

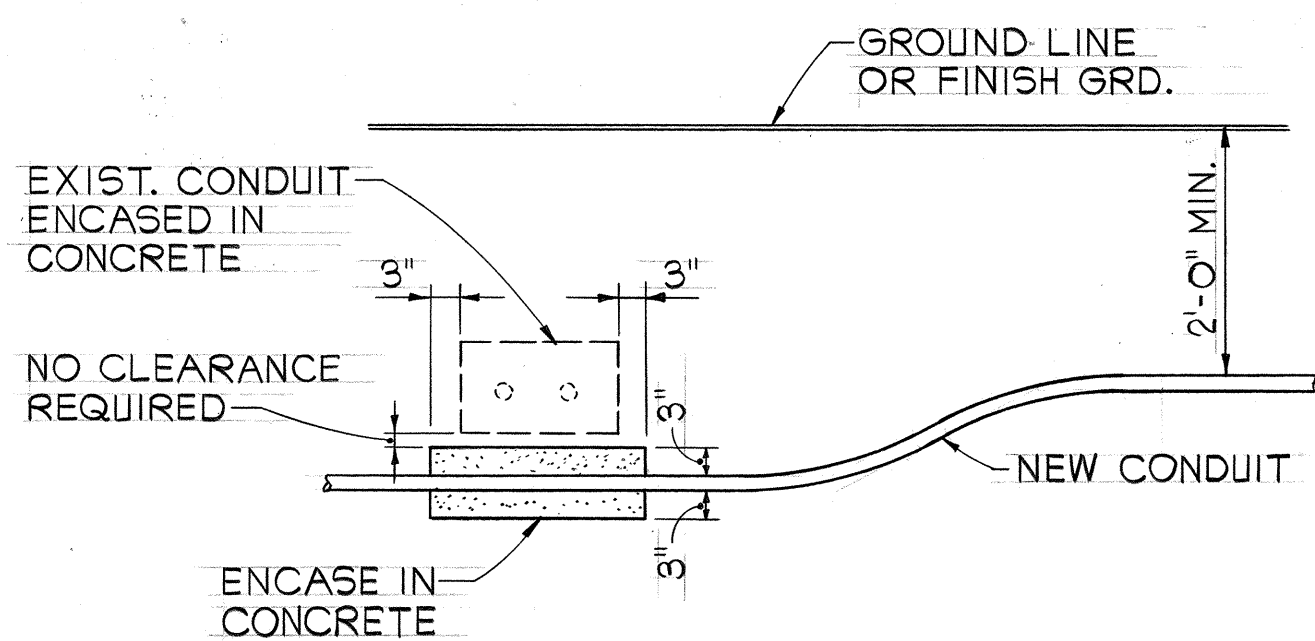
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	32A-01-82	1982	2	20

## CONSTRUCTION NOTES

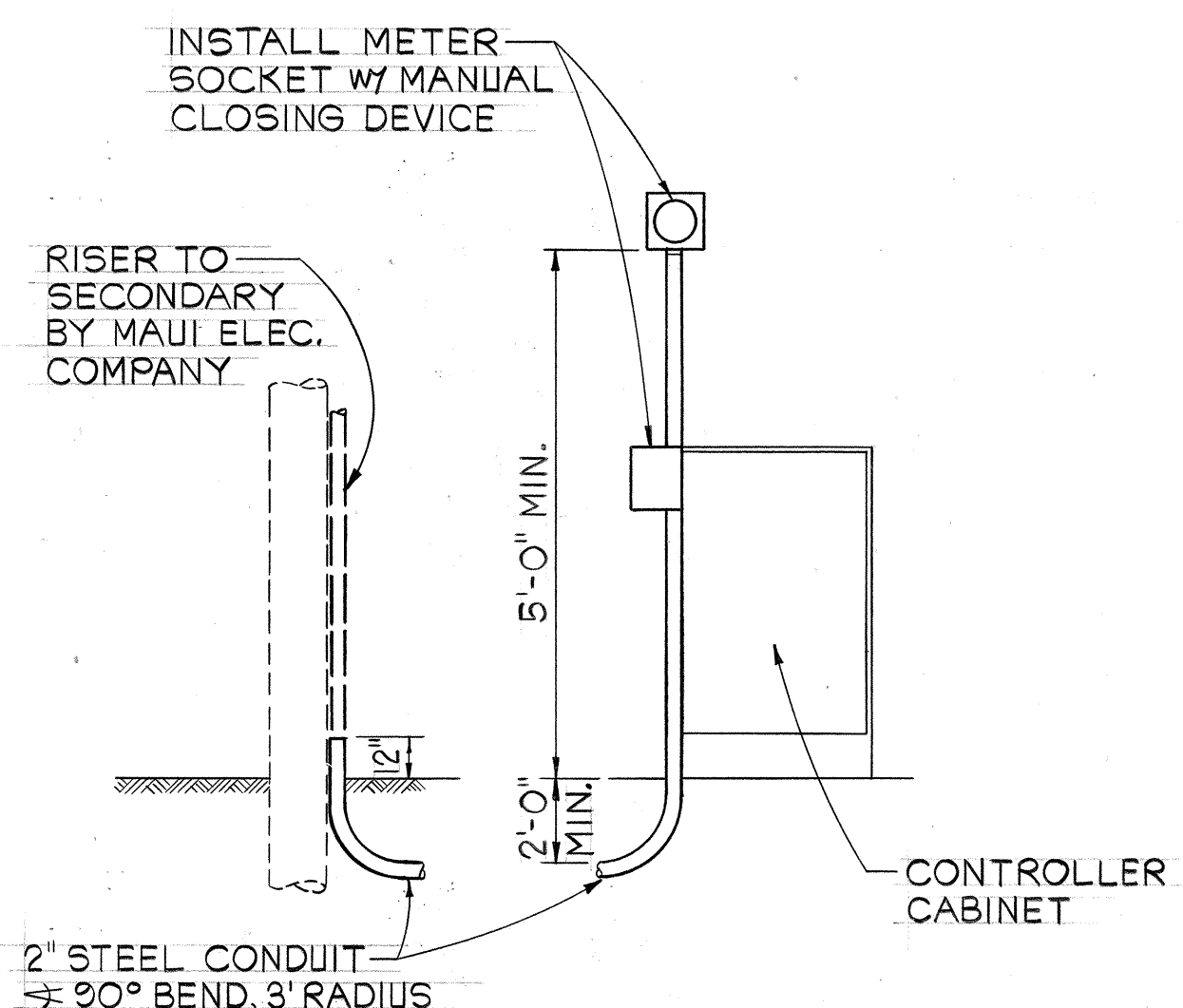
- LOCATIONS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES SUCH AS PIPELINES, CONDUITS, CABLES, ETC., SHOWN ON PLANS ARE APPROXIMATE ONLY. IT IS NOT THE INTENT OF THESE PLANS TO SHOW THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES WITH THE RESPECTIVE OWNERS. EXISTING UTILITIES DAMAGE BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.
- THE LOCATIONS OF THE TRAFFIC SIGNAL STANDARDS, PEDESTRIAN PUSH BUTTONS, TRAFFIC CONTROLLERS, PULLBOXES, CONDUITS AND TRAFFIC DETECTORS SHALL BE STAKED OUT IN THE FIELD BY THE CONTRACTOR AND APPROVAL OF THE LOCATIONS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION AND INSTALLATION.
- ALL TRAFFIC SIGNAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", FEDERAL HIGHWAY ADMINISTRATION (1978) AND AMENDMENTS.
- LOCATIONS OF TRAFFIC MARKINGS AND MARKERS (STOP LINE, CROSSWALK, PAV'T. ARROWS, ETC.) SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR WITH THE ENGINEER PRIOR TO THE INSTALLATION OF THE TRAFFIC SIGNAL SYSTEM.
- REMOVAL OF PAVEMENT MARKINGS AND STRIPINGS SHALL BE DONE BY THE CONTRACTOR.
- EXIST. TRAFFIC SIGNAL SYSTEM SHALL REMAIN IN OPERATION UNTIL NEW TRAFFIC SIGNAL SYSTEM BECOMES OPERATIONAL. CONTRACTOR SHALL REMOVE THE EXIST. TRAFFIC SIGNAL EQUIPMENT AND DISPOSE.
- MAINTENANCE OF TRAFFIC THROUGH THE CONSTRUCTION AREA SHALL BE IN ACCORDANCE WITH PART VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", FEDERAL HIGHWAY ADMINISTRATION (1978) AND AS SPECIFIED IN THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ADEQUATE BARRICADES, BLINKERS, CONSTRUCTION SIGNS, ETC. FOR THE SAFETY OF THE MOTORING PUBLIC.
- ALL FOUNDATIONS OR FOOTINGS OF THE EXISTING SIGNAL SYSTEM SHALL BE REMOVED TO 9 INCHES BELOW GRADE AND THE GROUND SURFACE REPAIRED TO MATCH THE EXISTING SURFACE IN ELEVATION AND FINISH. COST INCIDENTAL TO REMOVAL OF TRAFFIC SIGNAL SYSTEM.
- ALL EXISTING SIGNS TO REMAIN UNLESS OTHERWISE NOTED.

## TRAFFIC SIGNAL NOTES

- ALL TRAFFIC SIGNAL CONTROLLER EQUIPMENT SHALL BE COMPLETELY WIRED IN THE CABINET AND SHALL CONTROL THE TRAFFIC SIGNALS AS CALLED FOR IN THE PLANS.
- SIGNAL INDICATIONS DURING CLEARANCE INTERVAL:
  - IF A SIGNAL IS G OR  $\leftarrow G$  AND WILL REMAIN G OR  $\leftarrow G$  DURING THE NEXT PHASE, IT SHALL BE G OR  $\leftarrow G$  DURING THE CLEARANCE INTERVAL.
  - IF A SIGNAL IS G OR  $\leftarrow G$  AND WILL BECOME R OR EXTINGUISHED DURING THE NEXT PHASE, IT SHALL BE Y OR  $\leftarrow Y$  DURING THE CLEARANCE INTERVAL.
  - IF A SIGNAL IS R AND WILL REMAIN R OR BECOME G DURING THE NEXT PHASE, IT SHALL BE R DURING THE CLEARANCE INTERVAL.
- EACH CONTROLLER FURNISHED SHALL BE A 2 TO 8-PHASE CONTROLLER, COMPLETELY WIRED IN THE CABINET, INCLUDING ALL LOAD SWITCHES, LOOP DETECTOR AMPLIFIERS, AND OTHER APPURTENANCES, NECESSARY TO OPERATE THE INTERSECTION AS INDICATED ON THE TRAFFIC SIGNAL PLANS.
- A TRAFFIC CONTROL SYNCHRONIZER UNIT SHALL BE PROVIDED FOR INTERSECTION COORDINATED CONTROL WITHOUT THE USE OF INTERCONNECTING CABLE. SEE SPECIAL PROVISIONS.
- THE MINIMUM SIZE OF EACH CONTROLLER CABINET SHALL BE 40" HIGH, 24" WIDE & 14" DEEP.
- CONTRACTOR SHALL FURNISH 50 AMP. CIRCUIT BREAKERS.
- A SOLID #8 BARE COPPER WIRE SHALL BE PULLED WITH THE CONTROL CABLE FOR EQUIPMENT GROUND. COST SHALL BE INCIDENTAL TO THE INSTALLATION OF THE CONTROL CABLE.
- THE CONTROLLER FURNISHED ON THIS PROJECT SHALL BE "MODULAR BY PHASE". INTERSECTION FLASHING OPERATION SHALL FLASH AMBER ON MAIN STREET AND RED ON CROSS STREETS.

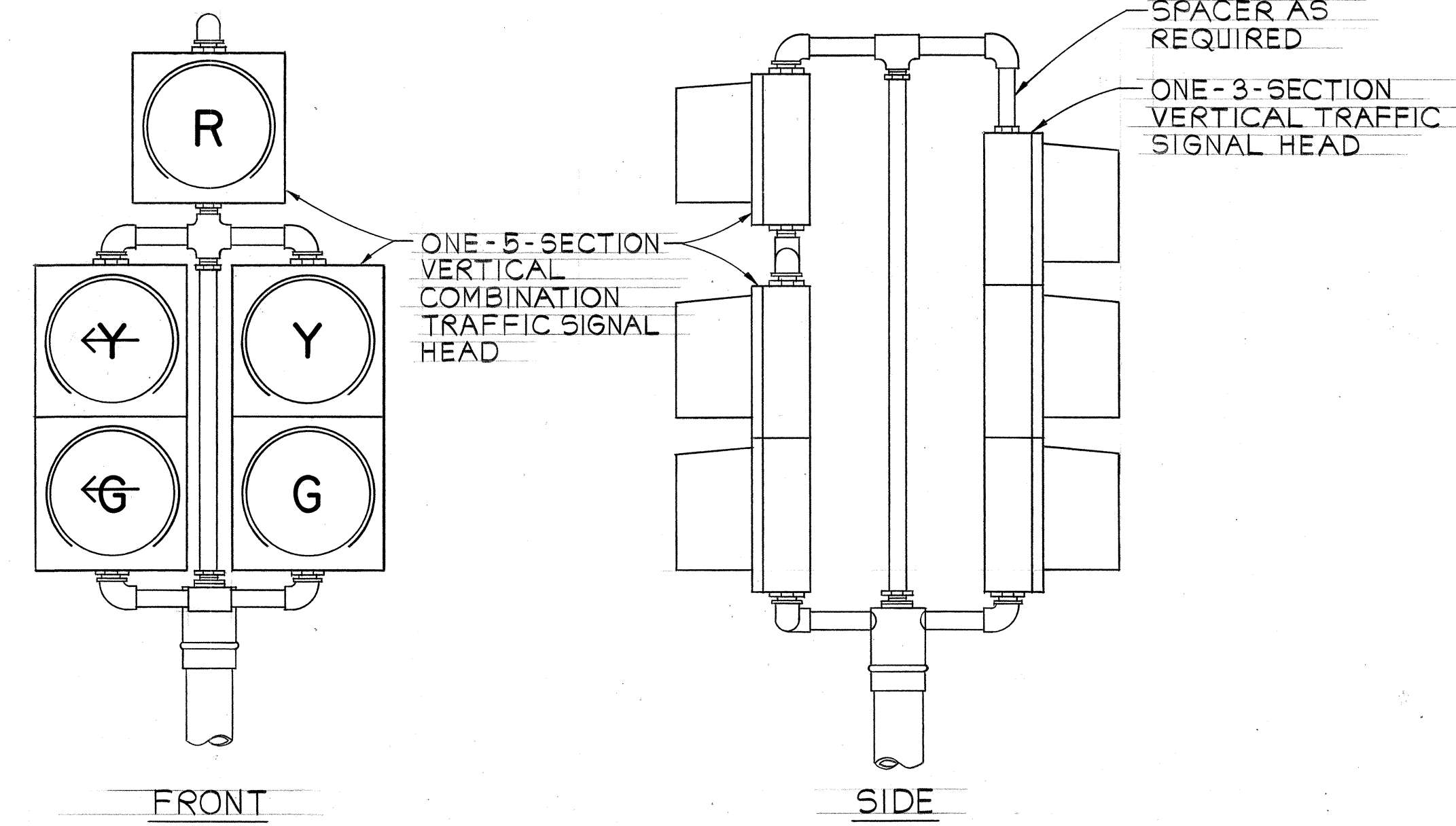


CONDUIT BY-PASS DETAIL  
NOT TO SCALE

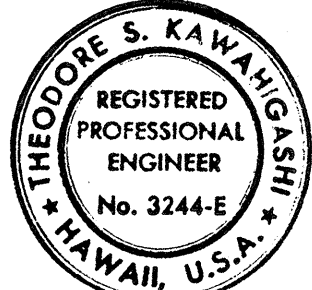


- NOTES:
- MAUI ELECTRIC CO. SHALL FURNISH AND INSTALL CABLE BETWEEN SECONDARY AND METER SOCKET.
  - CONTRACTOR SHALL MAKE ALL ELECTRICAL CONNECTIONS TO CONTROLLER, PROVIDE BREAKER AND GROUND.
  - CONTRACTOR SHALL PROVIDE MAUI ELECTRIC CO. ONE WEEK ADVANCE NOTICE FOR ANY WORK BY MAUI ELECTRIC CO.

ELECTRICAL SERVICE DETAIL  
NOT TO SCALE



DETAIL ~ 5-SECTION VERTICAL COMBINATION  
TRAFFIC SIGNAL ASSEMBLY  
NOT TO SCALE



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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

DETAILS AND NOTES

MAIN STREET  
TRAFFIC SIGNALS AT  
CENTRAL AVE. AND AT MARKET ST.  
PROJECT NO. 32A-01-82

NOT TO SCALE DATE: 11-20-81

SHEET NO. 1 OF 1 SHEETS