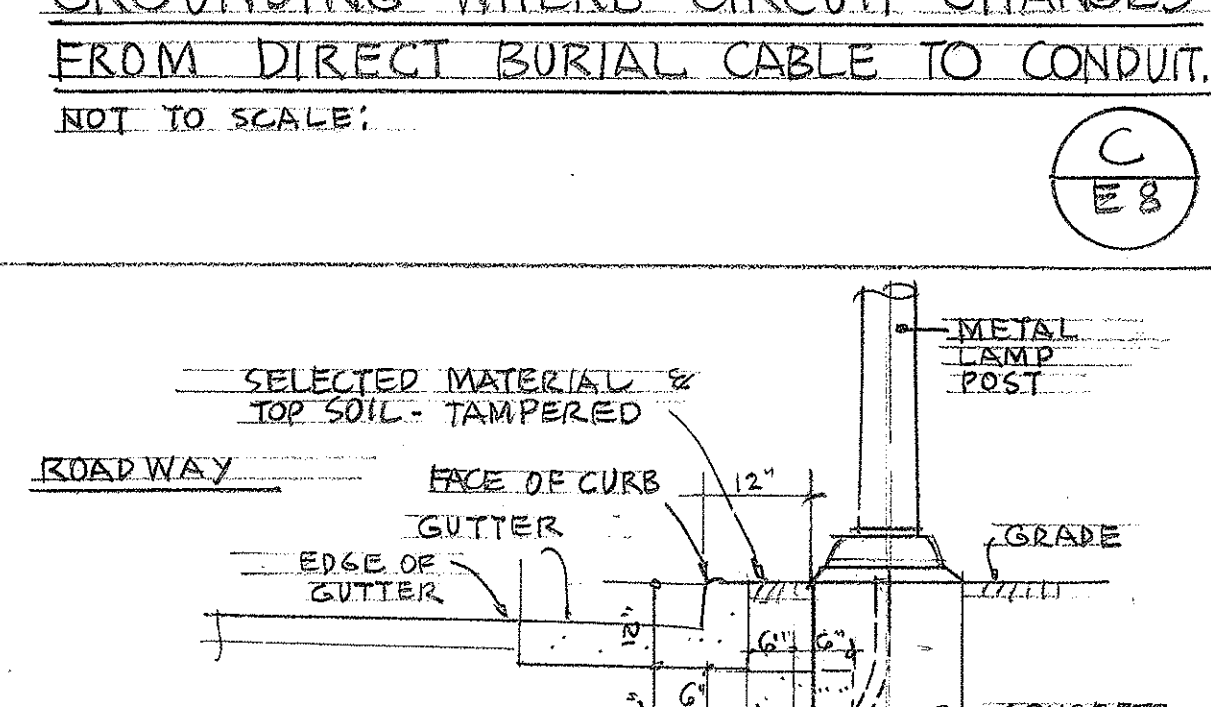
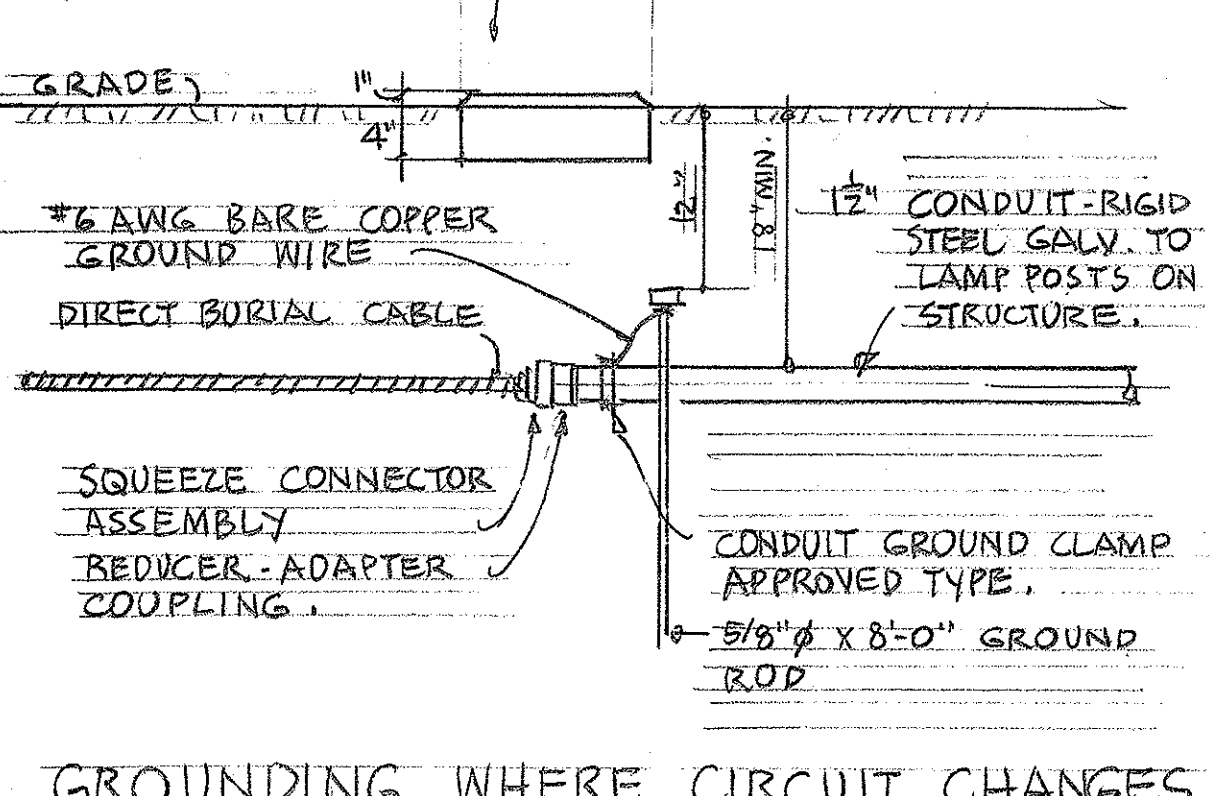
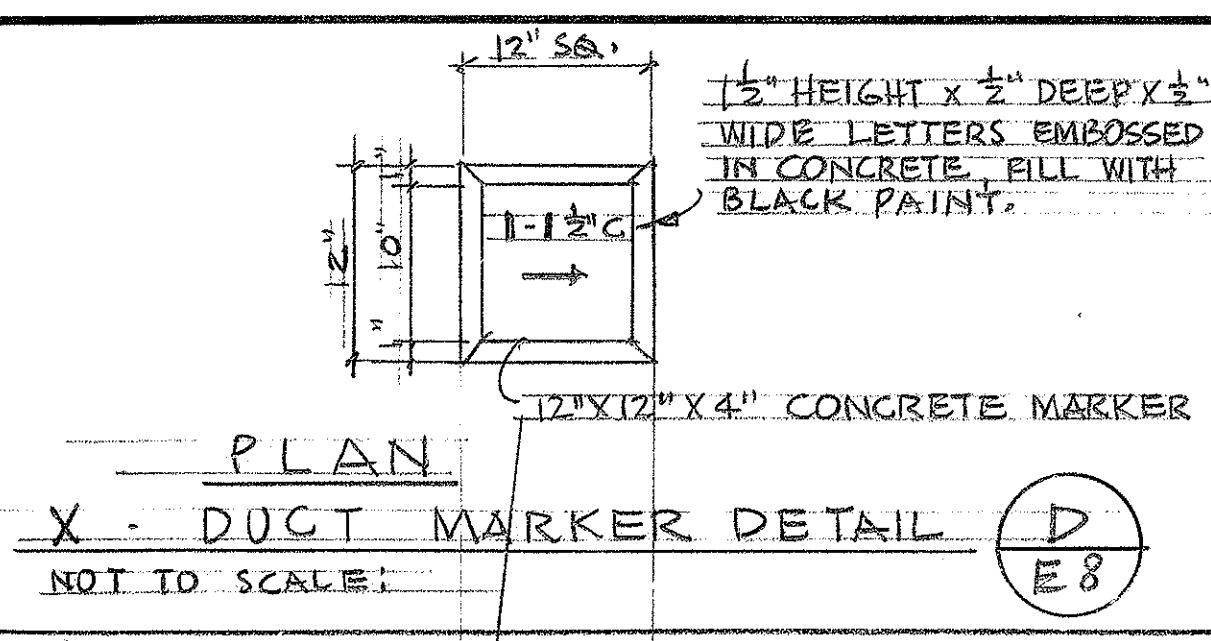
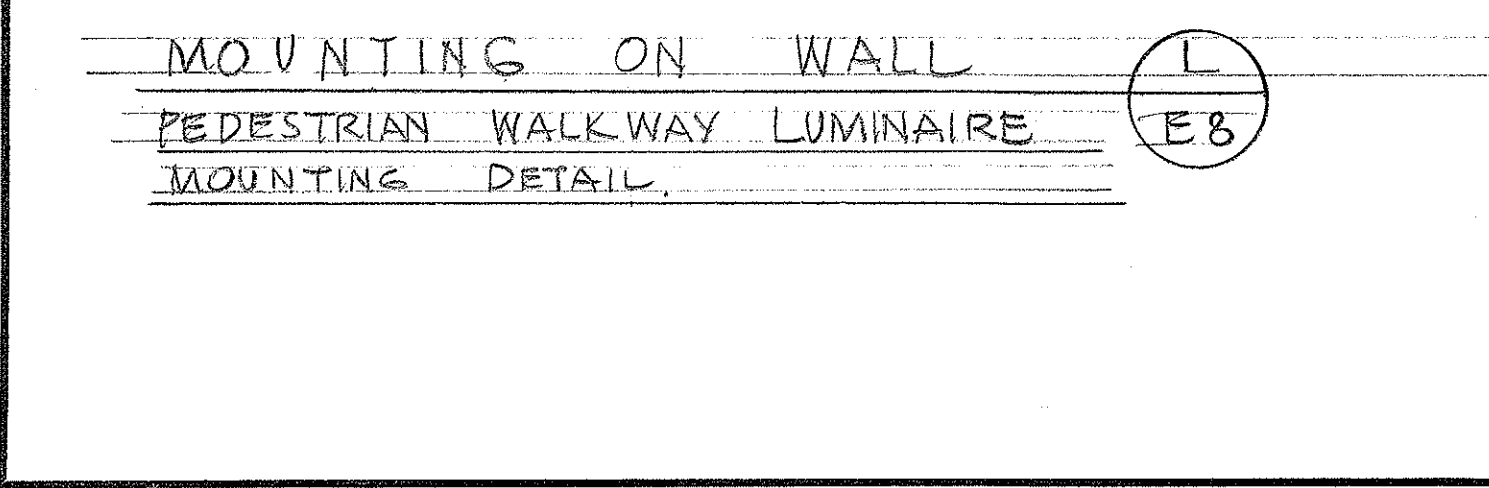
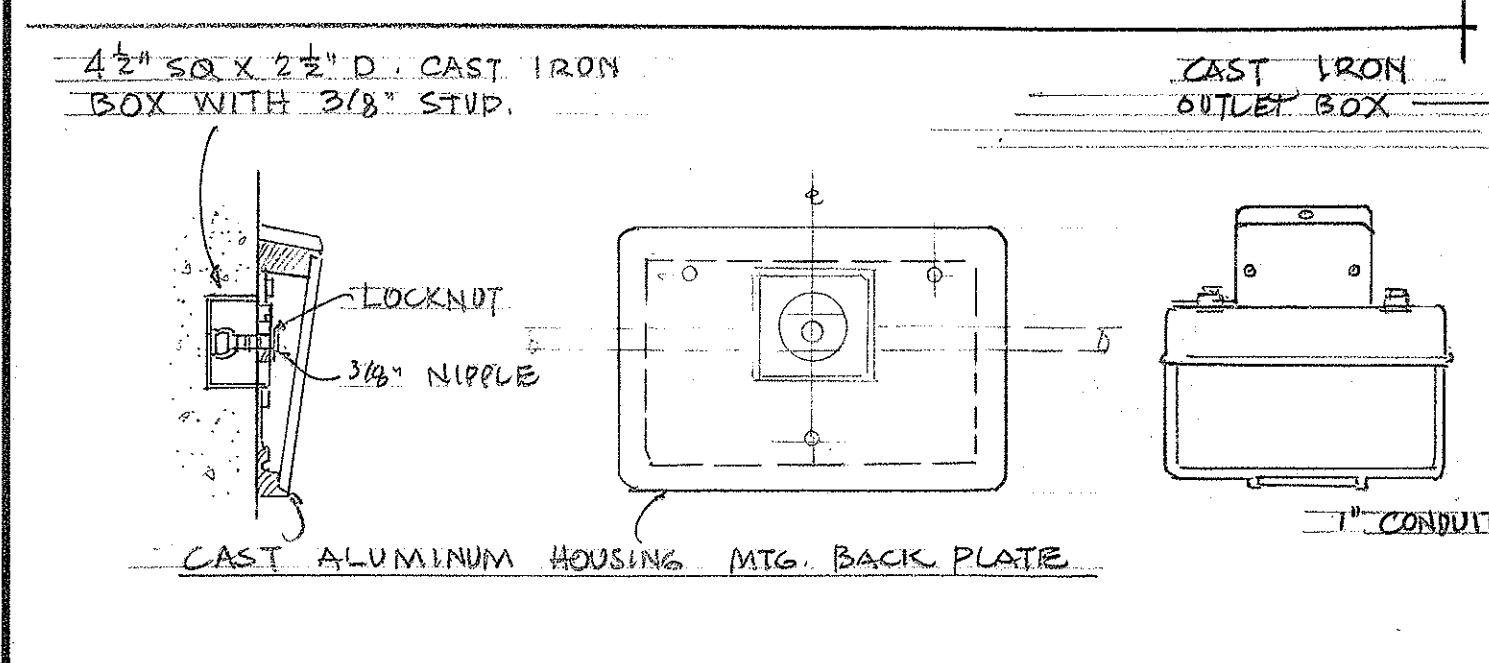
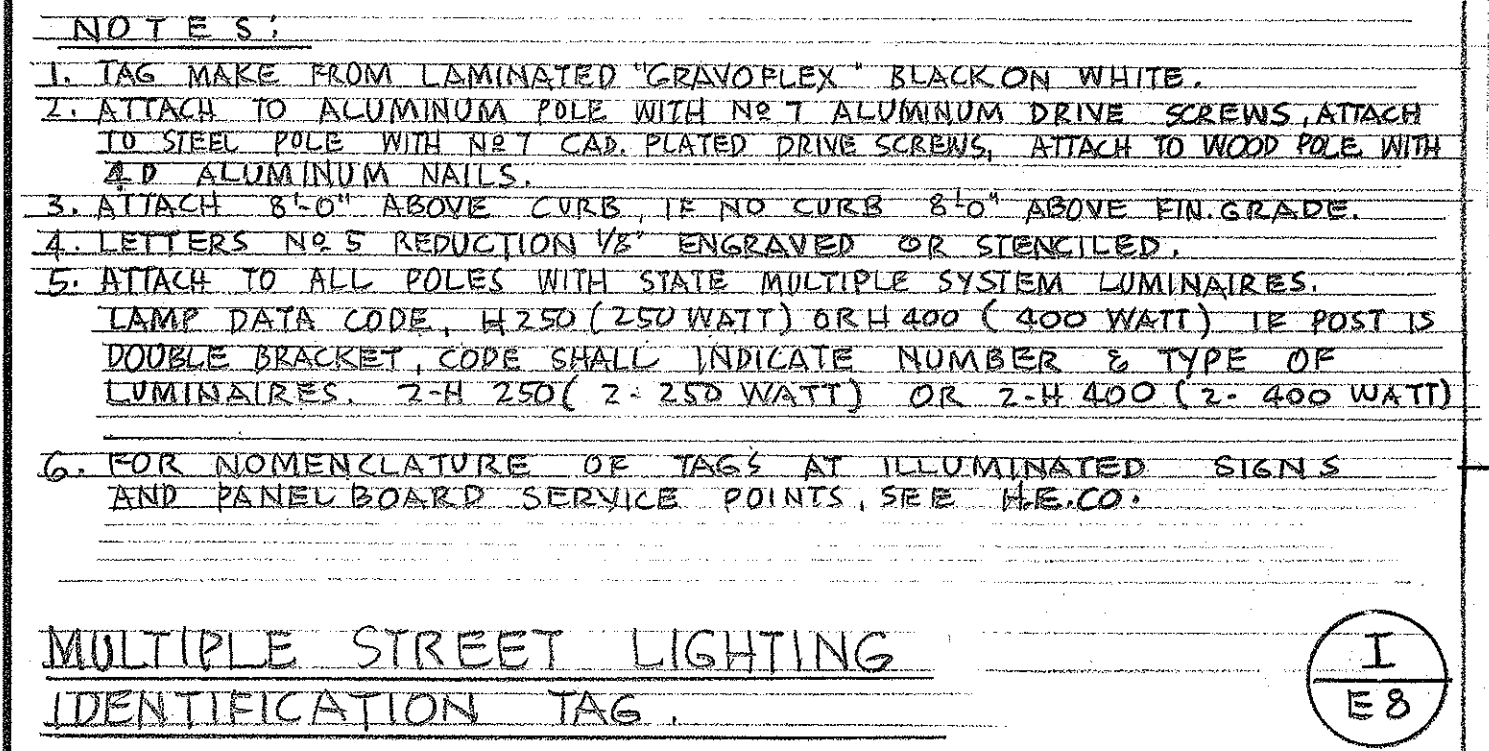
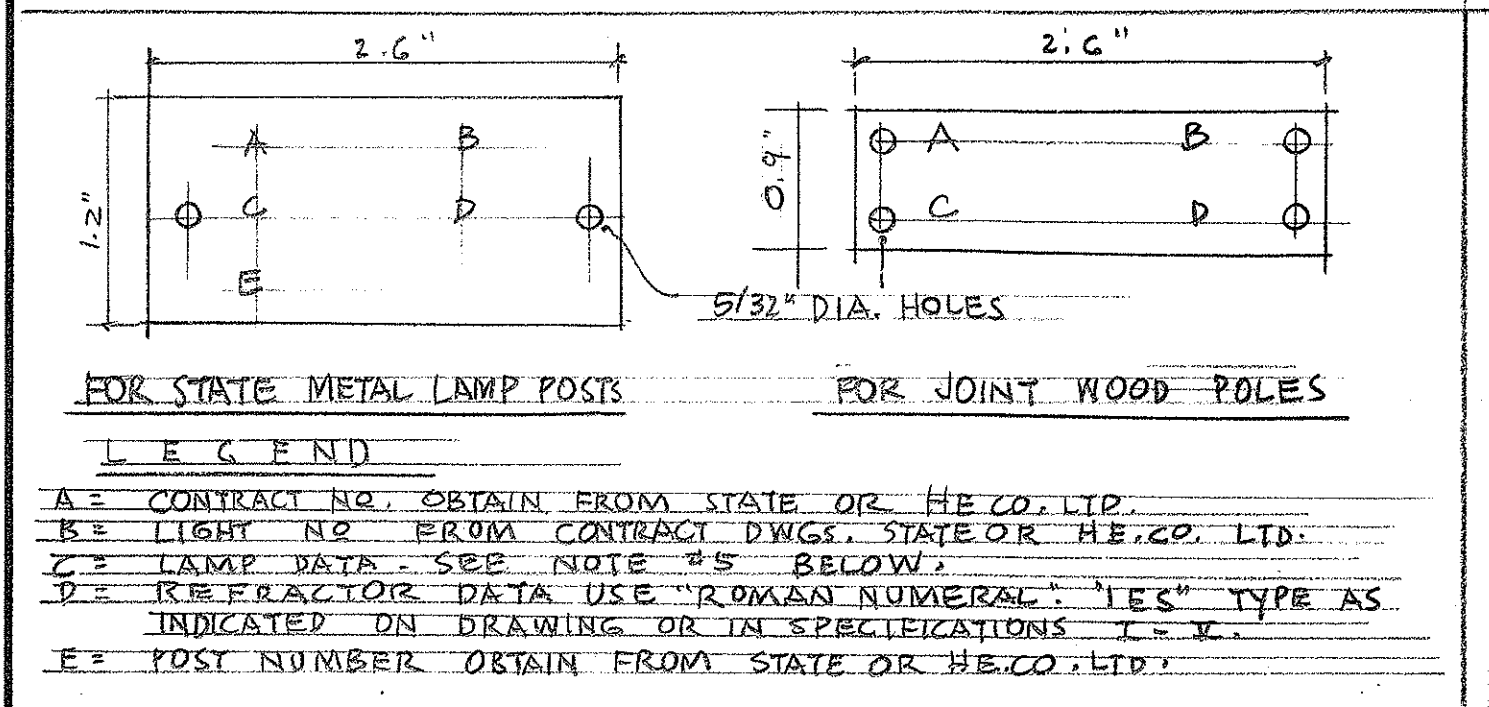
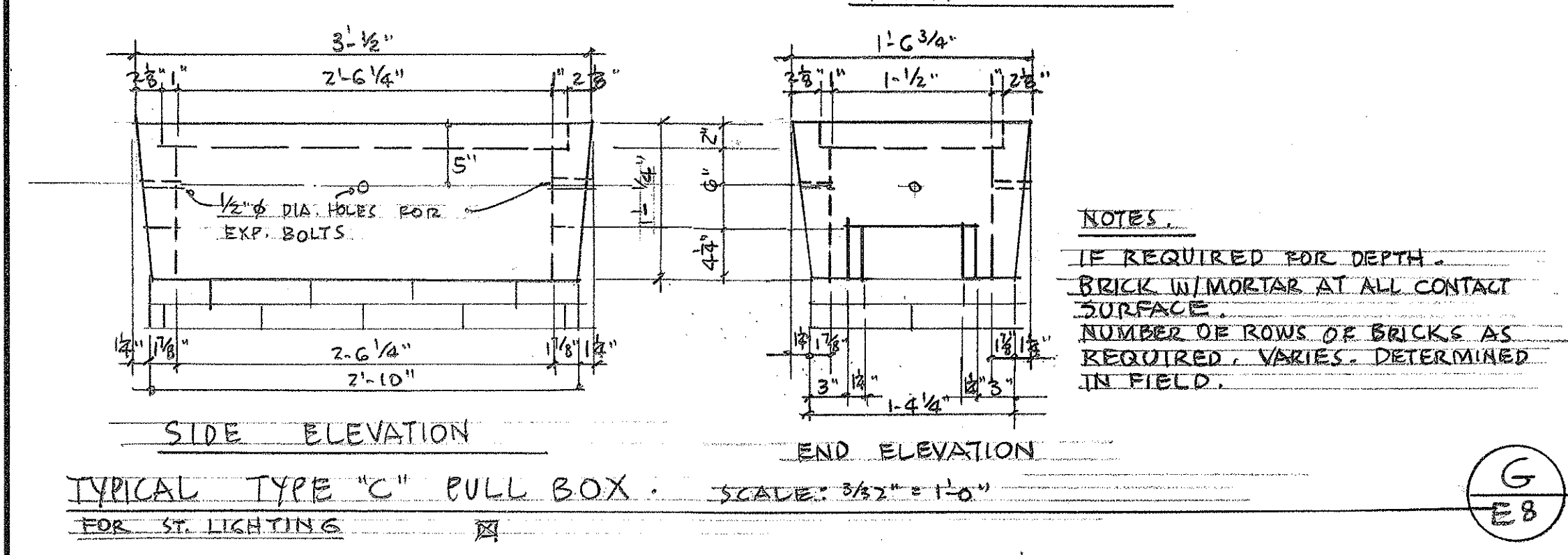
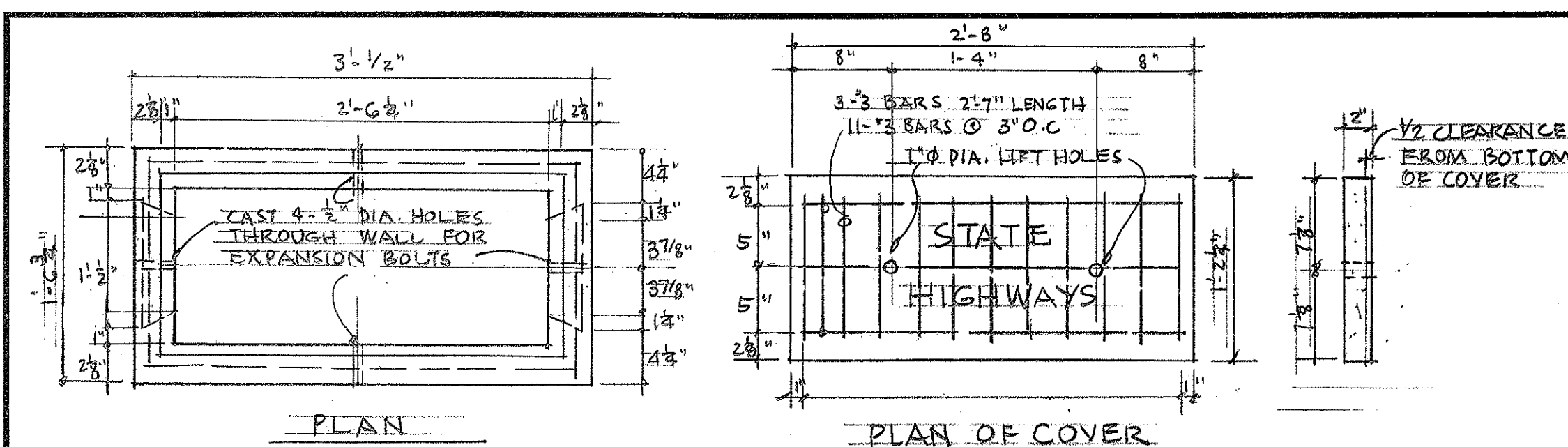
Not to Scale

January 1966

SHEET No. 4 OF 7 SHEETS



WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS



DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
NOTE BOOK	_____
CHECKED BY	_____
No.	_____

WILSON, OKAMOTO, OKA, INC.
PARK ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**HIGHWAY LIGHTING
DETAILS**

INTERSTATE HIGHWAY (LUNALILO FRWY.)
F. A. I. Proj. I - HI - (16) : Unit 2

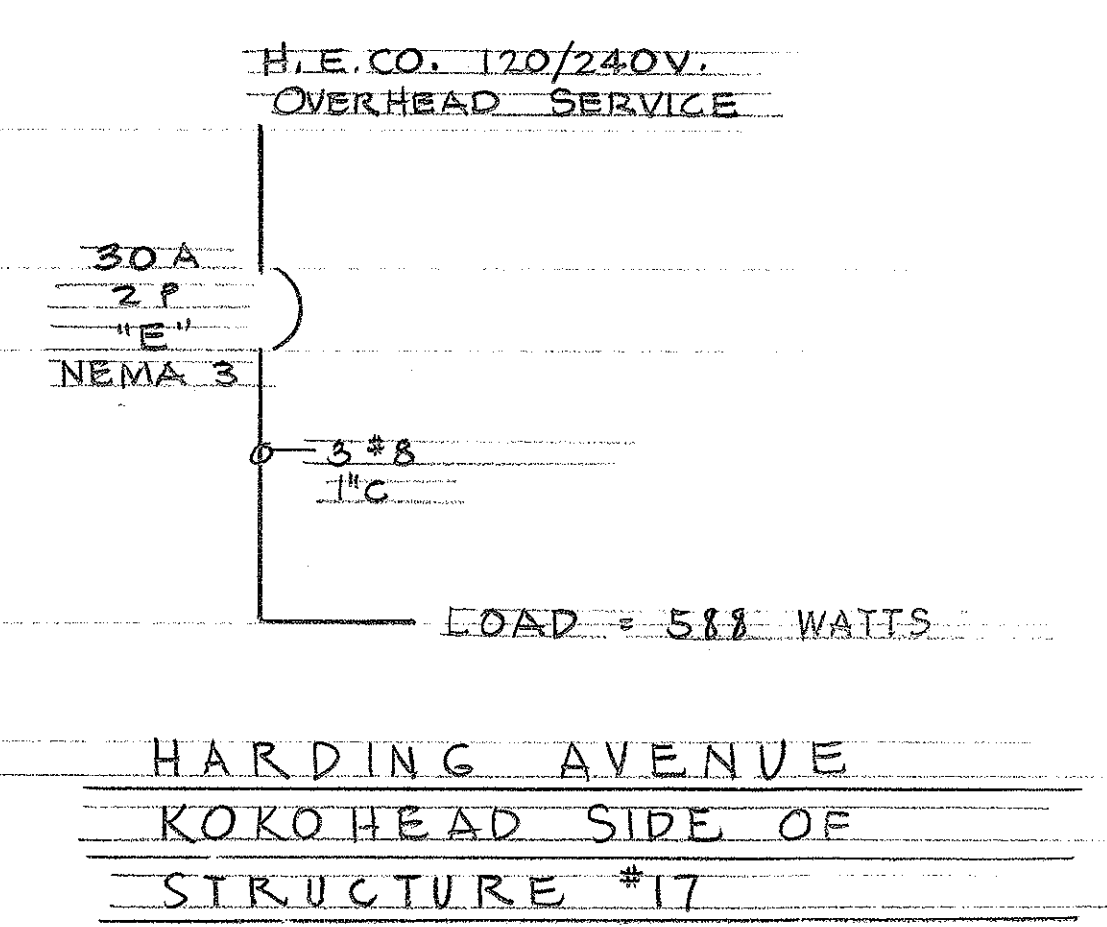
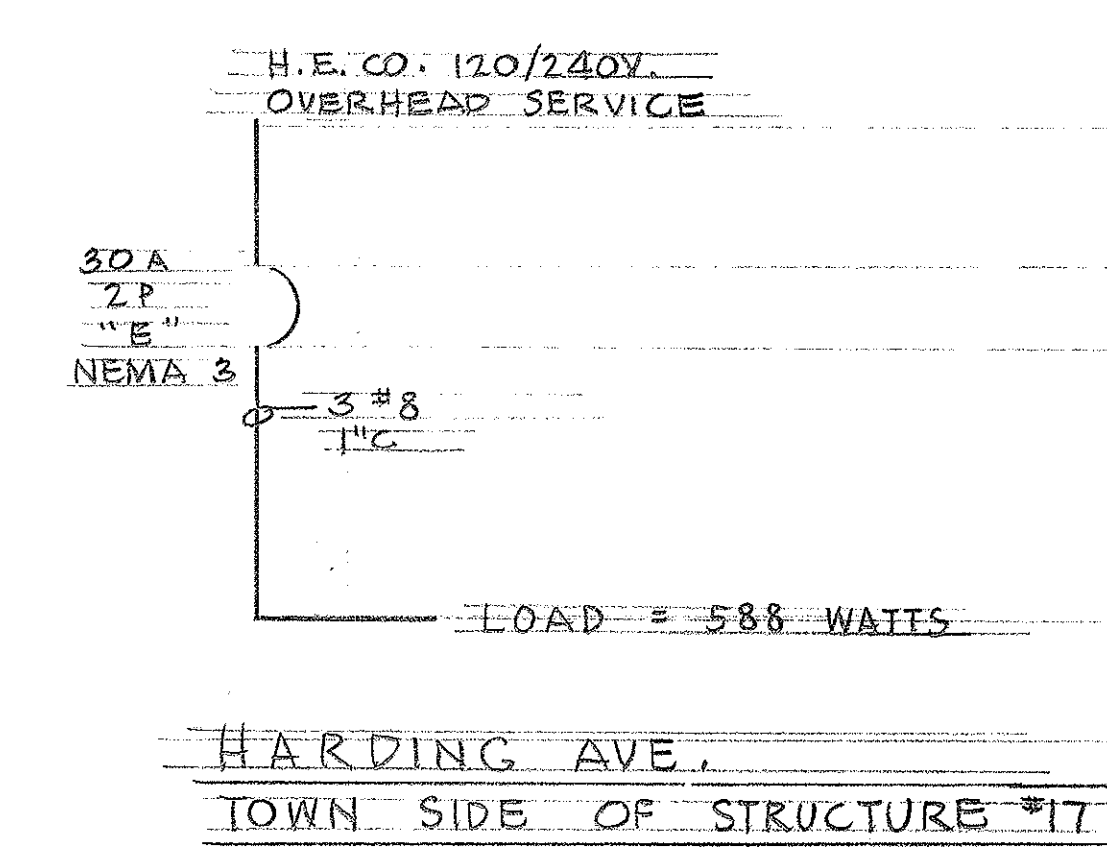
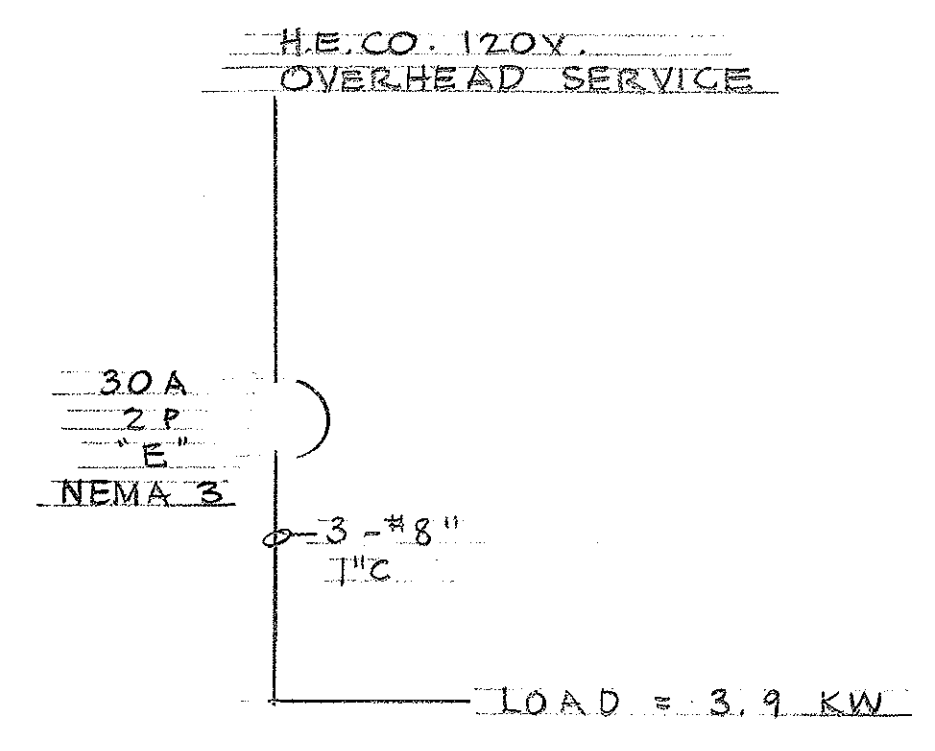
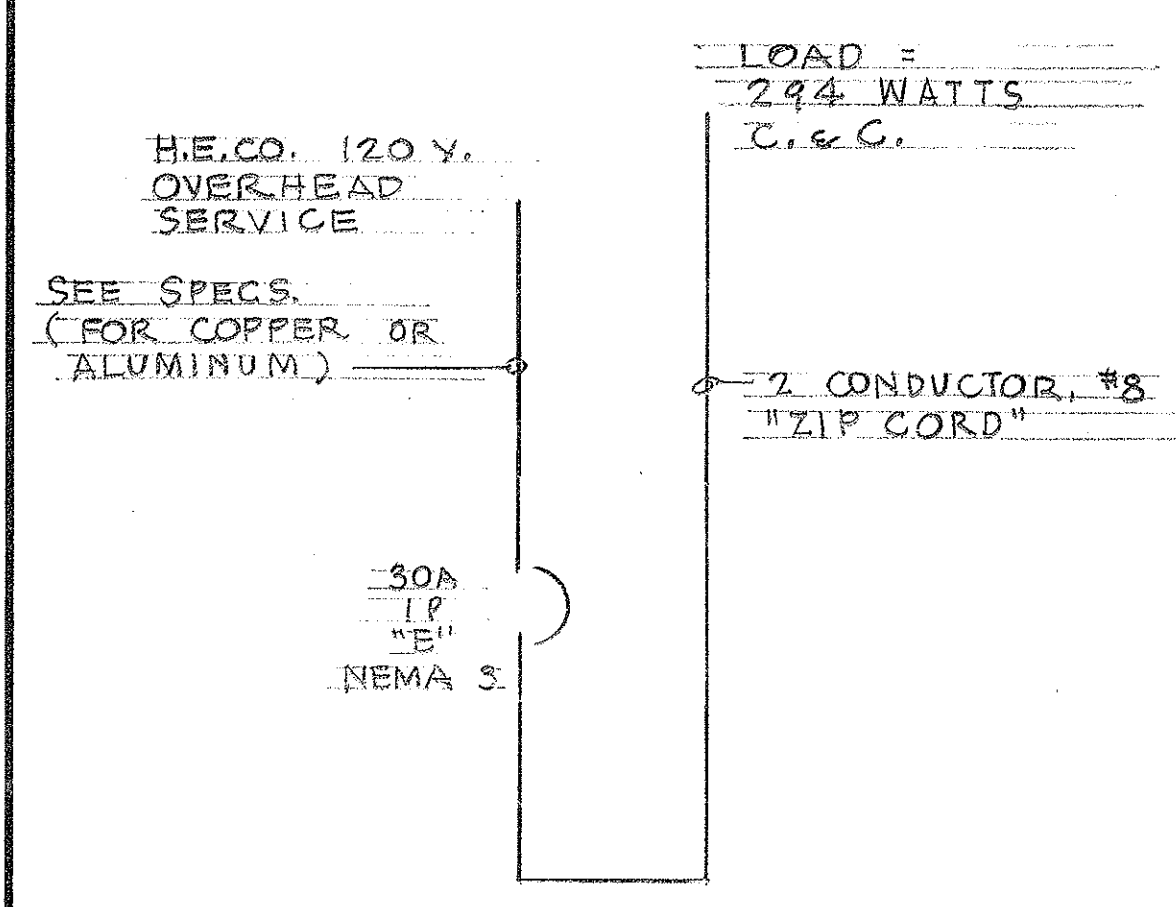
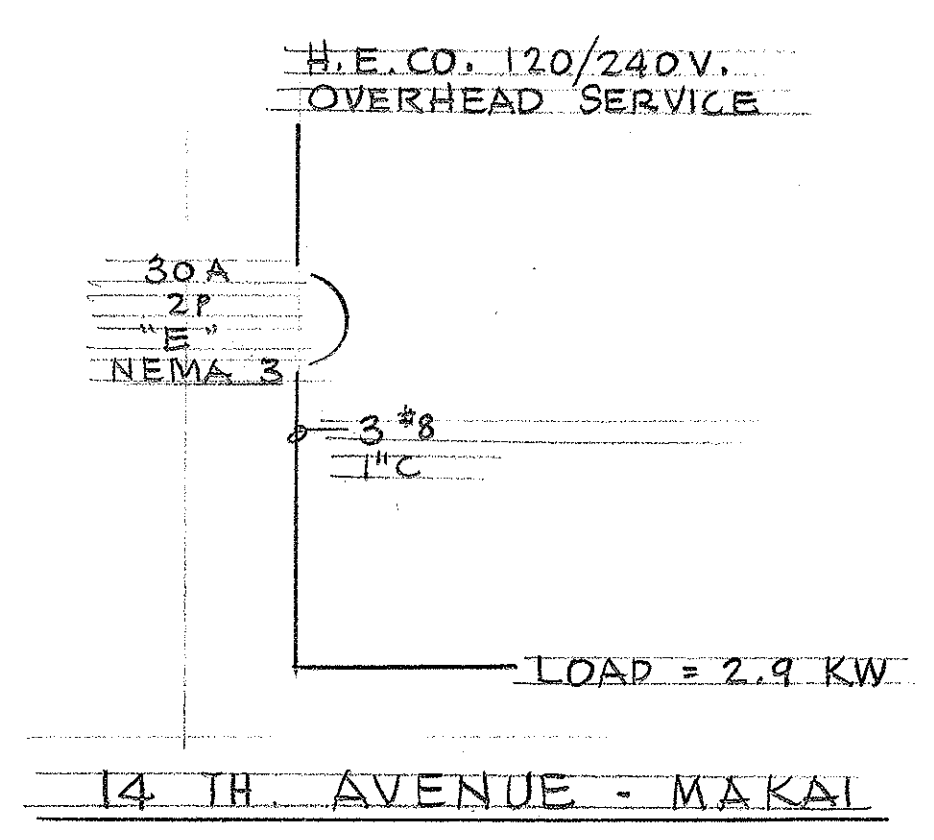
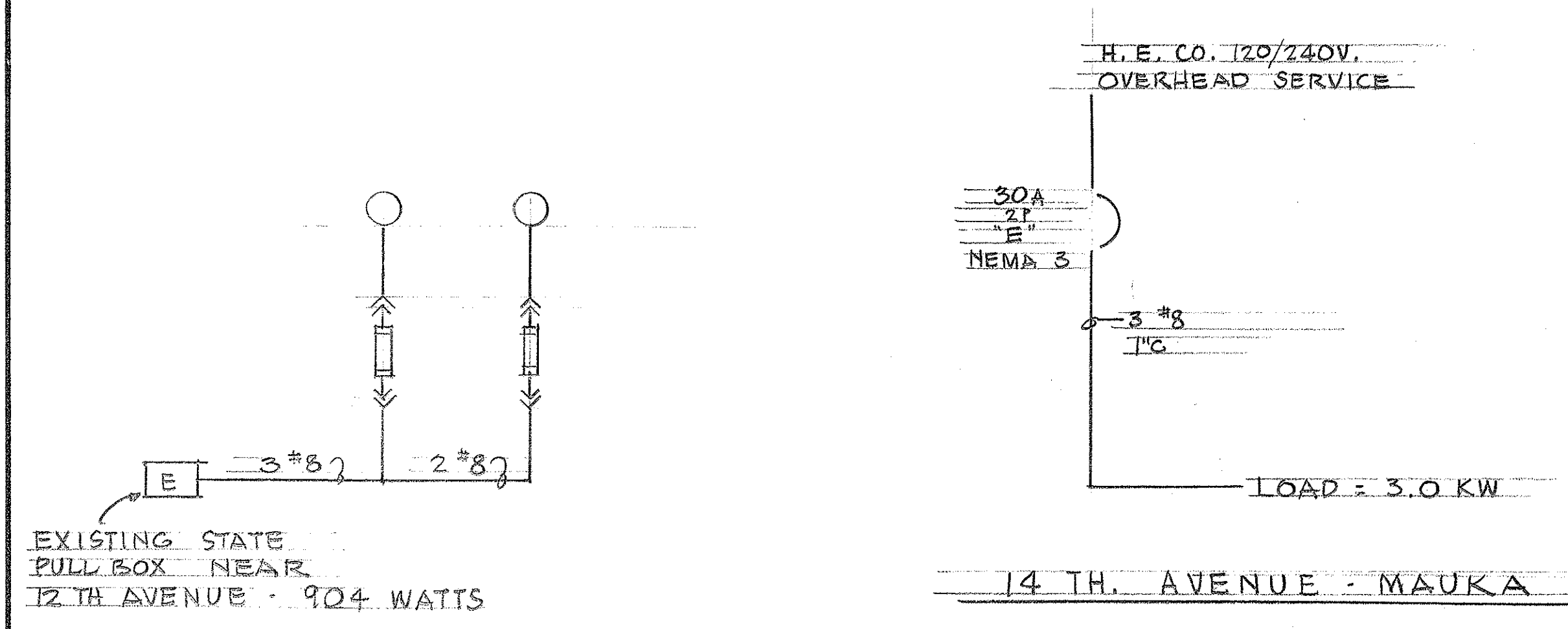
Scale as Noted January 1966
SHEET No. 5 OF 7 SHEETS

ROADWAY LIGHTING SYMBOLS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(6) UNIT 2	1966	124	209

- 208/120V
15-KVA H.E.CO. SERVICE POINT, VOLTAGE AND LOAD AS INDICATED, STATE UNLESS DESIGNATED C&C.
- NEW STATE PULL BOX TYPE "C"
- RIGID STEEL GALVANIZED CONDUIT, WITH 2 COATS BITUMASTIC PAINT WHEN IN GROUND AND PAINTED TO MATCH BACKGROUND WHEN EXPOSED.
- DIRECT BURIAL CABLE, 3-1 CONDUCTORS, EXCEPT 2 CONDUCTORS TO LAST LUMINAIRE.
- DUCT MARKER.
- EXPANSION COUPLING FOR RIGID STEEL GALVANIZED CONDUIT, BURIED IN STRUCTURE AT EXPANSION JOINTS, TYPE "XJ".
- 18"X18"X6" W.T. JUNCTION BOX IN GRP WALL WITH FRONT SCREEN COVER.
- EXISTING STATE PULL BOX
- ALL UNDERGROUND WIRING IN AREAS SUBJECT TO VEHICULAR TRAFFIC SHALL BE IN CONCRETE ENCASED STEEL CONDUITS.

- NEW METAL LAMP POST AND LUMINAIRE, INDICATES FACE OF LAMP POST 6' BACK OF EDGE OF GUTTER, WITH 12' BRACKET (MAST ARM LENGTH) AND SHAFT OF 30' NOMINAL LUMINAIRE MOUNTING HEIGHT.
- 20,500 LUMEN LUMINAIRE WITH PHOTO-CELL, TYPE III DISTRIBUTION, 452 WATTS.
- 11,000 LUMEN LUMINAIRE WITH PHOTO-CELL, TYPE II DISTRIBUTION, 294 WATTS.
- INDICATES LAMPPOST FOUNDATION IS PART OF STRUCTURE, RAILING WITH 10' BRACKET (MAST ARM LENGTH) AND SHAFT OF 30' NOMINAL LUMINAIRE MOUNTING HEIGHT.
- INDICATES LAMPPOST FOUNDATION IS AT GRP WALL WITH 12' MAST ARM BRACKET AND LAMP POST SHAFT OF 30' NOMINAL LUMINAIRE MOUNTING HEIGHT.
- SIGN PEDESTAL
- ILLUMINATED SIGN - SIGN "ET", 13 1/2' LENGTH SIGN, WITH 2-6' SIGN LUMINAIRES.
- INDICATES LAMP POST IMMEDIATELY BEHIND CURB.
- EXISTING LUMINAIRES ON WOOD POLES (C&C)
- EXISTING METAL LAMP POST WITH STUB OUTS - LUMINAIRES ONLY TO BE INSTALLED
- EXISTING 18"X18"X6" W.T. JUNCTION BOX WITH STUB OUTS IN GRP WALL
- EXISTING LUMINAIRES ON METAL POST ON STRUCTURE



ONE LINE DIAGRAMS

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

This work was prepared by me or under my supervision.

James J. Oberhausen

REGISTERED PROFESSIONAL ENGINEER

No. 664

HAWAII, U.S.A.

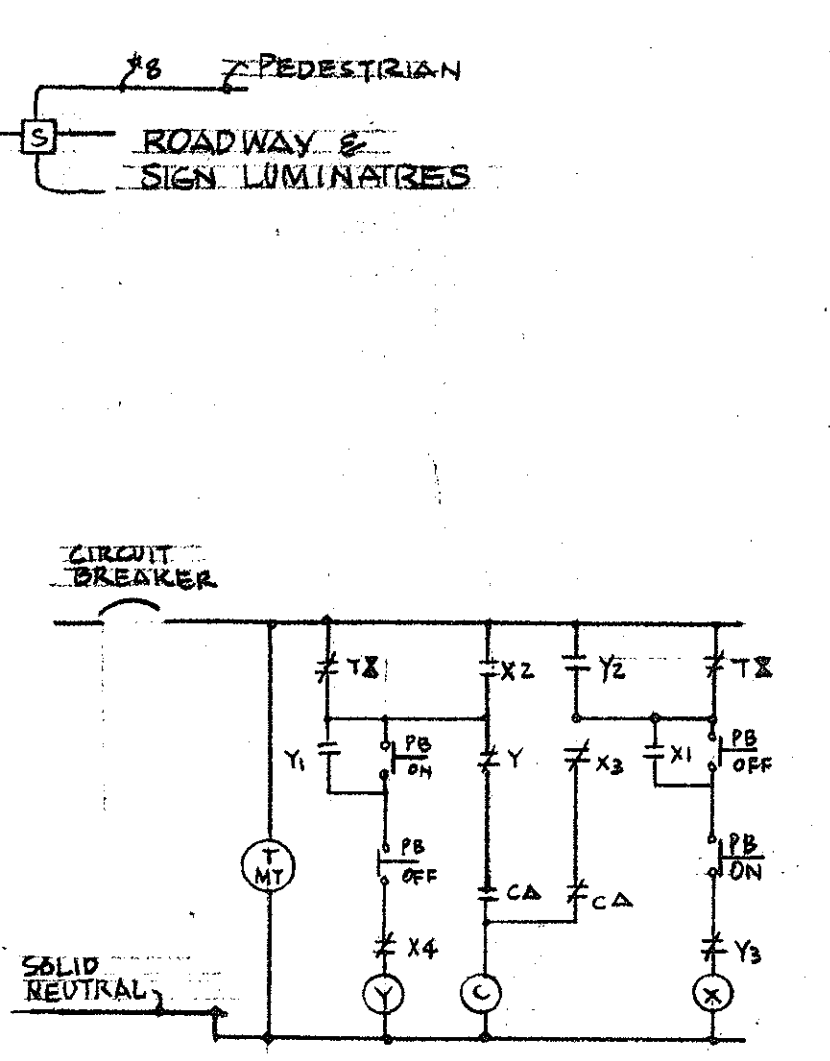
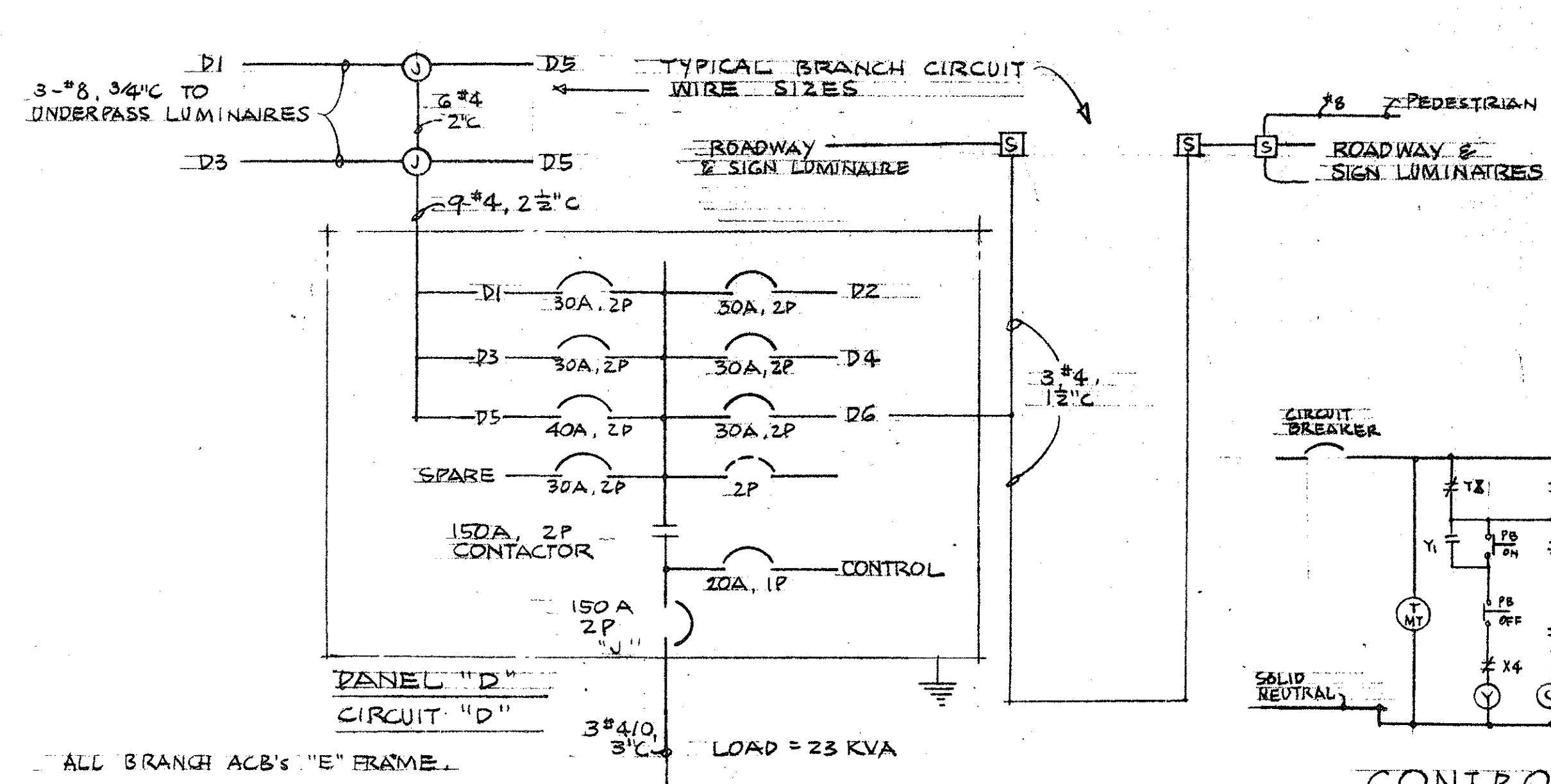
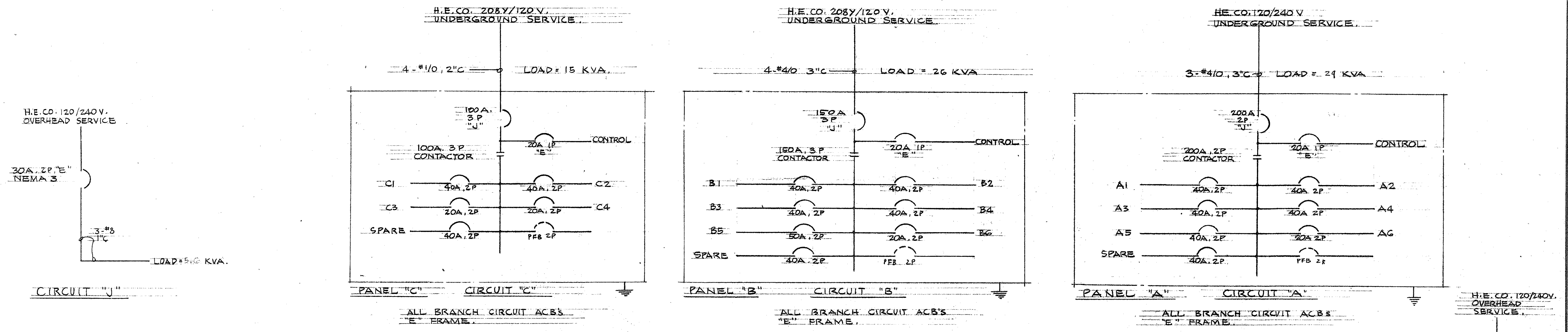
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING
ONE-LINE DIAGRAMS

INTERSTATE HIGHWAY (LUNALILO FRWY.)
F.A.I. Proj. I-HI-1(6): Unit 2

Not to Scale January 1966

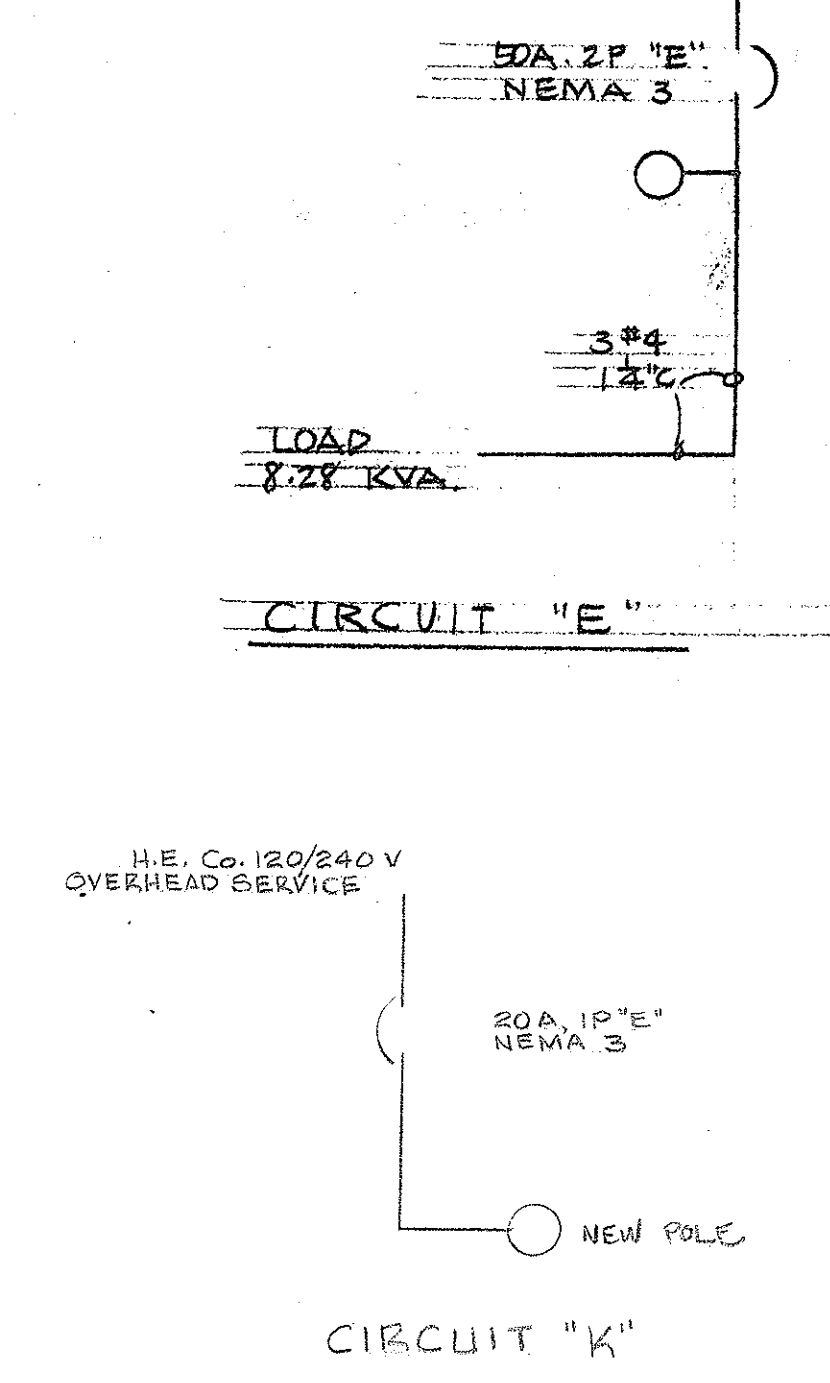
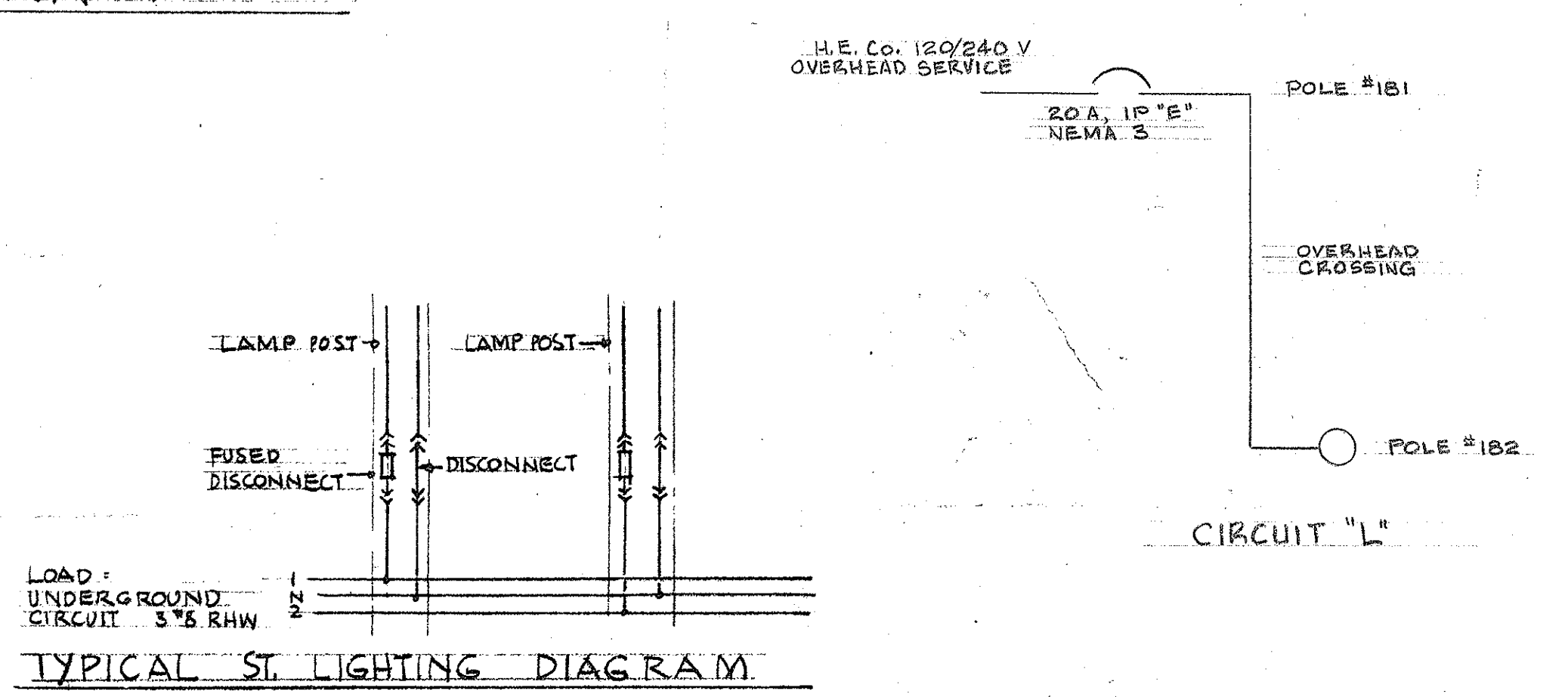
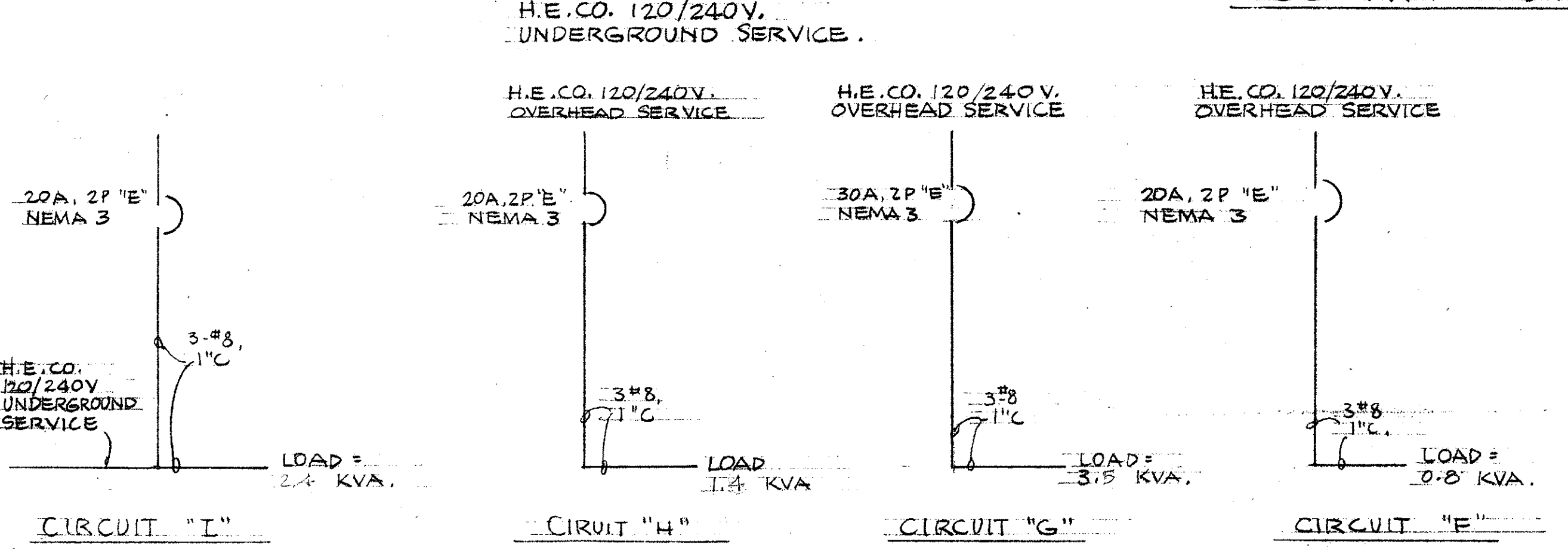
SHEET No. 6 OF 7 SHEETS



NOTES:

- CARRY A #14 AWG TW GREEN GROUND WIRE IN SAME CONDUIT AS BRANCH CIRCUITS TO ALL LUMINAIRES SERVED FROM PANELBOARDS.
- GROUND NEUTRAL AND ENCLOSURES AT EACH PANELBOARD WITH #6 AWG WIRE 5/8" TO 5/8" X 8" GROUND ROD 12" BELOW GROUND. USE APPROVED GROUND CLAMP.
- EACH PANELBOARD SHALL BE EQUIPPED WITH A MECHANICALLY HELD, 250 VOLT, CONTACTOR NO. OF POLES AND CURRENT RATING AS INDICATED. 120VOLT CONTROL CIRCUIT RELAY TO PERMIT TIME SWITCH AS WELL AS PUSH BUTTON CONTROL. A TIME SWITCH WITH SPDT CONTACTS, ASTRONOMICAL DIAL, AND 10 HOUR AUTOMATICALLY WOUND RESERVE POWER SHALL ALSO BE PROVIDED. AN "ON-OFF" PUSH-BUTTON CONTROL OVER-RIDING THE TIME SWITCH SHALL BE PROVIDED, ACCESSIBLE INSIDE THE OUTER DOOR OF THE "DOOR-IN-DOOR" CONSTRUCTION.
- ADJACENT LUMINAIRES ON SAME 3 WIRE BRANCH CIRCUIT SHALL BE CONNECTED TO ALTERNATE LEGS TO BALANCE LOAD.

DEFINITIONS:
C: ELECTRICALLY OPERATED, MECHANICALLY HELD, REMOTE CONTROL.
T: TIME CLOCK.
PB: PUSH BUTTON.
X: "OFF" RELAY.
Y: "ON" RELAY.
Δ: AUXILIARY CONTACTS ON SHOWN FOR "OFF" POSITION OF SWITCH "C".
X: "T" CONTACTS ARE SHOWN FOR TIME CLOCK IN "OFF" POSITION.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HIGHWAY LIGHTING
ONE-LINE DIAGRAMS
INTERSTATE HIGHWAY (LUNALILO FRWY.)
F.A.I. Proj. I-HI-1(6): Unit 2
Not to Scale January 1966
SHEET No. 7 OF 7 SHEETS

WILSON, OKAMOTO, OKA, INC.
FAIR ASSOCIATES, INC.
ARCHITECTS & ENGINEERS

This work was prepared by me or under my supervision.
J. Oberhausen
J. OBERHAUSEN
REGISTERED PROFESSIONAL ENGINEER
No. 664
HAWAII, U.S.A.

DATE: _____
DESIGNED BY: _____
CHECKED BY: _____
NOTED BY: _____
ORIGINAL PLAN: _____
TRACED BY: _____
NOTE BOOK: _____
No. _____