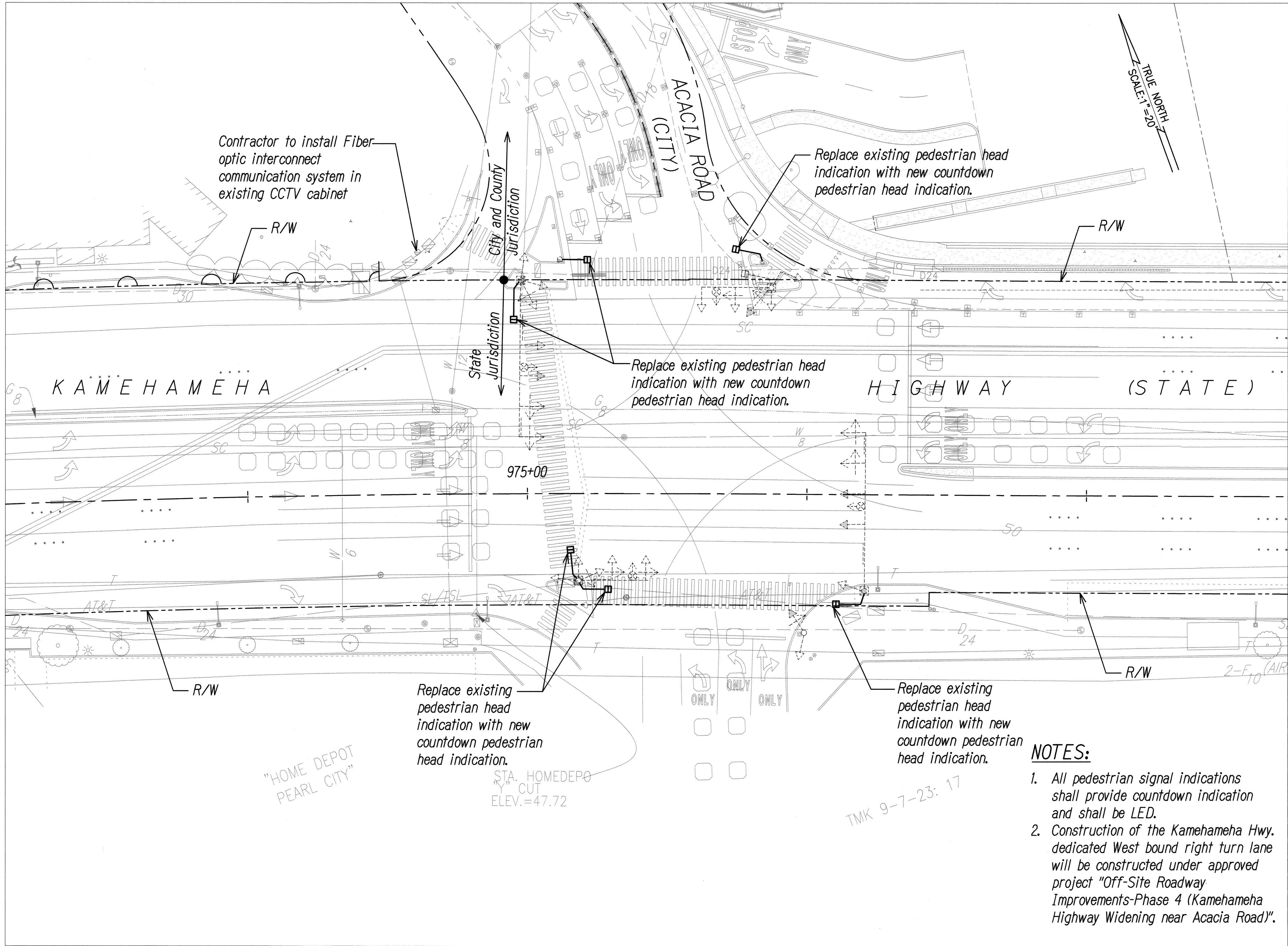
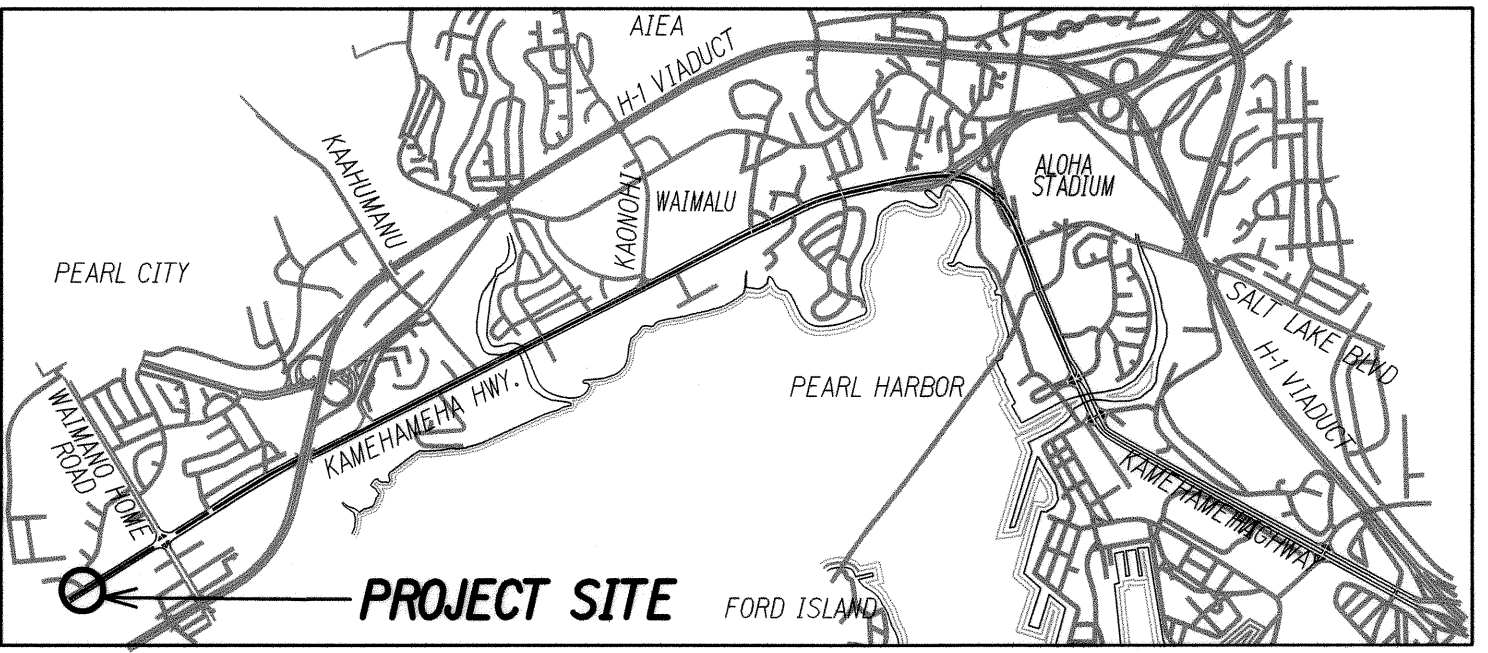


FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	21	89



TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND ACACIA ROAD
 SCALE: 1"=20'

- NOTES:**
1. All pedestrian signal indications shall provide countdown indication and shall be LED.
 2. Construction of the Kamehameha Hwy. dedicated West bound right turn lane will be constructed under approved project "Off-Site Roadway Improvements-Phase 4 (Kamehameha Highway Widening near Acacia Road)".



KEY MAP
 Not to Scale

KEITH K. NIYA
 LICENSED PROFESSIONAL ENGINEER
 No. 8226-C
 HAWAII, U.S.A.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
 TRAFFIC OPERATIONAL IMPROVEMENTS
 VICINITY OF ACACIA ROAD TO CENTER DRIVE
 PROJECT NO. 99D/G-01-08

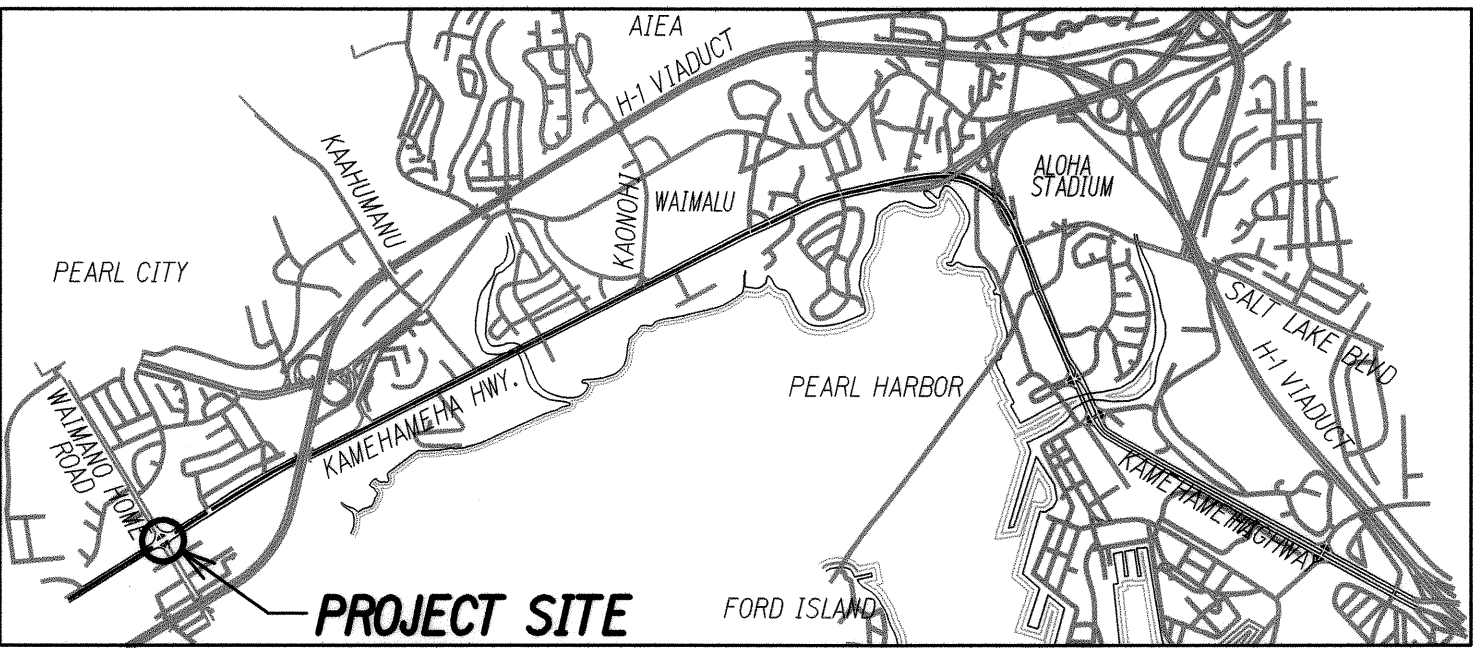
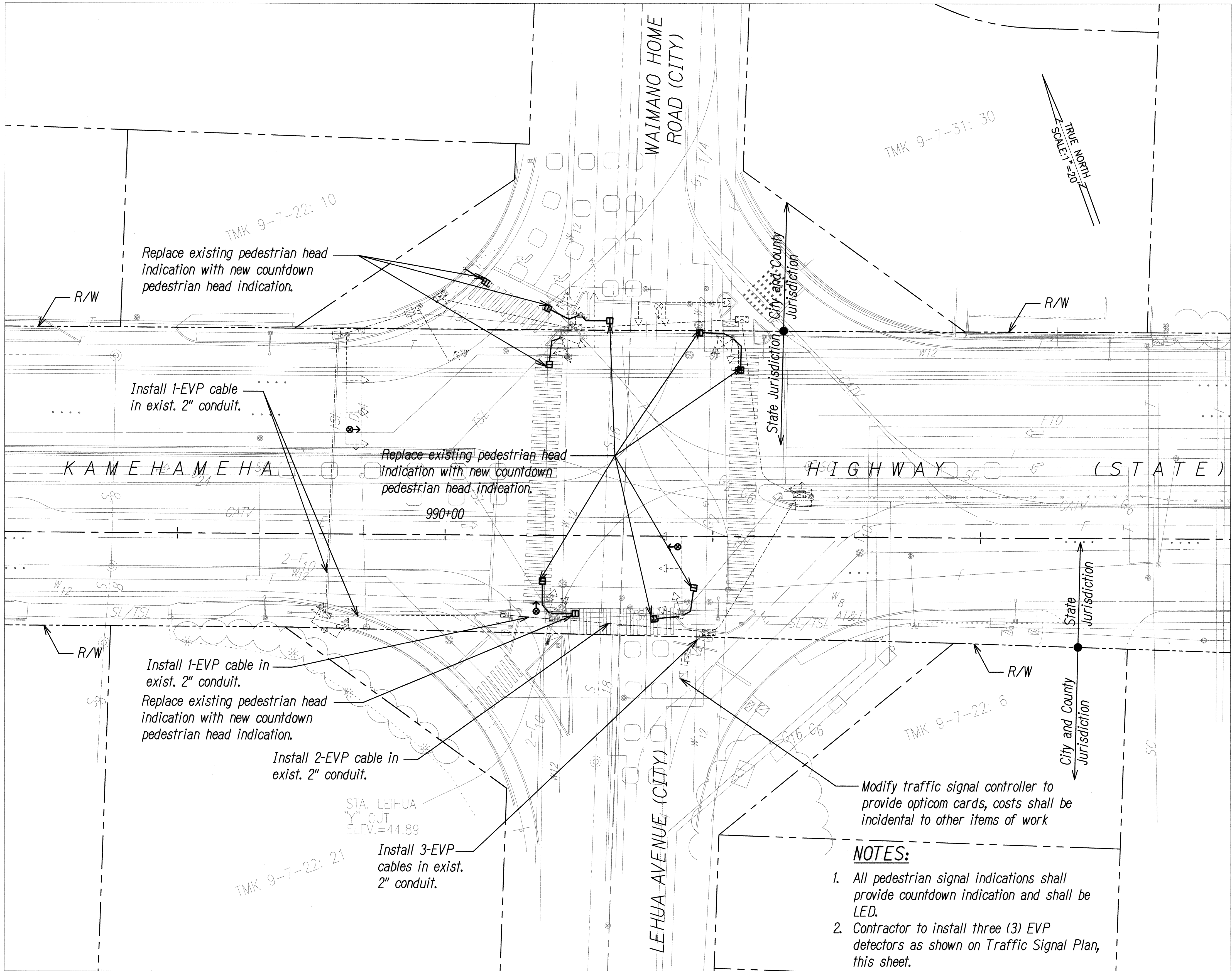
Scale: 1"=20' Date: April 2008

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

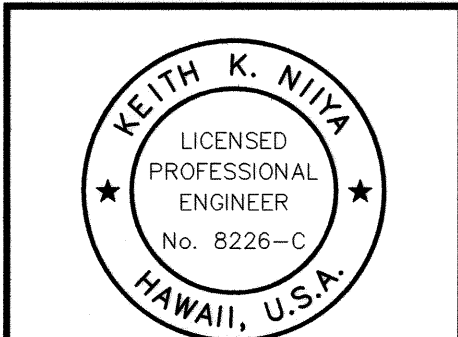
SIGNATURE: *[Signature]* EXPIRATION DATE OF THE LICENSE: 4/30/10

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	22	89



KEY MAP
Not to Scale



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
SIGNATURE
EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

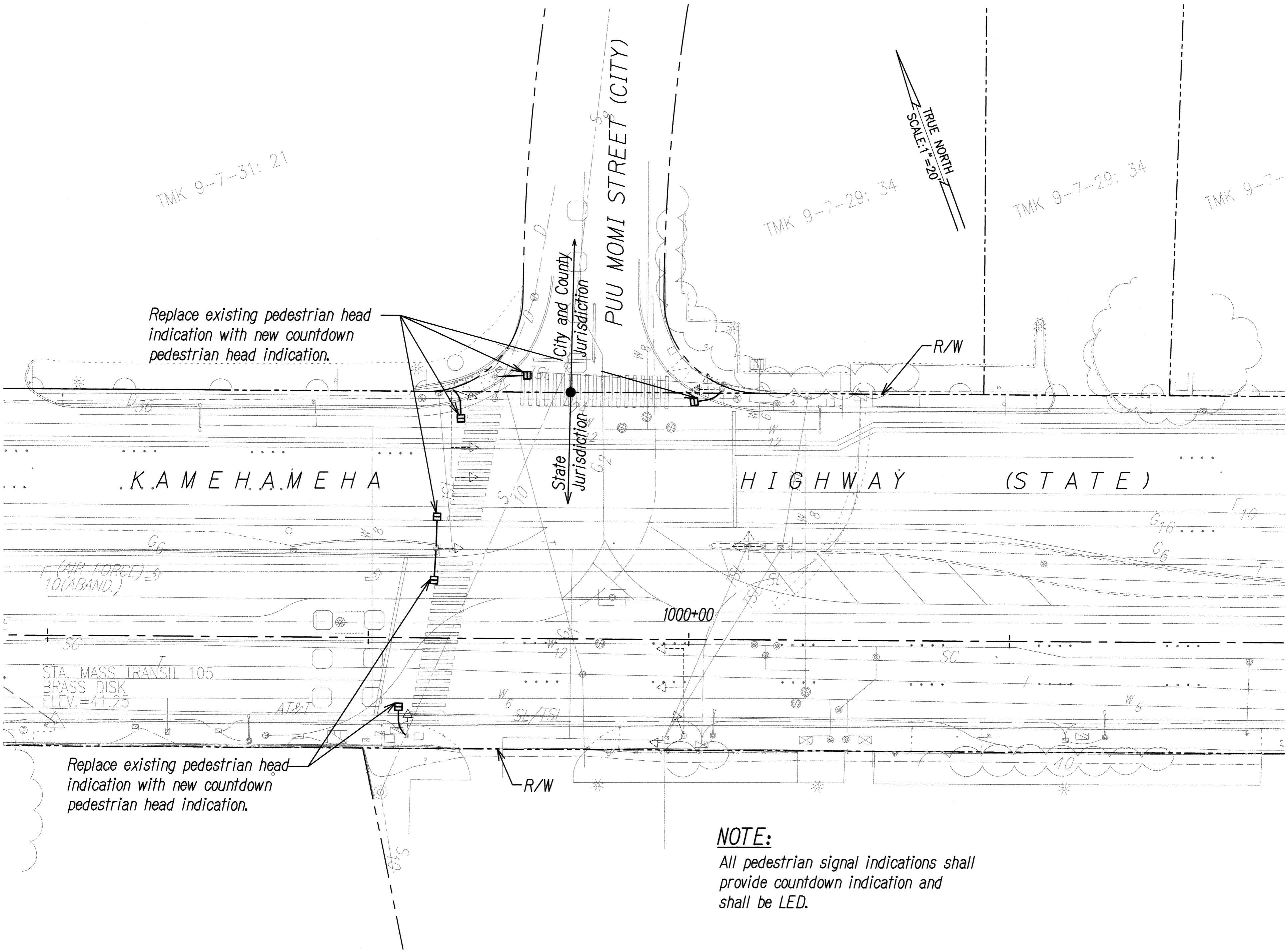
SHEET No. TS-03 OF 36 SHEETS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
ORIGINAL PLAN	
NO.	

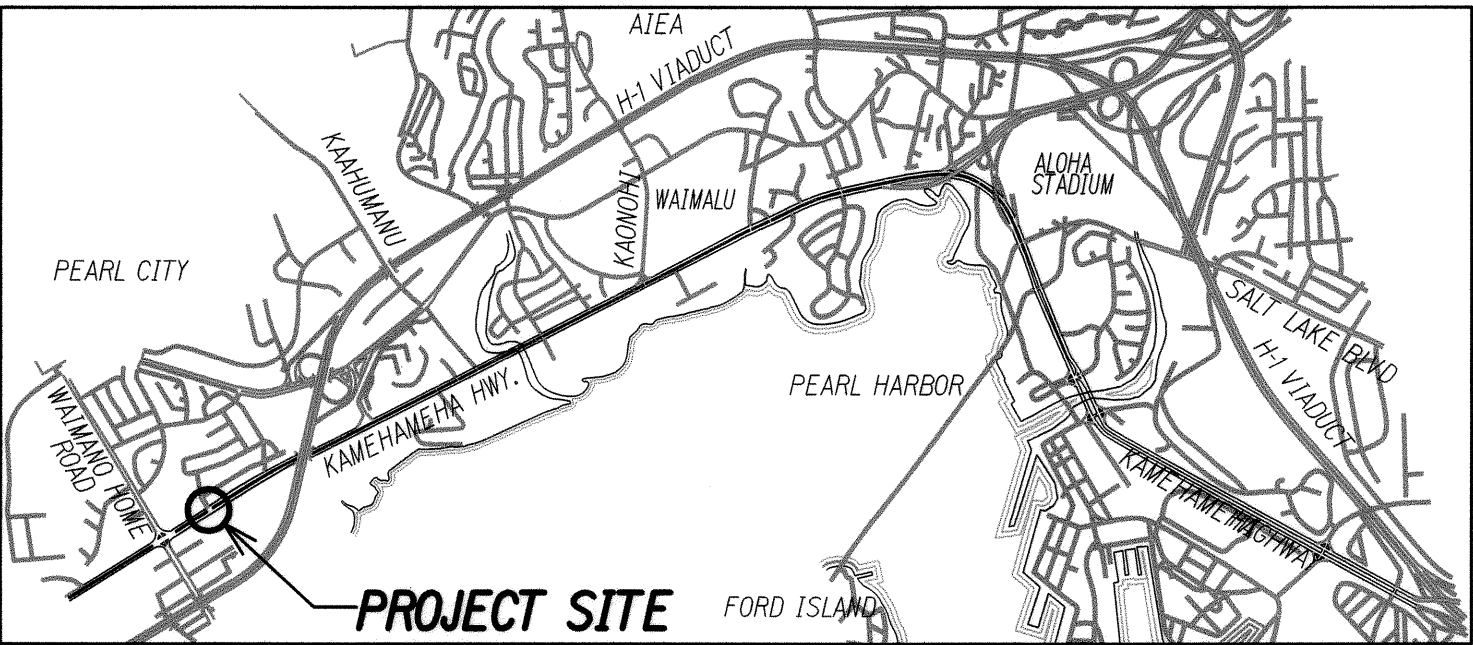
099-22 TS-03 WAIMANO HOME ROAD/LEHUA

TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND WAIMANO HOME ROAD/LEHUA AVENUE
SCALE: 1"=20'

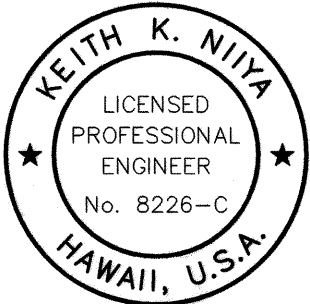
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	23	89



TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND PUU MOMI STREET
 SCALE: 1"=20'

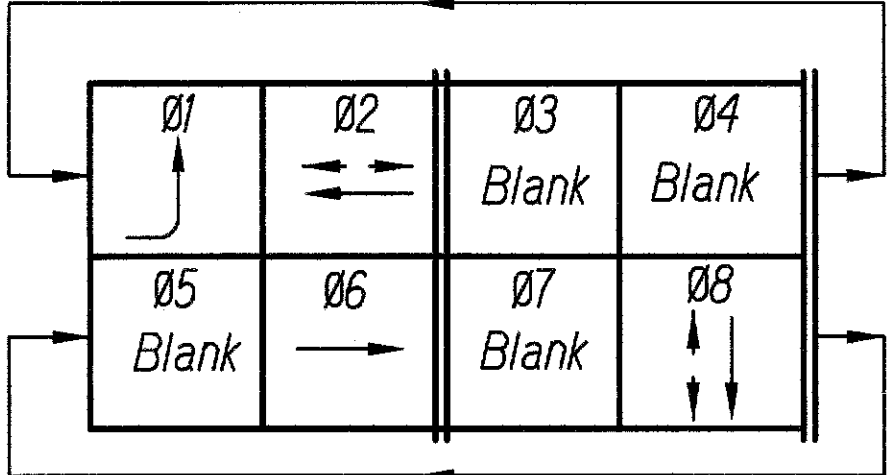


KEY MAP
 Not to Scale

 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION SIGNATURE: <i>Keith K. Niya</i> 4/30/10 EXPIRATION DATE OF THE LICENSE:	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION TRAFFIC SIGNAL PLAN KAMEHAMEHA HIGHWAY TRAFFIC OPERATIONAL IMPROVEMENTS VICINITY OF ACACIA ROAD TO CENTER DRIVE PROJECT NO. 99D/G-01-08 Scale: 1"=20' Date: April 2008
	SHEET No. TS-04 OF 36 SHEETS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
ORIGINAL PLAN	
NO.	

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	24	89



PHASE DIAGRAM

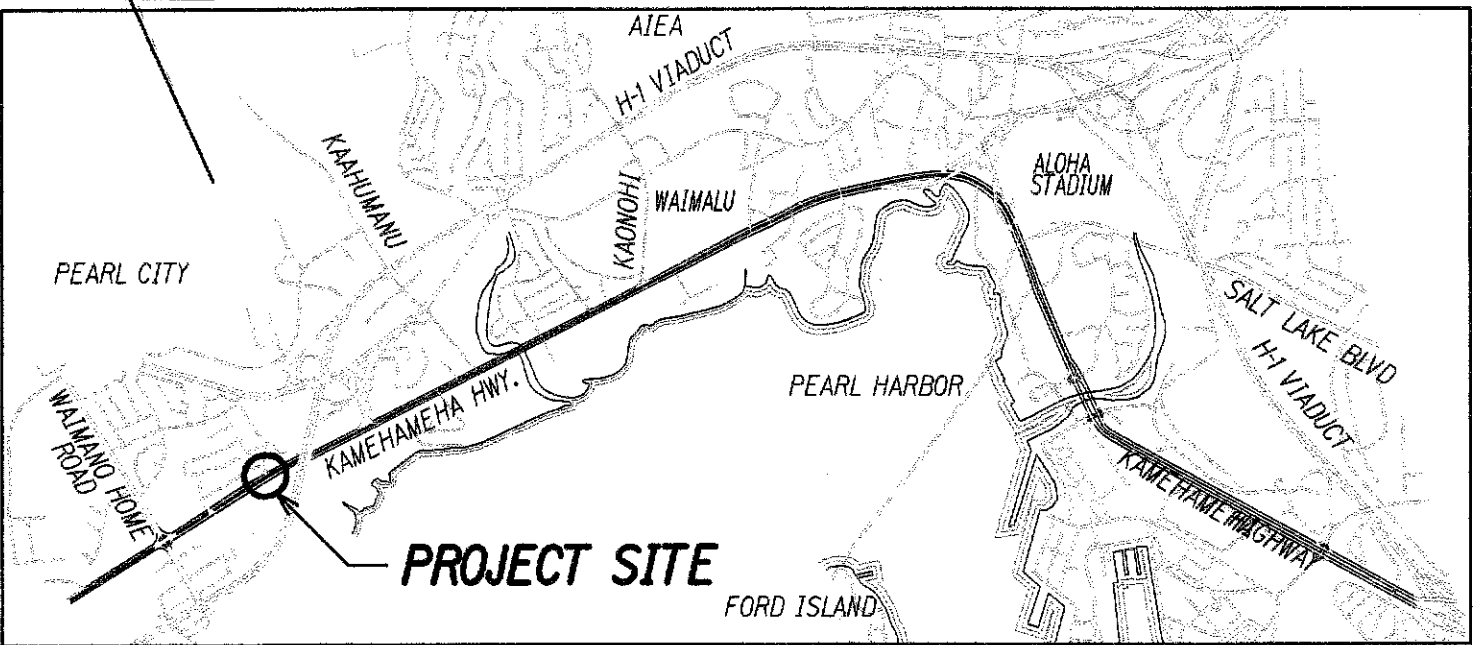
Exist. Model 170 Controller
Exist. Model 332 Cabinet

NOTES:

- = Replace existing pullbox with new type "B" pullbox
- = Replace existing pullbox with new type "C" pullbox

NOTES:

- Refer to trench details on sheet TS-33 and TS-34.
- All pedestrian signal indications shall provide countdown indication and shall be LED.
- Contractor to replace all exist pedestrian pushbutton with new pedestrian pushbutton (3 ea.) in addition to new pedestrian pushbuttons called out on the plan.
- See sheet TS-19 for interconnect plan.



KEY MAP

Not to Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

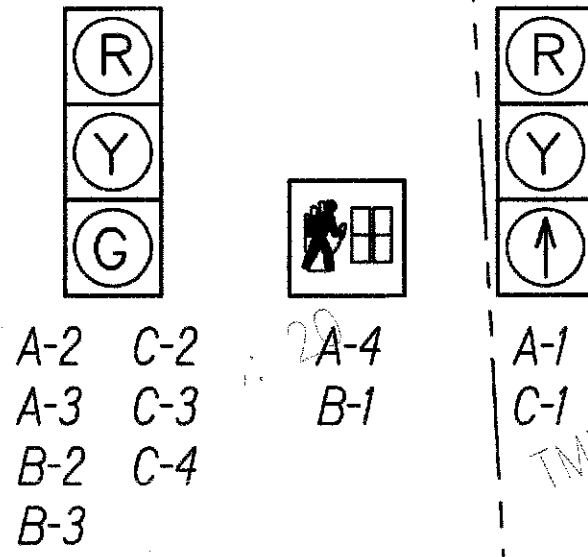
TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

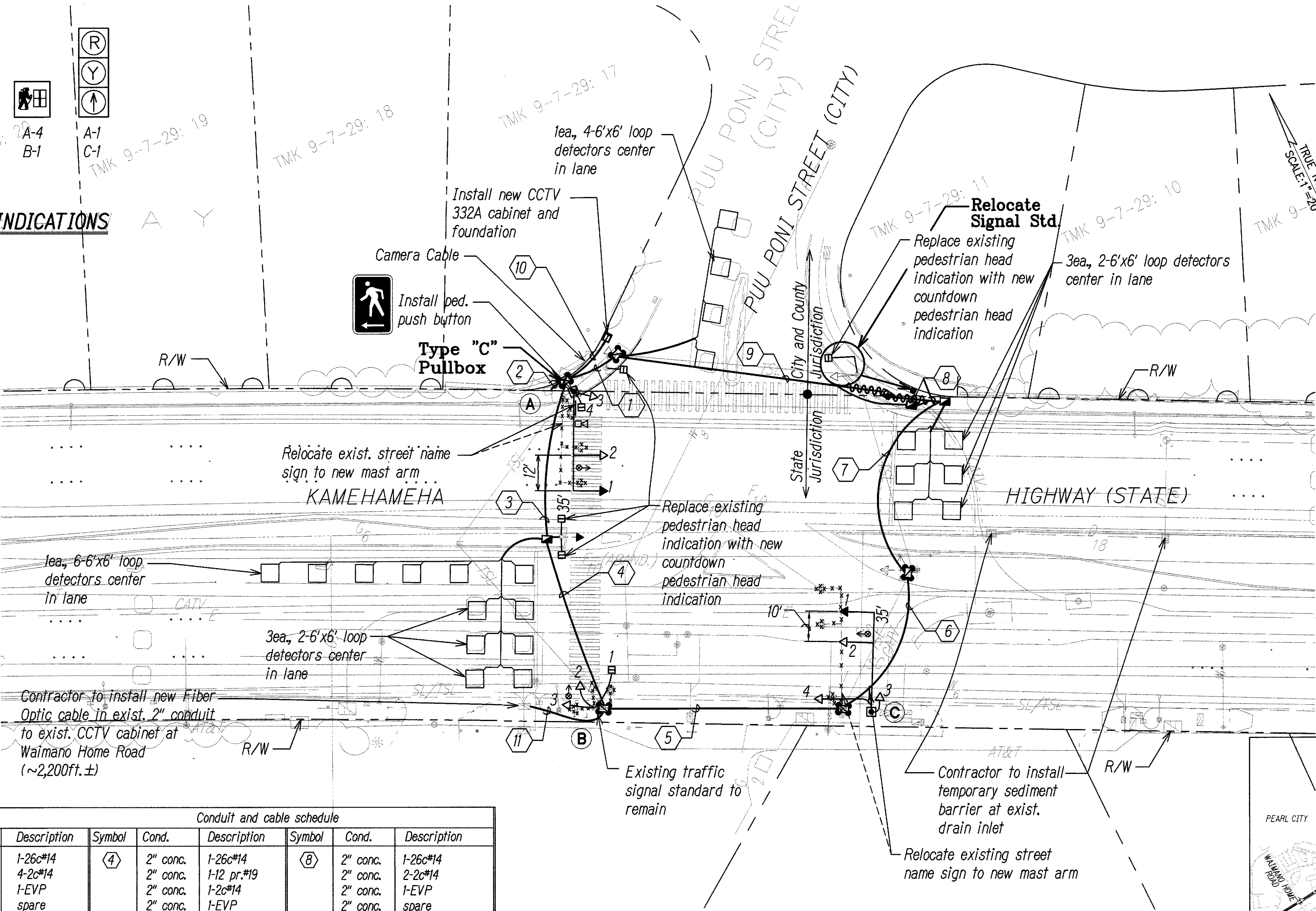
Scale: 1"=20'

Date: April 2008

SHEET No. TS-05 OF 36 SHEETS



SIGNAL INDICATIONS



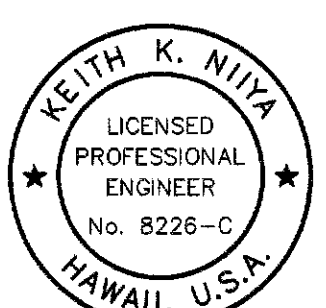
TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY AND PUU PONI STREET

SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Text for as-built posting



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Signature: *Keith K. Niya*
Date: 4/30/10
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20'

Date: April 2008

SHEET No. TS-05 OF 36 SHEETS

"AS-BUILT"

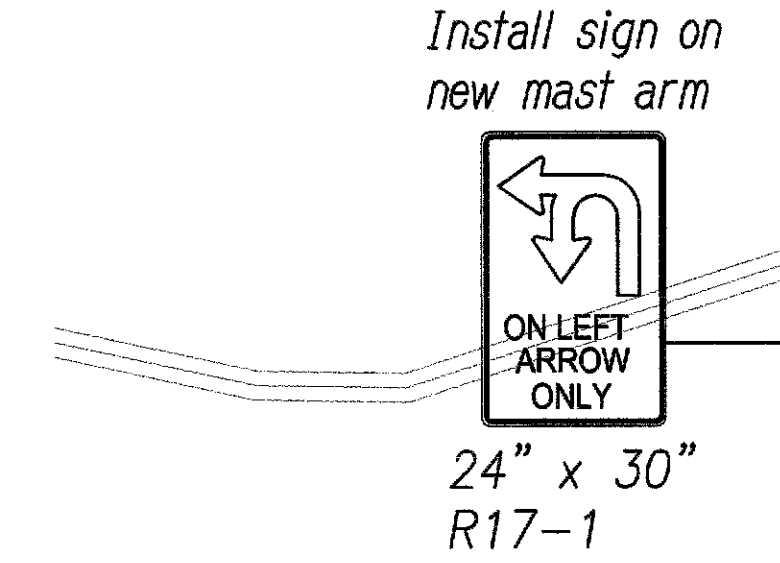
24

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	25	89

(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)
A-3 C-3 D-1 F-1 H-1 H-2	A-2 D-3* E-1 H-4* H-5*	D-2 H-3	C-2 G-1	A-1 B-1 C-1 E-2 F-2 G-2

SIGNAL INDICATIONS

* Indicates programmable visibility head.



CONDUIT AND CABLE SCHEDULE					
Symbol	Cond.	Description	Symbol	Cond.	Description
1	2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 1-3C*6 5-2C*14 5-2C*14 4-EVP	5	2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 2-2C*14 1-EVP spare
2	2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 4-2C*14 4-2C*14 1-EVP 2-12 pr. #19 spare	6	2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 2-2C*14 spare
3	2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 5-2C*14 1-EVP 2-12 pr. #19 spare	7	2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 spare
4	2" Conc. 2" Conc.	2-2C*14 2-12 pr. #19	8	2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 1-EVP 1-Camera cable spare
			9	Exist. 2"	2-2C*14

CONDUIT AND CABLE SCHEDULE					
Symbol	Cond.	Description	Symbol	Cond.	Description
10	2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 2-2C*14 1-EVP 1-Camera cable spare	14	2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 4-2C*14 2-EVP 1-Camera cable spare
11	2" Conc.	2-2C*14	15	2" Conc. 2" Conc. 2" Conc.	1-3C*6 Exist. Fiber Optic 1-Camera cable spare
12	2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-26C*14 1-26C*14 5-2C*14 1-EVP 1-Camera cable spare	16	2" Conc.	1-3C*2
13	Exist. 2"	2-2C*14	17	Exist. 2"	Exist. Fiber Optic to remain
			18	2" Conc.	1-3C*6

Heco Meter #550820
98-320 Kam. Hwy.
See sht. E-3 for
Electrical Plan.

Remove exist. traffic controllers (2),
foundations (2), and pipe bollards
after new controllers are in service
Install new pipe bollards at
new controllers, typ.

Relocate exist. street direction sign and
street name sign to new mast arm
Install new camera

2ea, 6-6'x6' loop
detectors center in lane

Exist. 2'x4' Pullbox
to Remain

2ea, 4-6'x6'
loop detectors
center in lane

CAUTION
SIGNAL
MODIFIED

KAMEHAMEHA HIGHWAY (STATE)

KAAHUMANU STREET
(CITY)

CAUTION
SIGNAL
MODIFIED

Replace

1ea, 4-6'x6'
loop detectors
center in lane

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY AND KAAHUMANU STREET
SCALE: 1"=20'

NOTE:

1. Refer to trench details on sheet TS-33 and TS-34.
2. All pedestrian signal indications shall provide countdown indication and shall be LED.
3. Should existing fiber optic cable be damaged by contractor, contractor shall replace existing fiber optic cable at no cost to the State.
4. The Contractor shall complete the construction work at the Kamehameha Highway and Kaahumanu Street intersection within 100 working days from Notice to Proceed date.

New Type B

Install New Ped
Push Button

Relocated

New Type B

Install sign on
new mast arm

ON LEFT
ARROW
ONLY

24" x 30"
R17-1

Install new
ped. push
button

Install new
ped. push
button

Install new
ped. push
button

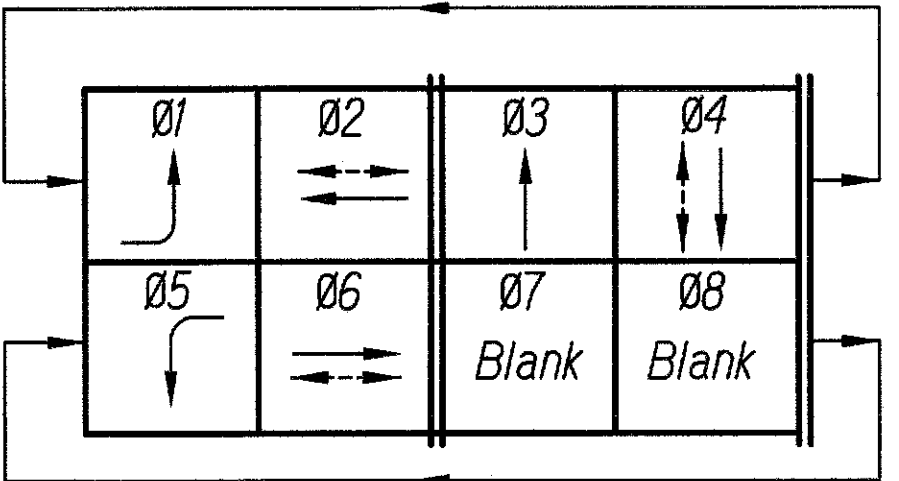
Relocate exist. street
directional sign and
street name sign to new
mast arm

CAUTION
SIGNAL
MODIFIED

Relocate exist. camera
on to new mastarm from
exist. mastarm

3ea, 2-6'x6'
loop detectors
center in lane

1ea, 6-6'x6'
loop detectors
center in lane



PHASE DIAGRAM

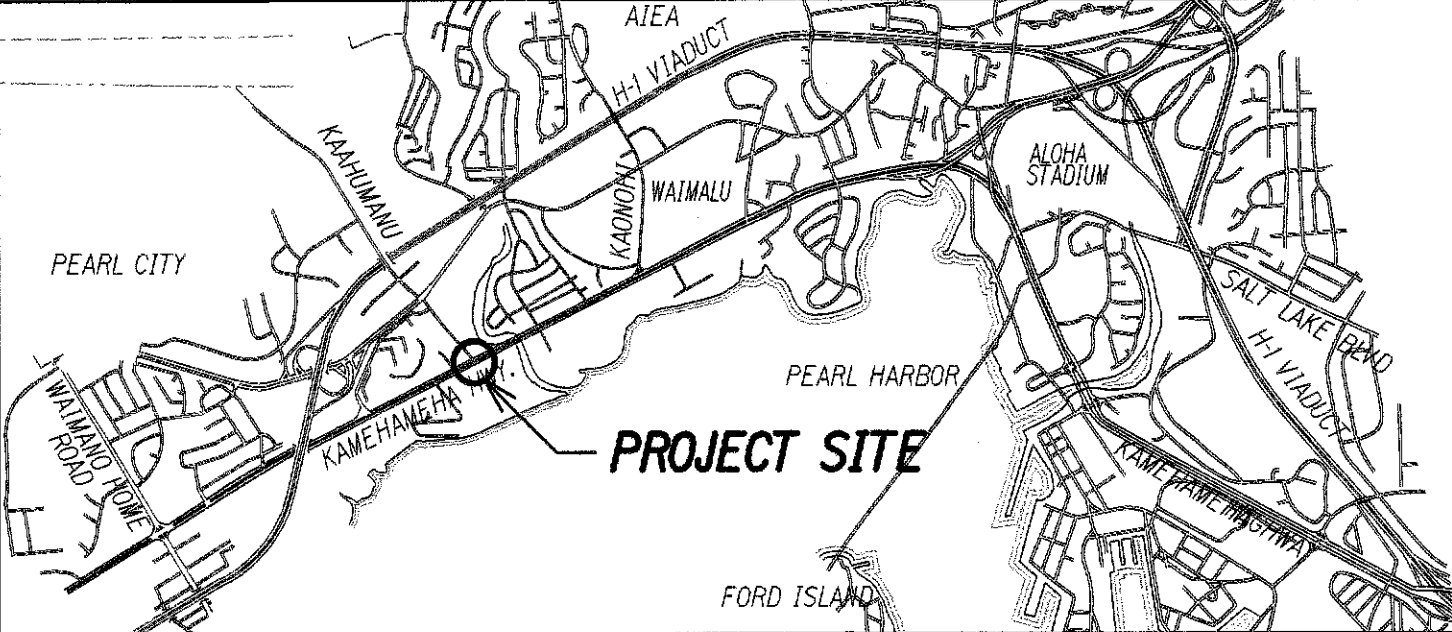
New Model 170 Controller
New Model 332 Cabinet

LEGEND:

- Replace existing pullbox with new type "A" pullbox
- Replace existing pullbox with new type "B" pullbox
- Replace existing pullbox with new type "C" Pullbox

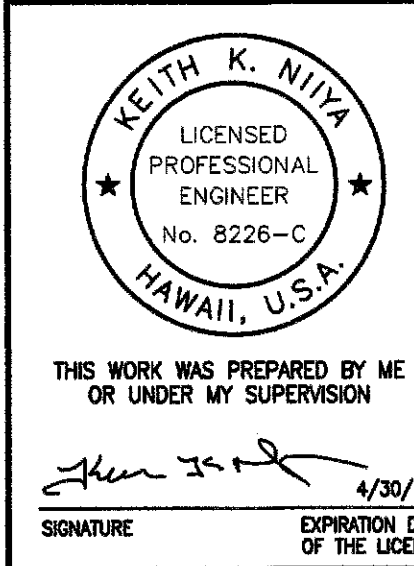
LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting



KEY MAP

Not to Scale



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

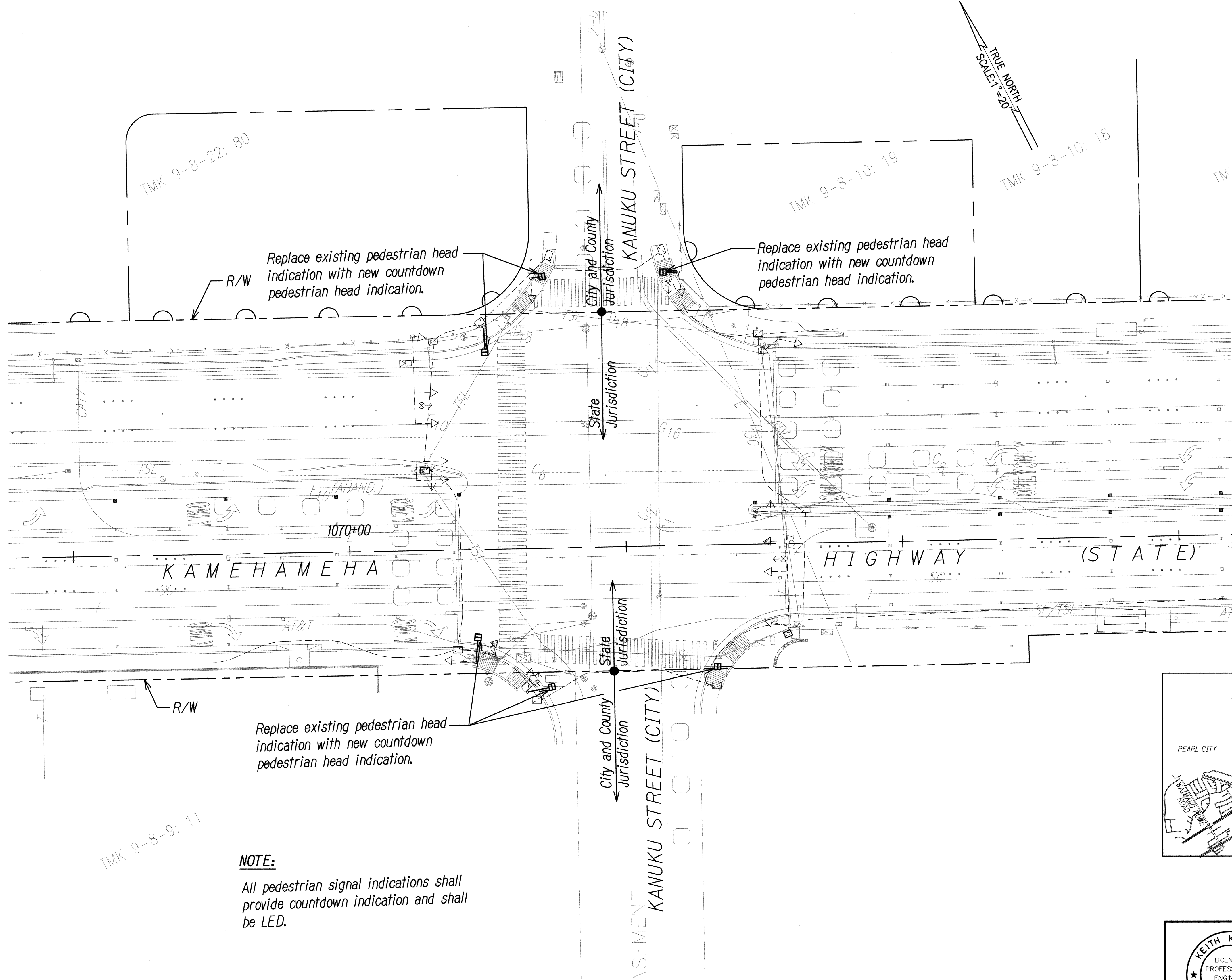
KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: As Shown Date: April 2008

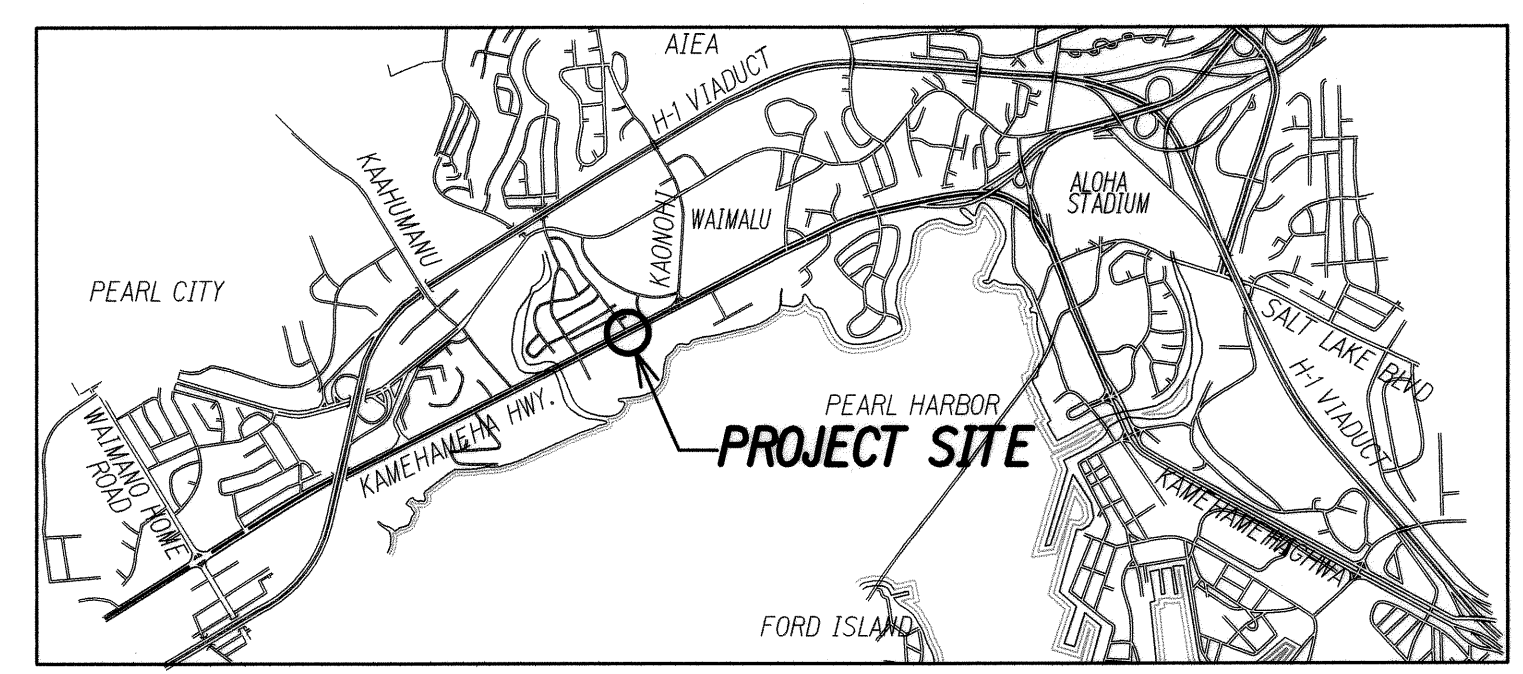
SHEET No. TS-06 OF 36 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	27	89



NOTE:
All pedestrian signal indications shall provide countdown indication and shall be LED.



KEY MAP
Not to Scale

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature: *Keith K. Niya* Date: 4/30/10

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

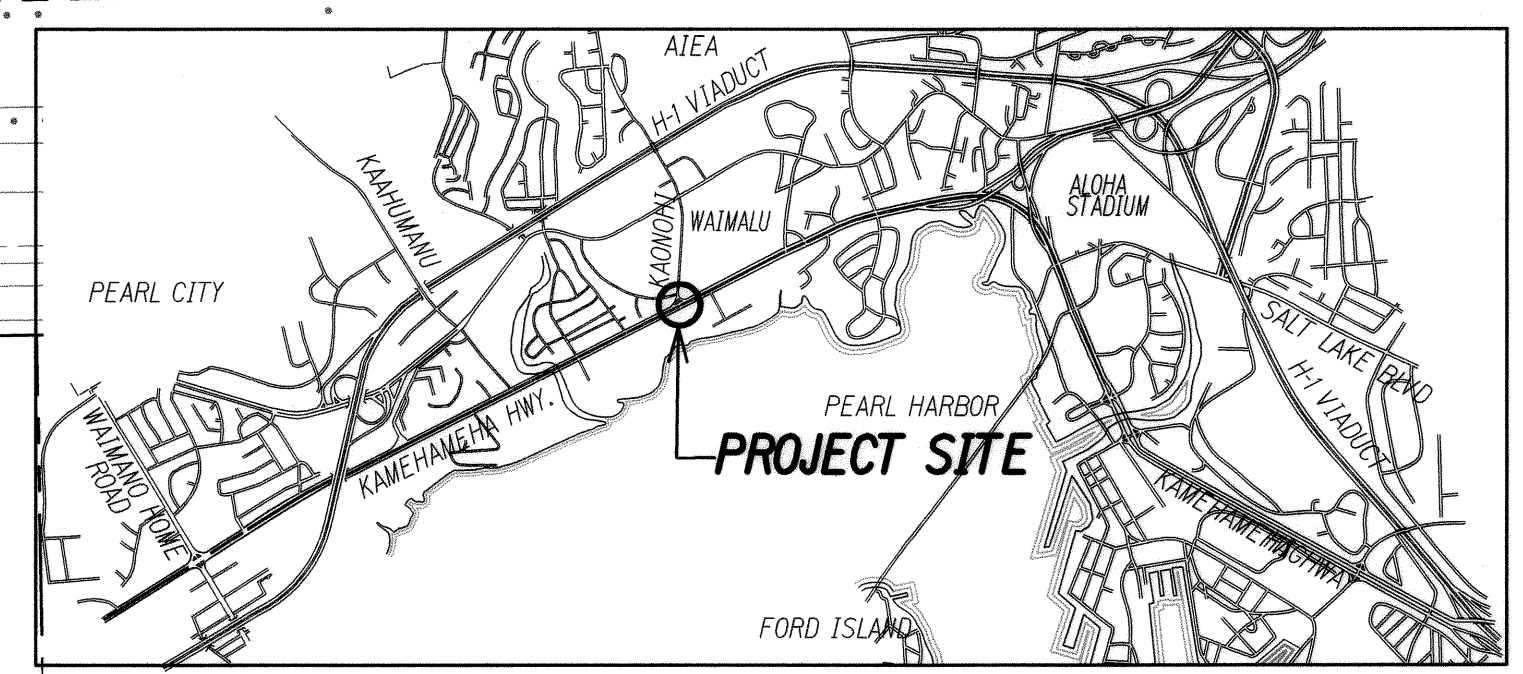
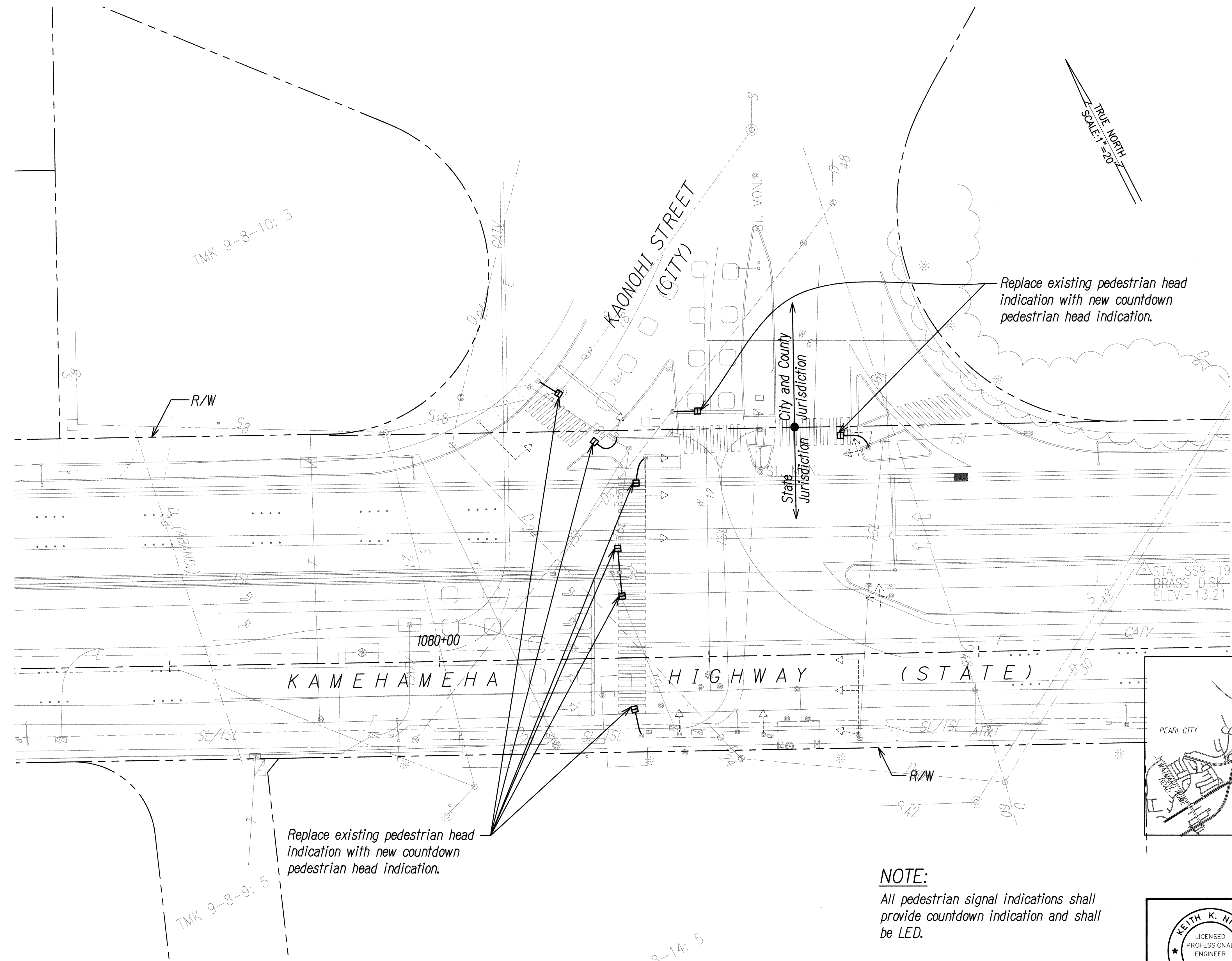
KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

DESIGNED BY	DATE
CHECKED BY	
NOTED BY	
QUANTITIES BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	

TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AT KANUKU STREET
SCALE: 1"=20'

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	28	89



KEY MAP
Not to Scale

NOTE:
All pedestrian signal indications shall provide countdown indication and shall be LED.

TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND KAONOHI STREET
SCALE: 1"=20'

SURVEY PLOTTED BY	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature: *Keith K. Niya* 4/30/10
EXPIRATION DATE OF THE LICENSE

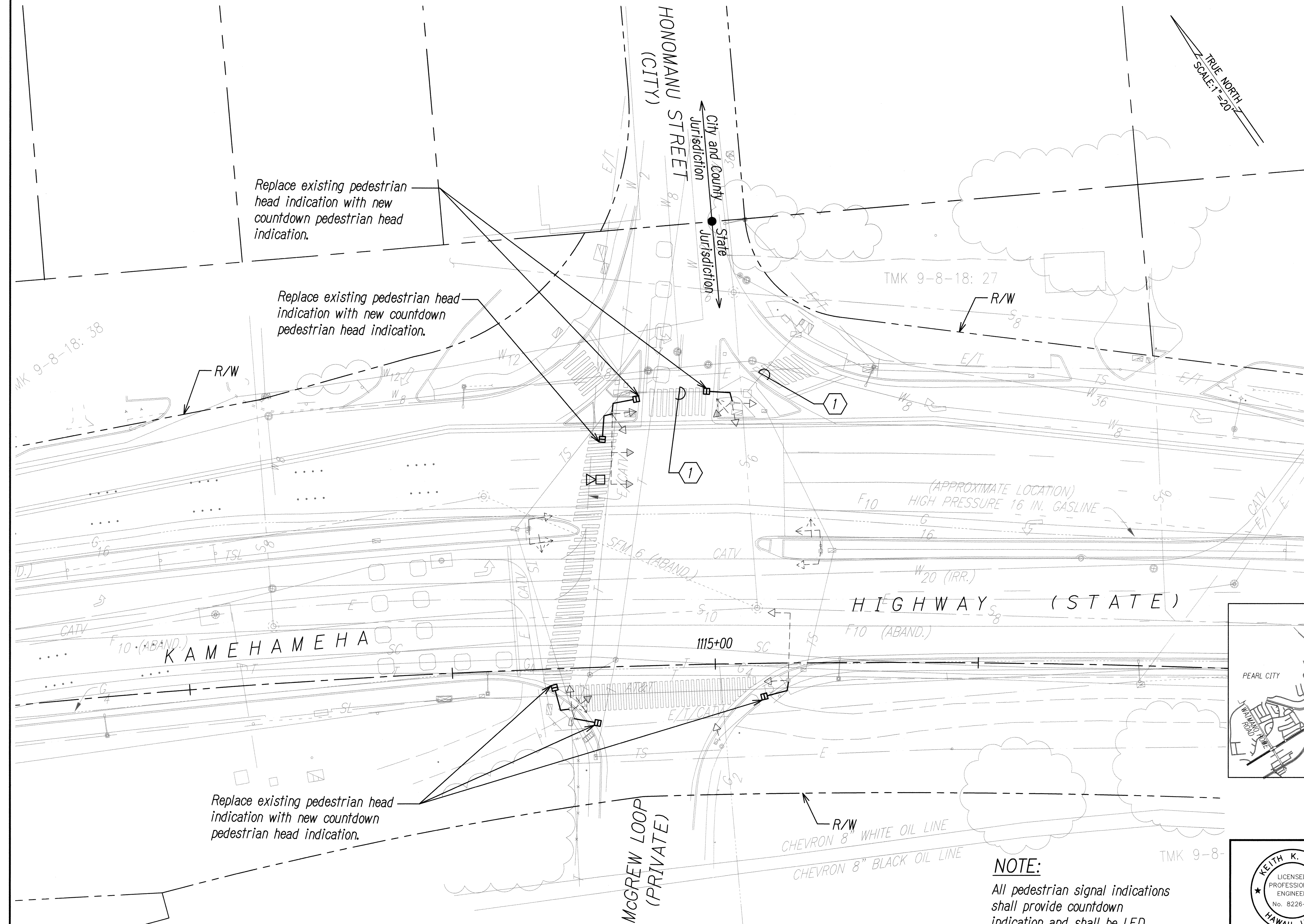
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION


TRAFFIC SIGNAL PLAN

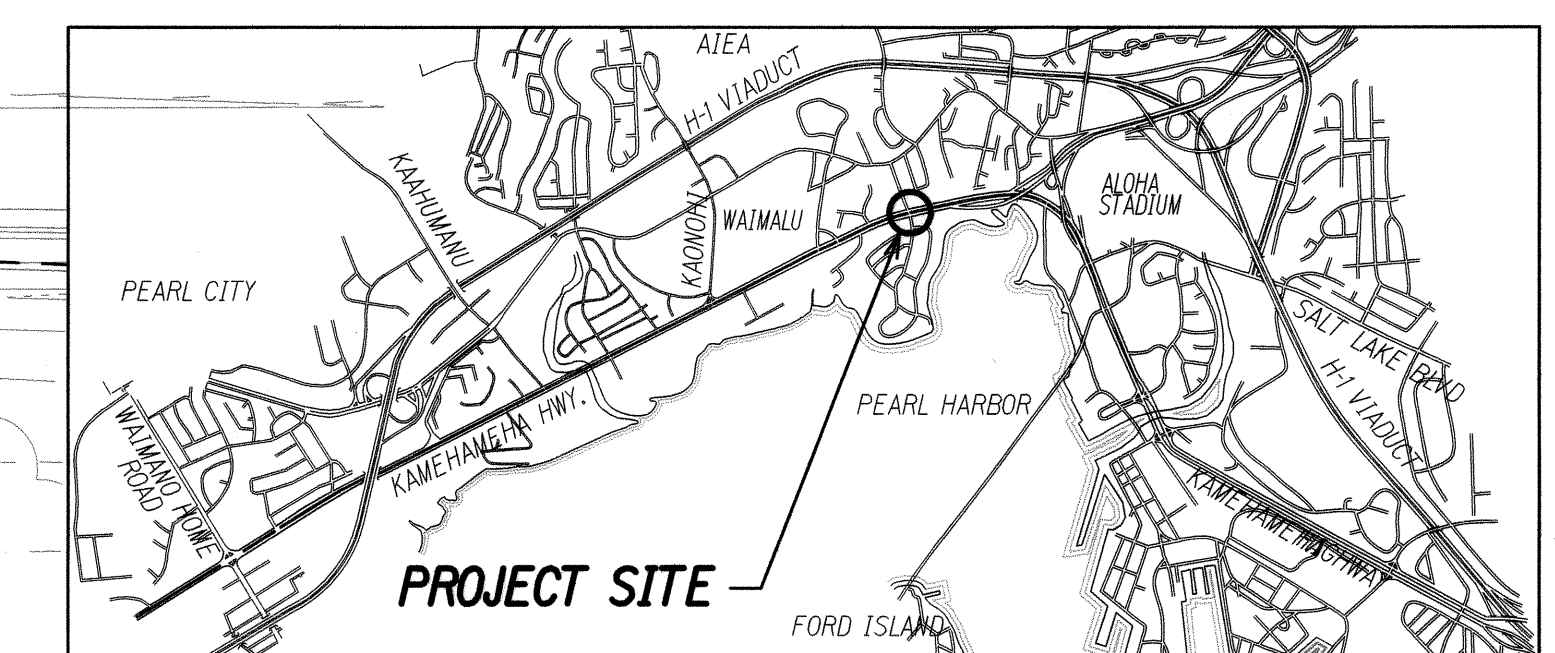
KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	31	89




Conduit and Cable Schedule		
Symbol	Cond.	Description
	Exist.	Camera Cables



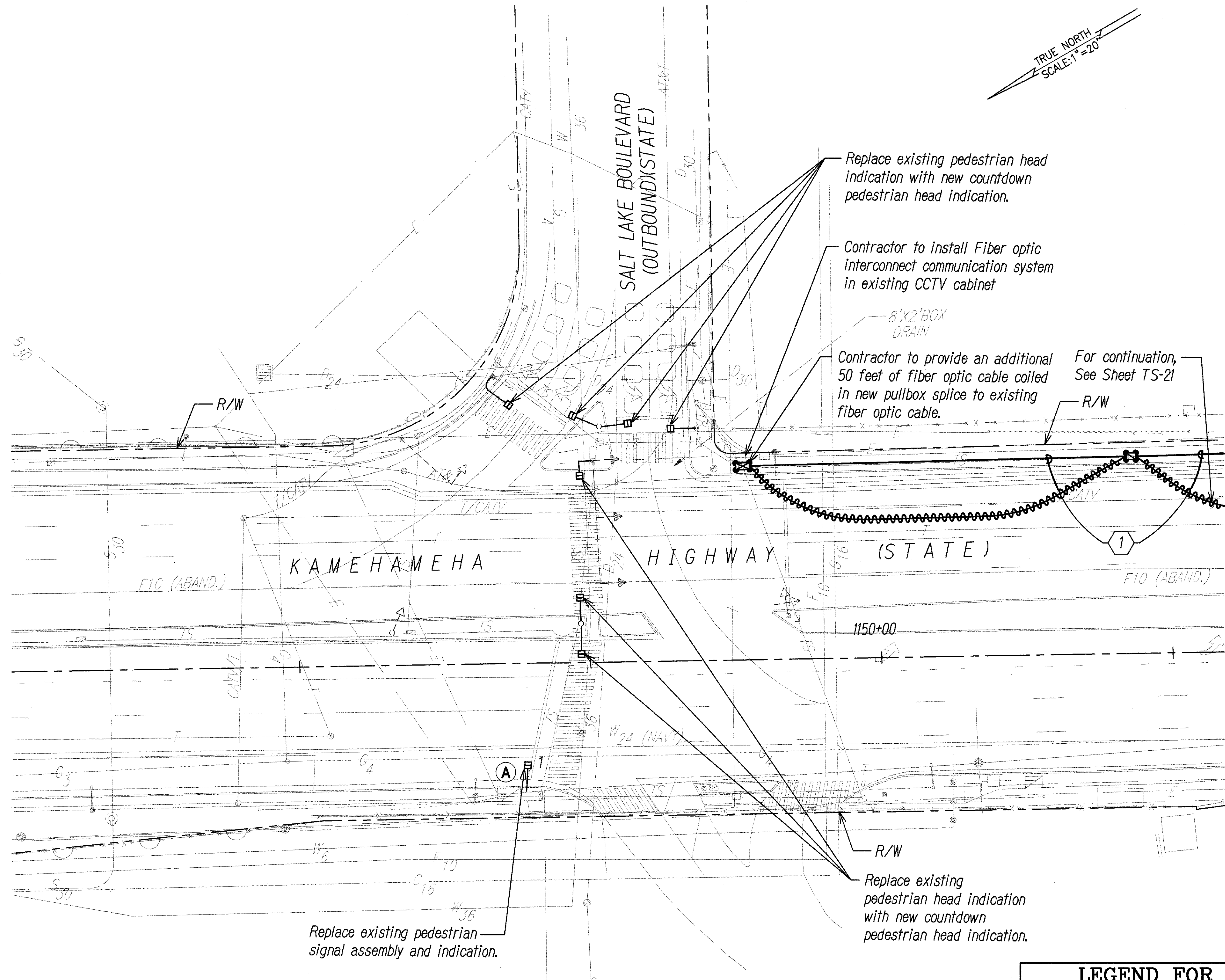
KEY MAP 
Not to Scale

NOTE:
All pedestrian signal indications shall provide countdown indication and shall be LED.

TRAFFIC SIGNAL PLAN KAMEHAMEHA HIGHWAY AND HONOMANU STREET

	<p>STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION</p> <p style="font-size: 1.5em; font-weight: bold; text-decoration: underline double;"><i>TRAFFIC SIGNAL PLAN</i></p> <p style="text-align: center;"><u>KAMEHAMEHA HIGHWAY</u> <u>TRAFFIC OPERATIONAL IMPROVEMENTS</u> <u>VICINITY OF ACACIA ROAD TO CENTER DRIVE</u> <u>PROJECT NO. 99D/G-01-08</u></p>
<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</p> <p style="text-align: right;">4/30/10</p> <p><i>Keith K. Niiya</i> SIGNATURE</p>	<p>EXPIRATION DATE OF THE LICENSE</p> <p>Scale: 1"=20'</p> <p>Date: April 2008</p>
<p>SHEET No. <i>TS-12</i> OF <i>36</i> SHEETS</p>	

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	32	89



A-1

SIGNAL INDICATIONS

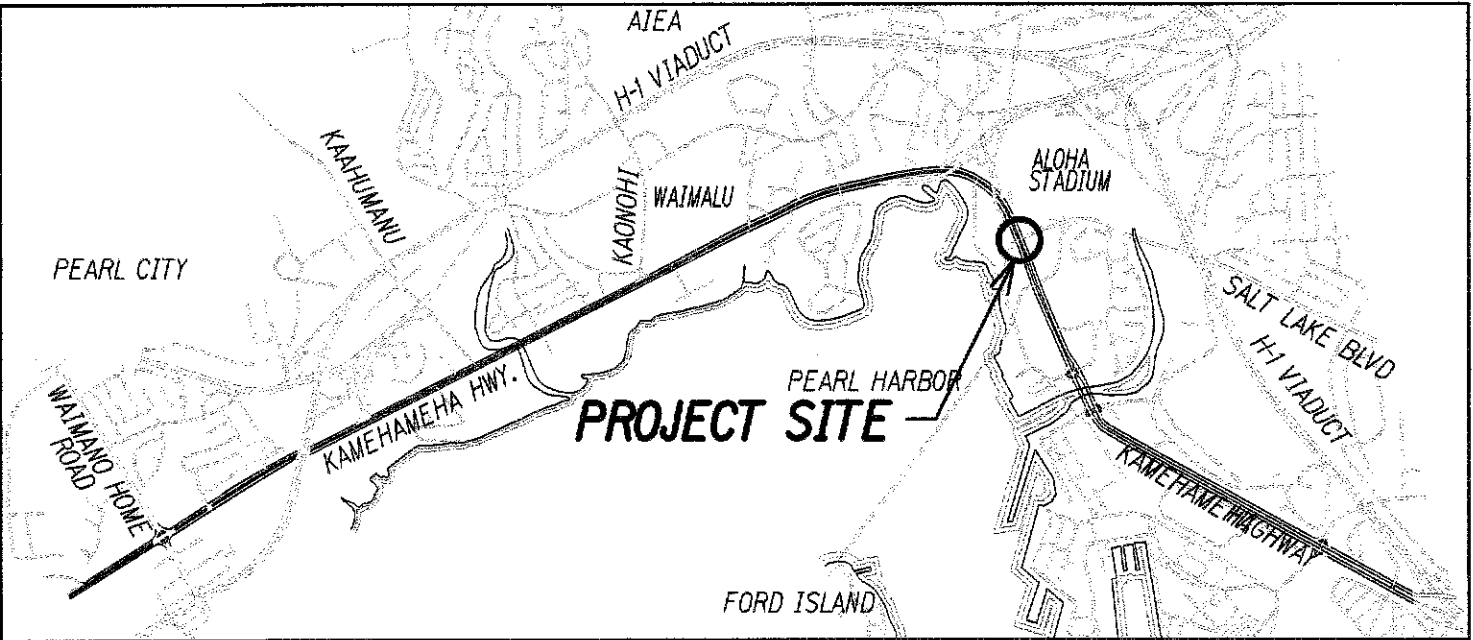
NOTES:

- = Replace existing pullbox with new type "B" pullbox
- = Replace existing pullbox with new type "C" pullbox

NOTES:

- Refer to trench details on sheet TS-33 and TS-34.
- All pedestrian signal indications shall provide countdown indication and shall be LED.

Conduit and Cable Schedule		
Symbol	Cond.	Description
	2" conc. 2" conc.	1-12pr.#19 1-Fiber Optic



KEY MAP

Not to Scale



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

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY AND SALT LAKE BOULEVARD (OUTBOUND)

SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion
 Double line for as-built deletion
Roadway Text for as-built posting

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature: *Keith K. Niya* 4/30/10

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08



Scale: 1"=20' Date: April 2008

SHEET No. TS-13 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	33	89

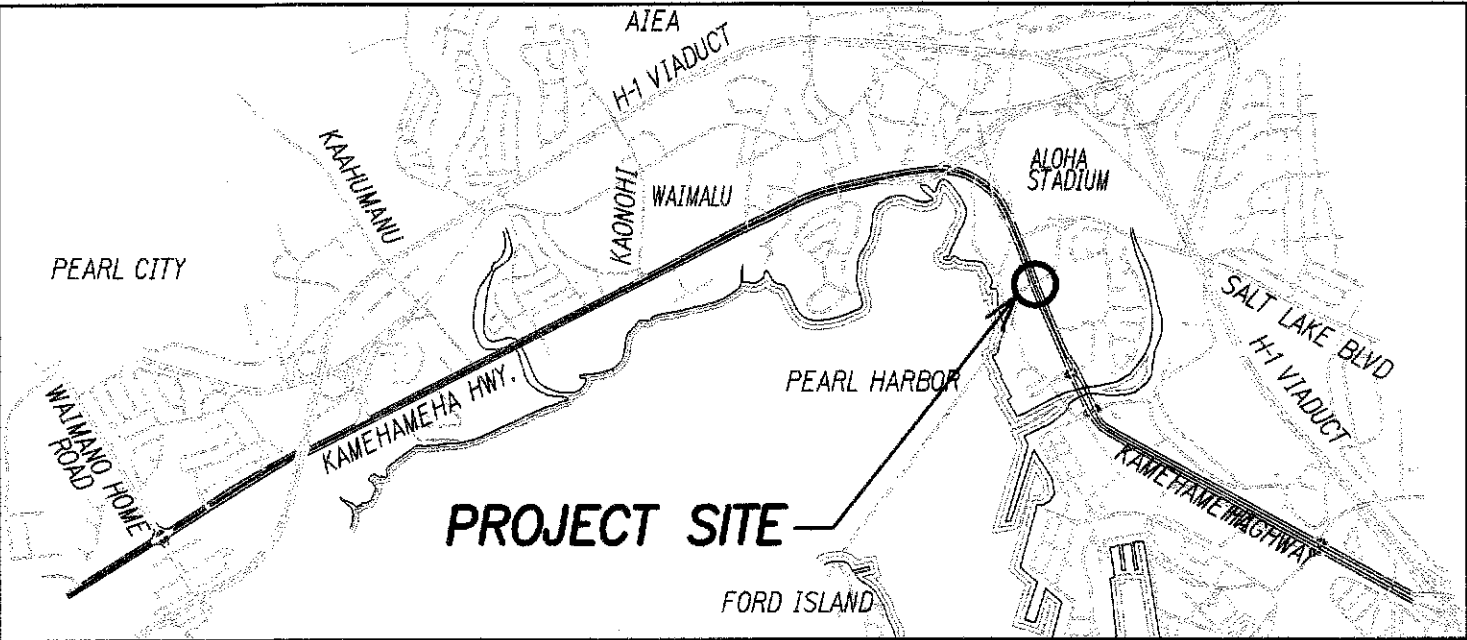
Conduit and Cable Schedule		
Symbol	Cond.	Description
①	2" conc. 2" conc.	1-12pr.#19 1-Fiber Optic
②	Exist	1-12pr.#19
③	2" Conc. 2" Conc.	1-12pr.#19 Spare
④	Exist	Camera Cables
⑤	2" Conc. 2" Conc. 2" Conc.	1-Fiber Optic Camera Cables 1-3C#4

NOTE:

-  = Replace existing pullbox with new type "B" pullbox
-  = Replace existing pullbox with new type "C" pullbox

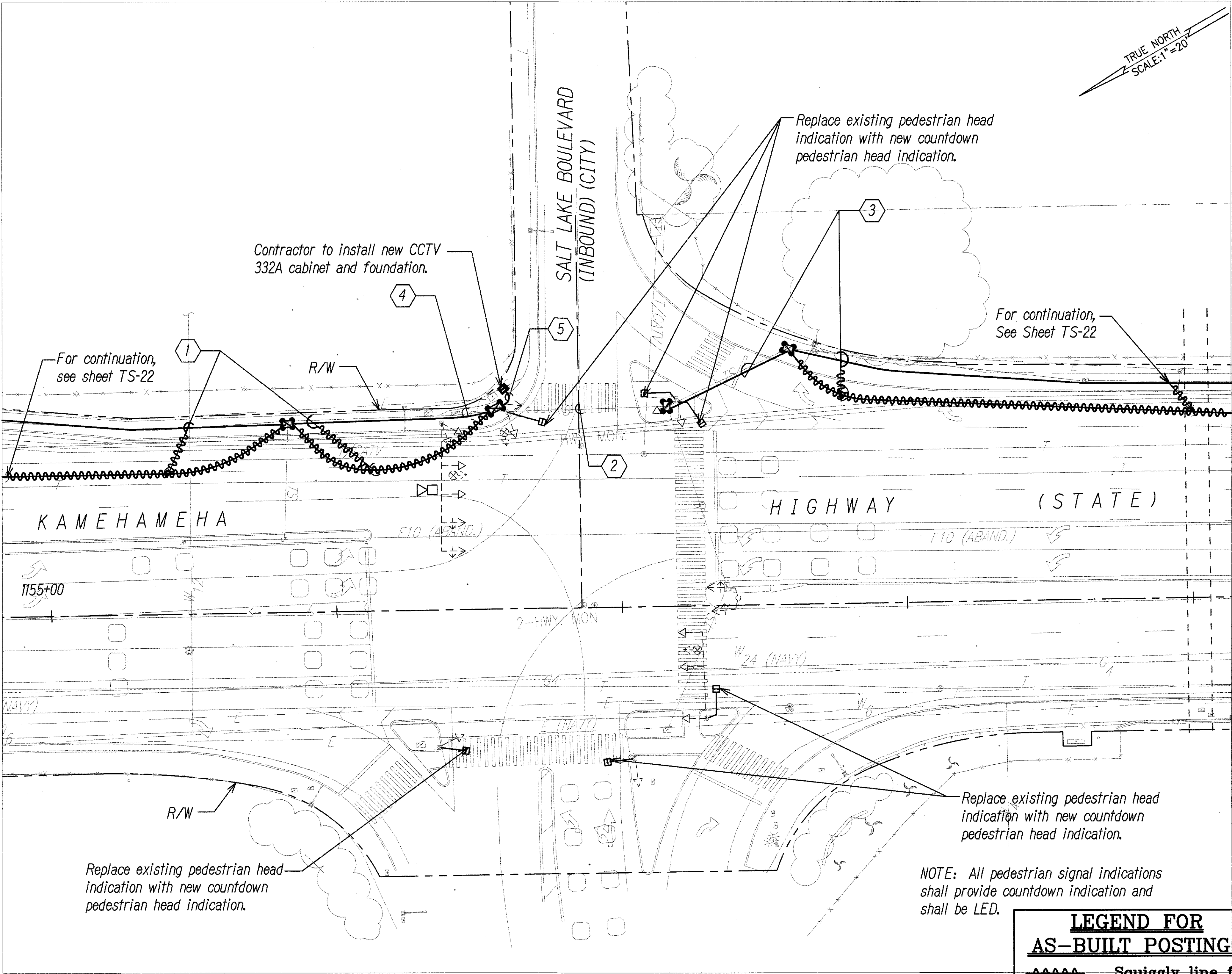
NOTE:

- Refer to trench details on sheet TS-33 and TS-34.
- All pedestrian signal indications shall provide countdown indication and shall be LED.





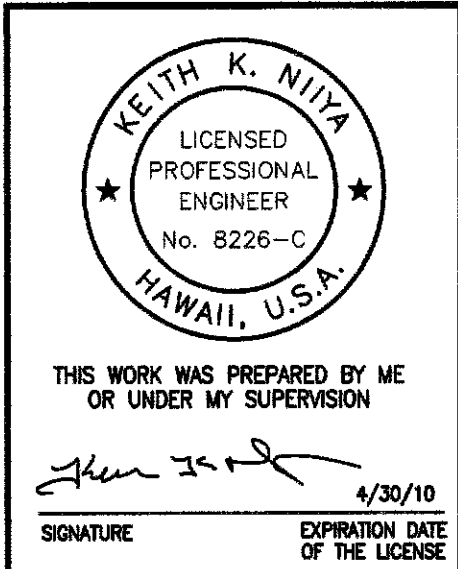
KEY MAP
Not to Scale

ORIGINAL PLAN	DATE
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	



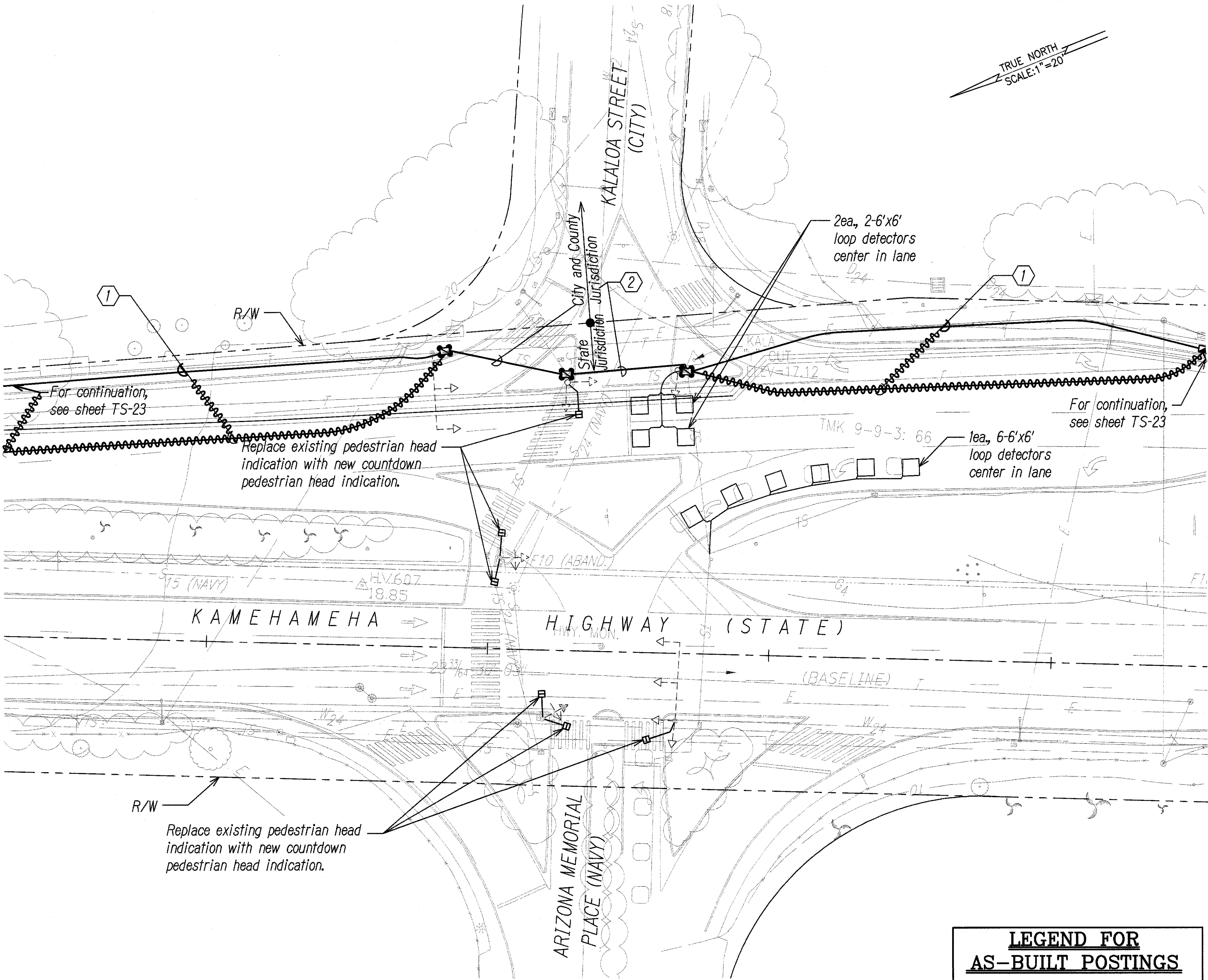
TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND SALT LAKE BOULEVARD (INBOUND)
SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting



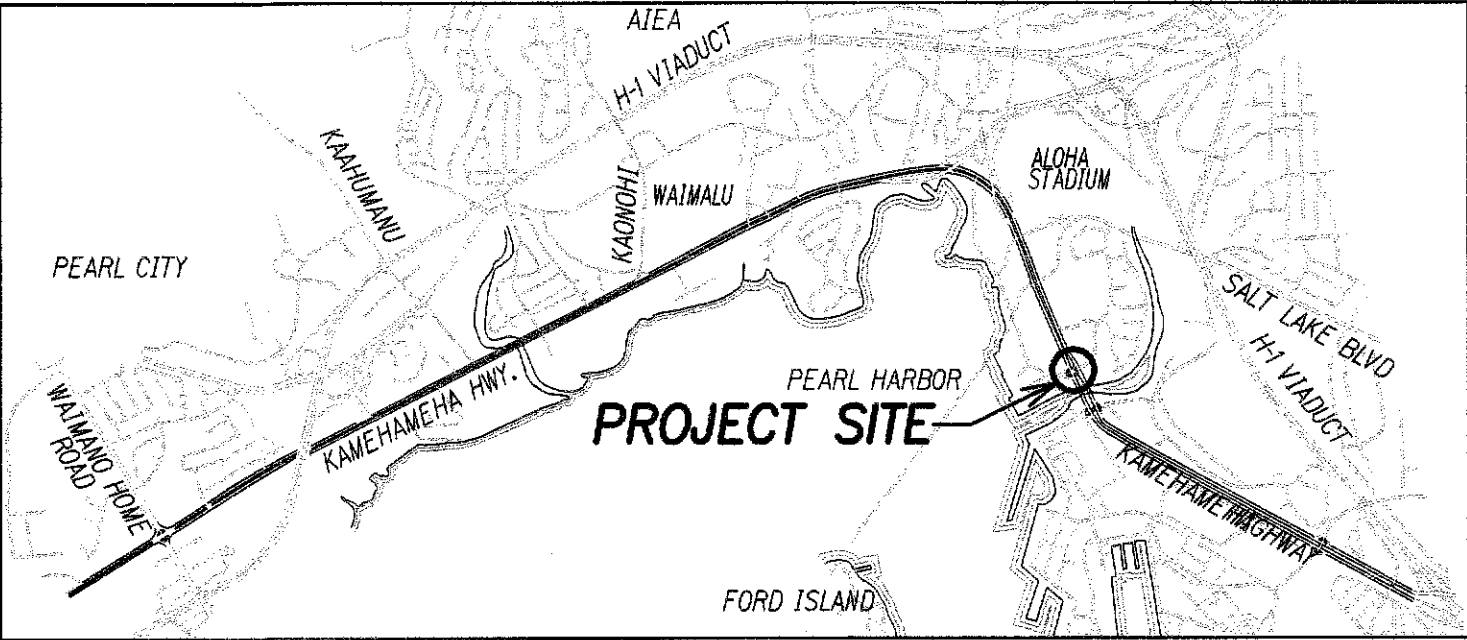
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TRAFFIC SIGNAL PLAN	
KAMEHAMEHA HIGHWAY TRAFFIC OPERATIONAL IMPROVEMENTS VICINITY OF ACACIA ROAD TO CENTER DRIVE PROJECT NO. 99D/G-01-08	
Scale: 1"=20'	Date: April 2008

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	34	89



Conduit and Cable Schedule		
Symbol	Cond.	Description
1	2" Conc.	1-12pr.#19
	2" Conc.	Spare
2	2" Conc.	1-12pr.#19
	2" Conc.	Spare
	2" Conc.	Spare
	2" Conc.	Spare
	2" Conc.	Spare

- NOTE:
- = Replace existing pullbox with new type "B" pullbox
 - = Replace existing pullbox with new type "C" pullbox
- NOTE:
- Refer to trench details on sheet TS-33 and TS-34.
 - All pedestrian signal indications shall provide countdown indication and shall be LED.



KEY MAP
Not to Scale

TRAFFIC SIGNAL PLANS
KAMEHAMEHA HIGHWAY AND KALALOA STREET/ARIZONA MEMORIAL PLACE
SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

KEITH K. NIYA
LICENSED PROFESSIONAL ENGINEER
No. 8226-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature: *Keith K. Niya* Date: 4/30/10

EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

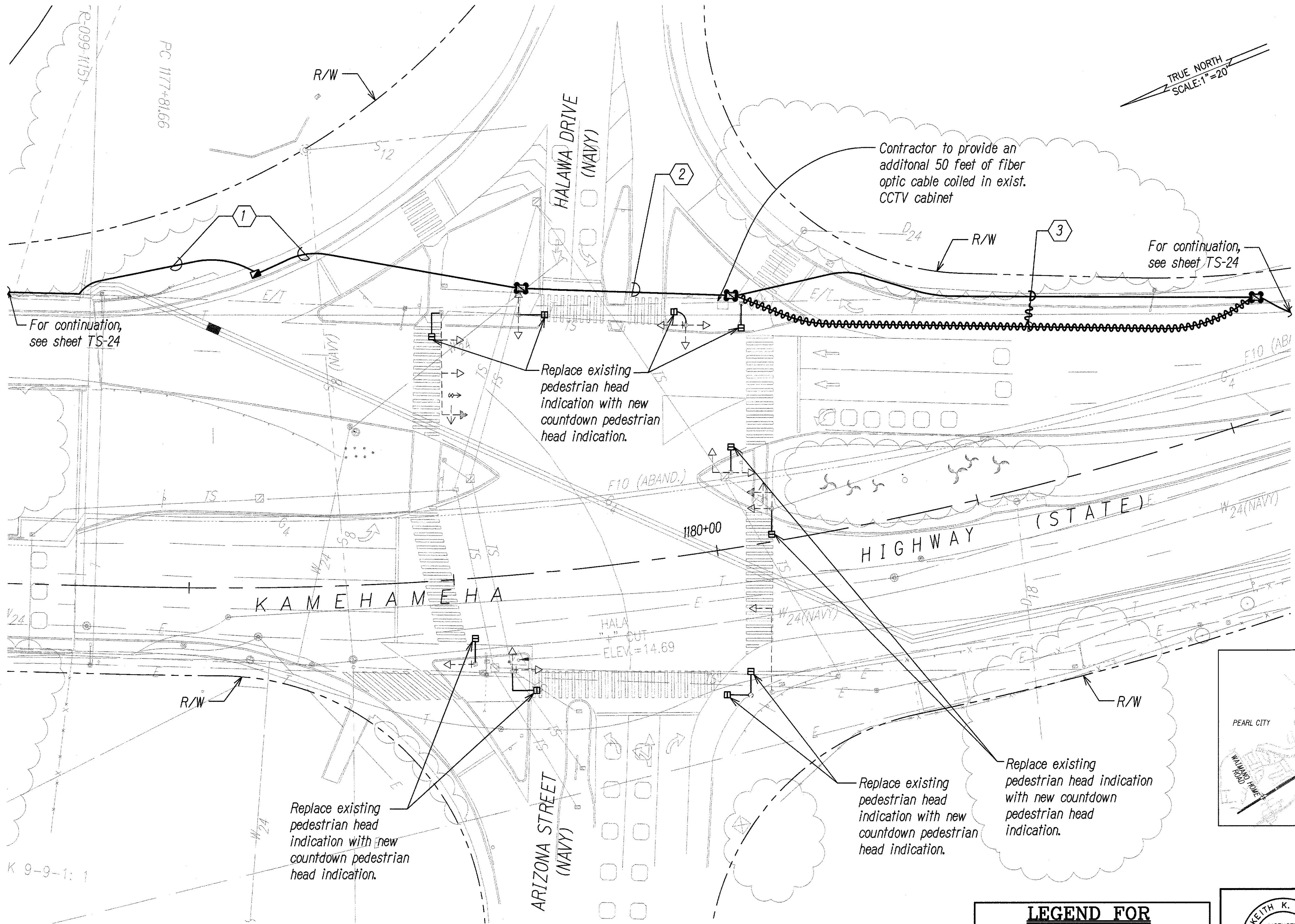
TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

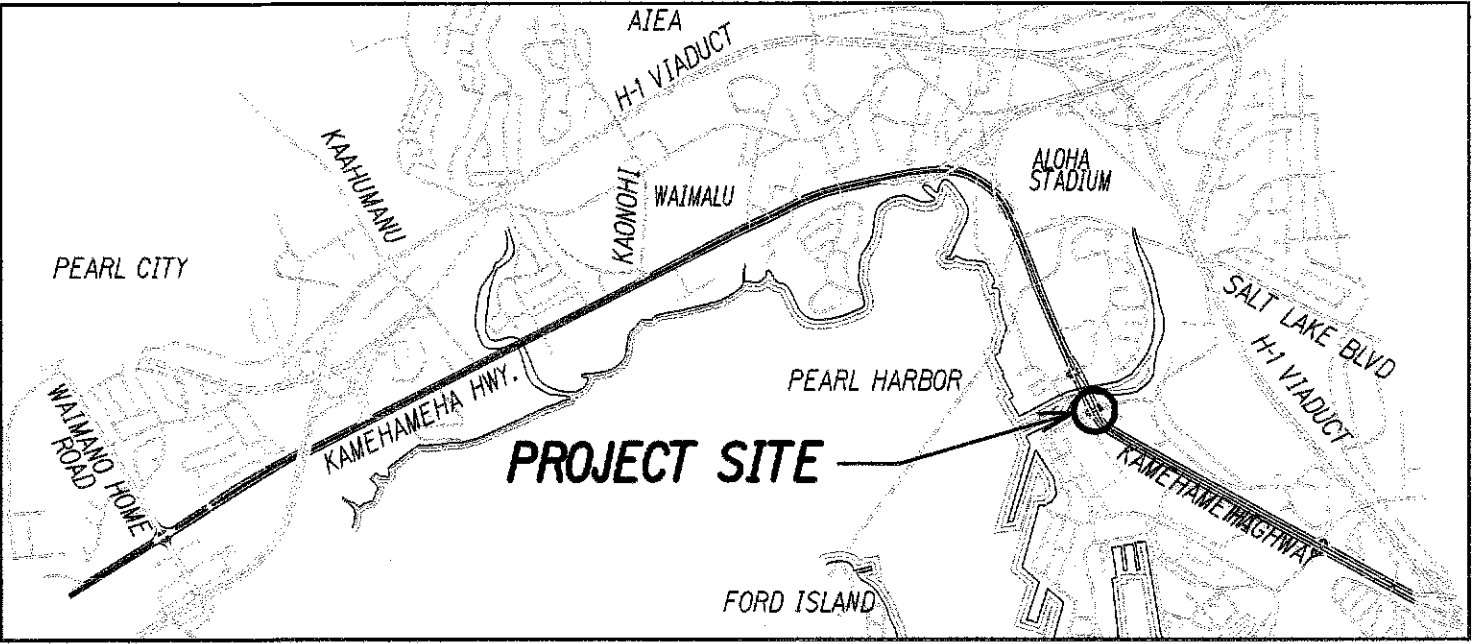
DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	35	89



Conduit and Cable Schedule		
Symbol	Cond.	Description
①	2" Conc. 2" Conc.	1-12pr.#19 Spare
②	2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-12pr.#19 Spare Spare Spare Spare
③	2" Conc. 2" Conc.	1-12pr.#19 1-Fiber Optic

- NOTE:
1. Refer to Trench details on sheet TS-33 and TS-34.
 2. All pedestrian signal indications shall provide countdown indication and shall be LED.



KEY MAP
Not to Scale

TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND HALAWA DRIVE/ARIZONA STREET
SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

KEITH K. NIYA
LICENSED PROFESSIONAL ENGINEER
No. 8226-C
HAWAII, U.S.A.

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Signature: [Signature] 4/30/10
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

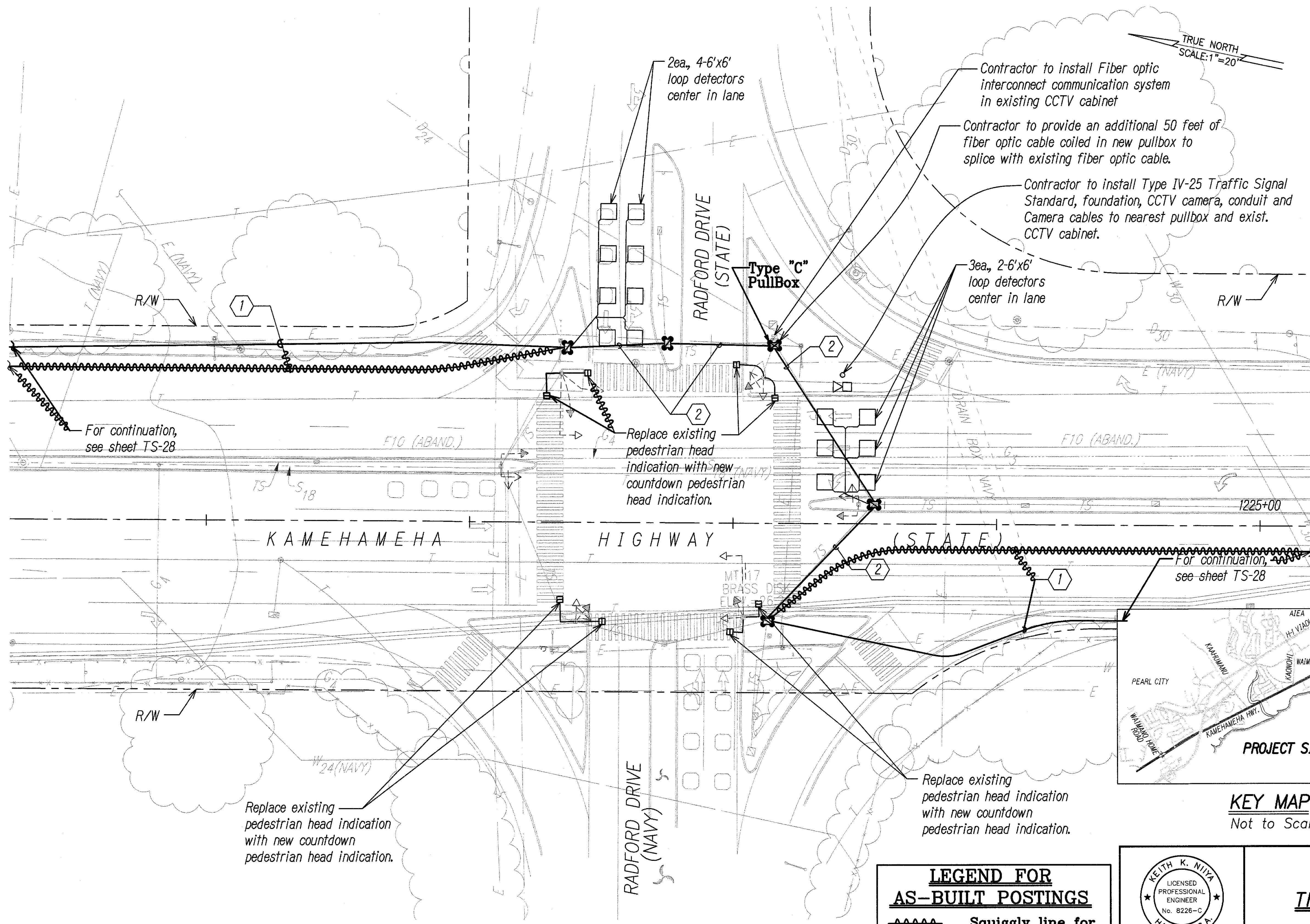
TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
No.	

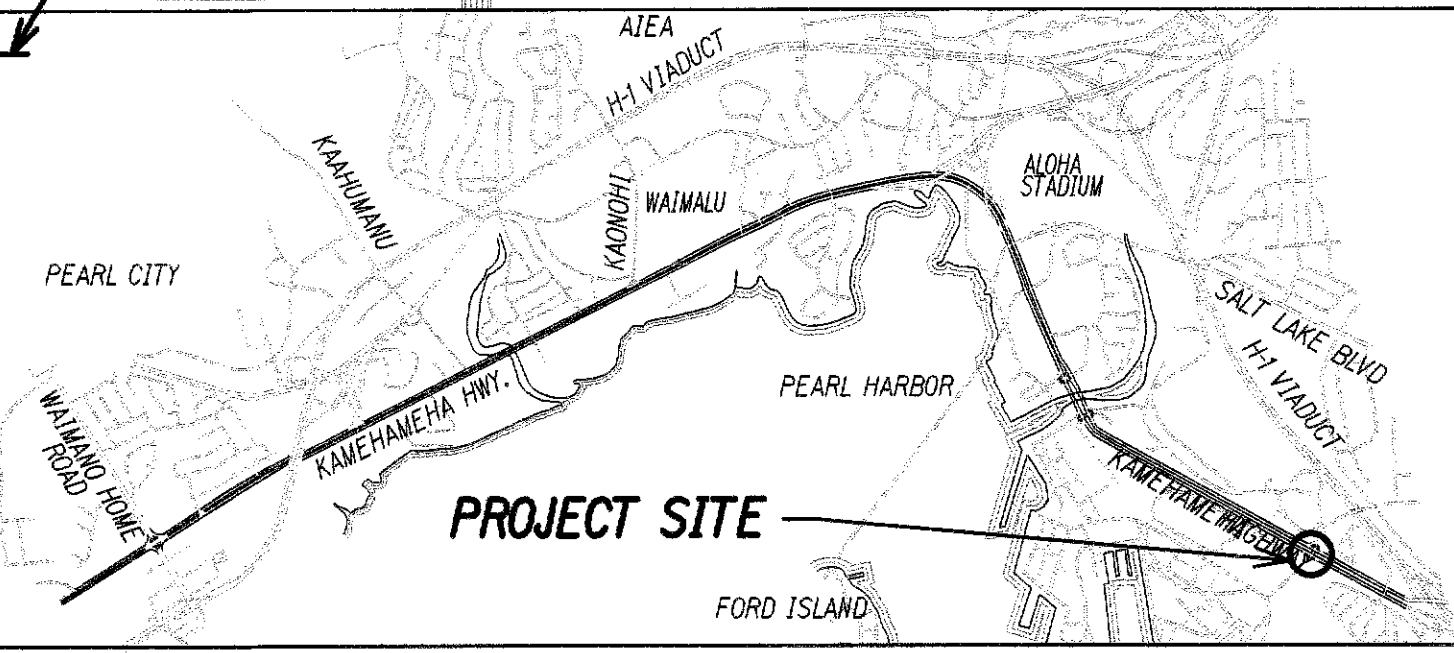
FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	36	89



- NOTES:**
- = Replace existing pullbox with new type "B" pullbox
 - = Replace existing pullbox with new type "C" pullbox

- NOTES:**
- Refer to trench details on sheet TS-33 and TS-34.
 - All pedestrian signal indications shall provide countdown indication and shall be LED.

Conduit and Cable Schedule		
Symbol	Cond.	Description
①	2" Conc. 2" Conc.	1-12pr.#19 1-Fiber Optic
②	2" Conc. 2" Conc. 2" Conc. 2" Conc. 2" Conc.	1-12pr.#19 1-Fiber Optic Spare Spare Spare Spare



KEY MAP
Not to Scale

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

TRAFFIC SIGNAL PLAN
KAMEHAMEHA HIGHWAY AND RADFORD DRIVE
SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

KEITH K. NIYA
LICENSED PROFESSIONAL ENGINEER
No. 8226-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

4/30/10
SIGNATURE EXPIRATION DATE OF THE LICENSE

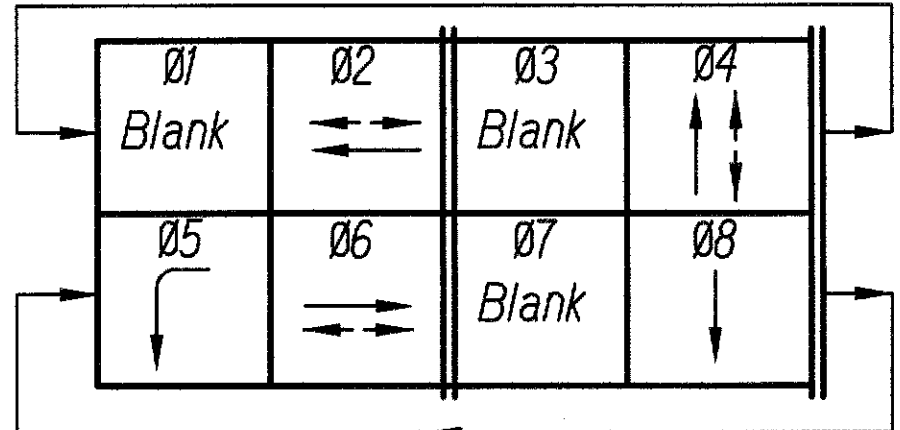
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	99D/G-01-08	2008	37	89



PHASE DIAGRAM

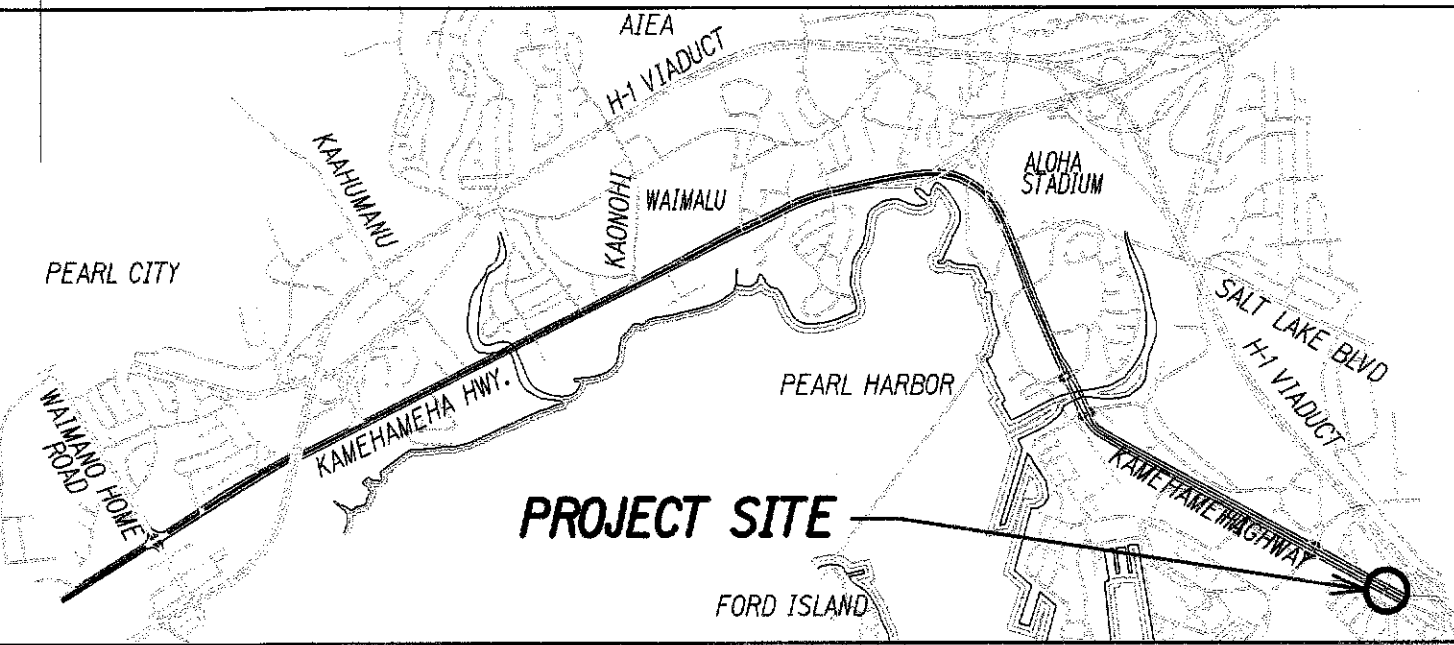
New model 170 Controller
New model 332 Cabinet

NOTES:

- = Replace existing pullbox with new type "B" pullbox
- = Replace existing pullbox with new type "C" pullbox

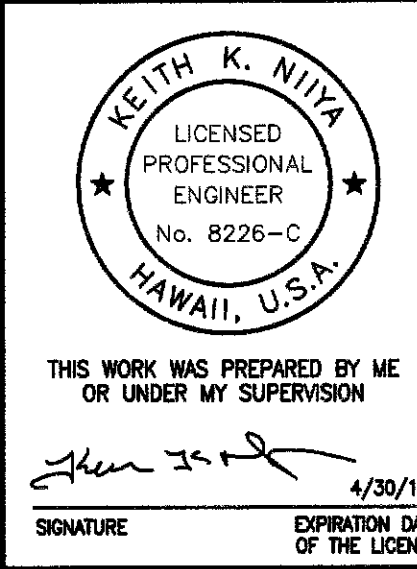
NOTES:

- Refer to trench details on sheet TS-33 and TS-34.
- All pedestrian signal indications shall provide countdown indication and shall be LED.
- Contractor to replace all exist pedestrian pushbutton with new pedestrian pushbutton (3 ea.) in addition to new pedestrian pushbuttons called out on plan



KEY MAP

Not to Scale



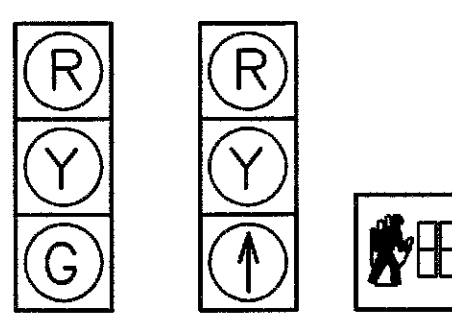
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY
TRAFFIC OPERATIONAL IMPROVEMENTS
VICINITY OF ACACIA ROAD TO CENTER DRIVE
PROJECT NO. 99D/G-01-08

Scale: 1"=20' Date: April 2008

SHEET No. TS-18 OF 36 SHEETS



B-2
B-3
B-4
B-5
B-6
C-2
D-2
D-3

B-7
D-4

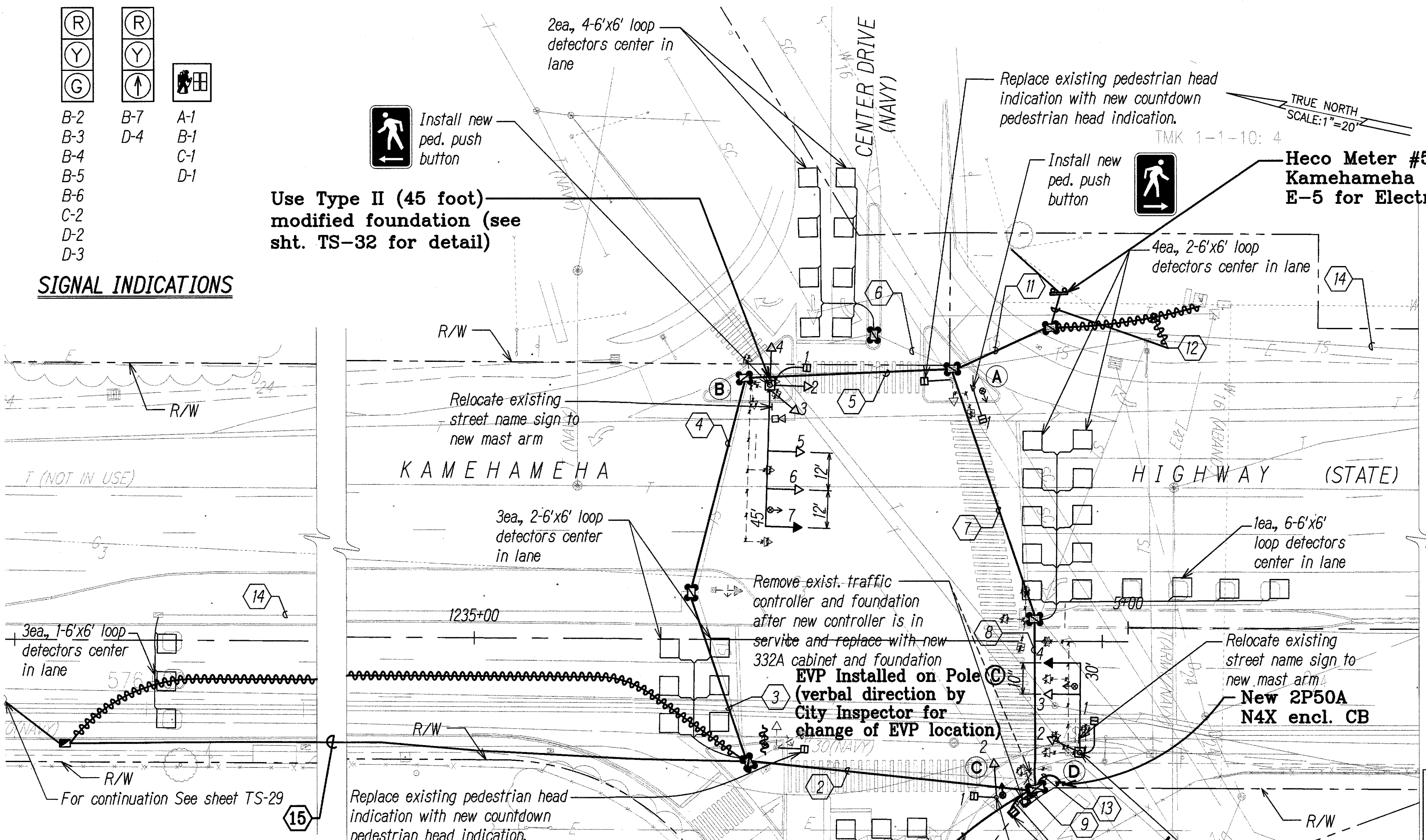
A-1
B-1
C-1
D-1

SIGNAL INDICATIONS

Use Type II (45 foot)
modified foundation (see
sht. TS-32 for detail)



Install new
ped. push
button



Conduit and Cable Schedule

Symbol	Cond.	Description	Symbol	Cond.	Description	Symbol	Cond.	Description
1	2" conc.	3-2c#14	5	2" conc.	1-26c#14 2" conc. 1-2c#14 2" conc. 1-evp 2" conc. spare	9	3" conc.	2-26c#14 5-2c#14 5-2c#14 6-2c#14 4-evp 1-12pr.#19 1-3c#6 spare
2	2" conc.	1-26c#14 4-2c#14 1-12pr.#19 Fiber optic 1-camera cable 1-evp spare	6	Exist. 2"	2-2c#14	10	2" conc.	Fiber optic 1-camera cable 1-3c#6
3	2" conc.	1-26c#14 1-2c#14 1-camera cable spare	7	2" conc.	1-26c#14 5-2c#14 1-3c#2 2-evp spare	11	2" Conc.	1-2c#14 1-3c#2
4	2" conc.	1-26c#14 1-camera cable spare spare	8	2" conc.	1-26c#14 5-2c#14 4-2c#14 1-3c#2 2-evp spare 2" Conc. 1-12 pr. #19 2" Conc. 1-Fiber Optic	12	2" Conc.	1-3c#2
			15	2" Conc.	1-12 pr. #19 1-Fiber Optic	13	2" Conc.	1-3c#2 1-3c#6
						14	2" Conc.	1-2c#14

TRAFFIC SIGNAL PLAN

KAMEHAMEHA HIGHWAY AND CENTER DRIVE

SCALE: 1"=20'

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Text for as-built posting

"AS-BUILT"