

TRAFFIC SIGNAL NOTES

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-15	2017	23	40

- 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 ~~G~~ and will remain G or ~~G~~ during the next phase, it shall be G or ~~G~~ during the clearance interval.
  - 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.
  - If a signal is R and will remain R or becomes G during the next phase, it shall remain R during the clearance interval.
- 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.
- Conduits and pullbox locations as shown on the plans are schematic. They may be modified by the contractor with the approval of the Engineer.
- The contractor shall install the controller and cabinet in the indicated location.
- 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 Department of Transportation, Highways Division and as shown on these drawings.
- All splicing shall be done in the pullboxes.
- 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.
- The concrete jacket for the conduit by-pass detail shown on Sheet TE-36 shall not be paid for separately but considered incidental to the various contract items.
- All cable and elements for grounding shall be new.
- Cables between signal faces, pedestrian heads, and EVP detectors and the nearest pullbox are not called out on the plan, but shall be furnished and installed in sufficient numbers and lengths as required. Cost shall be incidental to various traffic signal contract items.
- 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.
- Unless otherwise specified, all conduits shall be concrete encased PVC schedule 40.
- The contractor shall notify the Traffic Control Branch, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system ( Phone: 768-8388).

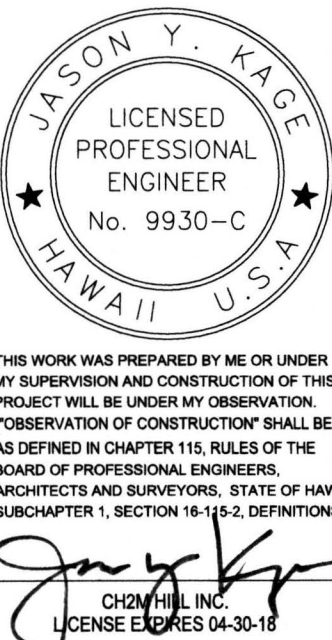
- While modifying the existing traffic signal systems, the contract shall keep the existing system operational until the new traffic signal system can be put into service.
- The contractor shall salvage all existing heads, standards, and cables not used in the new system. Cost shall be incidental to the various contract items put into service.
- All traffic signal hardware removed from the intersection shall be stockpiled and delivered to a location determined by the Engineer.

CONSTRUCTION NOTES

- 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.
- 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.
- 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.
- 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.
- 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.
- 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 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.
- 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.
- The Contractor shall have a HECO standby personnel when digging in the vicinity of the existing 138kV line.
- After construction, Contractor shall provide grass restoration for affected areas.

TRAFFIC SIGNAL LEGEND


Cables Used
2c #14
3c #6
26c #14
evp
12pr #19



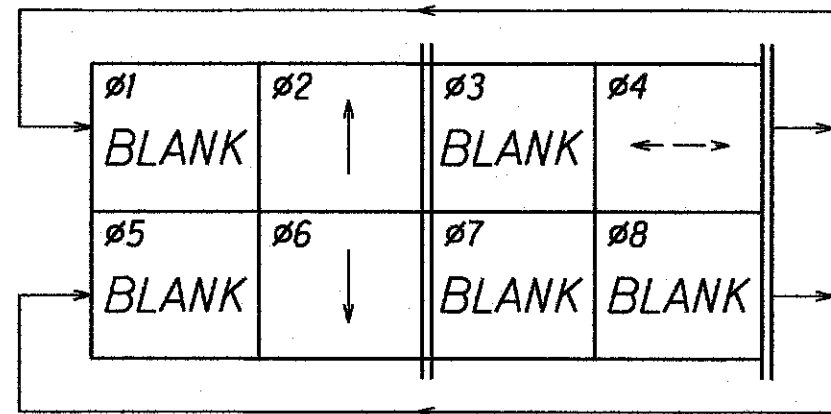
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL NOTES**  
**VINEYARD BOULEVARD**  
**TRAFFIC SIGNALS AT RIVER STREET**  
**PROJECT NO. 98A-01-15**  
Scale: N/A Date: June, 2017

SHEET No. 23 OF 34 SHEETS

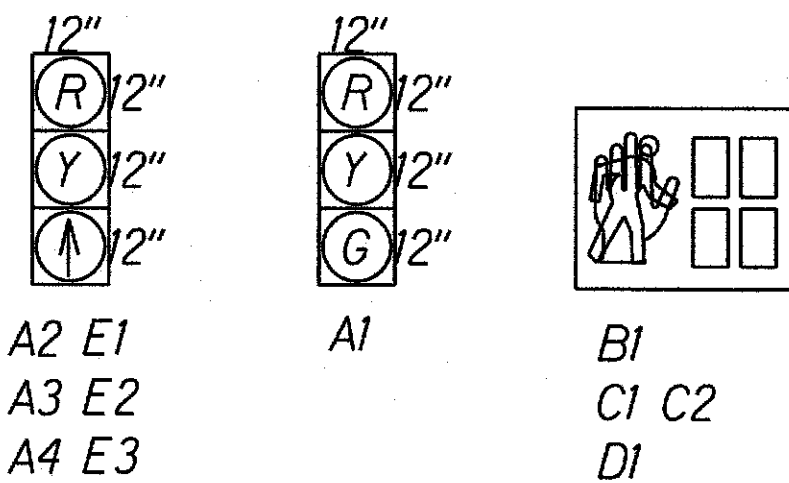


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	98A-01-15	2017	24	40

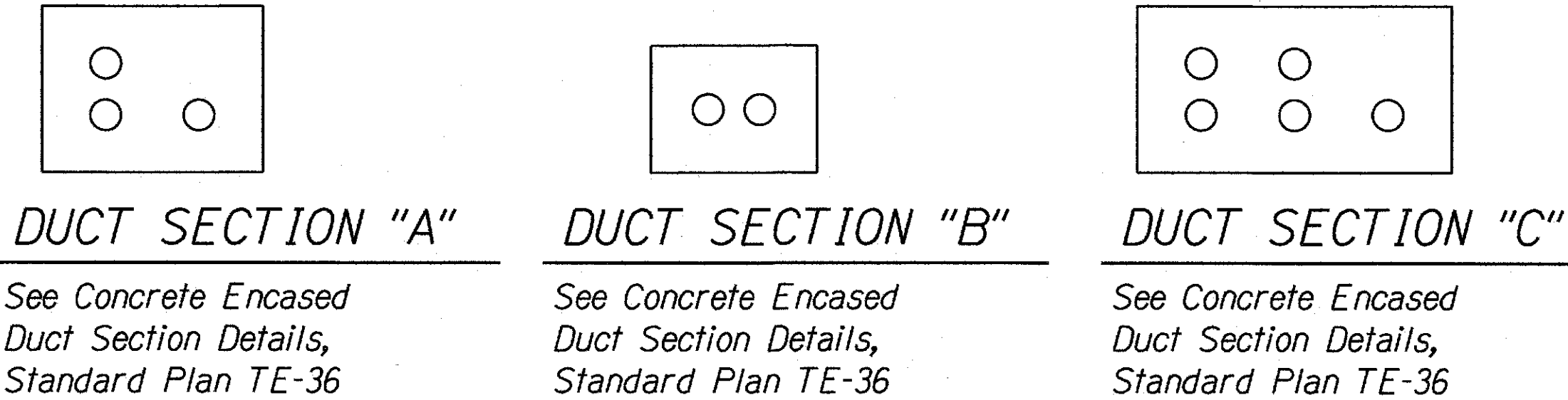


### PHASE DIAGRAM

New Model 170E Controller  
New Model 332A Cabinet



### SIGNAL INDICATIONS



Conduit	Description
2" Sch 80	1-26c #14
2" Sch 80	1-evp

Conduit	Description
2" Conc.	1-26c #14
2" Conc.	1-evp
2" Conc.	Spare
DUCT "A"	

Conduit	Description
2" Sch 80	1-2c #14
2" Sch 80	1-26c #14

Conduit	Description
2" Sch 80	1-26c #14
2" Sch 80	1-26c #14
2" Sch 80	3-2c #14
2" Sch 80	2-evp
2" Sch 80	1-12 pr #19
2" Sch 80	1-3c #6 Power
2" Sch 80	Spare

Conduit	Description
2" Conc.	1-26c #14
2" Conc.	1-26c #14
2" Conc.	2-2c #14, 2-evp
2" Conc.	1-12 pr #19
2" Conc.	Spare
DUCT "C"	

Conduit	Description
2" Conc.	1-26c #14
2" Conc.	1-evp
2" Conc.	Spare
DUCT "A"	

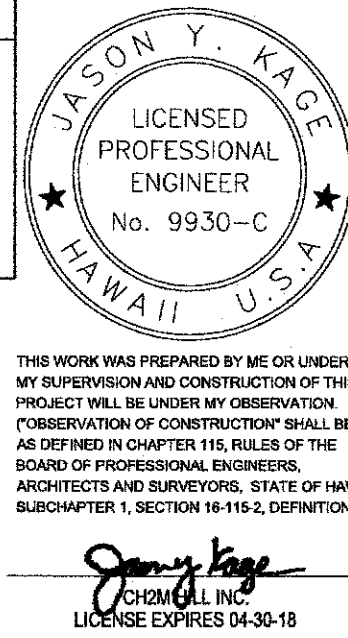
Conduit	Description
2" Sch 80	1-26c #14
2" Sch 80	1-evp

- Notes:
- The Contractor shall have a HECO standby personnel when digging in the vicinity of the existing 138KV line.
  - After construction, Contractor shall provide grass restoration for affected areas.

Conduit	Description
2" Sch 80	1-2c #14
2" Sch 80	1-26c #14

Conduit	Description
Existing	1-12 pr #19
	Interconnect Cable to Maunakea St Signal Controller Cabinet

DATE	REVISION
5/30/19	SHEET REVISED TO SHOW NEW TRAFFIC SIGNAL A STOP BAR LOCATION
2/11/19	SHEET REVISED TO SHOW NEW TRAFFIC SIGNAL A AND E LOCATION AND EXIST. DL
1/11/19	SHEET REVISED TO SHOW NEW TRAFFIC SIGNAL A LOCATION



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL PLAN**  
  
**VINEYARD BOULEVARD**  
**TRAFFIC SIGNALS AT RIVER STREET**  
**PROJECT NO. 98A-01-15**  
Scale: AS NOTED      Date: June, 2017  
SHEET No. 24 OF 34 SHEETS