FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-0-01-91	1992	3	6

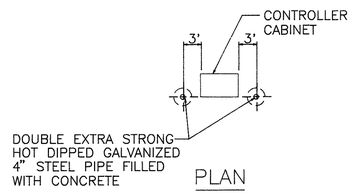
TRAFFIC SIGNAL NOTES

1. ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE COMPLETELY WIRED IN THE CABINET AND SHALL CONTROL THE TRAFFIC SIGNALS AS CALLED FOR IN THE PLANS.
2. SIGNAL INDICATIONS DURING CLEARANCE INTERVAL:
   A. IF A SIGNAL IS G OR ~~G~~ AND WILL REMAIN G OR ~~G~~ DURING THE NEXT PHASE, IT SHALL BE G OR ~~G~~ DURING THE CLEARANCE INTERVAL.
   B. IF A SIGNAL IS G OR ~~G~~ AND WILL BECOME R OR EXTINGUISHED DURING THE NEXT PHASE, IT SHALL BE Y OR ~~Y~~ DURING THE CLEARANCE INTERVAL.
   C. IF A SIGNAL IS R AND WILL REMAIN R OR BECOMES G DURING THE NEXT PHASE, IT SHALL REMAIN R DURING THE CLEARANCE INTERVAL.
3. A SOLID #8 BARE COPPER WIRE SHALL BE PULLED WITH THE TRAFFIC CONTROL CABLE FOR EQUIPMENT GROUND. COST SHALL BE INCIDENTAL TO THE INSTALLATION OF THE CONTROL CABLE.
4. CONTRACTOR SHALL INSTALL METER SOCKET AND BREAKER ON THE POLE AS SHOWN ON THE PLANS IN ACCORDANCE WITH HECO REQUIREMENTS. METER SHALL BE MOUNTED BETWEEN 5' AND 7' ABOVE GROUND. METER SOCKETS SHALL BE 4-PRONG, COMPLETE WITH A MANUAL CIRCUIT CLOSING DEVICE.
5. THE LOOP AMPLIFIER UNITS FURNISHED FOR THIS PROJECT SHALL BE CAPABLE OF OPERATING THE LOOP DETECTOR CONFIGURATIONS SHOWN ON THE PLANS.
6. DETECTOR ASSIGNMENT SHALL BE PER CALIFORNIA DEPARTMENT OF TRANSPORTATION "TRAFFIC SIGNAL CONTROL LOCAL INTERSECTION PROGRAM," JULY 1978.
7. THE CONTRACTOR SHALL FURNISH 50 AMP CIRCUIT BREAKERS.

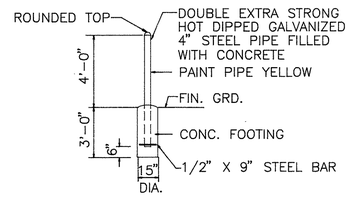
CONSTRUCTION NOTES

1. LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES SUCH AS PIPE-LINES, CONDUITS, CABLES, ETC., SHOWN ON PLANS ARE APPROXIMATE ONLY. IT IS NOT THE INTENT OF THESE PLANS TO SHOW THE EXACT LOCATION OF ALL UNDER-GROUND UTILITIES AND STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRAC-TOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES WITH THE RESPECTIVE OWNERS. EXISTING UTILITIES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.
2. THE LOCATIONS OF THE TRAFFIC SIGNAL STANDARDS, TRAFFIC SIGNAL STANDARDS WITH MAST-ARM, PEDESTRIAN PUSH BUTTONS, TRAFFIC CONTROLLER, PULLBOXES, CONDUITS AND LOOP DETECTORS SHALL BE STAKED OUT IN THE FIELD BY THE CON-TRACTOR AND APPROVAL OF THE LOCATIONS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTON AND INSTALLATION.
3. ALL TRAFFIC SIGNAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," FEDERAL HIGHWAY ADMINISTRATION (1984) AND AMENDMENTS.
4. LOCATIONS OF TRAFFIC MARKINGS AND MARKERS (LANE LINES, STOP LINES, CROSS-WALK, ETC.) SHOWN ON THE PLANS SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO THE INSTALLATION OF THE TRAFFIC SIGNAL SYSTEM.
5. MAINTENANCE OF TRAFFIC THROUGH THE CONSTRUCTION AREA SHALL BE IN ACCOR-DANCE WITH PART VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," FEDERAL HIGHWAY ADMINISTRATION (1984) AND AS SPECI-FIED IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE BARRICADES, BLINKERS, CONSTRUCTION SIGNS, ETC., FOR THE SAFETY OF THE MOTORING PUBLIC.
6. DEPARTMENT OF TRANSPORTATION SERVICES, CITY AND COUNTY OF HONOLULU, WILL ASSIST THE ENGINEER IN CONSTRUCTION INSPECTION FOR THE TRAFFIC SIGNAL SYS-TEM.
7. WHERE REQUIRED BY THE PLANS, SIGNS AND/OR POSTS SHALL BE REMOVED. COSTS SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.

NOTE:
COST OF CONC. FILLED GALVANIZED POSTS SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.

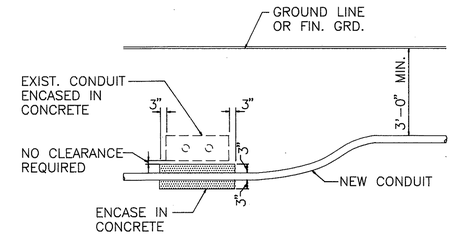


PLAN



TYP. ELEVATION

PIPE GUARD DETAIL
NOT TO SCALE



CONDUIT BY-PASS DETAIL
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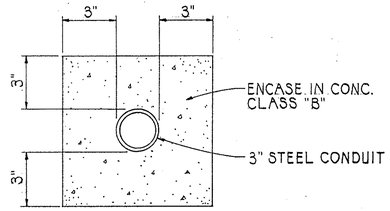
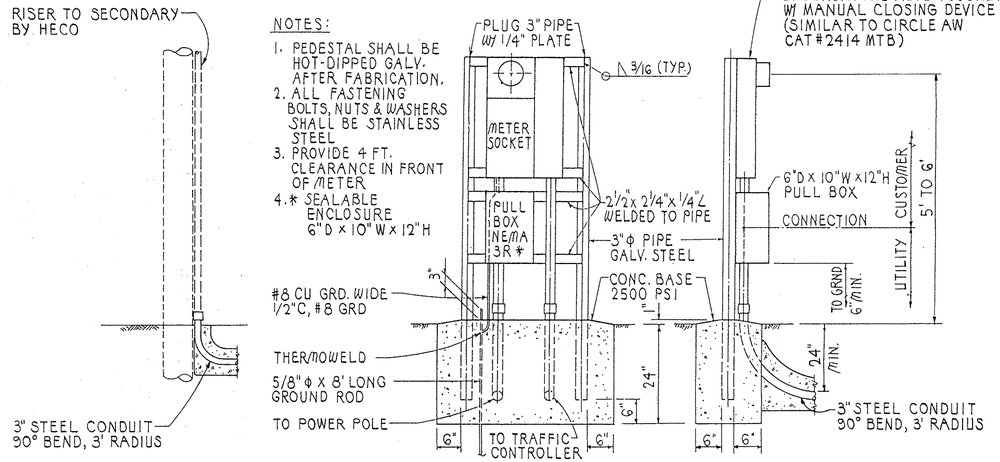


HECO CONDUIT DETAIL
NOT TO SCALE

LEGEND

○	TS	NEW TRAFFIC SIGNAL STANDARD
		STANDARD TRAFFIC AND PEDESTRIAN SIGNAL HEADS MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT = 10'
30' 12'		TRAFFIC SIGNAL HEADS MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN IS 30' AND DISTANCE BETWEEN SIGNAL HEADS IS 12'
		STANDARD TRAFFIC SIGNAL HEAD MOUNTED ON EXISTING STREET LIGHT POLE.
		CONTROLLER CABINET
		TYPE "A" PULLBOX
■		TYPE "B" PULLBOX
		LOOP DETECTOR, SERIES-PARALLEL CONNECTED
		LOOP DETECTOR, SERIES CONNECTED
○	SL	LIGHT POLE
○	PP	POWER POLE
○	WV	WATER VALVE
⊡	WM	WATER METER
○	SMH	SEWER MANHOLE
——		EXISTING MARKINGS
——		NEW MARKINGS
W T 2 S D		EXISTING UTILITY LINES AND SIZES AS INDICATED
		W = WATER
		S = SEWER
		D = STORM DRAIN
		T = TELEPHONE
		SL = STREET LIGHT



METER PEDESTAL FOR UNDERGROUND SERVICE
NOT TO SCALE

NOTES

1. HAWAIIAN ELECTRIC CO. SHALL FURNISH AND INSTALL CABLE BETWEEN SECONDARY AND METER SOCKET.
2. CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS TO CONTROLLER, PROVIDE BREAKER, GROUND AND CONCRETE-ENCASED 3" STEEL CONDUIT.
3. CONTRACTOR SHALL PROVIDE HAWAIIAN ELECTRIC CO. ONE WEEK ADVANCE NOTICE FOR ANY WORK BY HAWAIIAN ELECTRIC CO.

ELECTRICAL SERVICE DETAIL
NOT TO SCALE

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

THEODORE S. KAWAHIGASHI REGISTERED PROFESSIONAL ENGINEER No. 3244-C HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Theodore S. Kawahigashi
Signature

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND, NOTES AND DETAILS
BOUGAINVILLE DRIVE
TRAFFIC SIGNALS AT
LAWEHANA STREET

PROJECT NO. HWY-0-01-91

SCALE: AS NOTED DATE: JANUARY 1992

SHEET No. 1 OF 1 SHEETS