

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	9	89

ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- NEW UNDERGROUND TRAFFIC CONTROL RACEWAY WITH FIBER OPTIC CABLE.
- NEW FIBER OPTIC CABLE RISER AT EXISTING HECO POLE. PROVIDE 3" GRS CONDUIT RISER AT POLE, FROM FINISHED GRADE TO 30" BELOW CONNECTION POINT. SEAL AROUND CABLE AT END OF RISER. SEE DETAIL C/E-42.
- NEW TRAFFIC CONTROL PULLBOX. SEE DETAIL B/E-40.
- SAWCUT AND PATCH AC PAVEMENT IN ROADWAY FOR NEW CONDUIT INSTALLATION.
- 3"C, 3-1" INNER DUCT. PROVIDE ONE 72-STRAND, SINGLE MODE CABLE. PROVIDE PULLWIRE THROUGH UNUSED INNER DUCT.

NOTES:

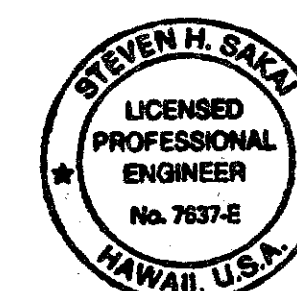
- BID ITEM FOR KAMEHAMEHA HIGHWAY/PALI HIGHWAY INTERSECTION SHALL INCLUDE THE INSTALLATION OF UNDERGROUND RACEWAY FROM THE INTERSECTION TO EXISTING POLE P14. SEE WORK ON SHEET E-25.

REVISION	DATE	BRIEF	BY	APPROVED
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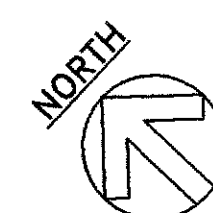
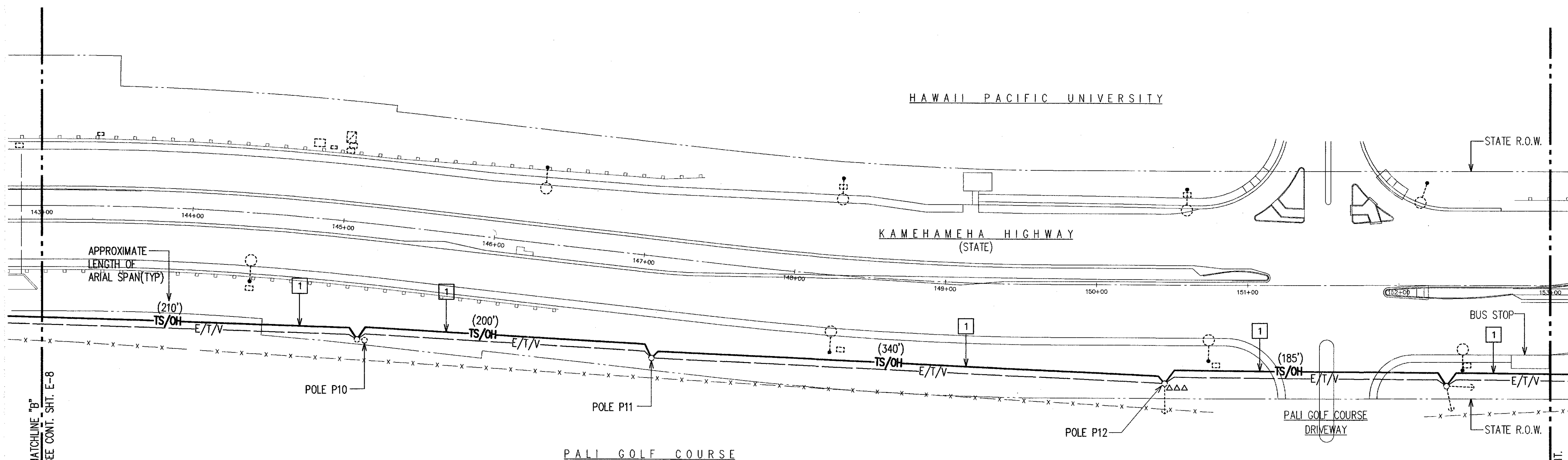
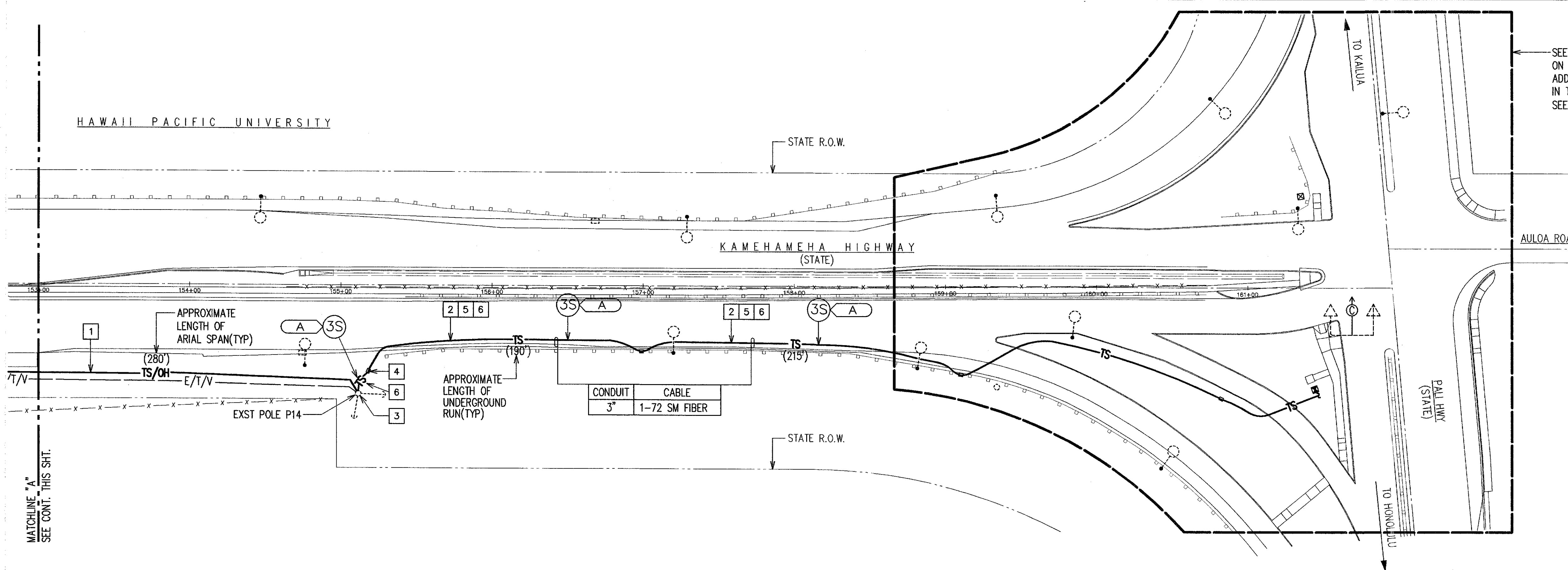
DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

ELECTRICAL PLAN 1

ENGINEER: GTN DATE: MARCH 2007
DRAFTSMAN: SS SCALE: As Noted
APPROVED: REF: APPROVED:
DIRECTOR: DIVISION ENGINEER

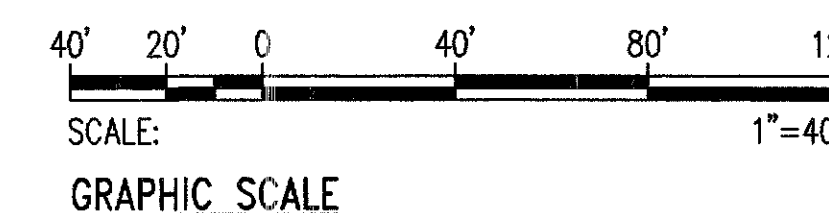


THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.
LIC. EXPIRATION: 4/30/08



ELECTRICAL PLAN 1

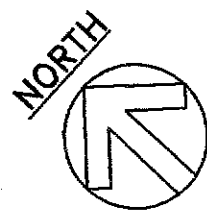
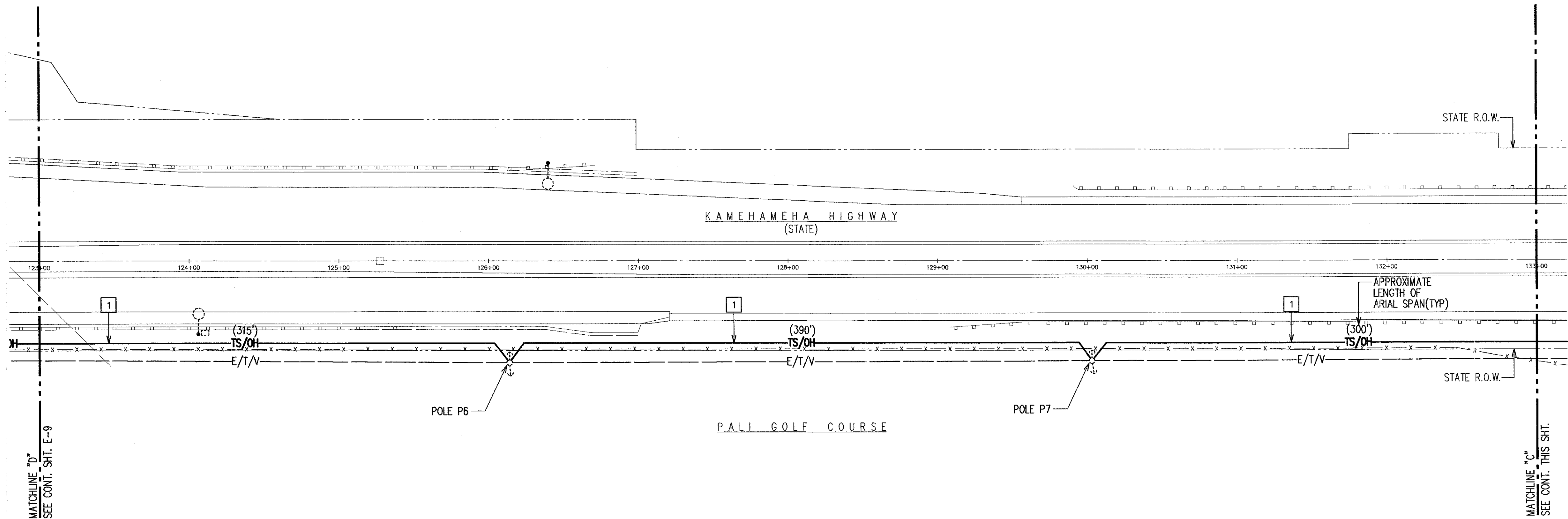
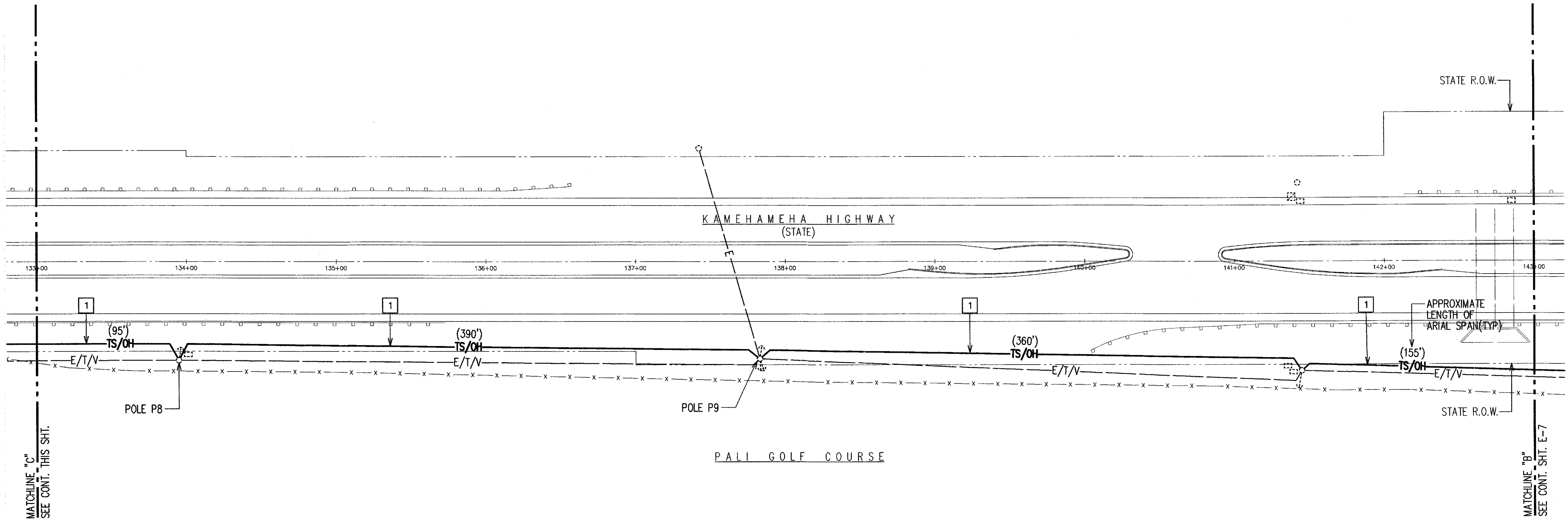
SCALE: 1"=40'



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	9	89

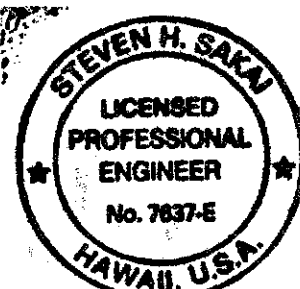
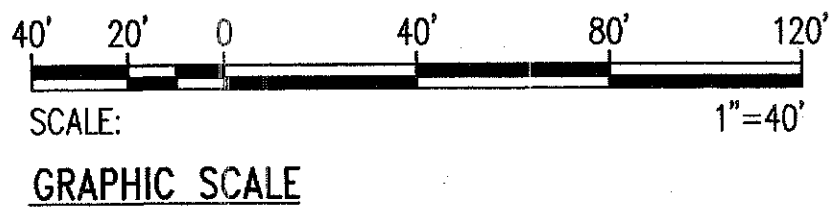
ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.



ELECTRICAL PLAN 2

SCALE: 1"=40'



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OR UNDER MY SUPERVISION
DATE: 4/30/08
LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED
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DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

ELECTRICAL PLAN 2

ENGINEER: GTN DATE: MARCH 2007
DRAFTSMAN: SS SCALE: As Noted
CHK. BY: APPROVED:
DIRECTOR: DIVISION ENGINEER

FILE	PROJECT	FOLDER	FILE
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Diagram illustrating the intersection of Kamehameha Hwy (State) and H-3 Freeway (State). The H-3 Freeway is shown with a 3-lane section and a 3-lane off-ramp. A matchline "Z" is indicated. A table specifies conduit and cable specifications for the off-ramp.

CONDUIT	CABLE
3"	1-48 SM FIBER
	1-6 MM FIBER
3"	3#2, 3#6(POWER)

Callouts indicate the following components:

- SEE ELEC PLAN 3 FOR CONTINUATION
- STATE R.O.W.
- MATCHLINE "Z"
- SEE ELECTRICAL PLAN 3 FOR CONT.
- EXST ELEC PULLBOX
- EXST TRAFFIC SIGNAL CTRL CAB
- EXST FIBER OPTIC HUB 8
- EXST TRAFFIC SIGNAL PB

SCALE: 1"=100'

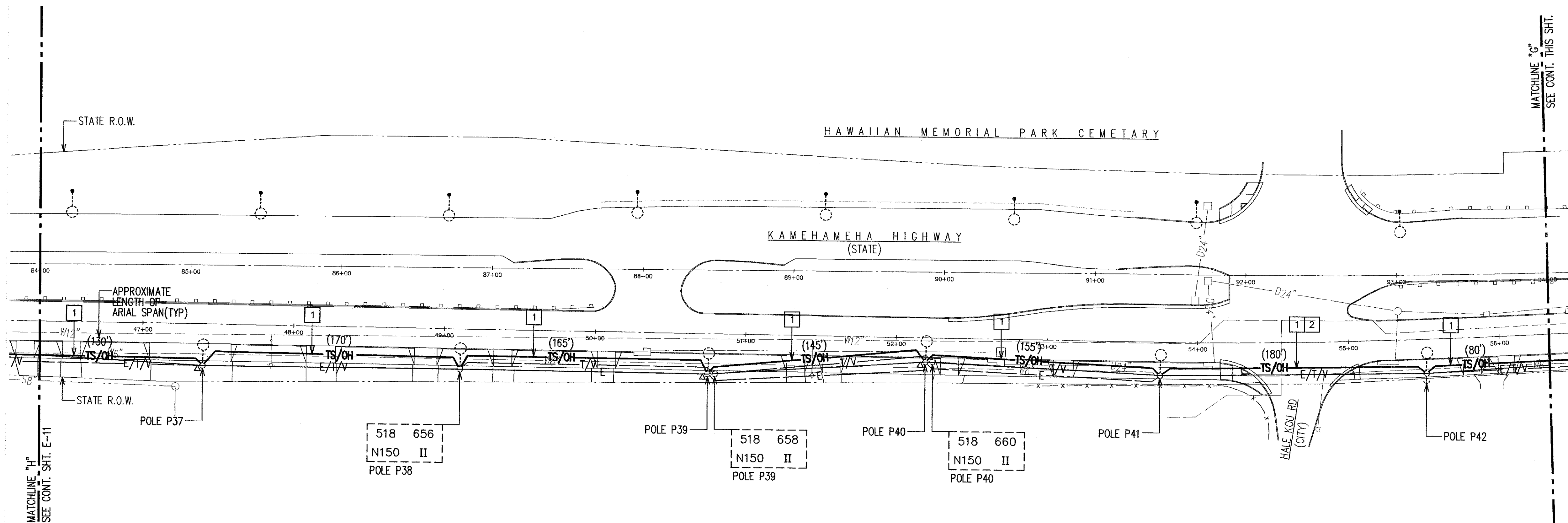
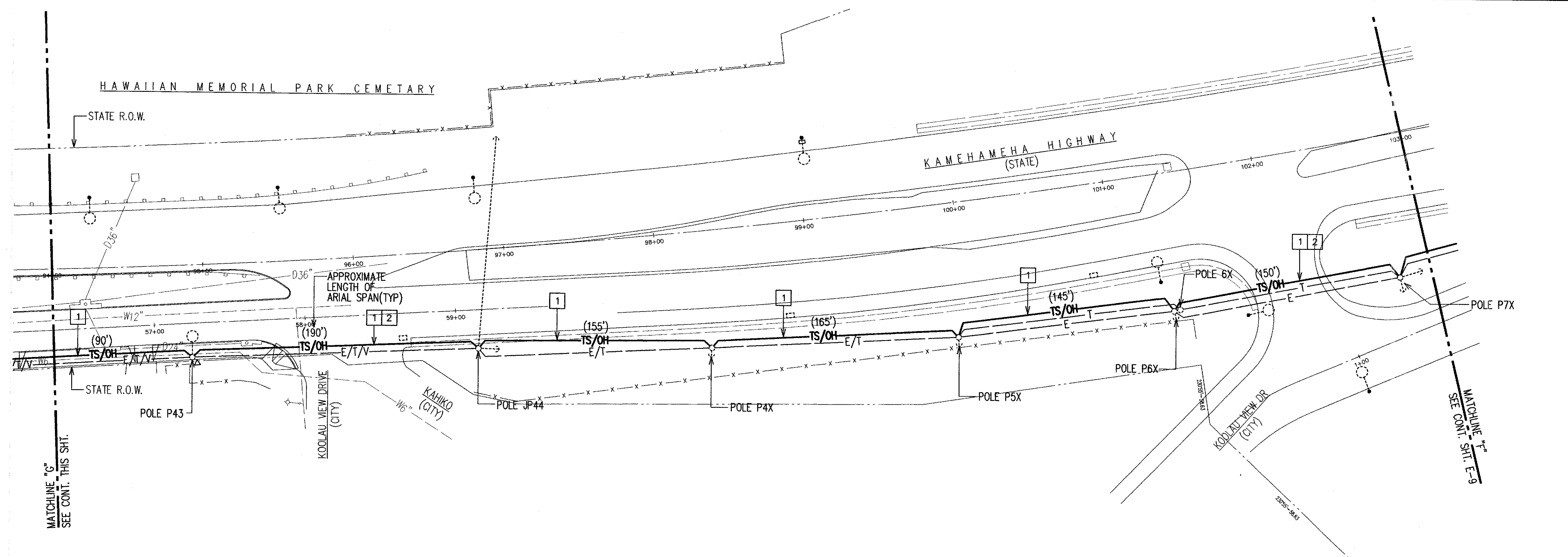
- 1 NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72 STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- 2 INSTALL NEW 72 STRAND FIBER OPTIC CABLE IN EXISTING CONDUIT. CONTRACTOR TO COORDINATE WITH DTS TRAFFIC SIGNAL AND TECHNOLOGY DIVISION, ANY INTERRUPTION TO THE EXISTING TRAFFIC SIGNAL SYSTEM. SEE TRAFFIC CONTROL PLANS.
- 3 NEW UNDERGROUND TRAFFIC CONTROL RACEWAY WITH FIBER OPTIC CABLE.
- 4 NEW FIBER OPTIC CABLE RISER AT EXISTING HECO POLE. PROVIDE 3" GRS CONDUIT RISER AT POLE, FROM FINISHED GRADE TO 30' BELOW CONNECTION POINT. SEAL AROUND CABLE AT END OF RISER. SEE DETAIL C/E-42.
- 5 PROVIDE NEW CAMERA ON EXISTING MAST ARM.
- 6 NEW TRAFFIC CONTROL PULLBOX. SEE DETAIL B/E-40.
- 7 INSTALL RACEWAY USING DIRECTIONAL BORING. PROVIDE PULLBOXES AS REQUIRED TO ACCOMPLISH INSTALLATION. SEE D/E-42.
- 8 PROVIDE NEW GUY AND ANCHOR. SEE DETAIL A/E-46.
- 9 3"C, 3-1" INNER DUCT. PROVIDE ONE 72-STRAND, SINGLE MODE CABLE. PROVIDE PULLWIRE THROUGH UNUSED INNER DUCT.
- 10 ROUTE CONDUIT UNDER EXISTING FENCE, AND DOWN SLOPE.

	DEPARTMENT OF TRANSPORTATION SERVICES
	CITY AND COUNTY OF HONOLULU
	FEDERAL AID NO. STP-0001(30)
	COMPUTERIZED TRAFFIC CONTROL SYSTEM PHASE 9
ELECTRICAL PLANS 3 AND 3X	
ENGINEER: <u>GTN</u>	DATE: <u>MARCH 2007</u>
DRAFTSMAN: _____	SCALE: <u>As Noted</u>
CHK. BY: <u>SS</u>	REF: _____
APPROVED: _____	APPROVED: _____
DIRECTOR: _____	DISTRICT ENGINEER: _____

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
Steven H. Sakai
LIC. EXPIRATION: 4/30/08

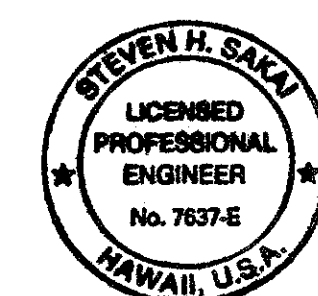
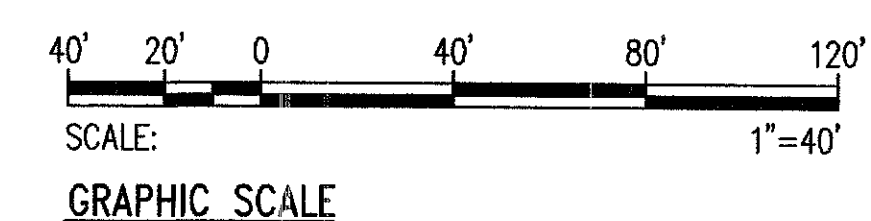
ITEMS OF WORK:

- 1 NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- 2 PROVIDE 18" MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 4

SCALE: 1"=40'



DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

ELECTRICAL PLAN 4

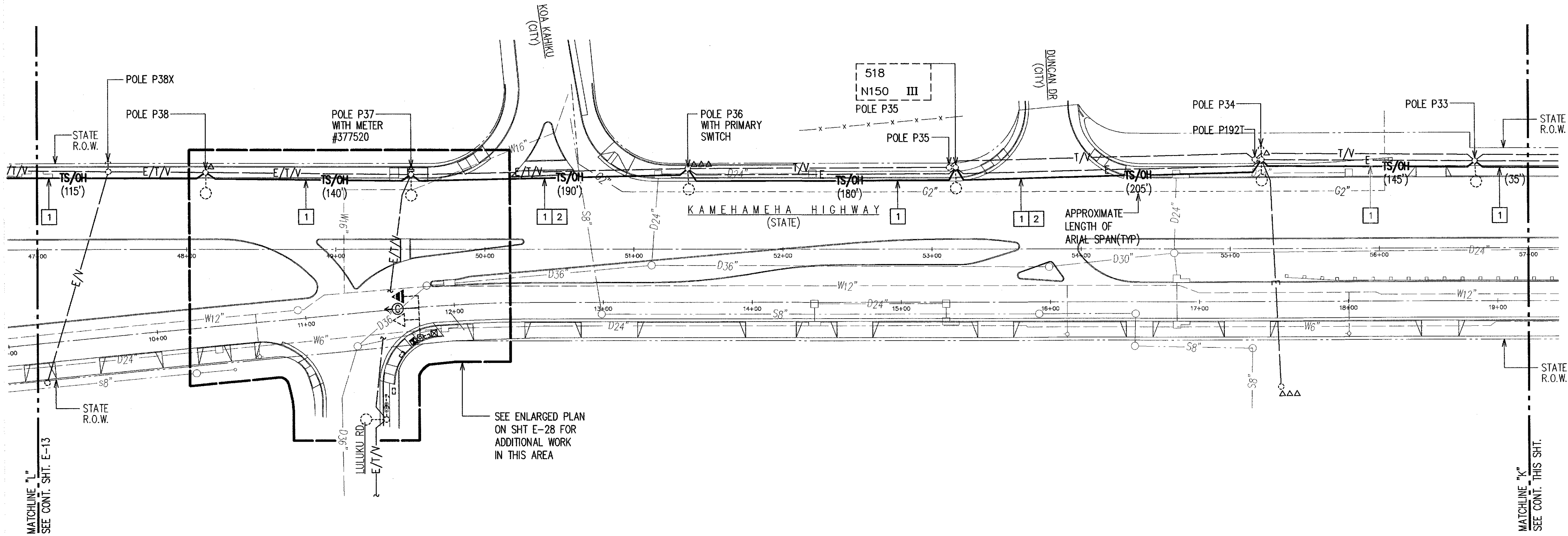
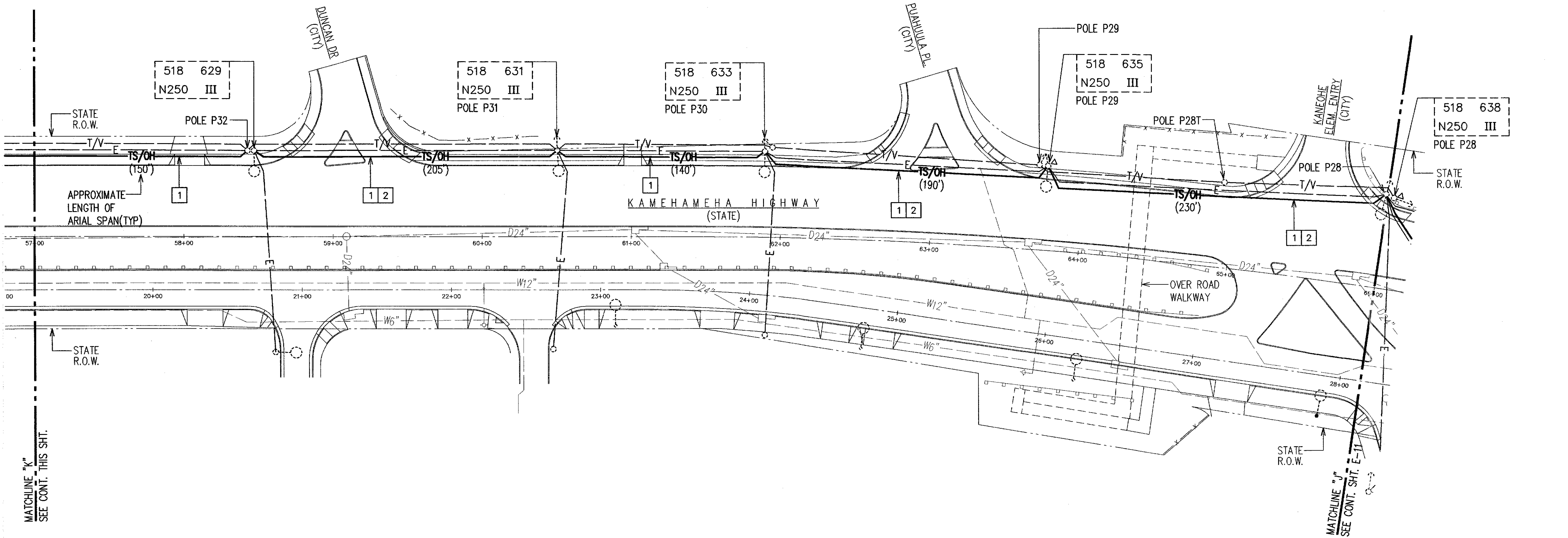
ENGINEER GTN DATE MARCH 2007
DRAFTSMAN _____ SCALE As Noted
CHK. BY SS REF _____
APPROVED: _____
DIRECTOR _____
INTERIOR ARCHITECT _____

FILE	POCKET	FOLDER	NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	14	89

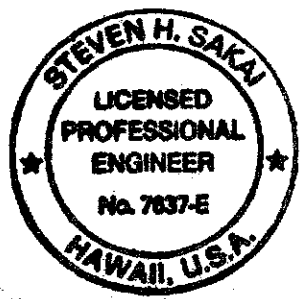
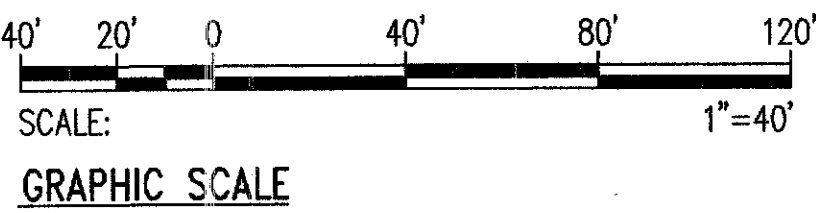
ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 6

SCALE: 1"=40'



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED
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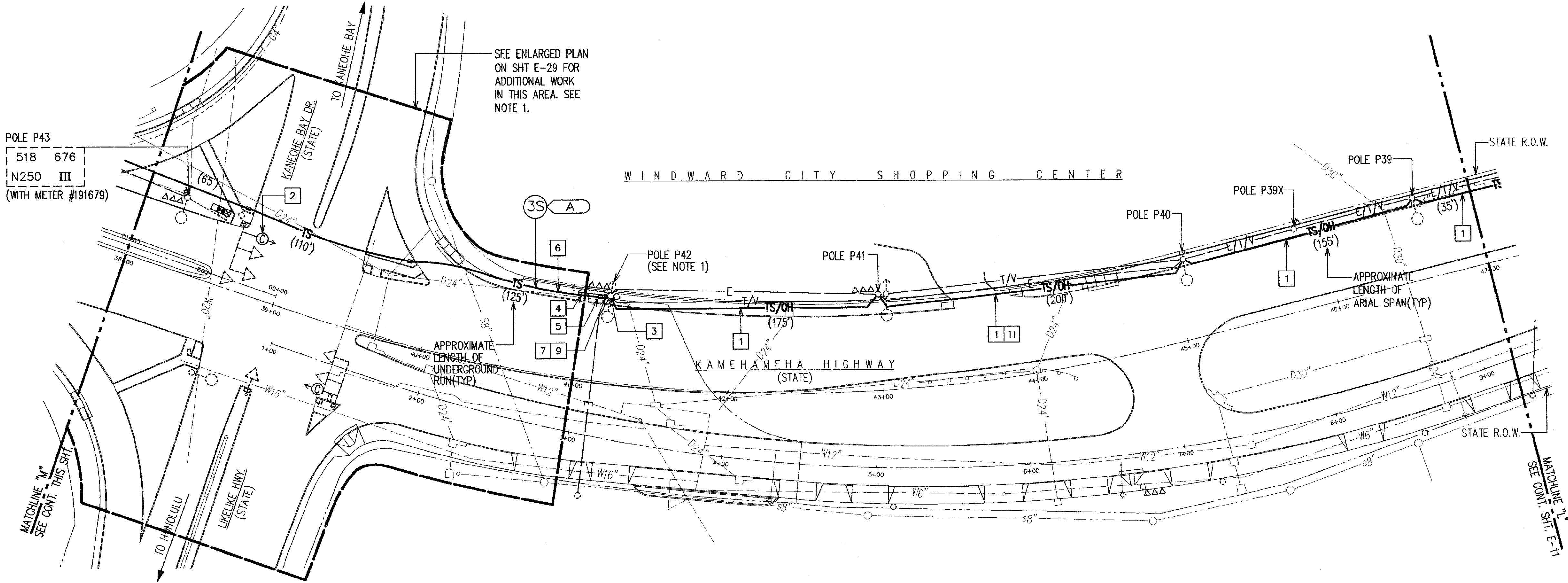
DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

ELECTRICAL PLAN 6

ENGINEER	GTN	DATE	MARCH 2007
DRAFTSMAN	SS	SCALE	As Noted
CHK. BY		REF.	
APPROVED:		APPROVED:	
DIRECTOR		DIVISION ENGINEER	

FILE	PROJECT	FOUNDER	NO.
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	15	89

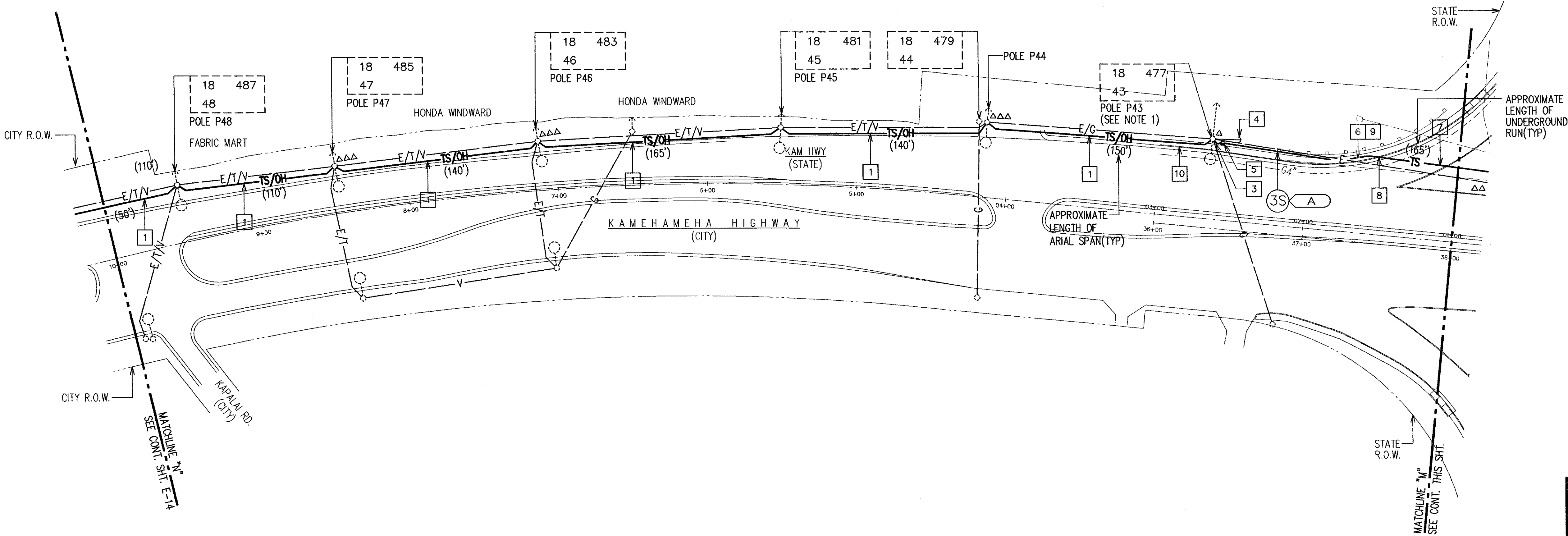


ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- PROVIDE NEW CAMERA ON EXISTING MAST ARM.
- NEW FIBER OPTIC CABLE RISER AT EXISTING HECO POLE. PROVIDE 3" GRS CONDUIT RISER AT POLE, FROM FINISHED GRADE TO 30" BELOW CONNECTION POINT. SEAL AROUND CABLE AT END OF RISER. SEE DETAIL C/E-42.
- PROVIDE NEW GUY AND ANCHOR. SEE DETAIL A/E-46.
- NEW TRAFFIC CONTROL PULLBOX. SEE DETAIL B/E-40.
- NEW UNDERGROUND TRAFFIC CONTROL RACEWAY WITH FIBER OPTIC CABLE.
- SAWCUT AND PATCH ROADWAY FOR NEW CONDUIT INSTALLATION.
- REPAIR AND RESTORE EXISTING CURB.
- 3"C, 3-1" INNER DUCT. PROVIDE ONE 72-STRAND, SINGLE MODE CABLE. PROVIDE PULLWIRE THROUGH UNUSED INNER DUCT.
- EXISTING STORM DRAIN. CONTRACTOR TO OBSERVE BEST MANAGEMENT PRACTICES AND TAKE MEASURES AS REQUIRED.
- PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.

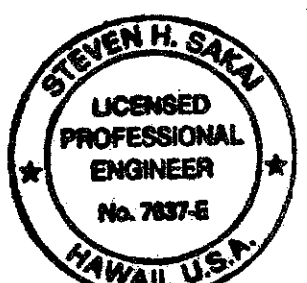
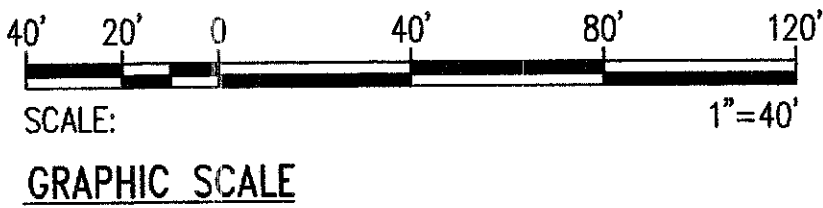
NOTES:

- BID ITEM FOR KAMEHAMEHA HIGHWAY/LIKELIKE HIGHWAY/ KANEHOE BAY INTERSECTION SHALL INCLUDE INSTALLATION OF UNDERGROUND TRAFFIC SIGNAL DUCTLINE FROM THE INTERSECTION TO EXISTING POLE P43, AND EXISTING POLE P42.



ELECTRICAL PLAN 7

SCALE: 1"=40'



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OR UNDER MY SUPERVISION
LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED
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DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

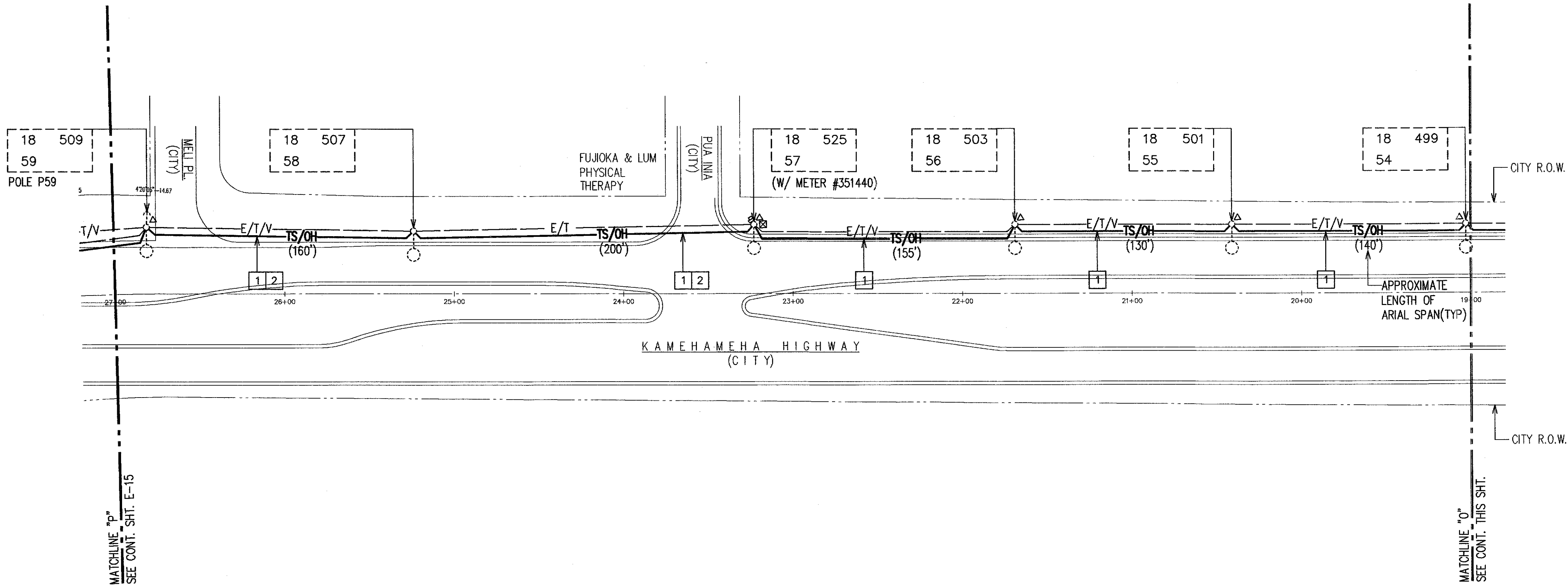
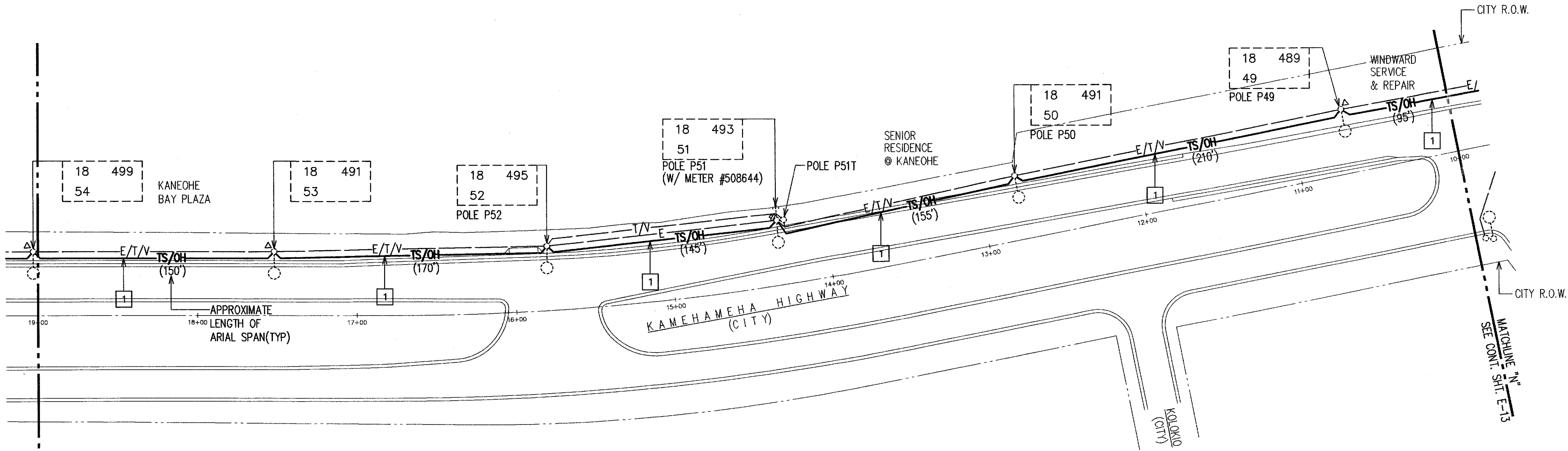
ELECTRICAL PLAN 7

ENGINEER: GTN DATE: MARCH 2007
DRAFTSMAN: SCALE: As Noted
CHK. BY: SS REF:
APPROVED: DIVISION ENGINEER

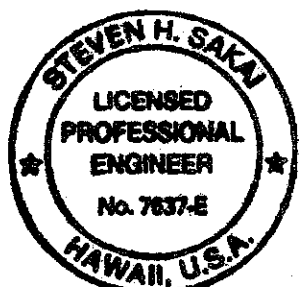
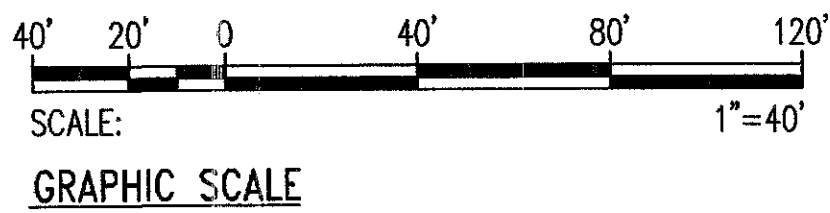
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	16	89

ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 8
SCALE: 1"=40'



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OR UNDER MY SUPERVISION
LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

ELECTRICAL PLAN 8

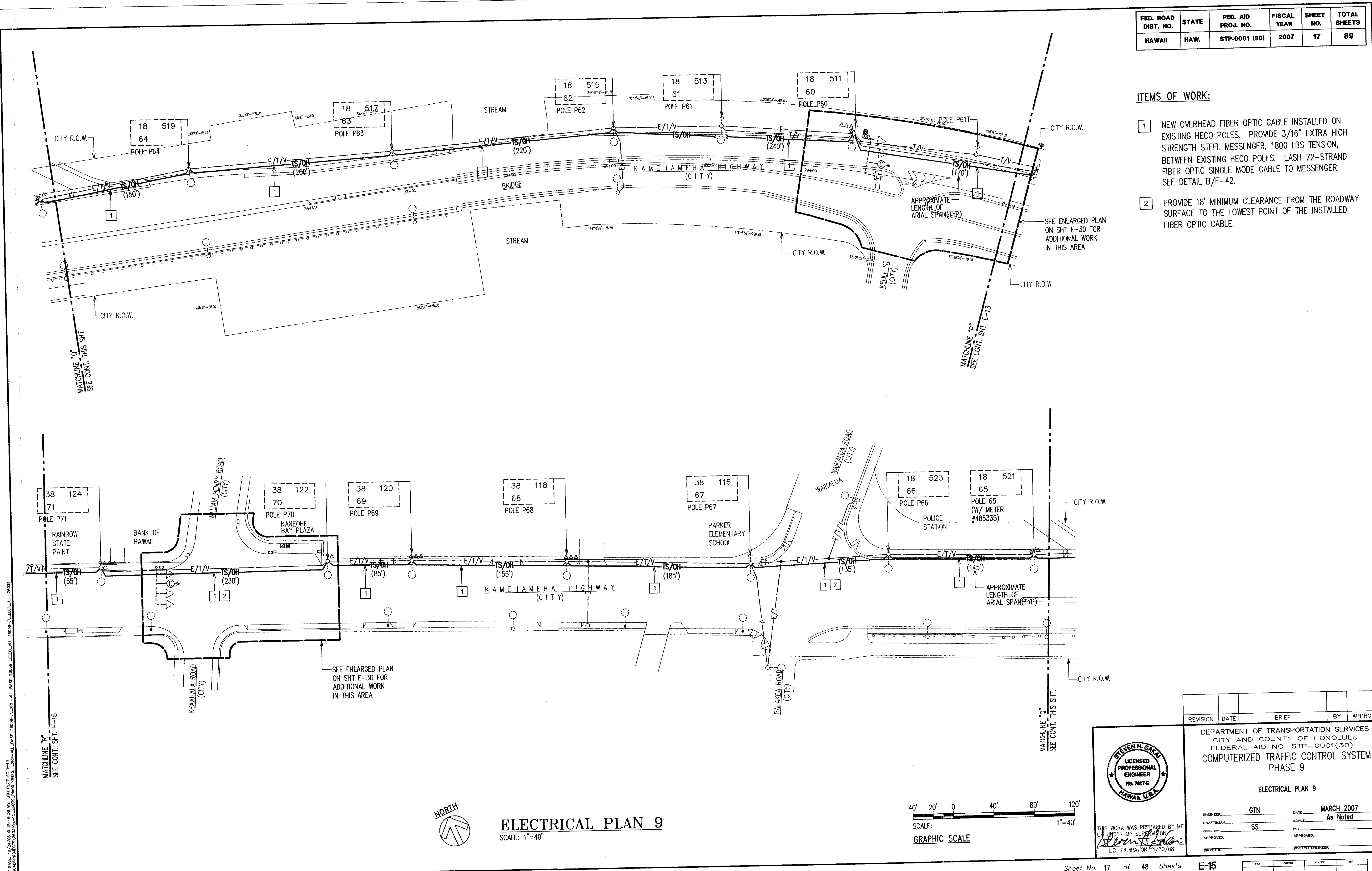
ENGINEER	GTN	DATE	MARCH 2007
DRAFTSMAN	SS	SCALE	As Noted
CHK. BY		REF.	
APPROVED:		APPROVED:	
DIRECTOR		DIVISION ENGINEER	

FILE	PROJECT	FOLDER	NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	17	89

ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.

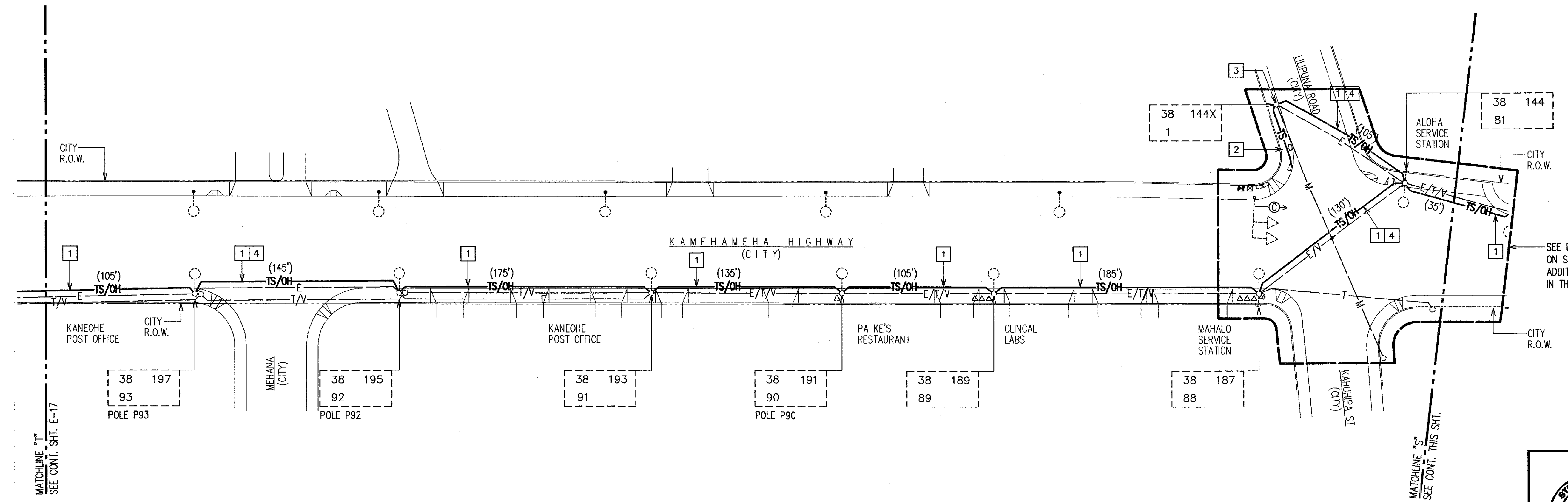
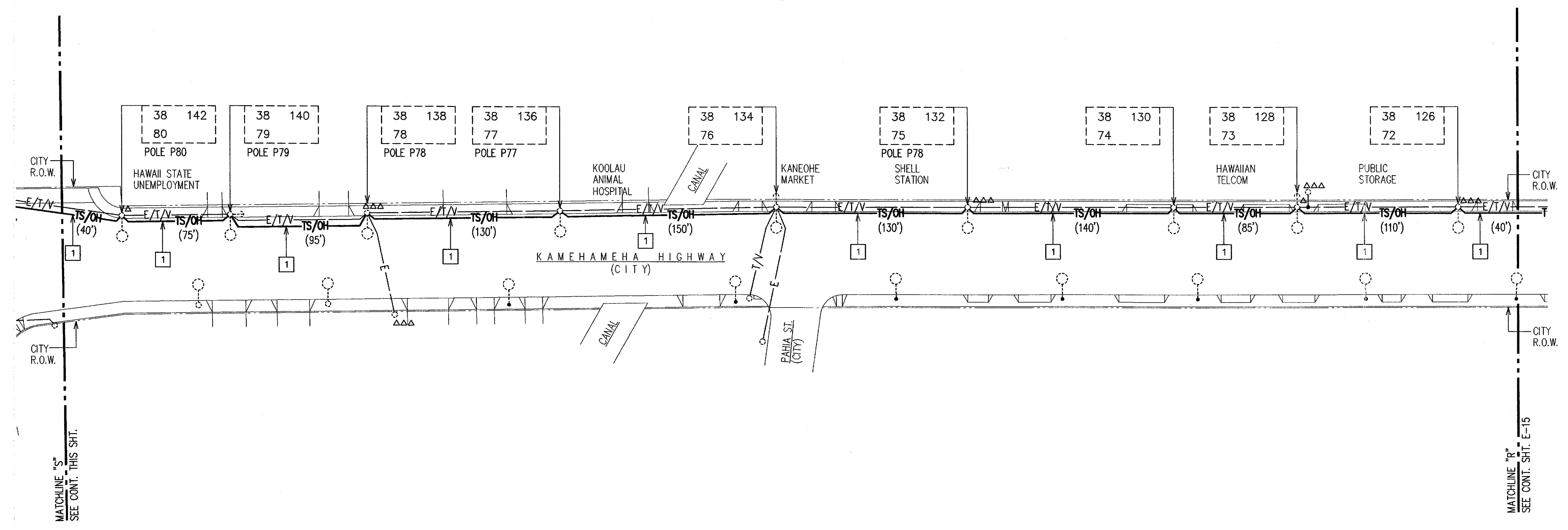


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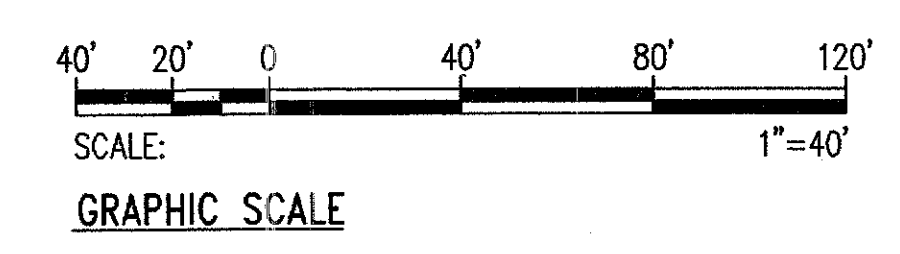
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	18	89

ITEMS OF WORK:

- 1 NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- 2 NEW UNDERGROUND TRAFFIC CONTROL RACEWAY WITH FIBER OPTIC CABLE.
- 3 NEW FIBER OPTIC CABLE RISER AT EXISTING HECO POLE. PROVIDE 3" GRS CONDUIT RISER AT POLE, FROM FINISHED GRADE TO 30" BELOW CONNECTION POINT. SEAL AROUND CABLE AT END OF RISER. SEE DETAIL C/E-42.
- 4 PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 10
SCALE: 1"=40'



STEVEN H. SAKAI
LICENSED PROFESSIONAL ENGINEER
No. 7637-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
Steven H. Sakai
LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

ELECTRICAL PLAN 10

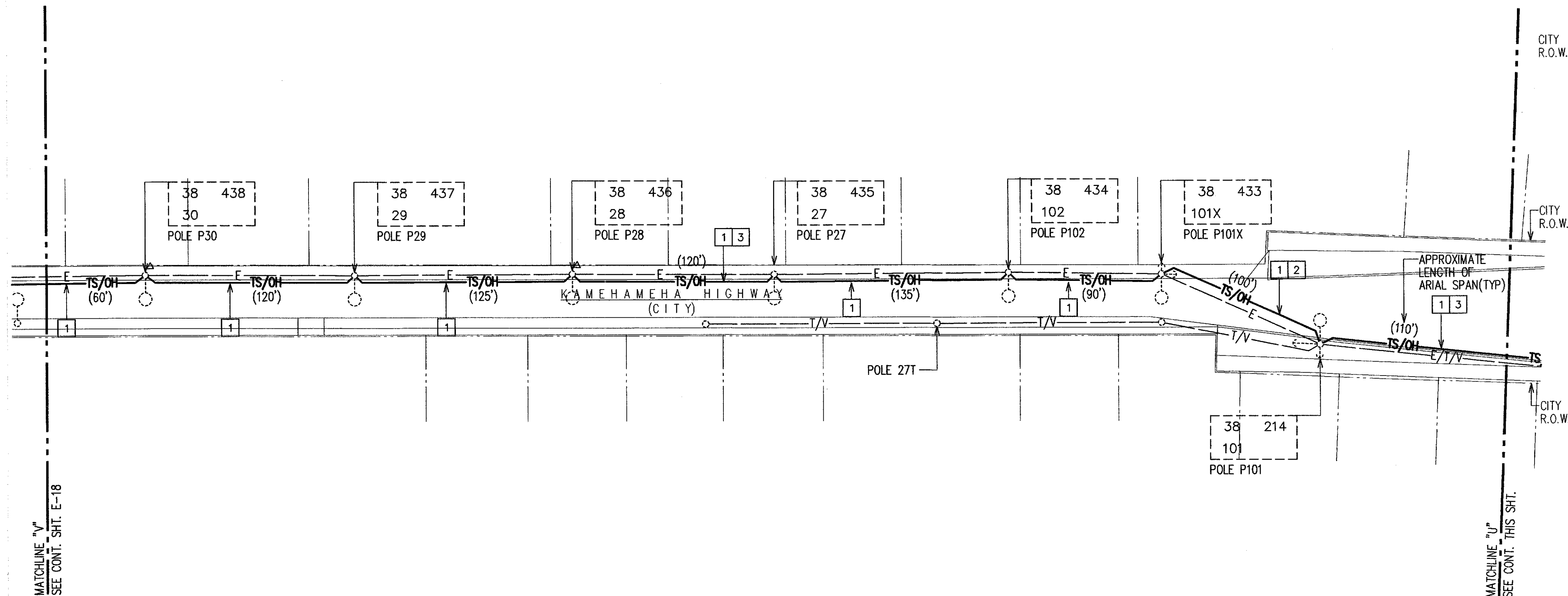
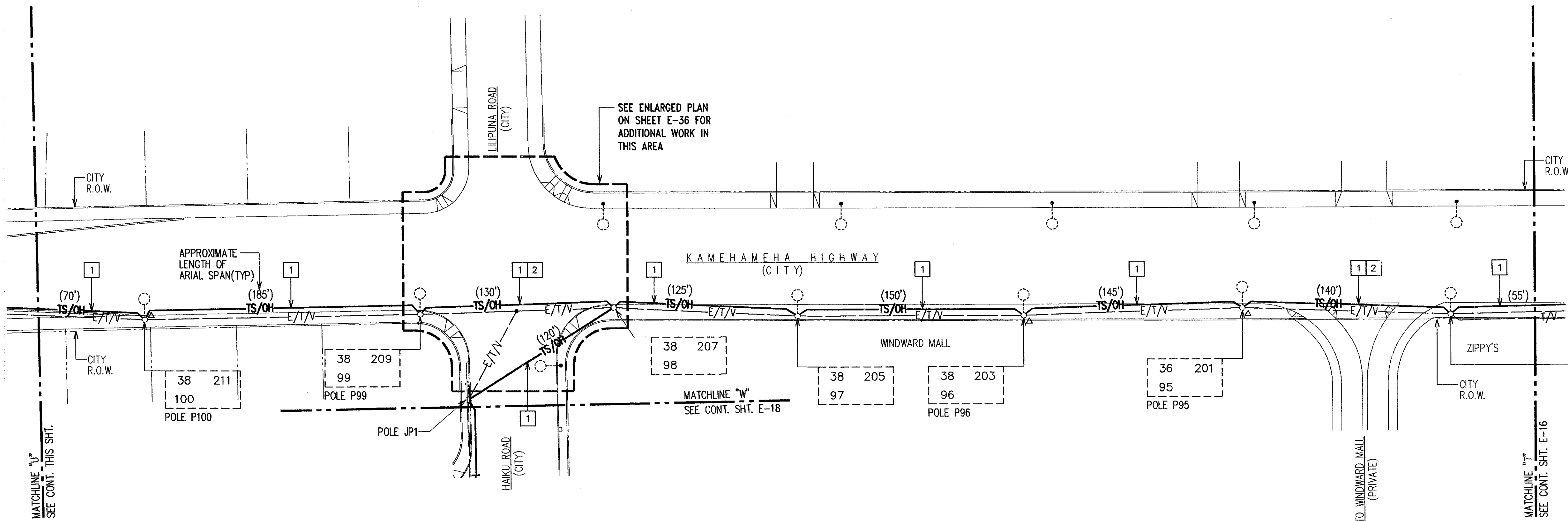
ENGINEER: GTN DATE: MARCH 2007
DRAFTSMAN: SS SCALE: As Noted
CHK. BY: REF.
APPROVED: APPROVED:
DIRECTOR: DIVISION ENGINEER

L&P DATE: 10/21/05 BY: GTN PLOT NO: 1-40
C:\WORK\PROJECTS\2005\STP-0001\PHASE 9\ELECTRICAL\BASE 2003.DWG AL 26039

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	19	89

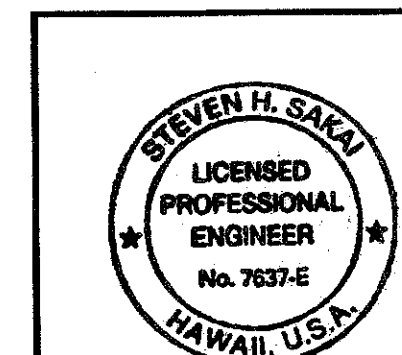
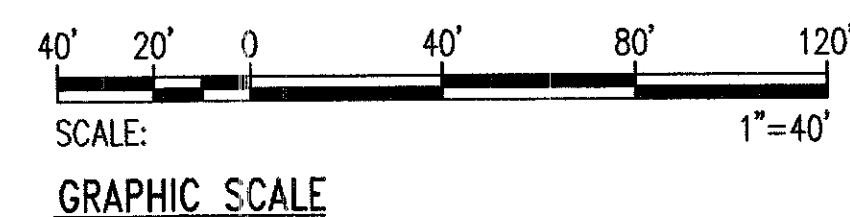
ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSNER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSNER. SEE DETAIL B/E-42.
- PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 11

SCALE: 1"=40'



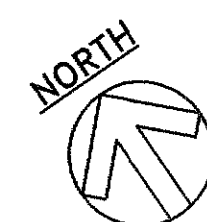
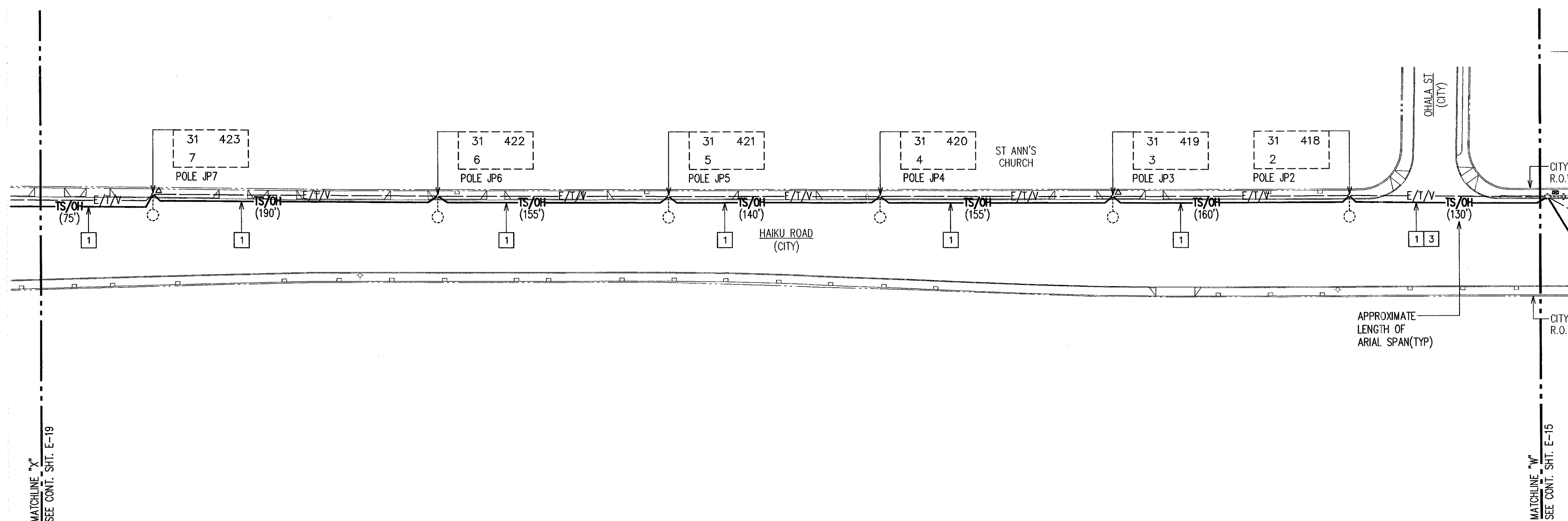
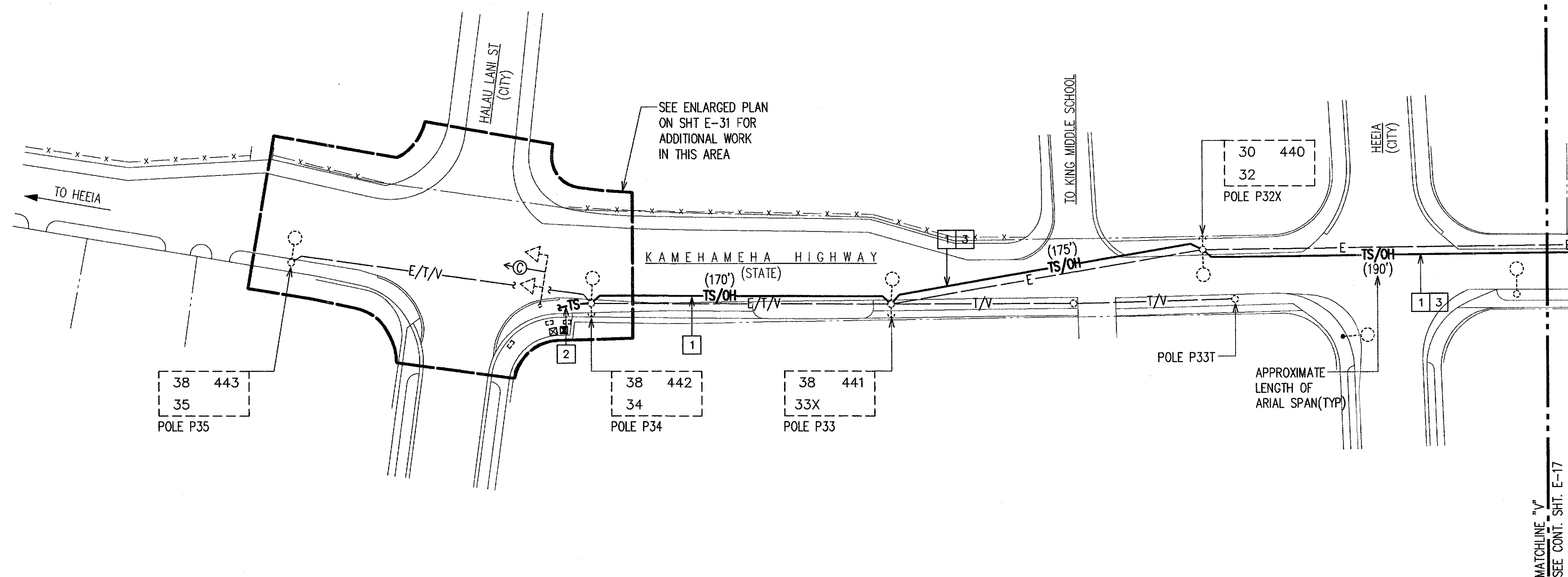
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
 LIC. EXPIRATION 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED
DEPARTMENT OF TRANSPORTATION SERVICES CITY AND COUNTY OF HONOLULU FEDERAL AID NO. STP-0001(30) COMPUTERIZED TRAFFIC CONTROL SYSTEM PHASE 9				
ELECTRICAL PLAN 11				
ENGINEER	GTN	DATE	MARCH 2007	
DRAFTSMAN	SS	SCALE	As Noted	
CHK. BY		REF.		
APPROVED:		APPROVED:		
DIRECTOR		DIVISION ENGINEER		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	20	89

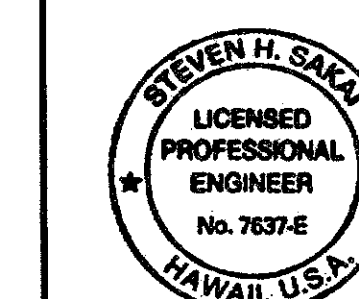
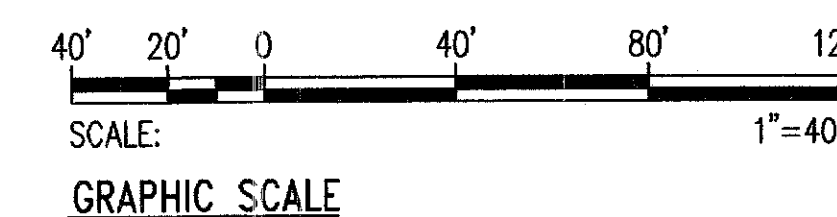
ITEMS OF WORK:

- 1 NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- 2 NEW UNDERGROUND TRAFFIC CONTROL RACEWAY WITH FIBER OPTIC CABLE.
- 3 PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 12

SCALE: 1"=40'



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.
 LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED
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DEPARTMENT OF TRANSPORTATION SERVICES
 CITY AND COUNTY OF HONOLULU
 FEDERAL AID NO. STP-0001(30)
 COMPUTERIZED TRAFFIC CONTROL SYSTEM
 PHASE 9

ELECTRICAL PLAN 12

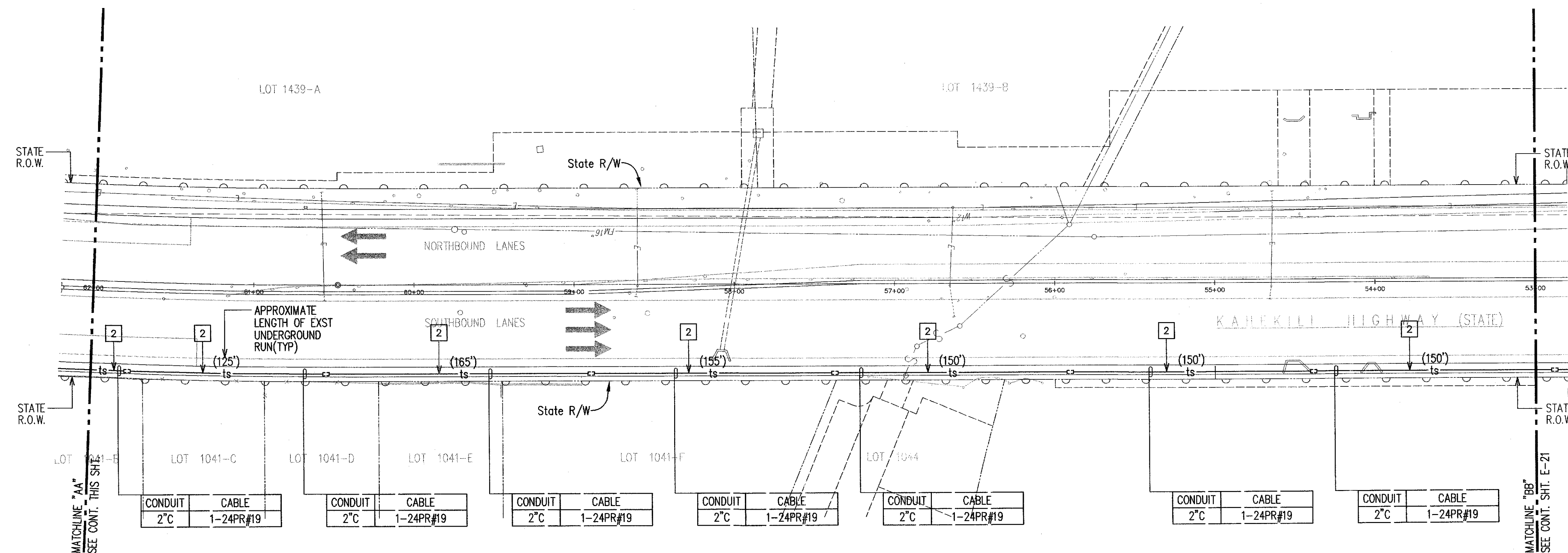
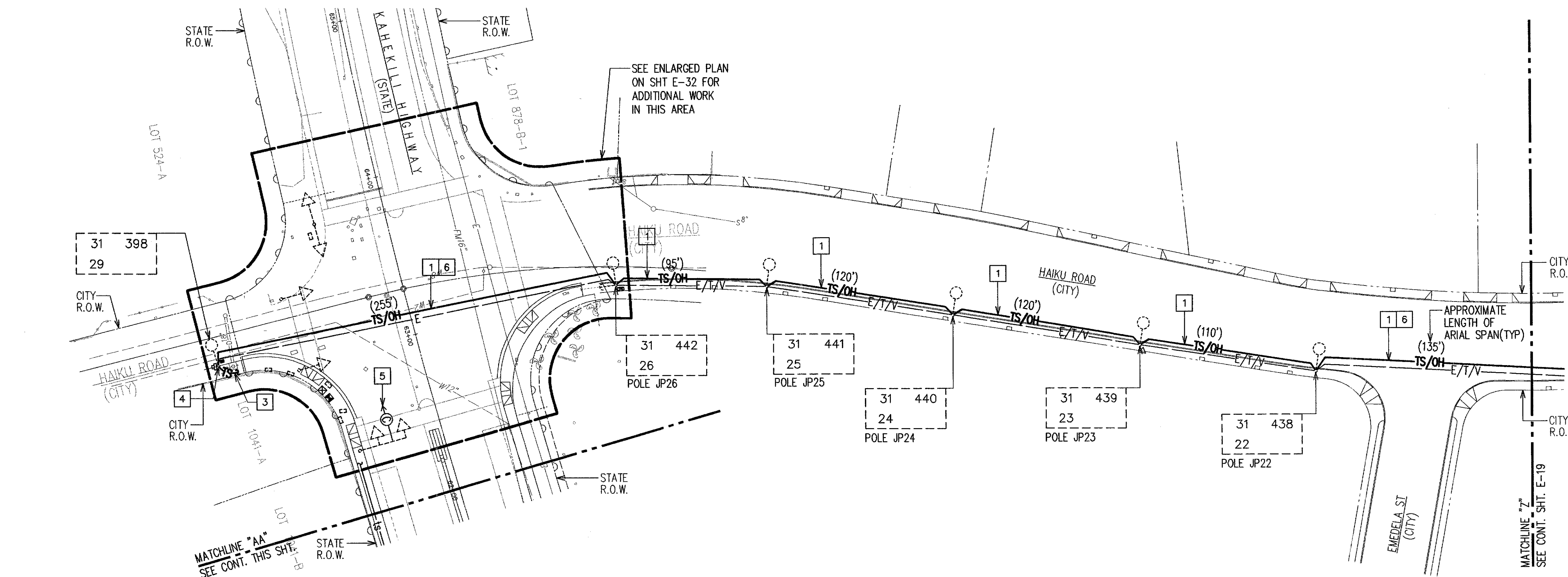
ENGINEER: GTN DATE: MARCH 2007
 DRAFTSMAN: SS SCALE: As Noted
 CHK. BY: REF.
 APPROVED: APPROVED:
 DIRECTOR: DIVISION ENGINEER

FILE	PROJECT	FOLDER	NO.
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	22	89

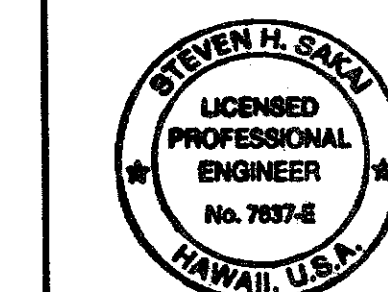
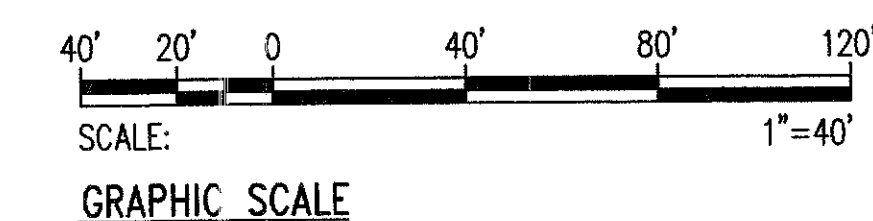
ITEMS OF WORK:

- NEW OVERHEAD FIBER OPTIC CABLE INSTALLED ON EXISTING HECO POLES. PROVIDE 3/16" EXTRA HIGH STRENGTH STEEL MESSENGER, 1800 LBS TENSION, BETWEEN EXISTING HECO POLES. LASH 72-STRAND FIBER OPTIC SINGLE MODE CABLE TO MESSENGER. SEE DETAIL B/E-42.
- INSTALL NEW 72-STRAND FIBER OPTIC CABLE IN EXISTING CONDUIT. CONTRACTOR TO COORDINATE WITH DTS TRAFFIC SIGNAL AND TECHNOLOGY DIVISION, ANY INTERRUPTION TO THE EXISTING TRAFFIC SIGNAL SYSTEM. SEE TRAFFIC CONTROL PLANS.
- NEW UNDERGROUND TRAFFIC CONTROL RACEWAY AND WIRING. 3" CONDUIT, WIRING AS INDICATED.
- NEW FIBER OPTIC CABLE RISER AT EXISTING HECO POLE. PROVIDE 3" GRS CONDUIT RISER AT POLE, FROM FINISHED GRADE TO 5' BELOW CONNECTION POINT. SEAL AROUND CABLE AT END OF RISER. SEE DETAIL C/E-42.
- PROVIDE NEW CAMERA ON EXISTING MAST ARM.
- PROVIDE 18' MINIMUM CLEARANCE FROM THE ROADWAY SURFACE TO THE LOWEST POINT OF THE INSTALLED FIBER OPTIC CABLE.



ELECTRICAL PLAN 14

SCALE: 1"=40'



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED
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DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
FEDERAL AID NO. STP-0001(30)
COMPUTERIZED TRAFFIC CONTROL SYSTEM
PHASE 9

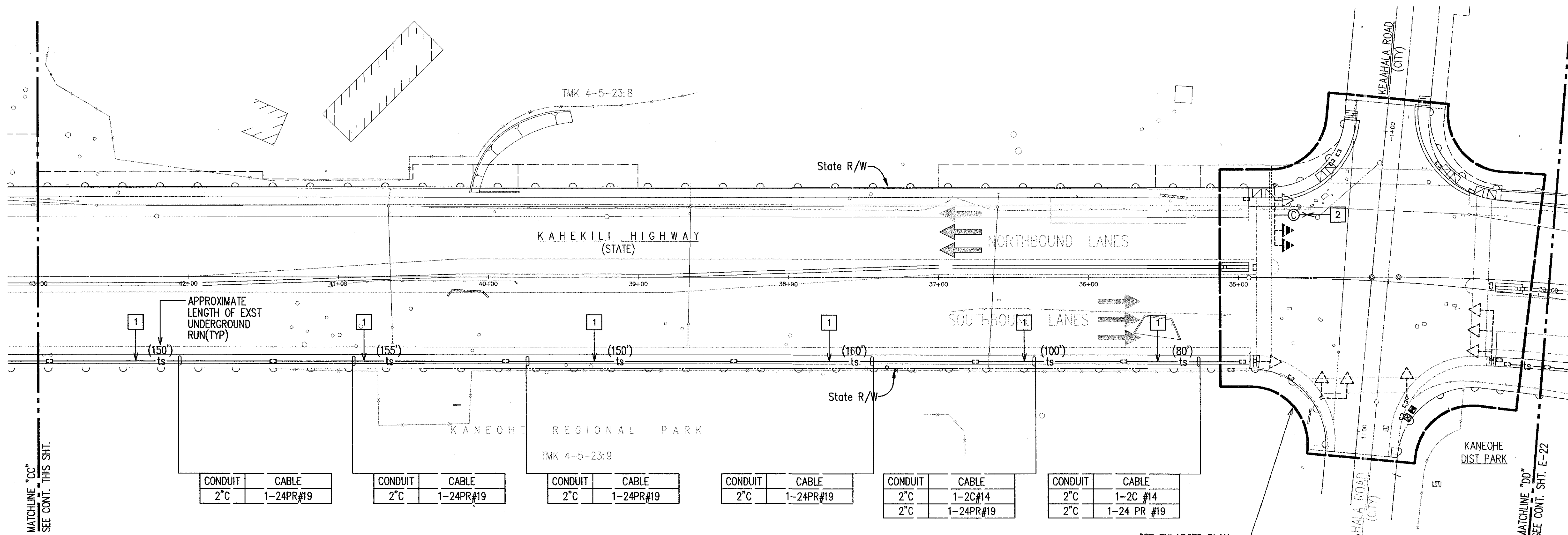
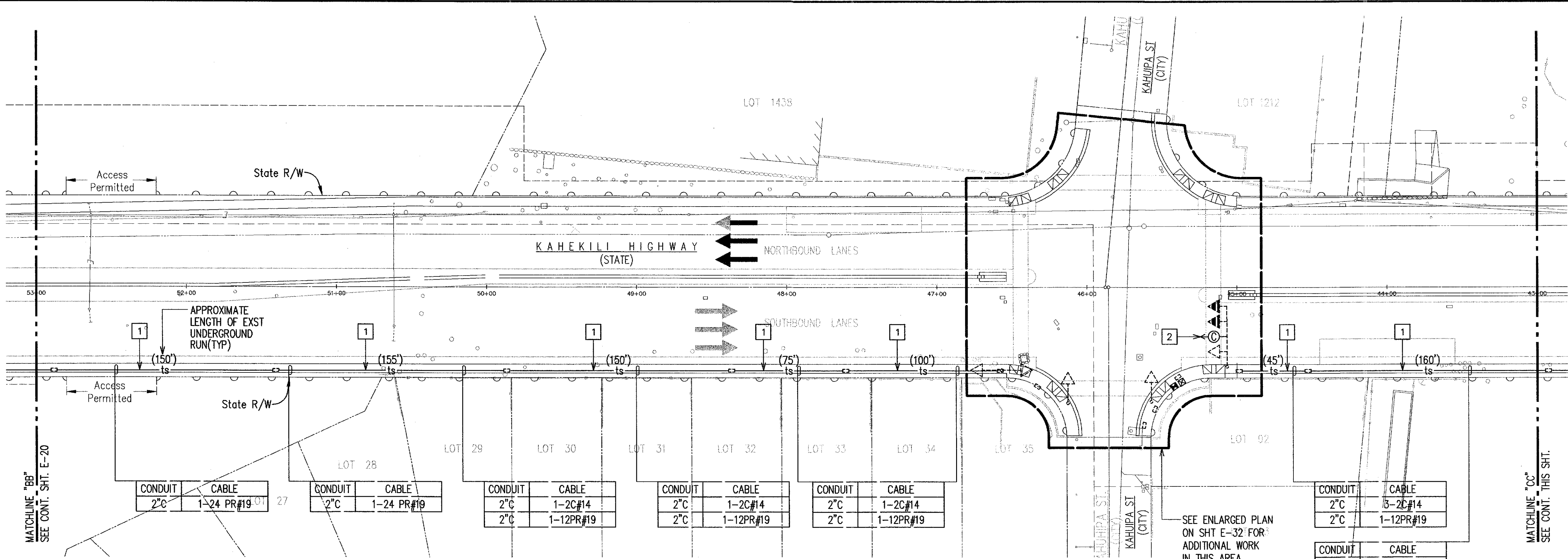
ELECTRICAL PLAN 14

ENGINEER: GTN DATE: MARCH 2007
DRAFTSMAN: SCALE: As Noted
CHK. BY: SS
APPROVED: DIVISION ENGINEER

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	23	89

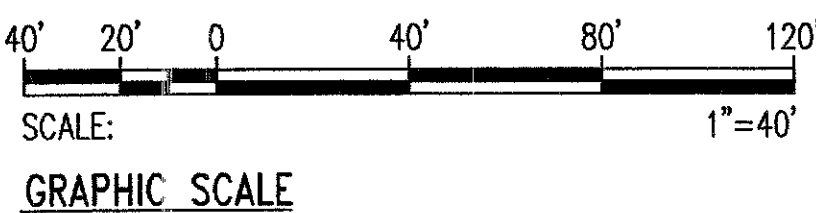
ITEMS OF WORK:

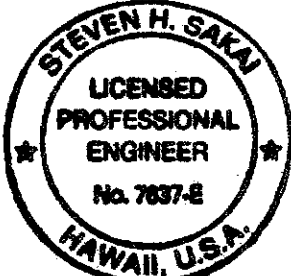
1. INSTALL NEW 72-STRAND FIBER OPTIC CABLE THROUGH EXISTING CONDUIT. CONTRACTOR TO COORDINATE WITH DTS TRAFFIC SIGNAL AND TECHNOLOGY DIVISION, ANY INTERRUPTION TO THE EXISTING TRAFFIC SIGNAL SYSTEM. SEE TRAFFIC CONTROL PLANS.
2. PROVIDE NEW CAMERA ON EXISTING MAST ARM.



ELECTRICAL PLAN 15

SCALE: 1"=40'





THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION
Steven H. Saka
 LIC. EXPIRATION: 4/30/08

REVISION	DATE	BRIEF	BY	APPROVED

DEPARTMENT OF TRANSPORTATION SERVICES
 CITY AND COUNTY OF HONOLULU
 FEDERAL AID NO. STP-0001(30)
 COMPUTERIZED TRAFFIC CONTROL SYSTEM
 PHASE 9
 ELECTRICAL PLAN 15

ENGINEER	GTN	DATE	MARCH 2007
DRAFTSMAN	SS	SCALE	As Noted
CHK. BY		REF.	
APPROVED:		APPROVED:	
DIRECTOR		DIVISION ENGINEER	

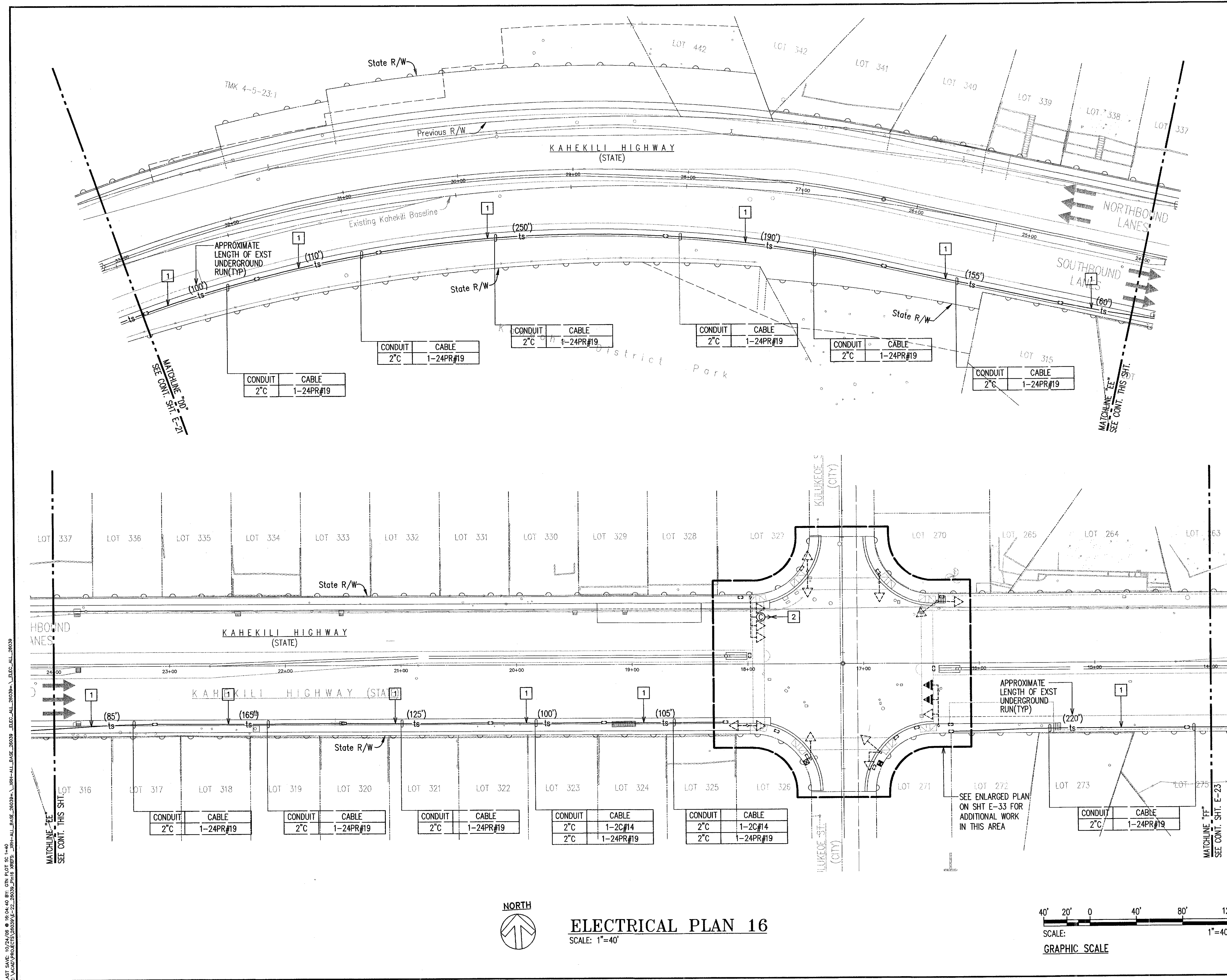
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FILE	PROJECT	FOLDER	NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0001 (30)	2007	24	89

ITEMS OF WORK:

- 1 INSTALL NEW 72-STRAND FIBER OPTIC CABLE IN EXISTING CONDUIT. CONTRACTOR TO COORDINATE WITH DTS TRAFFIC SIGNAL AND TECHNOLOGY DIVISION, ANY INTERRUPTION TO THE EXISTING TRAFFIC SIGNAL SYSTEM. SEE TRAFFIC CONTROL PLANS.
- 2 PROVIDE NEW CAMERA ON EXISTING MAST ARM.



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