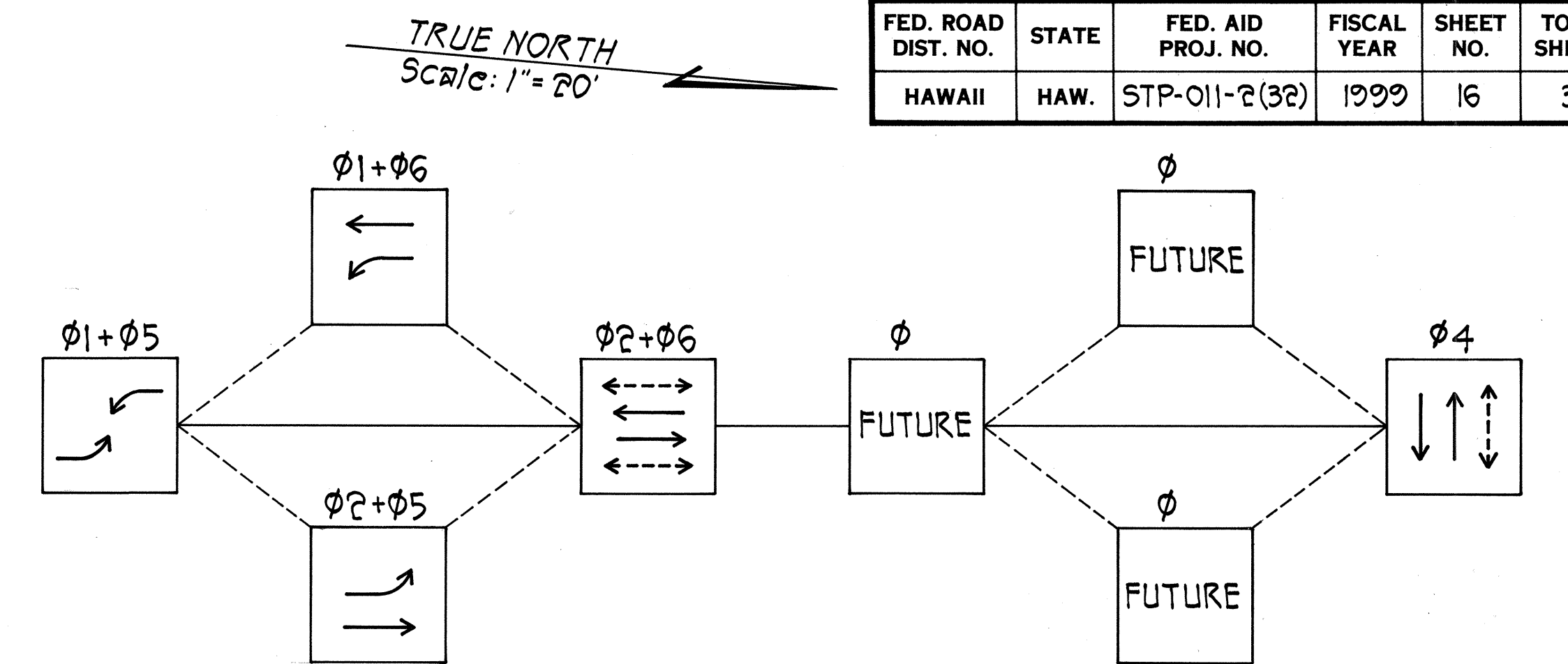


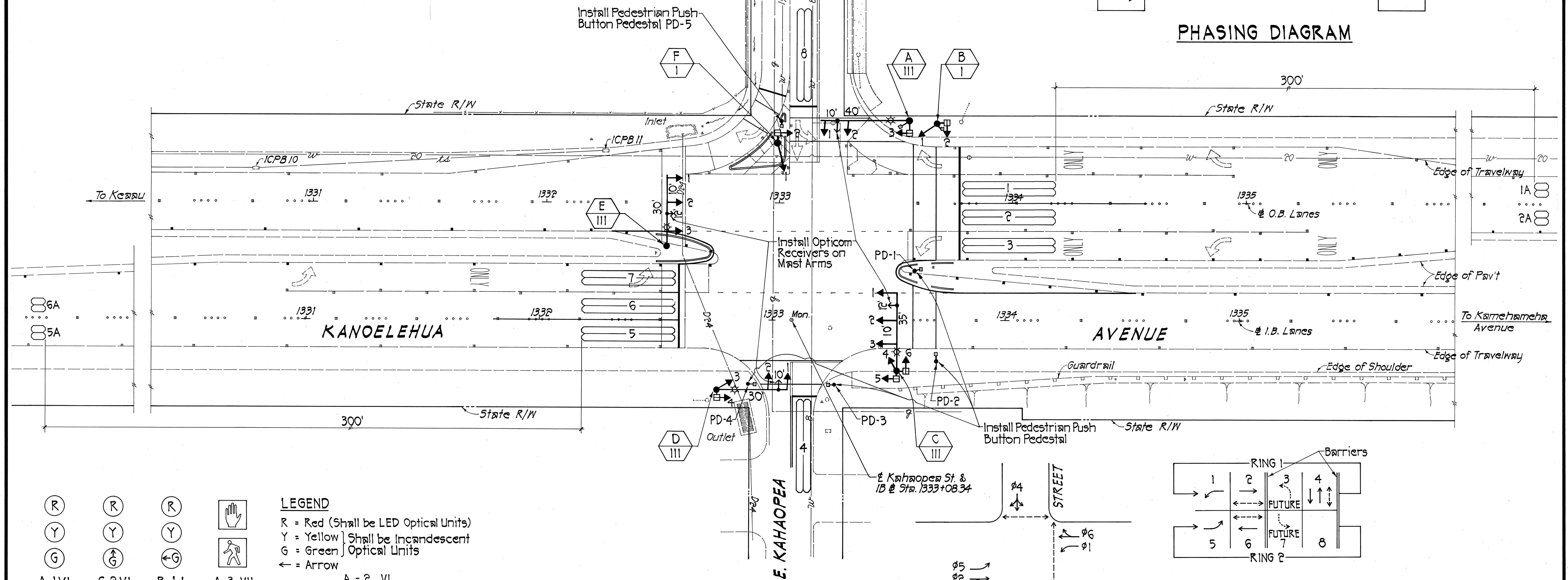
TRAFFIC SIGNAL STANDARD SCHEDULE		
POLE LETTER		DESCRIPTION
B	F	Install Type I Traffic Signal Standard with Signal and Pedestrian Heads.
A	C	Install Type III Traffic Signal Standard; Signal and Pedestrian Heads; and 15' Highway Lighting Mast Arm with 180-Watt LPS Luminaire.
D	E	

- Install Sign
- R10-4B (Sign Varies w/ Direction)
- A (←) R10-4B(L)
B (→) R10-4B(R)
- PD-1 (←) R10-4B(L & R)
PD-2 (←) R10-4B(L)
PD-3 (→) R10-4B(R)
PD-4 (←) R10-4B(L)
PD-5 (→) R10-4B(R)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-011-2(32)	1999	16	34



PHASING DIAGRAM



DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
DESIGNED BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
NO.	_____

- (R) (Y) (G) (R) (Y) (G) (R) (Y) (G) (R) (Y) (G)
- A-1 VI C-2 VI B-1 I A-3 VII
A-2 VI E-2 VI *C-1 VI B-2 VII
C-3 VI D-3 V *E-3 VI C-5 VII
C-4 V D-4 VII
D-1 VI E-1 VI F-2 VII
D-2 VI
- *Programmed Visibility Head

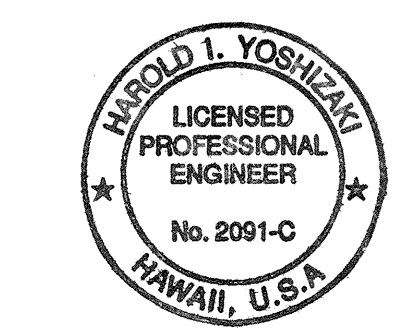
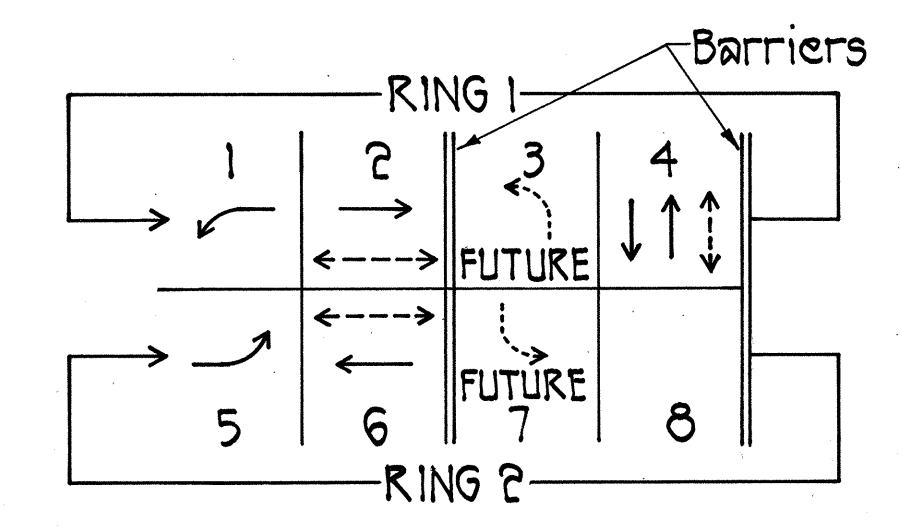
- LEGEND
- R = Red (Shall be LED Optical Units)
Y = Yellow (Shall be Incandescent Optical Units)
G = Green (Shall be Incandescent Optical Units)
← = Arrow
- Pole I.D. A-2 VI
Signal Head
Type of Mount (See Sht. 29 for Details)

SIGNAL ARRANGEMENT AND MOUNTING

TRAFFIC SIGNAL PLAN

- Scale: 1"=20'
- NOTES:
1. Install adhesive Type II Object Markers on pole standards A, B, C, D, E & F. Install 2 each markers per pole.
 2. All traffic signal & pedestrian heads are new.

PHASE ASSIGNMENTS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
SHIMAMUKURO, ENDO & YOSHIZAKI, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

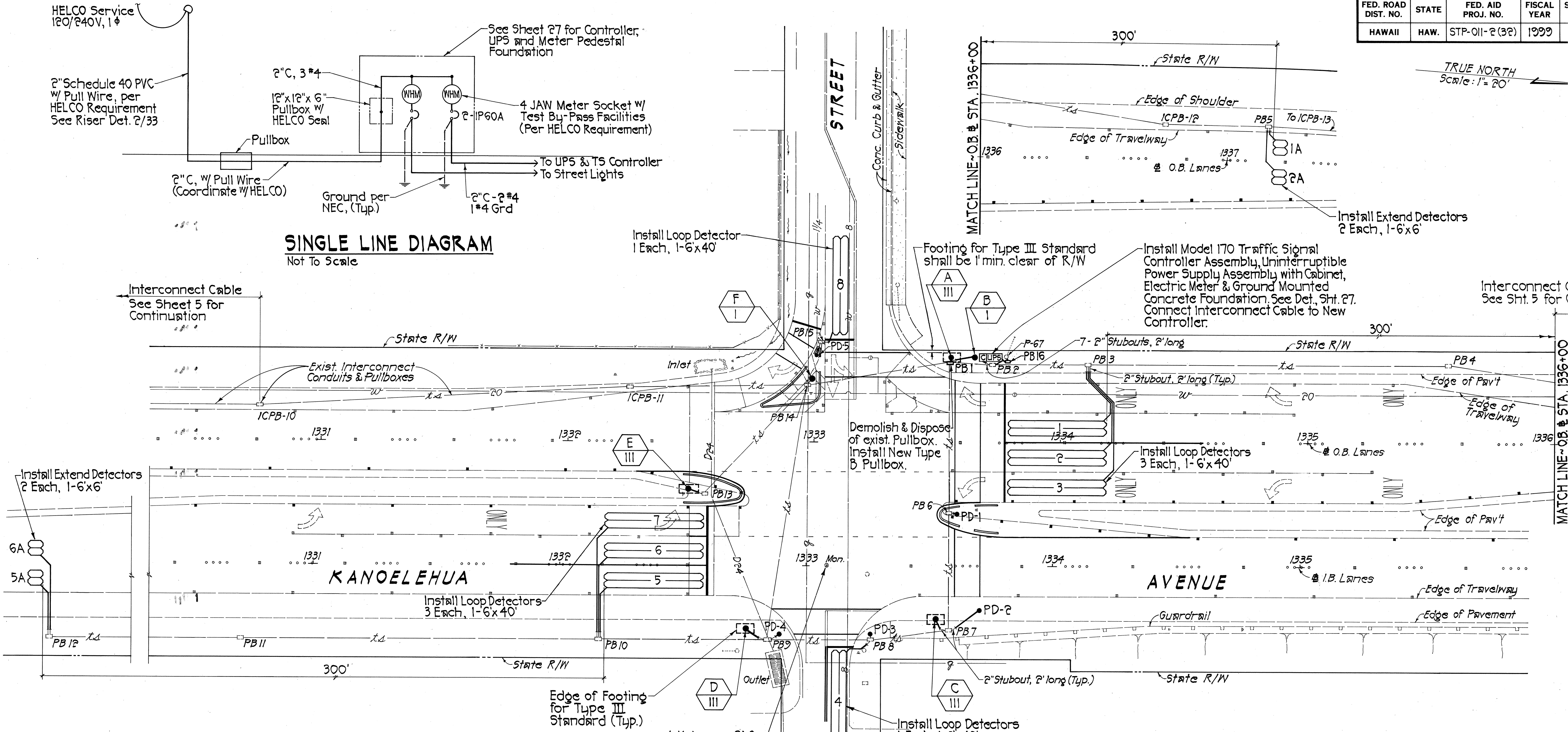
TRAFFIC SIGNAL PLAN
AT E. KAHAOPEA STREET

KANOELEHUA AVENUE
TRAFFIC SIGNAL MODERNIZATION
F.A. PROJ. NO. STP-011-2(32)

SCALE: AS SHOWN DATE: OCT. 1998
SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-011-2(32)	1999	17	34

TRUE NORTH
Scale: 1" = 20'



SINGLE LINE DIAGRAM
Not To Scale

ELECTRICAL PLAN
Scale: 1" = 20'

PULLBOX TABLE
See Detail on Sheet 32 for Metric Pullbox Type B.

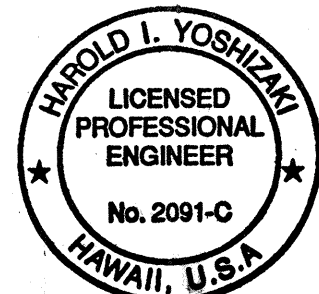
PULLBOX I.D. #	TYPE	LOGO
3, 4, 5, 8, 10, 11, 12, 15	B(Exist.)	TRAFFIC SIGNAL
6, 7, 9, 13, 14	C(Exist.)	TRAFFIC SIGNAL
2	D(Exist.)	TRAFFIC SIGNAL
1, 16	B(New)	TRAFFIC SIGNAL

SERVICE DATA

- SERVICE VOLTAGE: 120/240 V, SINGLE PHASE, 3-WIRE
- ESTIMATED CONNECTED KVA: 6.0 KVA
- ESTIMATED DEMAND KVA: 3.0 KVA
- SERVICE CAPACITY: 100 A, #4 CU.
- METERING: 4-JAW, 100 A HELCO STD. B-5
- TYPE: UNDERGROUND
- BILLING ADDRESS: HAWAII DISTRICT OFFICE, DEPARTMENT OF TRANSPORTATION, STATE OF HAWAII

NOTES:

- Plan with existing facilities was furnished by the Department of Transportation, Federal Aid Project No. NH-011-2(33) and F-RF-011-2(13).
- See sheet 34 for Street Lighting Plan.
- Contractor shall clean all existing conduits prior to pulling cables.
- Contractor shall install new conduits & conductors as called for in the Conduit-Cable Table on sheet 18.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
Harold L. Yoshizaki
SHIMABUKURO, ENDO & YOSHIKAWA, INC.
1126 12th Avenue
Honolulu, Hawaii 96816

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL PLAN
AT E. KAHAOPEA STREET

KANOELEHUA AVENUE
TRAFFIC SIGNAL MODERNIZATION
F.A. PROJ. NO. STP-011-2(32)

SCALE: AS SHOWN DATE: OCT. 1998

SHEET NO. 2 OF 3 SHEETS

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

DATE: _____
SAFETY PLOTTED: _____
ORIGINAL PLAN: _____
DESIGNED BY: _____
TRACED BY: _____
NOTE BOOK: _____
QUANTITIES BY: _____
CHECKED BY: _____

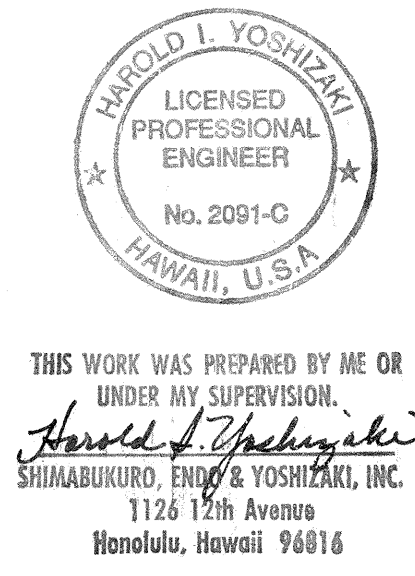
INSTALL NEW CONDUCTORS IN EXISTING AND NEW CONDUITS																			FED. ROAD DIST. NO	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
FROM	TO	MAIN CONTROL		SIGNAL CONTROL			DETECTORS			POWER		STREET LIGHTS		INTERCONNECT		OPTICOM		SPARE	REMARKS					
		CONDUIT 2"	CONDUCTORS 2-26C #14	CONDUIT 2"	CONDUCTORS		CONDUIT 2"	CONDUCTORS		CONDUIT 2"	CONDUCTORS 3 - #4	CONDUIT 2"	CONDUCTORS		CONDUIT 2"	CONDUCTORS		CONDUIT 2"						
					SEE NOTE 1	SEE NOTE 2		PED.	VEH.				1 - #10 GRND.	1 - 12pr #19		3C - #20 1 - #20 GRND.								
CONT.	PB2	4 ●	2				4 ●	3	10			●	1	2 ●	1	●	4	●	PB2 has 7 existing 2" stubouts (2' long).					
MAIN	PB2											●	1											
PB2	PB1	4-EX. 2"	2				3-EX. 2"	3	6				1	EX. 2"		EX. 2"	4			Install Street Light Conductors (3-#10) into conduits for detector conductors.				
PB2	PB3						EX. 2"		4					EX. 2"	1			2-EX. 2"						
PB1	A			●	1	10	●	1				●	1			●	1							
PB1	B			●	1	7																		
PB1	PB14	2-EX. 2"	1				2-EX. 2"	1	5			EX. 2"	1	EX. 2"	1	EX. 2"	2	EX. 2"	Splice Pole A & PD-5 in PB1. Splice PD-1, PD-2 & B in PB1. PB1 has 2 existing 2" stubouts (2' long).					
PB3	PB4						EX. 2"		1					EX. 2"	1			2-EX. 2"						
PB4	ICPB 12						EX. 2"		1					EX. 2"	1			Splice loop detectors 1A & 2A in PB5.						
ICPB 12	PB 5						EX. 2"		1					EX. 2"	1									
PB5	ICPB 13													EX. 2"	1				2-EX. 2"					
PB1	PB6	2-EX. 2"	1				EX. 2"	2	1				1			EX. 2"	1	EX. 2"	PB6 has 3 existing 2" stubouts (2' long).					
PB6	PD-1						●	1																
PB6	PB7	2-EX. 2"	1				EX. 2"	2	1			EX. 2"	1			EX. 2"	1							
PB7	PD-2						●	1																
PB7	C			●	1	19						●	1			●	1							
PB7	PB8	2-EX. 2"	1				EX. 2"	1	1			EX. 2"	1											
PB8	PD-3						●	1										Splice PD-3 & PD-4 in PB8. PB8 has 1 existing 2" stubout (2' long).						
PB8	PB9	2-EX. 2"	1				EX. 2"	1					1						Install Street Light Conductors (3-#10) into conduits for detector conductors.					
PB9	PD-4						●	1												PB9 has 2 existing 2" stubouts (2' long).				
PB9	PB10						EX. 2"		4									EX. 2"						
PB9	D			●	1	13						●	1			●	1							
PB10	PB11						EX. 2"		1															
PB11	PB12						EX. 2"		1									Splice loop detectors 5A & 6A in PB12.						
PB9	PB14	2-EX. 2"	1				EX. 2"		4							EX. 2"	1							
PB13	PB14			EX. 2"	1							EX. 2"	1			EX. 2"	1							
PB13	E			●	1	10						●	1			●	1		PB13 has 1 existing 2" stubout (2' long).					
PB14	F			●	1	7												PB14 has 1 existing 2" stubout (2' long).						
PB14	PB15						EX. 2"	1	1															
PB15	PD-5						●	1											PB15 has 1 existing 2" stubout (2' long).					
ICPB 10	ICPB 11													EX. 2"	1			2-EX. 2"						
ICPB 11	PB14													EX. 2"	1			2-EX. 2"						
CONT.	UPS										2 - #4 1 - #4 GRND.							●*	*For controller power.					
UPS	MAIN										2 - #4 1 - #4 GRND.							●*		*For UPS power.				
MAIN	P-67									●	By HELCO										Riser, weatherhead & conduit per HELCO requirements.			

LEGEND:

- New Conduit
- 4● Number of New Conduits
- EX. 2" Existing 2" Conduit
- 2-EX. 2" Number of Existing 2" Conduits
- PB7 Existing improvements are indicated with slant lettering. (Existing Pullbox 7)
- E New improvements are indicated with vertical and bold lettering. (New Traffic Signal Standard "E")

NOTES:

1. Install 1-9 Cond. #14 or 1-26 Cond. #14 cable from pullbox to bottom of traffic signal standard, as required.
2. Install #14 conductors (color coded) as indicated on table from bottom of traffic signal standard to traffic and pedestrian signal heads.
3. See sheet 34 for Street Lighting Plan.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CONDUIT-CABLE TABLE
AT KAHAOPEA STREET
KANOELEHUA AVENUE
TRAFFIC SIGNAL MODERNIZATION
F.A. PROJ. NO. STP-011-2(32)
SCALE: AS SHOWN DATE: OCT. 1998
SHEET No. 3 OF 3 SHEETS