DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
KAUAI	HAW.	50B-01-14R	2021	22	44

LEGEND

NEW

- Standard traffic and pedestrian count down signal heads mounted on 10' Type I Signal Standard
- Pedestrian count down signal head mounted on 8' Type I Signal Standard
- 12" R Y G Traffic signal head
- 12" R Y G ← Traffic signal Bi-Modal LED head
- Pedestrian head with count down signal head
- Traffic signal heads mounted on Type II Signal Standard 40' M.A. : 10' between heads (40', 10')
- Type "A" pullbox
- Type "B" pullbox
- Type "C" pullbox
- [C] Controller on Foundation
- Sign
- Traffic signal conduits (underground)
- [M] Meter for Traffic Signal (See Electrical Plans)
- Traffic Detection Camera
- EVP Detector (Opticom)

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. Back plates with a 5-inch border containing wind slots and a 1-inch wide yellow retro-reflective tape shall be installed on all traffic signal heads located on the mast arm of the Type II signal standard.
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. Conduits and pullbox locations as shown on the plans are schematic. They may be modified by the contractor with the approval of the engineer.
6. The contractor shall install the controller and cabinet in the indicated location with controller facing intersection.
7. 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, 2005" and the "Standard Plans" of the State of Hawaii, Department of Transportation, Highways Division, 2008 and as shown on these drawings.
8. Type II Traffic Signal Standards shall conform to "4.0 Modifications to AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" as noted in HDOT "Design Criteria for Bridges and Structures", August 8, 2014. Contractor is advised that the use of grout under the base plate for the Type II Traffic Signal Standard is explicitly prohibited per subsection 4.04 of the aforementioned document.
9. Foundation for Type II Traffic Signal Standards with Mast Arms less than 40 feet in Length Shall be Constructed in Accordance with Hawaii State Department of Transportation Standard Plans, 2008 as Amended.
10. For Type II Traffic Signal Standards, the Contractor Shall be Responsible to Coordinate the Foundation with the Traffic Signal Standard Provided; any Changes Required to the Foundation due to the Traffic Signal Standard Provided Shall be Designed by a Licensed Structural Engineer. All Design and Construction Cost for These Changes will be Borne by the Contractor.
11. With the exception of Traffic Detection Camera and Travel Time Module cables, all taps shall be done in pullboxes. No splices shall be allowed in pullboxes.
12. Taps on the 26C#14 cable shall be solder type and made waterproof. The 26C#14 shall not be cut, only taps shall be allowed.
13. 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.
14. The concrete jacket for the conduit by-pass detail shown on State Standard Plan TE-36 shall not be paid for separately but considered incidental to the various contract items. The engineer shall determine if a concrete jacket is required.
15. All fastening bolts, nuts, and washers shall be new, stainless steel.
16. All signal head mountings shall be brass or bronze.
17. All cable and elements for grounding shall be new.
18. Cables between signal faces, pedestrian heads, pedestrian push buttons, Traffic Detection cameras, EVP Detectors, and the nearest pullbox shall be furnished and installed in sufficient numbers and lengths as required. Cost shall be incidental to various traffic signal contract items.
19. Conduits between the traffic signal standard and the pullbox shall be in sufficient number as required. Cost shall be incidental to the installation of the traffic signal standard foundation.
20. Unless otherwise specified, all conduits shall be concrete encased PVC schedule 40.
21. The contractor shall ensure that a licensed Electrician will be on site during installation of traffic signal equipment.
22. The contractor shall notify Randall Haraguchi of HDOT Kauai District, three (3) working days prior to commencing work on the traffic signal system (Phone: 241-3024).
23. Should any defect be encountered during the warranty period, the manufacturer will be notified and he shall promptly correct such defect. Service call (by factory qualified representative) during the warranty period for repairs or other maintenance shall be answered within 24 hours and shall be done at no expense to the State. All repairs shall be done as soon as possible.

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, tone and locate their existing utilities within the project area prior to excavating. The contractor shall coordinate all work.
4. The locations of the new 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 contractor and approval of the locations shall be obtained from the engineer prior to construction and installation.
5. All traffic signal work shall conform to the requirements of the "Manual on Uniform Traffic Control Devices for Streets and Highways, 2009 Edition", Federal Highway Administration (2009) as amended.
6. 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, 2009 Edition", Federal Highway Administration (2009) 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.
7. At the end of each day's work, the contractor shall remove all equipment and other obstruction to permit free and safe passage of public traffic.

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

ZEV M. A. TONG
LICENSED PROFESSIONAL ENGINEER
No. 15540-C
HAWAI'I, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
APRIL 30, 2022
LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL NOTES AND LEGEND

Kaumualii Highway Intersection Improvements at Waimea Canyon Drive
Project No. 50B-01-14R

Scale: As Shown Date: Feb 2021

SHEET No. TS-1 OF 6 SHEETS