

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 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 DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN COST.
2. THE CONTRACTOR SHALL VERIFY AND CHECK ALL DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION.
3. THE CONTRACTOR SHALL NOTIFY ALL AGENCIES TO VERIFY THE ACTUAL LOCATION OF ALL UTILITIES IN THE PROJECT AREA PRIOR TO EXCAVATING. THE CONTRACTOR SHALL COORDINATE ALL WORK.
4. THE CONTRACTOR SHALL TONE AND LOCATE EXISTING UTILITIES ALONG DUCTLINE PRIOR TO EXCAVATION.
5. THE LOCATIONS OF THE NEW TRAFFIC SIGNAL STANDARDS, PEDESTRIAN PUSH BUTTONS, TRAFFIC CONTROLLER CABINET, PULLBOXES, CONDUITS AND LOOP DETECTORS SHALL BE STAKED OUT IN THE FIELD BY THE CONTRATOR AND APPROVAL OF THE LOCATIONS SHALL BE OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION AND INSTALLATION.
6. ALL TRAFFIC SIGNAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," FEDERAL HIGHWAY ADMINISTRATION (1988) AND AMENDMENTS.
7. MAINTENANCE OF TRAFFIC THROUGH THE CONSTRUCTION AREA SHALL BE IN ACCORD-DANCE WITH PART VI OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", FEDERAL HIGHWAY ADMINISTRATION (1988) AS AMENDED 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.

PAVEMENT MARKING AND SIGNING NOTES

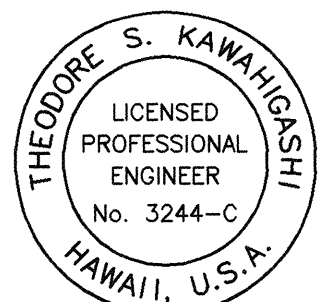
1. LAYOUT OF PAVEMENT MARKINGS AND STRIPING SHALL BE DONE BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ANY INSTALLATION WORK.
2. EXISTING PAVEMENT MARKINGS NOT INCORPORATED IN THE FINAL TRAFFIC PATTERN SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. COSTS SHALL BE INCIDENTAL TO THE VARIOUS PAVEMENT MARKING ITEMS.
3. RAISED PAVEMENT MARKERS SHALL NOT BE INSTALLED WITHIN CROSSWALKS.
4. FINAL LOCATIONS OF ALL SIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY INSTALLATION WORK.
5. EXISTING SIGNS NOT SHOWN ON THESE PLANS SHALL REMAIN AS POSTED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. REMOVAL AND DISPOSAL OF EXISTING SIGNS AND/OR POSTS AS DESIGNATED ON THESE PLANS SHALL BE INCIDENTAL TO THE VARIOUS SIGNING ITEMS.
6. FINAL LOCATIONS OF ALL STOP LINES SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
7. ALL PAVEMENT STRIPING SHALL BE AS NOTED ON THE LEGEND OR PLANS.
8. ALL PREFORMED PAVEMENT MARKING TAPES OVER EXISTING PAVEMENT SHALL BE APPLIED WITH AN APPROVED PRIMER AS RECOMMENDED BY THE TAPE MANUFACTURER AND AS APPROVED BY THE ENGINEER. THE PRIMER SHALL BE ALLOWED TO DRY TO THE TACKY STAGE PRIOR TO TAPE APPLICATION.
9. LOCATIONS OF NEW PAV'T. STRIPING, MARKERS, AND MARKINGS (PAVEMENT ARROW, STOP LINES, CROSSWALK, ETC.) SHOWN ON THE PLANS SHALL BE VERIFIED WITH THE ENGINEER PRIOR TO THE INSTALLATION OF THE TRAFFIC SIGNAL SYSTEM.
10. EXISTING SIGNS THAT ARE TO BE REPLACED SHALL NOT BE REMOVED UNTIL NEW SIGNS ARE INSTALLED AS REPLACEMENTS, OR THE MESSAGES ARE NO LONGER NECESSARY.
11. BACKING FOR ALL NEW REGULATORY AND WARNING SIGNS SHALL NOT BE SPLICED.
12. ALL SIGN PANELS SHALL CONFORM TO SECTION 621 OF SPECIAL PROVISIONS AND THE LATEST EDITIONS AND AMENDMENTS OF THE FOLLOWING FHWA PUBLICATIONS:
 - A. "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS" (MUTCD)
 - B. "STANDARD HIGHWAY SIGNS"
 - C. "STANDARD ALPHABETS FOR HIGHWAY SIGNS"
13. ALL NEW AND RELOCATED SIGNS AND MARKERS INSTALLED ON PIPE POST OR LIGHT STANDARD ARE TO BE MOUNTED WITH BAND BRACKETS AND STEEL BRACES.
14. THE CONTRACTOR SHALL ERECT AT THE BEGINNING OF THE PROJECT AND AT THE END OF THE PROJECT ADVANCE CONSTRUCTION WARNING SIGNS AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER FOR THE DURATION OF THE HIGHWAY PROJECT AND SHALL BE MAINTAINED BY THE CONTRACTOR. THESE SIGNS SHALL BE PLACED IN ADDITION TO THE REQUIRED TRAFFIC CONTROL SIGNS CALLED FOR IN SECTION 645-TRAFFIC CONTROL DEVICES. THE ADVANCE CONSTRUCTION WARNING SIGNS SHALL BE NEW AND BECOME THE PROPERTY OF THE STATE. THE CONTRACTOR SHALL REMOVED, CLEAN, AND DELIVER THE SIGNS AND POSTS TO THE HILO DISTRICT BASEYARD OR AS DIRECTED BY THE ENGINEER AT THE END OF THE PROJECT.
15. THE CONTRACTOR SHALL PAINT THE SIGN POST WITH AN ENGINEER'S APPROVED YELLOW REFLECTIVE PAINT. COST SHALL BE INCIDENTAL TO THE VARIOUS SIGNING ITEMS.

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. THE LOOP AMPLIFIER UNITS FURNISHED FOR THIS PROJECT SHALL BE CAPABLE OF OPERATING THE LOOP DETECTOR CONFIGURATIONS SHOWN ON THE PLANS. COST FOR THE LOOP AMPLIFIER SHALL BE INCIDENTAL TO THE INSTALLATION OF THE LOOP DETECTOR.
4. 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.
5. THE CONTRACTOR SHALL INSTALL NEW CONTROLLER AND CABINET AT THE INDICATED LOCATION.
6. ALL WORK FOR THE INSTALLATION OR MODIFICATION OF THE TRAFFIC SIGNAL SYSTEM SHALL CONFORM TO THE LATEST REVISIONS OF THE "HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1994" AND THE "STANDARD PLANS" OF THE DEPARTMENT OF TRANSPORTATION, HIGHWAYS DIVISION AND AS SHOWN ON THESE DRAWINGS.
7. ALL SPLICING SHALL BE DONE IN THE PULLBOXES.
8. FURNISHING AND INSTALLING THE CONDUIT STUBOUTS (PULLBOXES TO EDGE OF PAVEMENT) WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS CONTRACT ITEMS.
9. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC DIVISION, PUBLIC WORKS DEPARTMENT, COUNTY OF HAWAII, 2 WEEKS PRIOR TO COMMENCING ANY WORK ON THE TRAFFIC SIGNAL SYSTEM.
10. PUBLIC WORKS DEPARTMENT, COUNTY OF HAWAII, WILL ASSIST THE ENGINEER IN CONSTRUCTION INSPECTION FOR THE TRAFFIC SIGNAL SYSTEM.

LEGEND

	STANDARD TRAFFIC AND PEDESTRIAN SIGNAL HEADS MOUNTED ON TYPE I SIGNAL STANDARD, HEIGHT=10', POLE A.
	PROTECTED PERMISSIVE 12" RYG
	12" RYG STANDARD TRAFFIC SIGNAL HEAD
	TRAFFIC SIGNAL HEADS MOUNTED ON TYPE II SIGNAL STANDARD, ARM SPREAD SHOWN 25', POLE F.
	TRAFFIC SIGNAL HEADS MOUNTED ON TYPE III SIGNAL STANDARD, ARM SPREAD SHOWN 25', POLE B.
	EVP DETECTOR
	CONDUIT
	TYPE "B" PULLBOX WITH MODIFIED COVER
	TYPE "D" CONCRETE PULLBOX FOR DETAIL, SEE SHEET NO. 8
	CONTROLLER CABINET
	UNINTERRUPTED POWER SUPPLY UNIT
	NEW TRAFFIC SIGNAL STANDARD
	LOOP DETECTOR 6' X 40'
	LOOP DETECTOR 6' X 6'
	EXISTING STRIPING
	EXISTING PAVEMENT MARKING TO BE REMOVED
	EXISTING UTILITY LINES AND SIZES AS INDICATED W = WATER S = SEWER D = DRAIN
	POWER POLE
	LIGHT POLE
	ANCHOR POLE
	GUY ANCHOR
	WATER METER
	WATER VALVE
	AIR RELIEF VALVE
	FIRE HYDRANT
	STORM DRAIN MANHOLE
	SEWER MANHOLE
	EXISTING TRAFFIC SIGN



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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-011-1(22)	1999	3	14

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES AND LEGEND

KUAKINI HIGHWAY
INSTALLATION OF TRAFFIC SIGNALS AT
SEA VIEW CIRCLE
FAP NO. STP-011-1(22)

SCALE: AS NOTED DATE: MARCH 1998

SHEET No. 1 OF 1 SHEETS