

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-092-1(24)	2000	37	57

TRAFFIC SIGNAL NOTES:

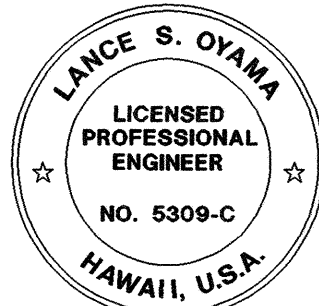
1. The locations of the Traffic Signal Standards, Traffic Signal Standards with Mast Arms, Pedestrian Push Buttons, Traffic Controller, Pullboxes, conduits and Loop Detectors shall be staked out in the field by the Contractor and approval of the locations shall be obtained from the Engineer prior to construction and installation.
2. All splicing shall be done in the pullboxes.
3. 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.
4. A solid No. 8 bare copper wire shall be pulled with the traffic signal control cable for equipment ground. Cost shall be incidental to the installation of the control cable.
5. All Traffic signal controller equipment shall be completely wired in the cabinet and shall control the traffic signals as called for in the plans.
6. The loop amplifier units 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.
7. 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.
8. 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.
9. Locations of traffic markings and markers (lane lines, Stop lines, crosswalks, etc.) shown on the plans shall be verified with the Engineer prior to the installation of the traffic signal system.
10. All Conduits between pullboxes and Traffic Signal/Highway Lighting Standards shall not be paid for separately but shall be considered incidental to the various contract items.
11. All Signal-Drop Cables (Type 5 Cables) from the various Types of Traffic Signal Head on the traffic signal standards and most arms to the pullboxes shall not be paid for separately but considered incidental to the Traffic Signal Head.
12. After installing all the traffic signal cables, the Contractor shall duct seal all conduits in the pullboxes, traffic signal standards and traffic signal controller cabinet concrete base. The duct seal material shall be approved by the Traffic Signal Inspector/Engineer and shall not be paid for separately but considered incidental to the direct buried and/or concrete encased conduits.
13. Before installing the Traffic Signal System, the Contractor shall apply grease to all parts of the Traffic Signal System (i.e. fittings, brackets, nipples, elbows, screws, signal head assemblies, bolts, hinges, etc.) as as directed by the Traffic Signal Inspector, to prevent rust and corrosion. The grease material shall be approved by the Signal Inspector.

TRAFFIC SIGNAL NOTES: Cont.

14. Connecting into existing traffic signal system and making all necessary adjustments shall not be paid for separately, but considered incidental to the various traffic signal contract items.
15. The Contractor shall notify the Traffic Branch, Department of Transportation Services, City & County of Honolulu, (phone No. 523-4589) two weeks prior to commencing any work on the traffic signal system.
16. The Department of Transportation Services, City & County of Honolulu, will assist the Engineer in construction inspection for the signal system. The Contractor shall notify the Electrical and maintenance Services Division, Department of Transportation Services, three (3) working days prior to commencing work on the traffic signal system (phone No. 523-4589).

LEGEND

- Exist. Conduit
~~~~~ Conduit To Be Abandoned  
———— New Traffic Signal Conduit
- New Type "B" Pullbox  
▣ New Type "C" Pullbox  
• New Pedestrian Push Buttom Pedestal  
⊠ New Pedestrian Signal Head  
○ New Traffic or Pedestrian Signal Post  
Q New Loop Detector  
← New Temporary Microwave Loop Detector  
⊠ Existing Pedestrian Signal Head  
⊠ Exist. Controller  
⊠ Exist. Signal Pole W/ Mast Arm  
◁ Exist. Traffic Signal Head  
□ Exist. Pullbox  
○ Exist. Traffic or Pedestrian Signal Post

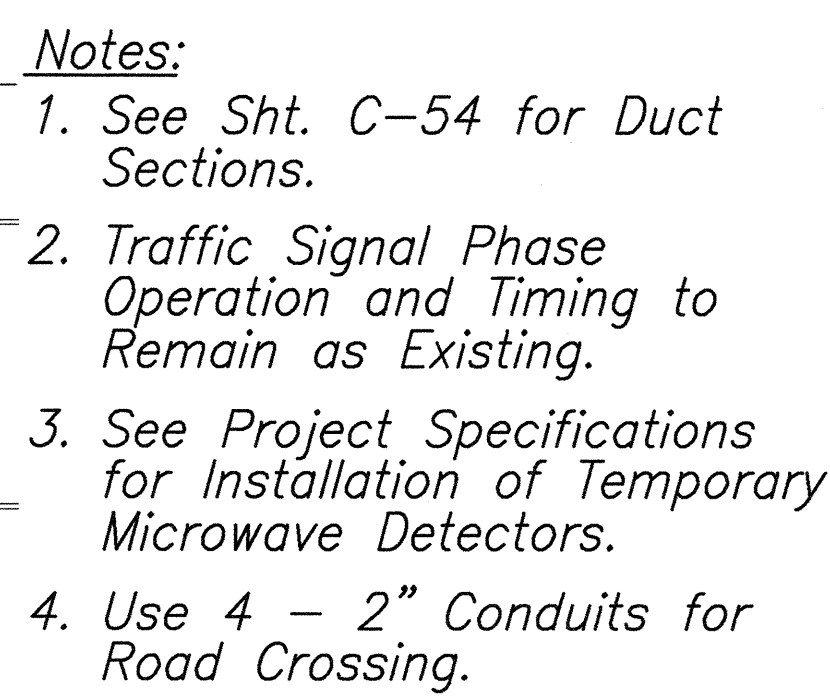


Lance S. Oyama

|                                                                                                      |                    |
|------------------------------------------------------------------------------------------------------|--------------------|
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION                                 |                    |
| TRAFFIC SIGNAL NOTES<br>AND LEGEND                                                                   |                    |
| NIMITZ HIGHWAY RESURFACING<br>RODGERS BOULEVARD TO AHUA STREET<br>FED. AID PROJECT NO. STP-092-1(24) |                    |
| Scale: As Noted                                                                                      | Date: Aug. 2, 1999 |

SHEET No. C-36 OF 57 SHEETS

TRUE NORTH  
1 Inch = 20 Feet



**GRAPHIC SCALE:**

A horizontal graphic scale bar. Above the bar, the markings are 20', 10', 0, 20', and 40'. The bar is divided into segments: the first 20' segment is black, the next 10' segment is white, the 0 segment is black, the next 20' segment is white, and the final 40' segment is black. Below the bar, the text "SCALE:" is on the left and "1"=20'" is on the right.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

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TRAFFIC SIGNAL MODIFICATION PLAN  
PAIEA STREET

NIMITZ HIGHWAY RESURFACING  
RODGERS BOULEVARD TO AHUA STREET  
FED. AID PROJECT NO. STP-092-1(24)

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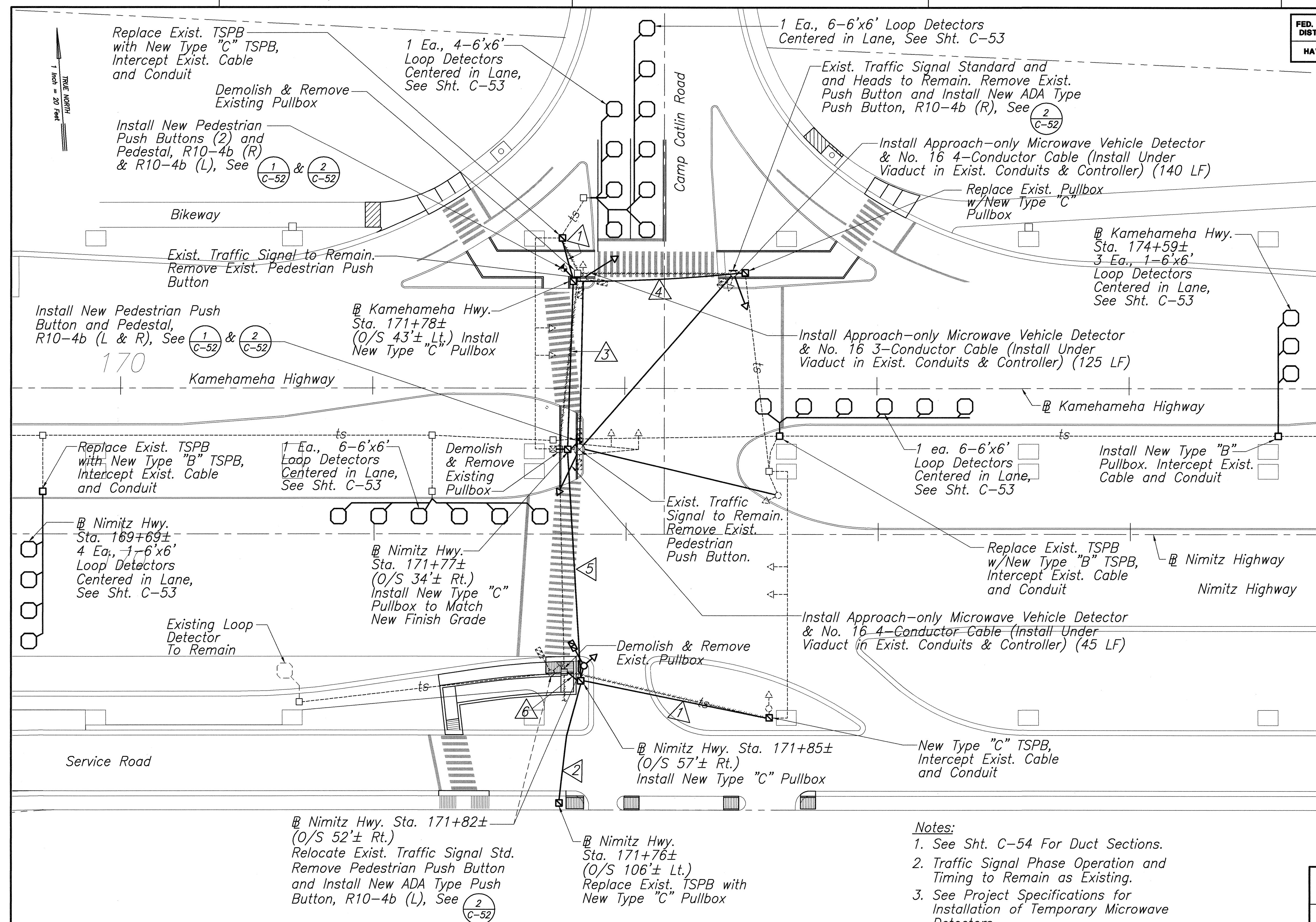
Scale: As Noted                      Date: Aug. 2, 1999

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**SHEET NO. C-37 OF 57 SHEETS**

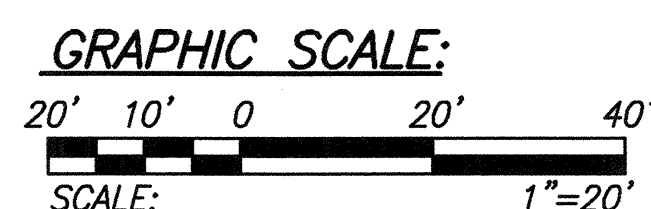
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-092-1(24)      | 2000        | 39        | 57           |

| CABLE SCHEDULE |                                            |                      |
|----------------|--------------------------------------------|----------------------|
| LEGEND         | CABLE                                      | CONDUIT              |
| 1              | 2-26C #14<br>2-2C #14                      | 4-2"                 |
| 2              | 1-3C #6 (Service)<br>2-26C #14             | 4-2"                 |
| 3              | 4-2C #14<br>2-26C #14                      | 4-2"                 |
| 4              | 2-26C #14<br>1-2C #14                      | 2-2"                 |
| 5              | 2-26C #14<br>2-2C #14<br>1-3C #6 (Service) | 2-2"<br>1-2"<br>1-2" |
| 6              | 2-2C #14                                   | 1-2"                 |



# **TRAFFIC SIGNAL MODIFICATION PLAN - Camp Catlin Road**

Scale: 1" = 20'



## **Notes:**

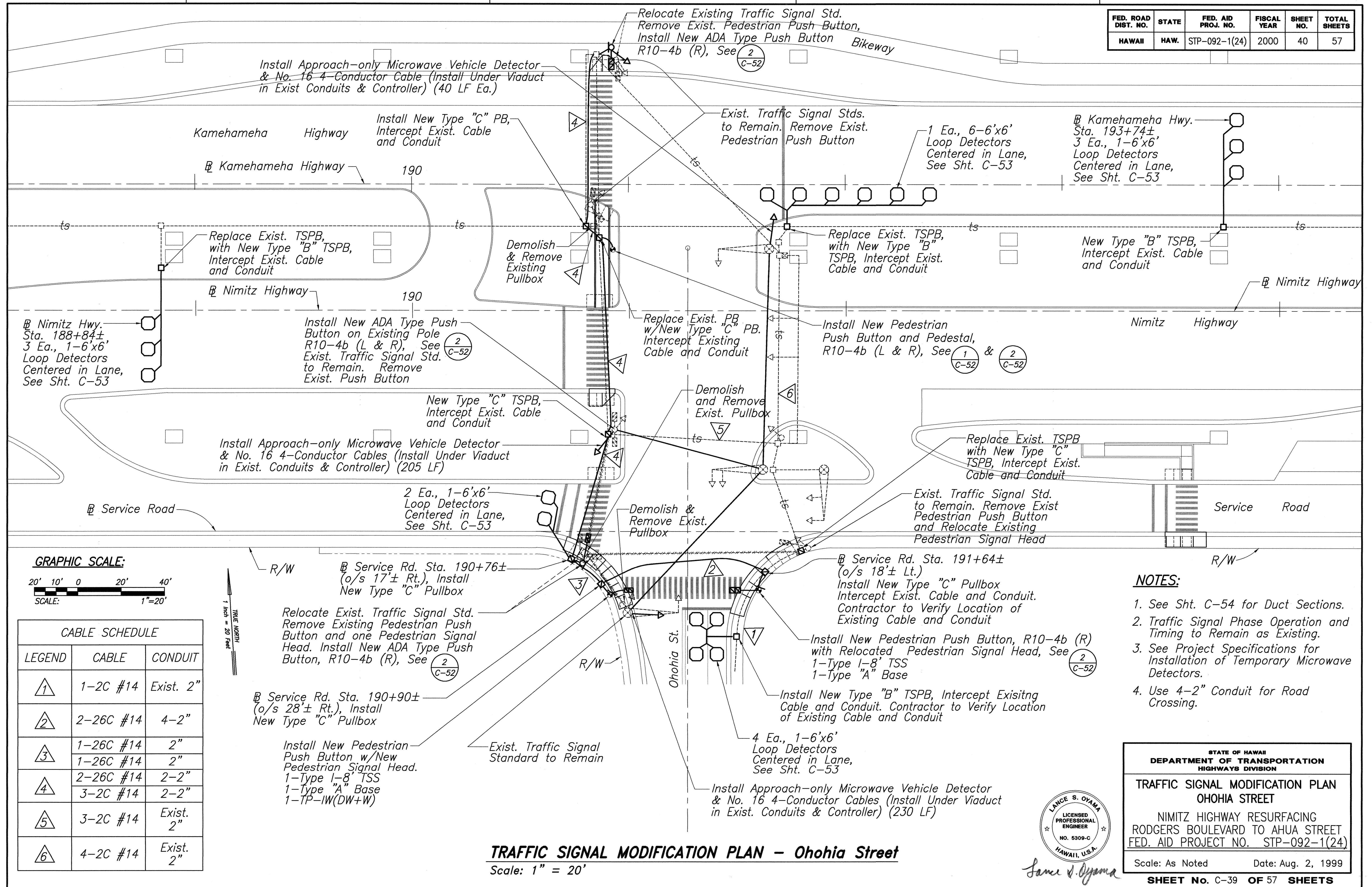
1. See Sht. C-54 For Duct Sections.
2. Traffic Signal Phase Operation and Timing to Remain as Existing.
3. See Project Specifications for Installation of Temporary Microwave Detectors.
4. Use 4-2" Conduit for Road Crossing.



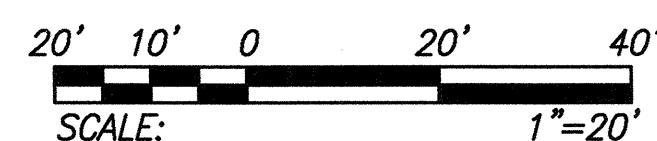
*Lance S. Oyama*

| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION                                 |                    |
|------------------------------------------------------------------------------------------------------|--------------------|
| <b>TRAFFIC SIGNAL MODIFICATION PLAN<br/>CAMP CATLIN ROAD</b>                                         |                    |
| NIMITZ HIGHWAY RESURFACING<br>RODGERS BOULEVARD TO AHUA STREET<br>FED. AID PROJECT NO. STP-092-1(24) |                    |
| Scale: As Noted                                                                                      | Date: Aug. 2, 1999 |
| <b>SHEET No. C-38 OF 57 SHEETS</b>                                                                   |                    |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-092-1(24)      | 2000        | 40        | 57           |



**GRAPHIC SCALE:**



| CABLE SCHEDULE |           |           |
|----------------|-----------|-----------|
| LEGEND         | CABLE     | CONDUIT   |
| 1              | 1-2C #14  | Exist. 2" |
| 2              | 2-26C #14 | 4-2"      |
| 3              | 1-26C #14 | 2"        |
|                | 1-26C #14 | 2"        |
| 4              | 2-26C #14 | 2-2"      |
|                | 3-2C #14  | 2-2"      |
| 5              | 3-2C #14  | Exist. 2" |
| 6              | 4-2C #14  | Exist. 2" |

**NOTES:**

1. See Sht. C-54 for Duct Sections.
2. Traffic Signal Phase Operation and Timing to Remain as Existing.
3. See Project Specifications for Installation of Temporary Microwave Detectors.
4. Use 4-2" Conduit for Road Crossing.

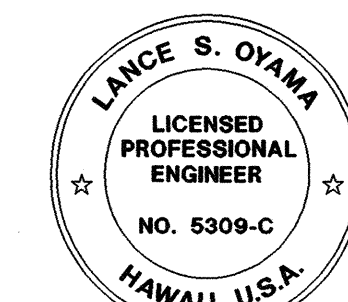
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL MODIFICATION PLAN  
OHOHIA STREET**

NIMITZ HIGHWAY RESURFACING  
RODGERS BOULEVARD TO AHUA STREET  
FED. AID PROJECT NO. STP-092-1(24)

Scale: As Noted Date: Aug. 2, 1999

**SHEET No. C-39 OF 57 SHEETS**



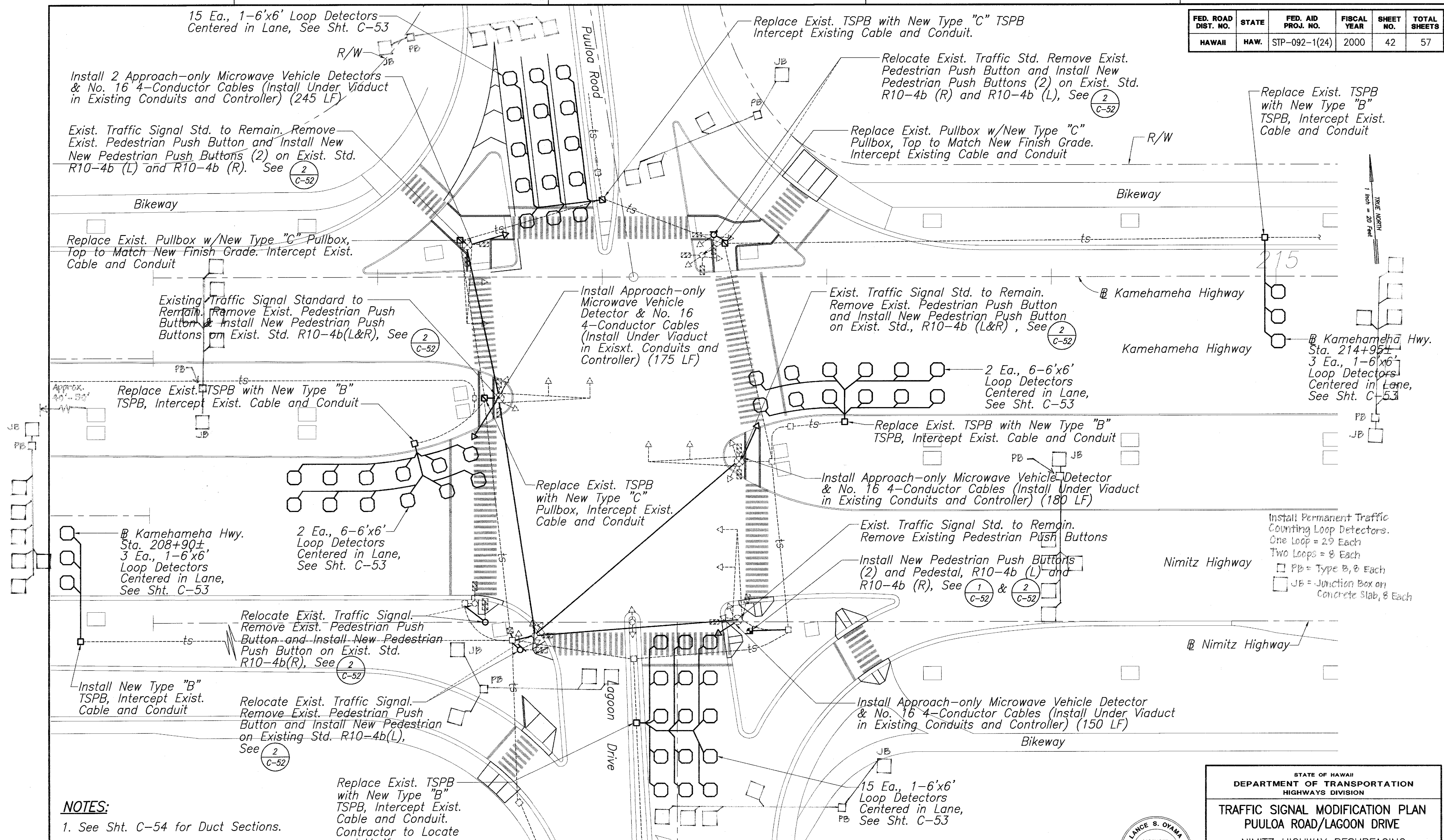
*Lance S. Oyama*

**TRAFFIC SIGNAL MODIFICATION PLAN - Ohohia Street**

Scale: 1" = 20'



| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-092-1(24)      | 2000        | 42        | 57           |



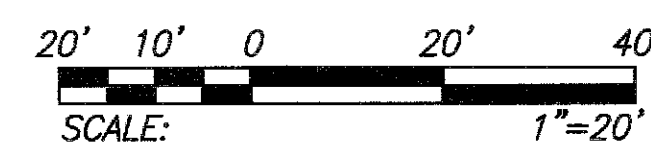
**NOTES:**

1. See Sht. C-54 for Duct Sections.
2. Traffic Signal Phase Operation and Timing to Remain as Existing.
3. See Project Specifications for Installation of Temporary Microwave Detectors.

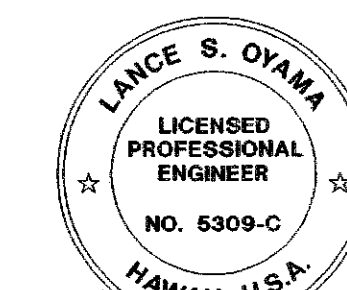
**TRAFFIC SIGNAL MODIFICATION PLAN - Puuloa Rd./Lagoon Dr.**

Scale: 1" = 20'

GRAPHIC SCALE:



AS-BUILT



*Lance S. Oyama*

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL MODIFICATION PLAN  
PUULOA ROAD/LAGOON DRIVE**

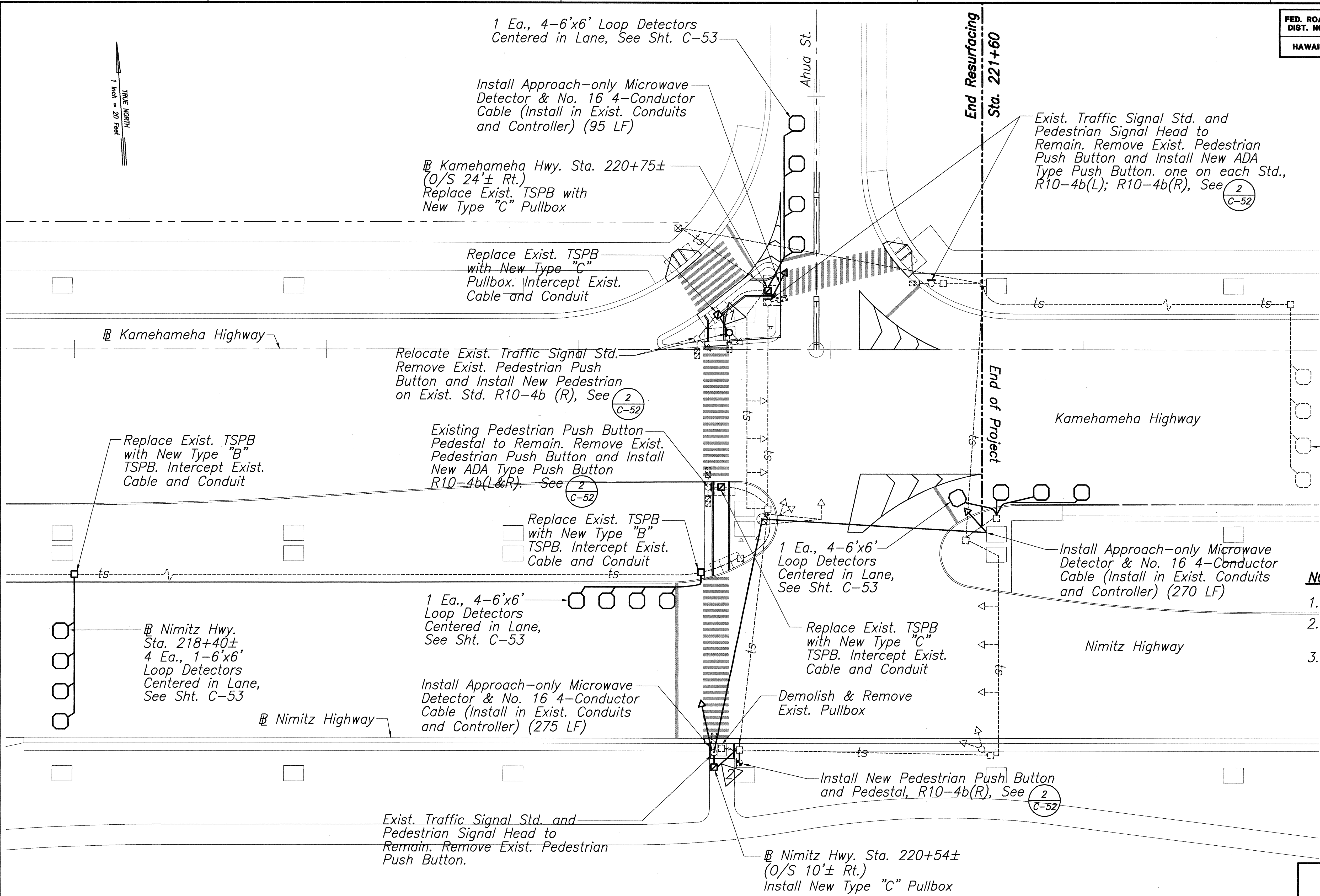
NIMITZ HIGHWAY RESURFACING  
RODGERS BOULEVARD TO AHUA STREET  
FED. AID PROJECT NO. STP-092-1(24)

Scale: As Noted Date: Aug. 2, 1999

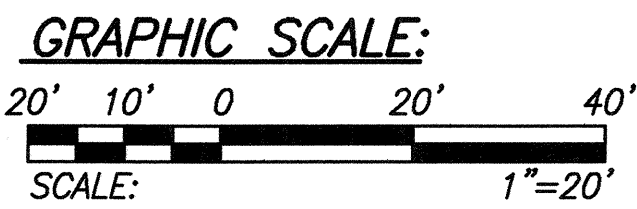
**SHEET No. C-41 OF 57 SHEETS**

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | STP-092-1(24)      | 2000        | 43        | 57           |

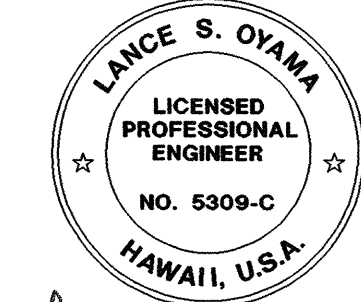
| CABLE SCHEDULE |          |         |
|----------------|----------|---------|
| LEGEND         | CABLE    | CONDUIT |
| 1              | 1-2C #14 | 2"      |
|                | 2-4C #14 | 2"      |
| 2              | 1-2C #14 | 2"      |



- NOTES**
1. See Sht. C-54 for Duct Sections.
  2. Traffic Signal Phase Operation and Timing to Remain as Existing.
  3. See Project Specifications for Installation of Temporary Microwave Detectors.



**TRAFFIC SIGNAL MODIFICATION PLAN - Ahua St.**  
Scale: 1" = 20'



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TRAFFIC SIGNAL MODIFICATION PLAN  
AHUA STREET**

NIMITZ HIGHWAY RESURFACING  
RODGERS BOULEVARD TO AHUA STREET  
FED. AID PROJECT NO. STP-092-1(24)

Scale: As Noted Date: Aug. 2, 1999

**SHEET NO. C-42 OF 57 SHEETS**