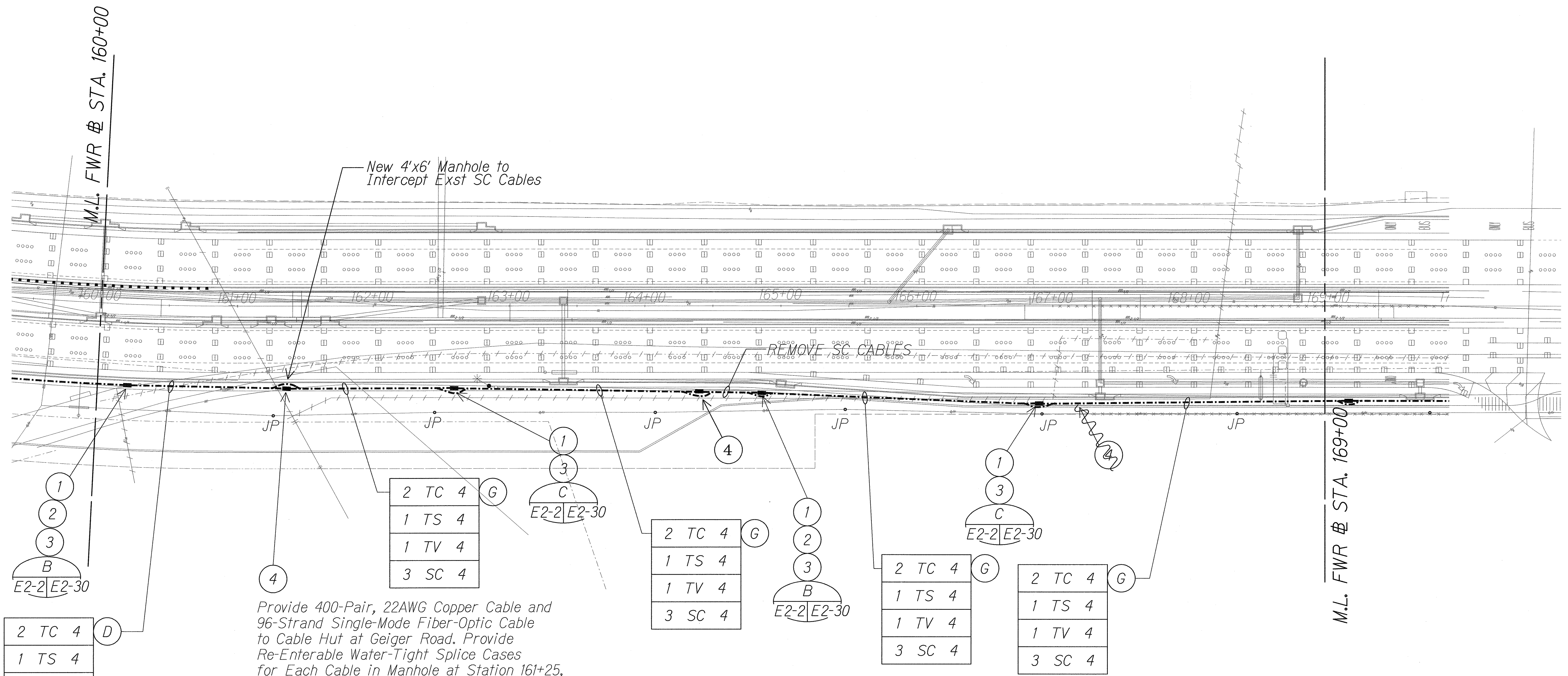




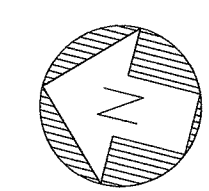
Provide 400-Pair, 22AWG Copper Cable and 96-Strand Single-Mode Fiber-Optic Cable to Cable Hut at Geiger Road. Provide Re-Enterable Water-Tight Splice Cases for Each Cable in Manhole at Station 161+25, Cable Hut at Geiger Road and any Intermediate Splice Location. Provide 25-Feet of Slack Coiled Neatly in Manholes at Station 161+25 and Cable Hut

LEGEND FOR
AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting



NEW SITE ELECTRICAL PLAN "B"

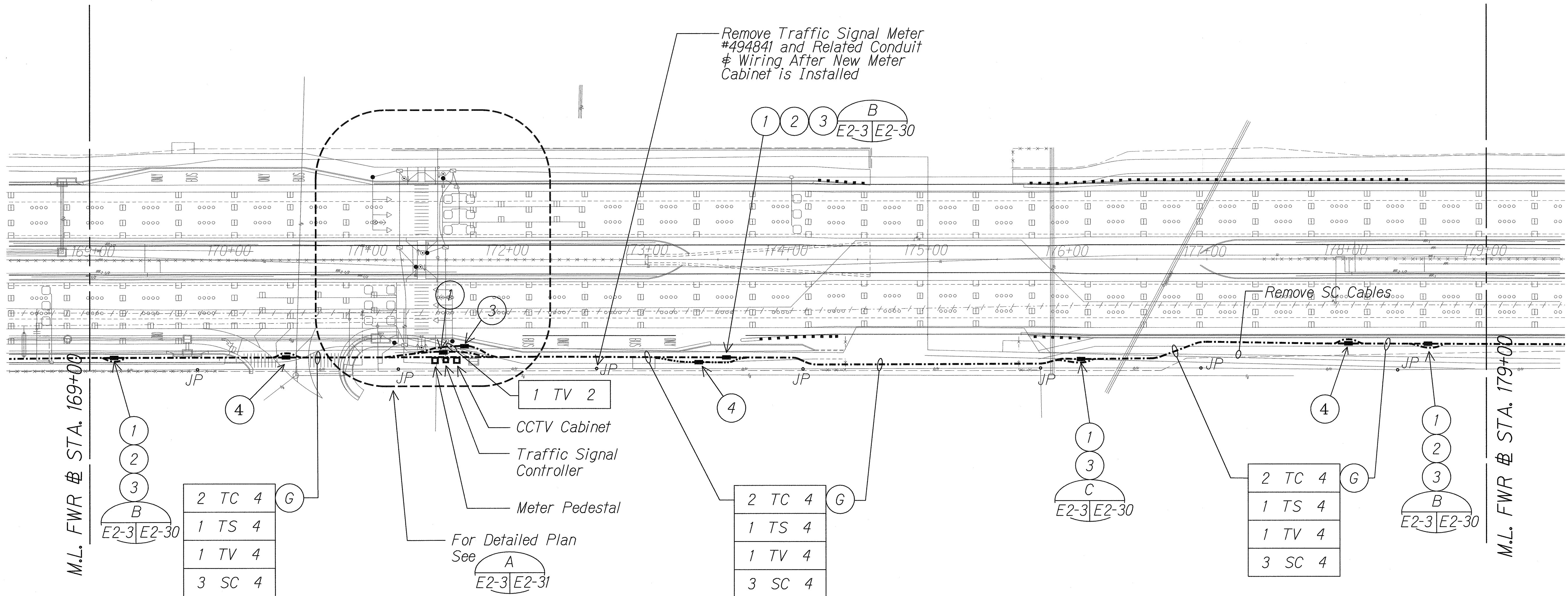
Scale: 1" = 40'-0"

06030-E2-02

Light lines denote existing condition.
Bold lines denote new work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
NEW SITE ELECTRICAL PLAN "B"

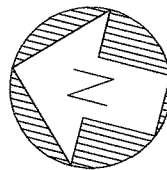
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD
Scale: 1" = 40' Date: Feb. 22 2008
SHEET No. E2-2 OF 42 SHEETS



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	
NOTE BOOK	QUANTITIES BY	
	CHECKED BY	
	Nt.	

J:\FORT WEAVER ROAD\ROAD\ROAD06.dgn

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



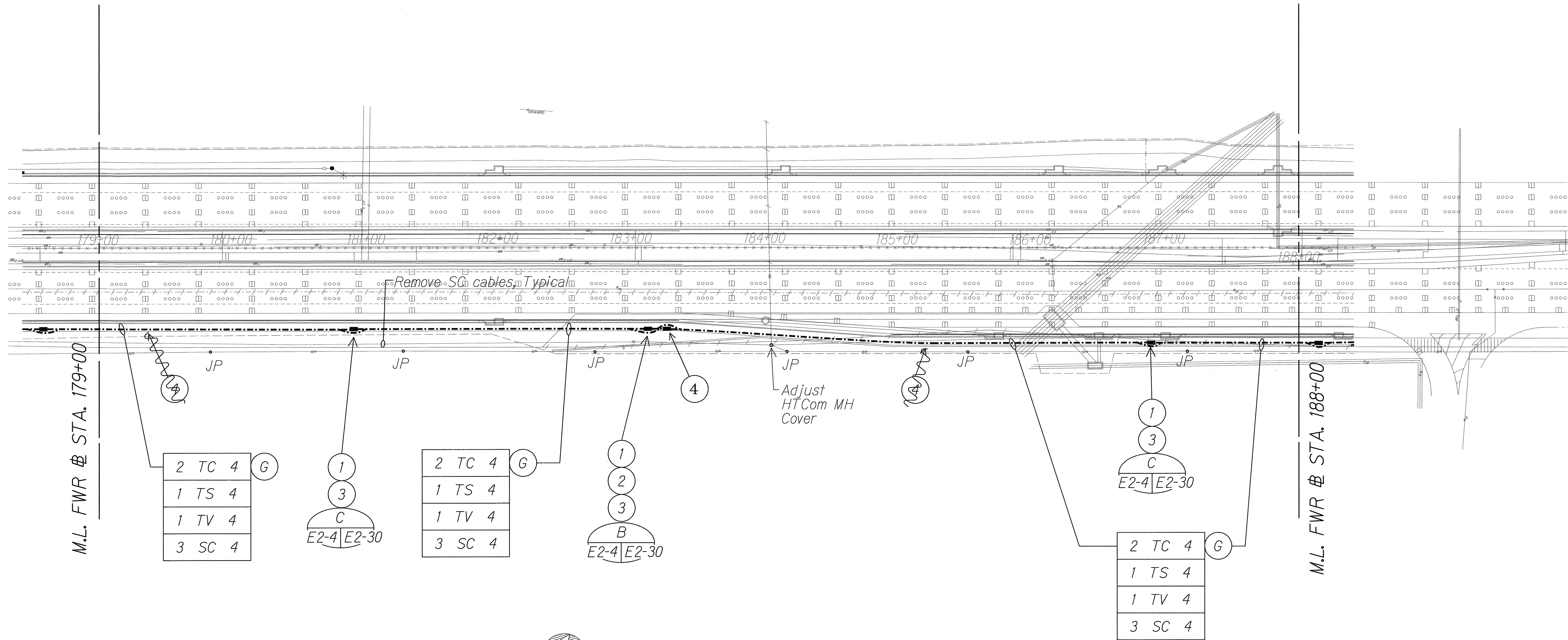
NEW SITE ELECTRICAL PLAN "C"

Scale: 1" = 40'-0" 06030-E2-03

Light lines denote existing condition.
 Bold lines denote new work.

5/4/2011 KK ENGINEERS, LTD. LICENSE EXPIRATION DATE: 4/30/12 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION NEW SITE ELECTRICAL PLAN "C" FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD Scale: 1" = 40' Date: Feb. 22 2008 SHEET No. E2-3 OF 42 SHEETS
--	--

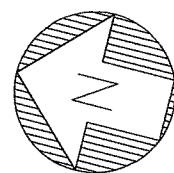
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	210	371



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

J:\FORT WEAVER ROAD\ROAD\ROAD7.dgn

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



NEW SITE ELECTRICAL PLAN "D"

Scale: 1" = 40'-0"

06030-E2-04

Light lines denote existing condition.
Bold lines denote new work.

5/6/2011

AN ENGINEER, LTD.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE ELECTRICAL PLAN "D"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

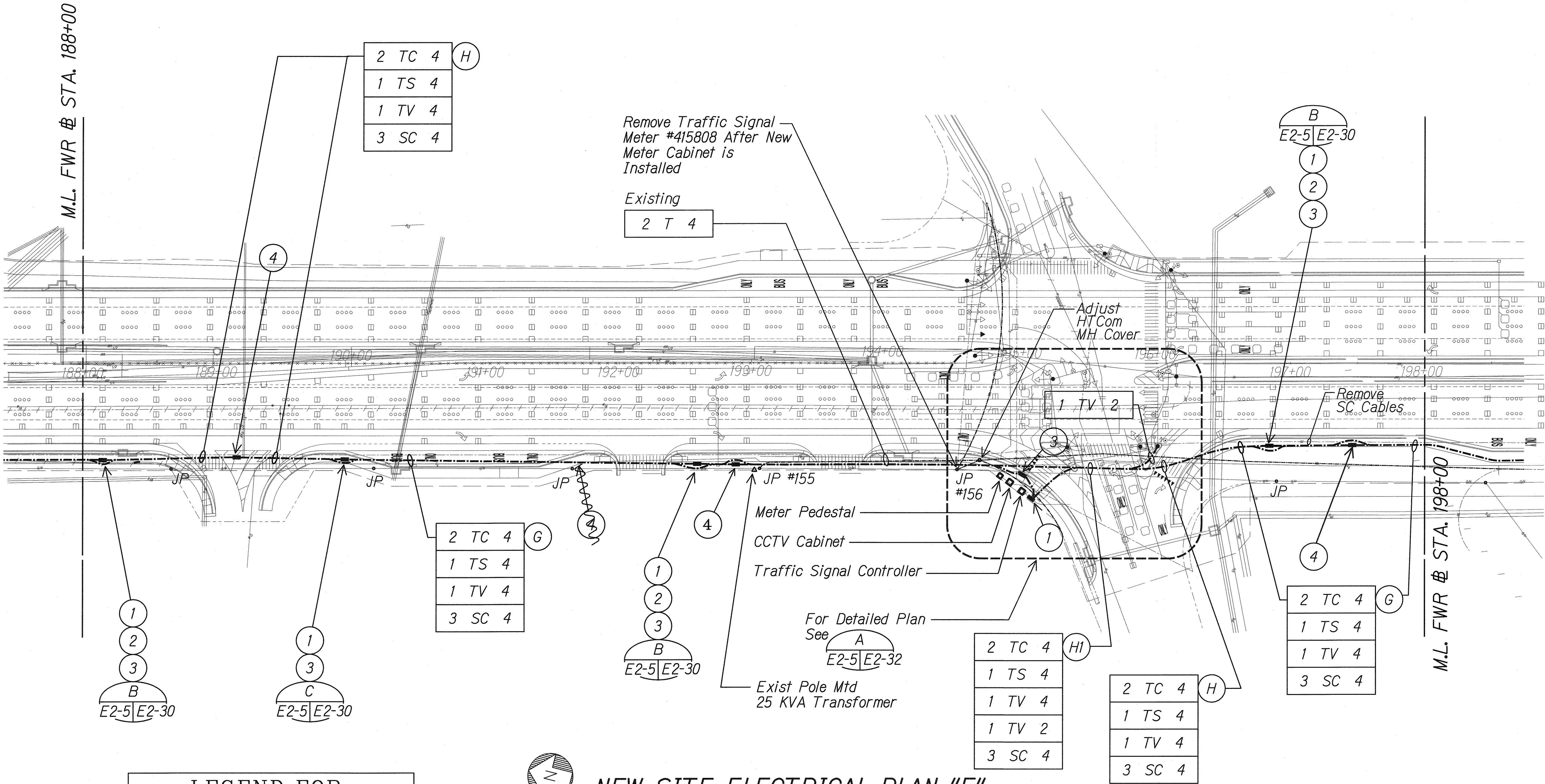
SHEET No. E2-4 OF 42 SHEETS

AS-BUILT

210

06030-E2-04.dgn 5/18/2011 1:03:25 PM

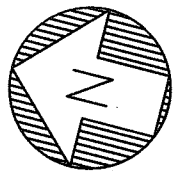
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	211	371



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

J:\FORT WEAVER ROAD\ROAD\ROAD08.dgn

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



NEW SITE ELECTRICAL PLAN "E"

Scale: 1" = 40'-0"

06030-E2-05

Light lines denote existing condition.
Bold lines denote new work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

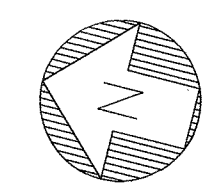
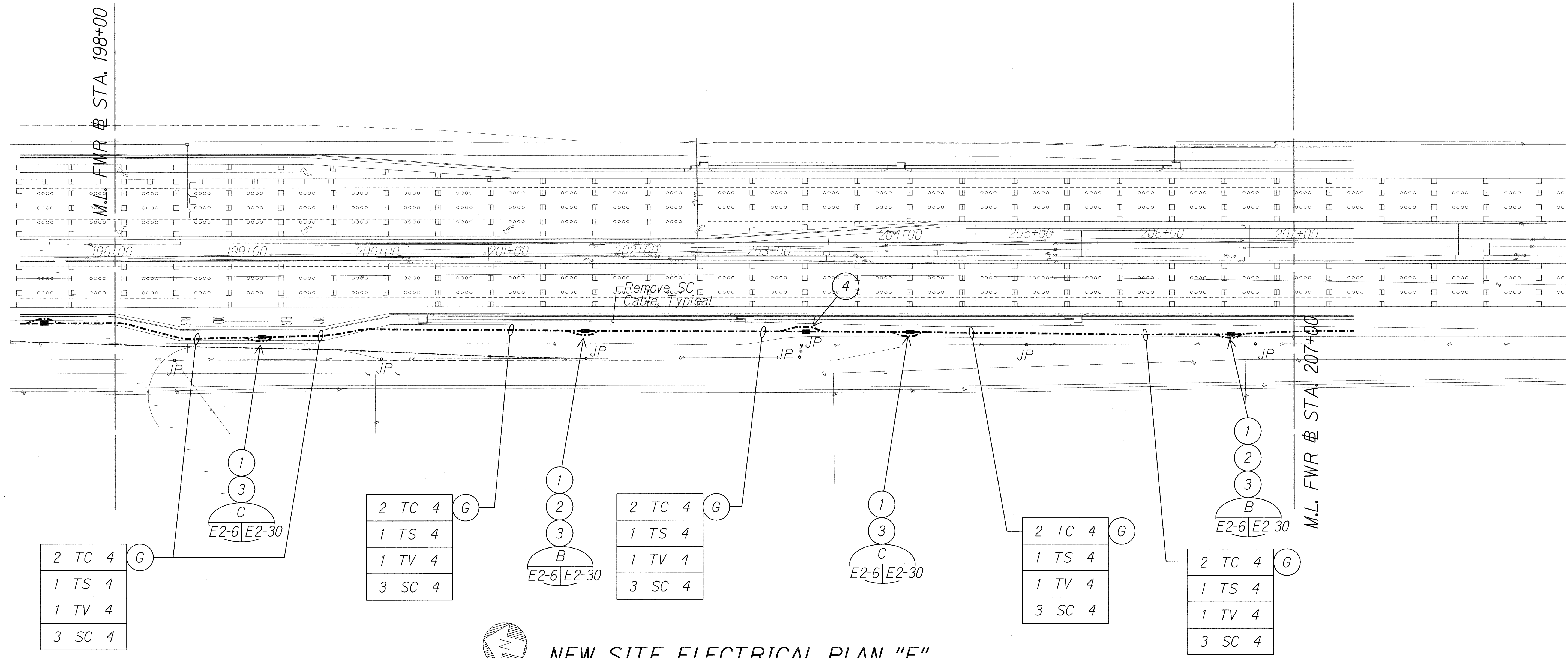
NEW SITE ELECTRICAL PLAN "E"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-5 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	212	371



NEW SITE ELECTRICAL PLAN "F"

Scale: 1" = 40'-0"

Light lines denote existing condition.
Bold lines denote new work.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	

J:\FORT WEAVER ROAD\ROAD\ROAD9.dgn

5/6/2011

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE ELECTRICAL PLAN "F"

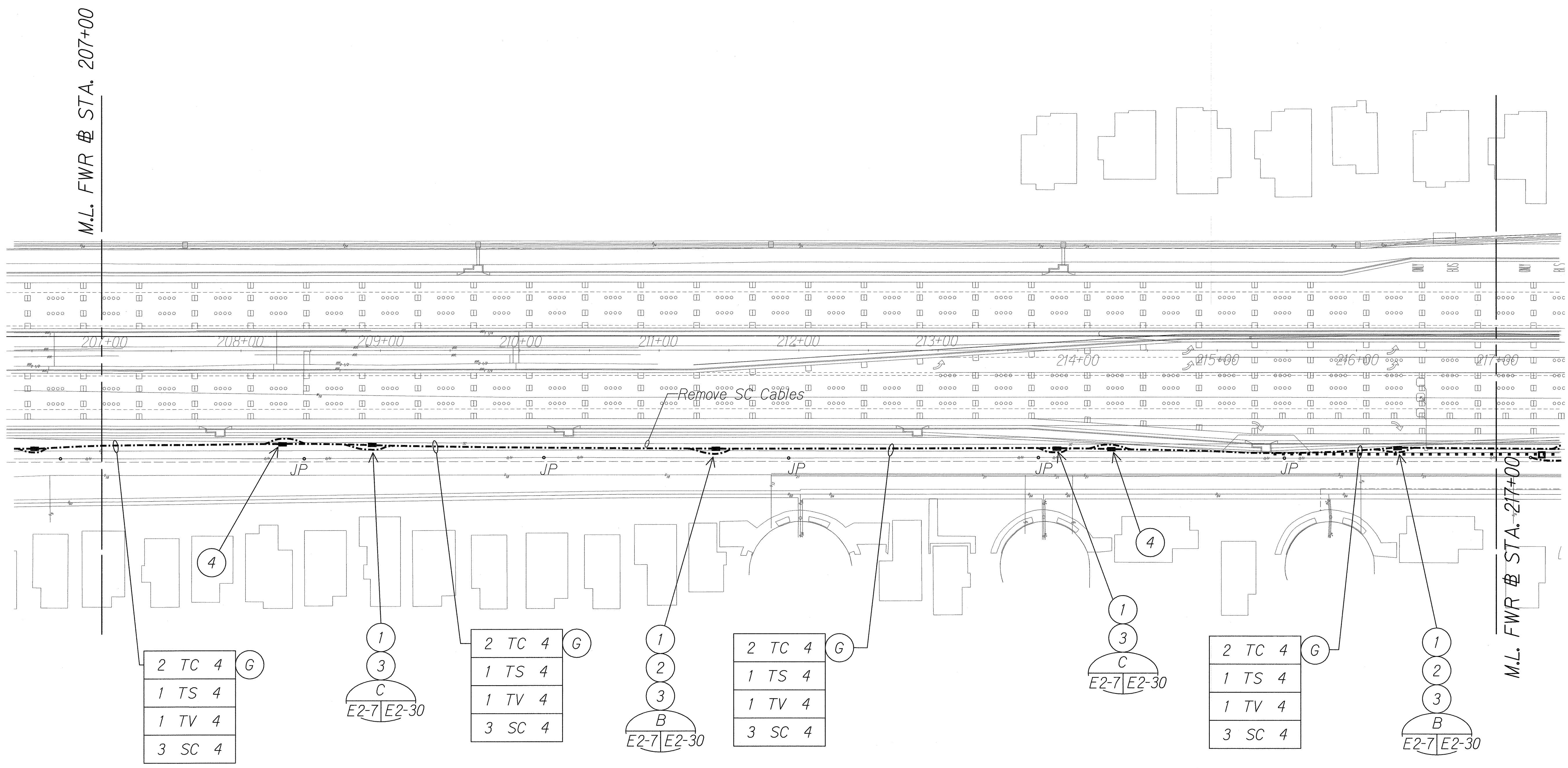
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-6 OF 42 SHEETS

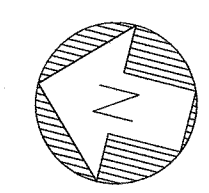
06030-E2-06.dgn 5/17/2011 4:38:23 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	213	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

J:\FORT WEAVER ROAD\ROAD\ROAD10.dgn



NEW SITE ELECTRICAL PLAN "G"

Scale: 1" = 40'-0"

Light lines denote existing condition.
 Bold lines denote new work.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

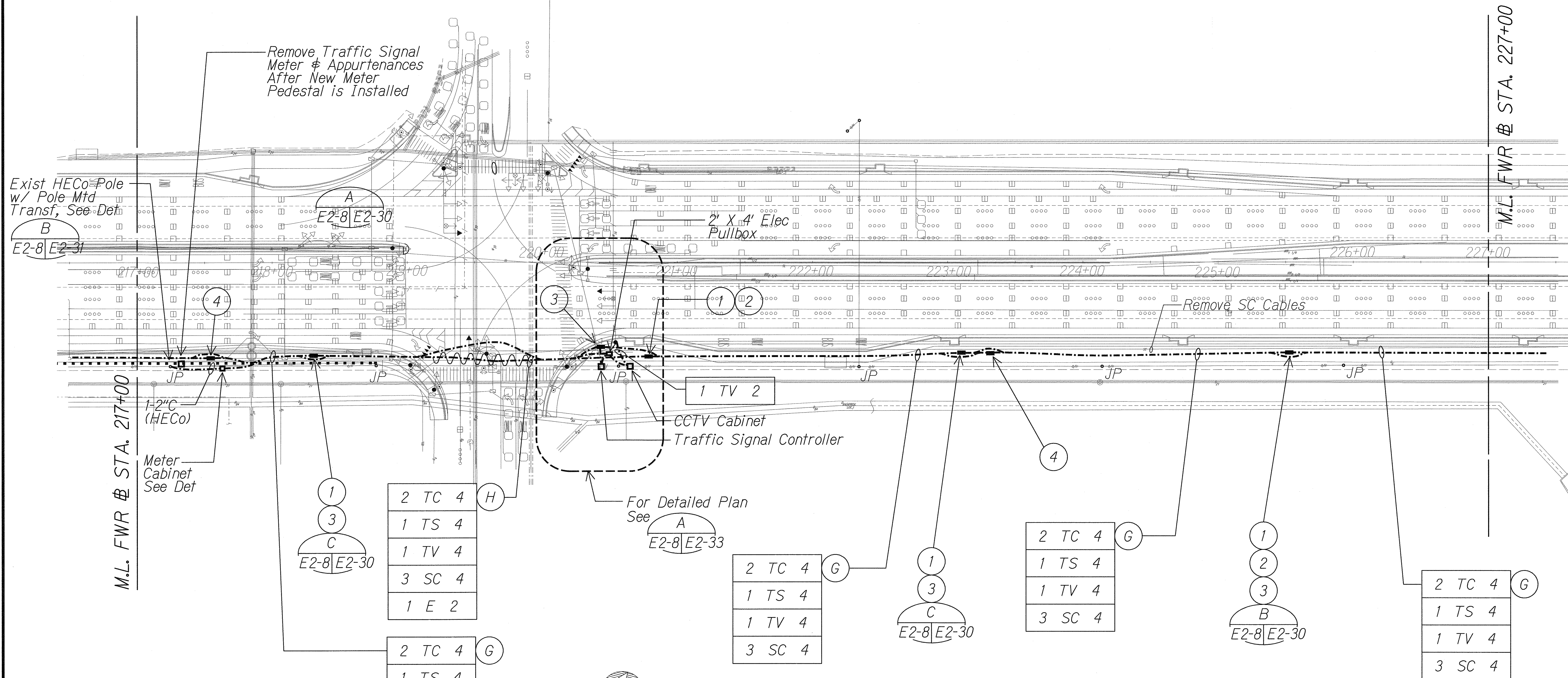
NEW SITE ELECTRICAL PLAN "G"

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-7 OF 42 SHEETS

06030-E2-07.dgn 5/27/2011 4:38:58 PM



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

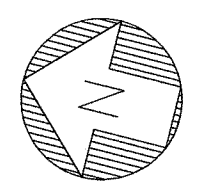
LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

2 TC 4	H
1 TS 4	
1 TV 4	
3 SC 4	
1 E 2	

2 TC 4	G
1 TS 4	
1 TV 4	
3 SC 4	

2 TC 4	G
1 TS 4	
1 TV 4	
3 SC 4	

2 TC 4	G
1 TS 4	
1 TV 4	
3 SC 4	



NEW SITE ELECTRICAL PLAN "H"

Scale: 1" = 40'-0"

Light lines denote existing condition.
 Bold lines denote new work.

5/6/2011

MR. ENGINEERS, LTD.
 LICENSE EXPIRATION DATE: 4/30/12
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

NEW SITE ELECTRICAL PLAN "H"

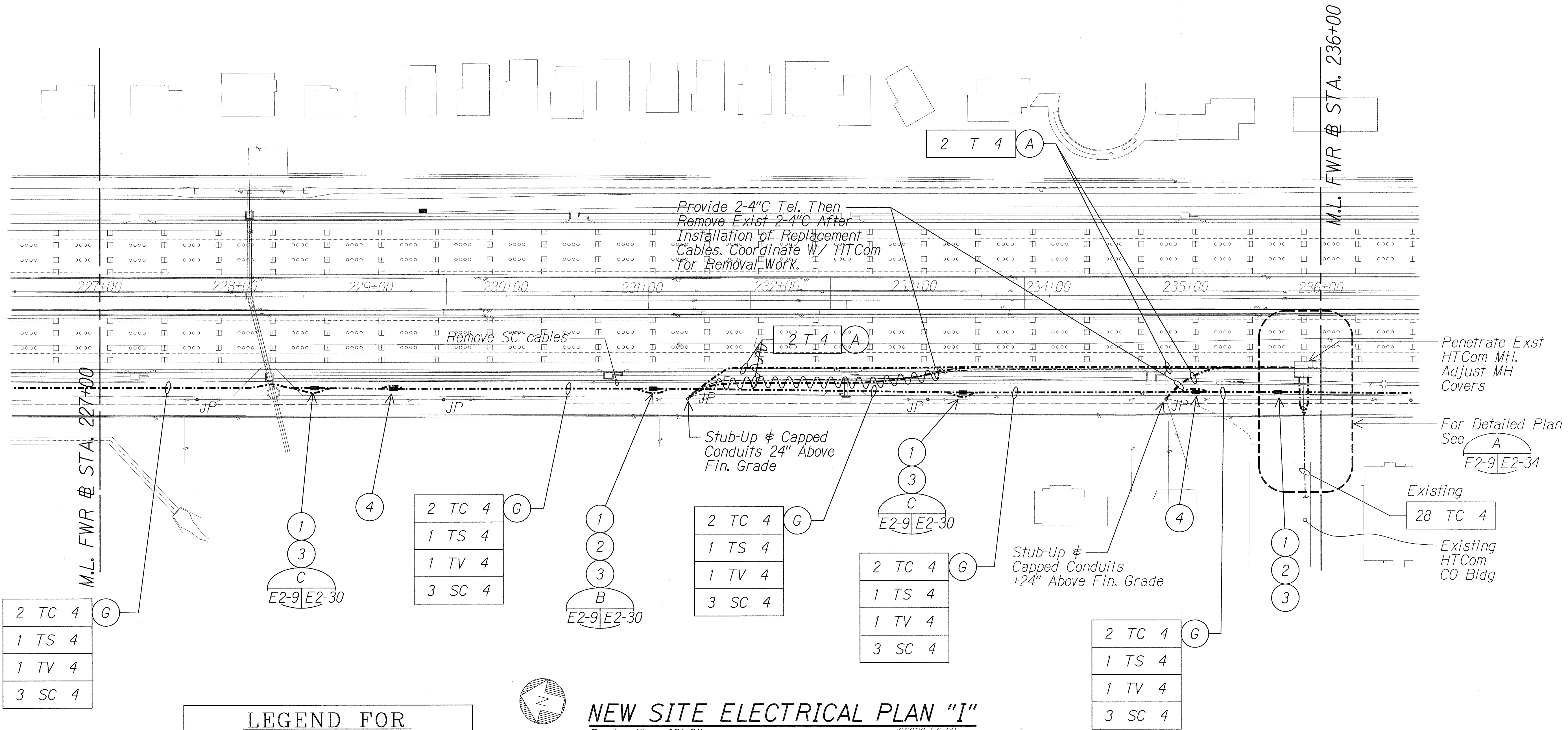
FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

J:\FORT WEAVER ROAD\ROAD\ROAD11.dgn

06030-E2-08.dgn 5/17/2011 4:39:44 PM

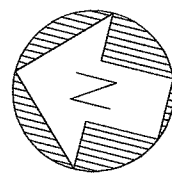
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	215	371



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

J:\FORT WEAVER ROAD\ROAD\ROAD12.dgn

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



NEW SITE ELECTRICAL PLAN "I"

Scale: 1" = 40'-0"

06030-E2-09

Light lines denote existing condition.
 Bold lines denote new work.

5/16/2011

IN ENGINEERS - LTD.
 LICENSE EXPIRATION DATE: 4/30/12
 THIS SEAL WAS PREPARED BY ME OR UNDER MY SUPERVISION.

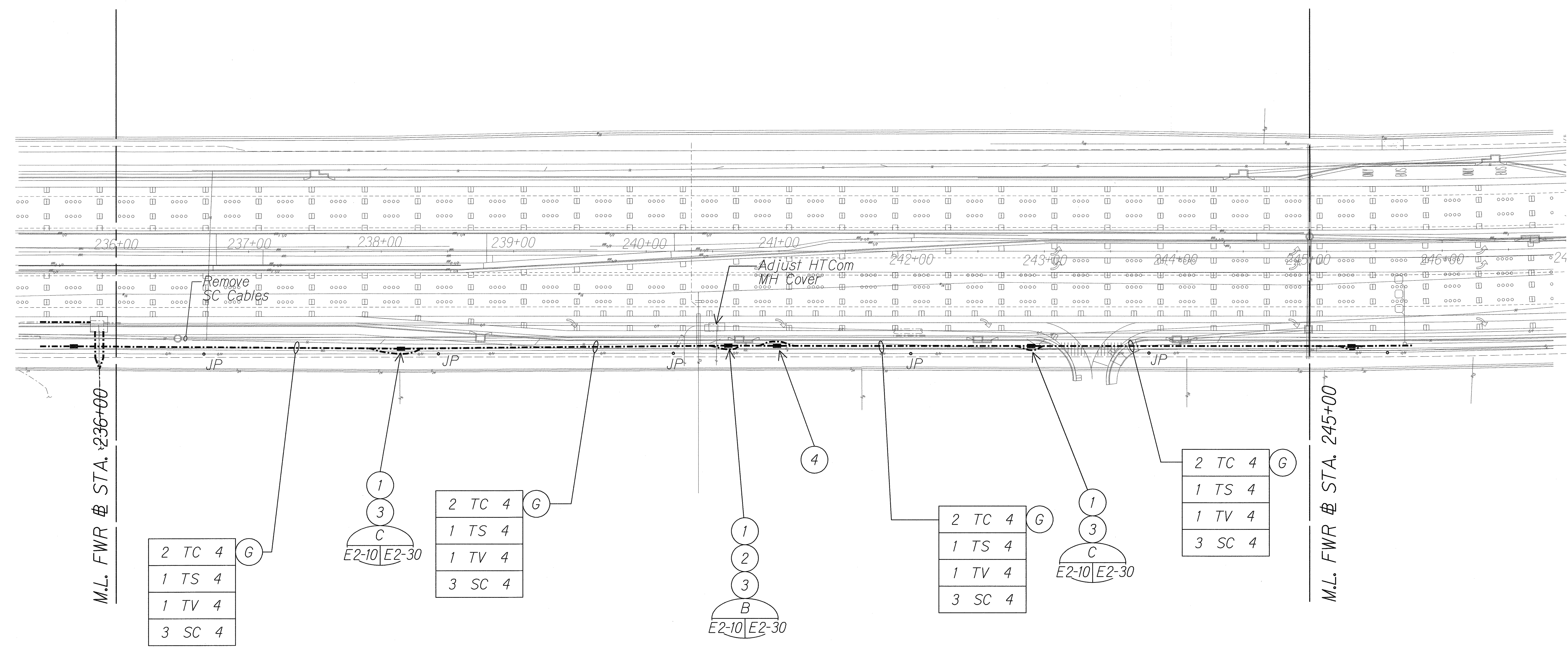
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

NEW SITE ELECTRICAL PLAN "I"

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

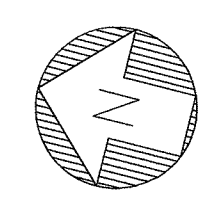
Scale: 1" = 40' Date: Feb. 22 2008

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	216	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

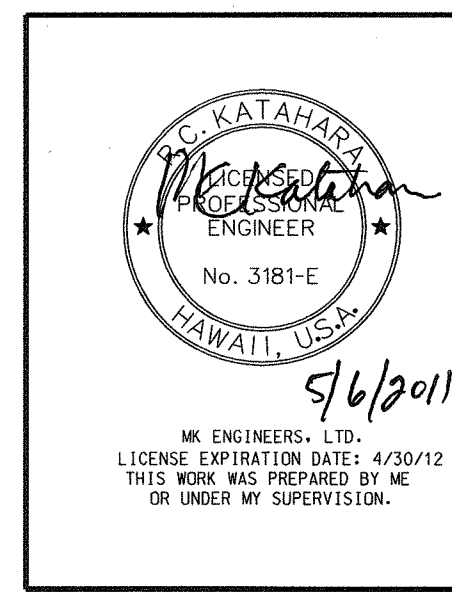
J:\FORT WEAVER ROAD\ROAD\ROAD13.dgn



NEW SITE ELECTRICAL PLAN "J"

Scale: 1" = 40'-0"

Light lines denote existing condition.
Bold lines denote new work.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE ELECTRICAL PLAN "J"

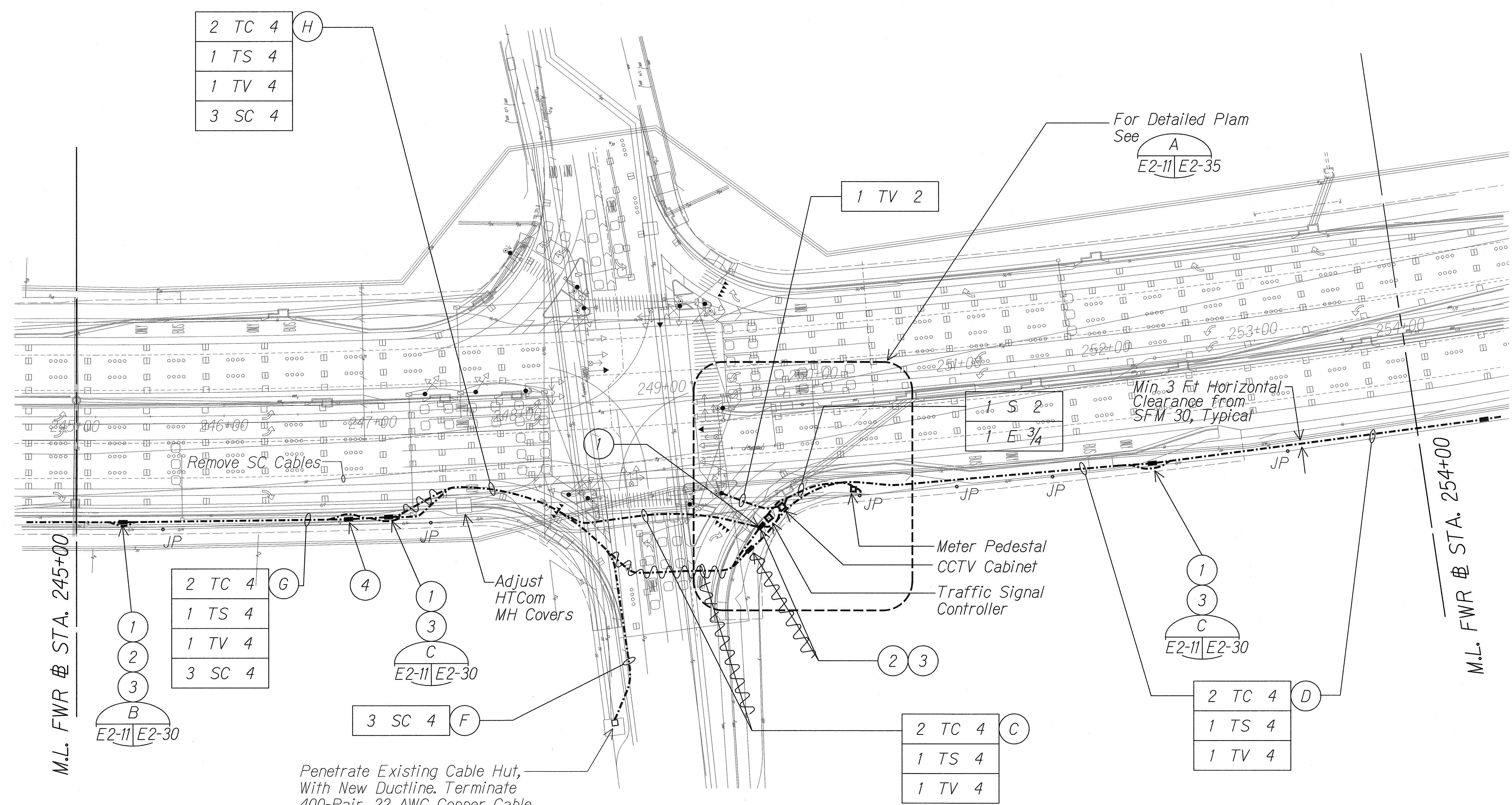
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

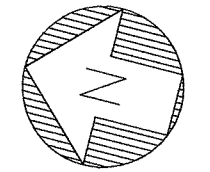
SHEET No. E2-10 OF 42 SHEETS

06030-E2-10.dgn 5/27/2011 4:41:01 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	217	371



Penetrate Existing Cable Hut, With New Ductline. Terminate 400-Pair, 22 AWG Copper Cable and 96-Strand, Single-Mode Fiber-Optic Cable in Re-Enterable Water-Tight Splice Cases. Provide 25-Feet of Slack Coiled Neatly in Cable Hut



NEW SITE ELECTRICAL PLAN "K"

Scale: 1" = 40'-0" 06030-E2-11

- NOTES:**
- Light lines denote existing condition.
Bold lines denote new work.
 - Preserve / Restore Traffic Signal Loop Detector.

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

5/6/2011

MR. ENGINEERS, LTD.
LICENSURE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

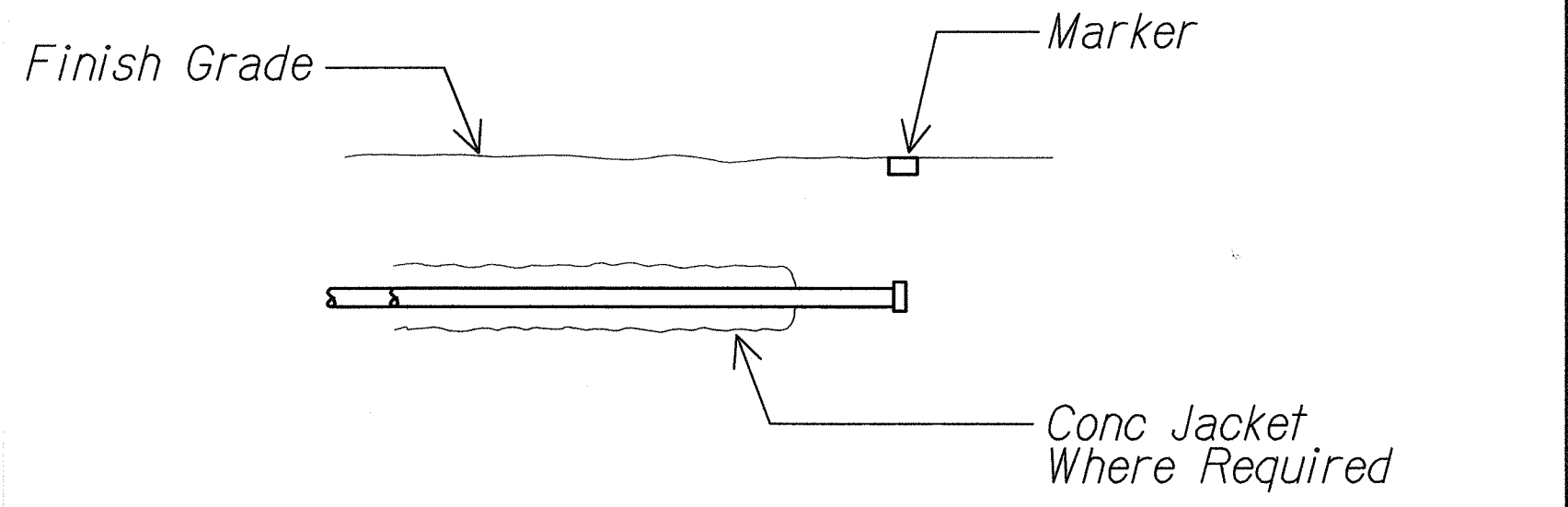
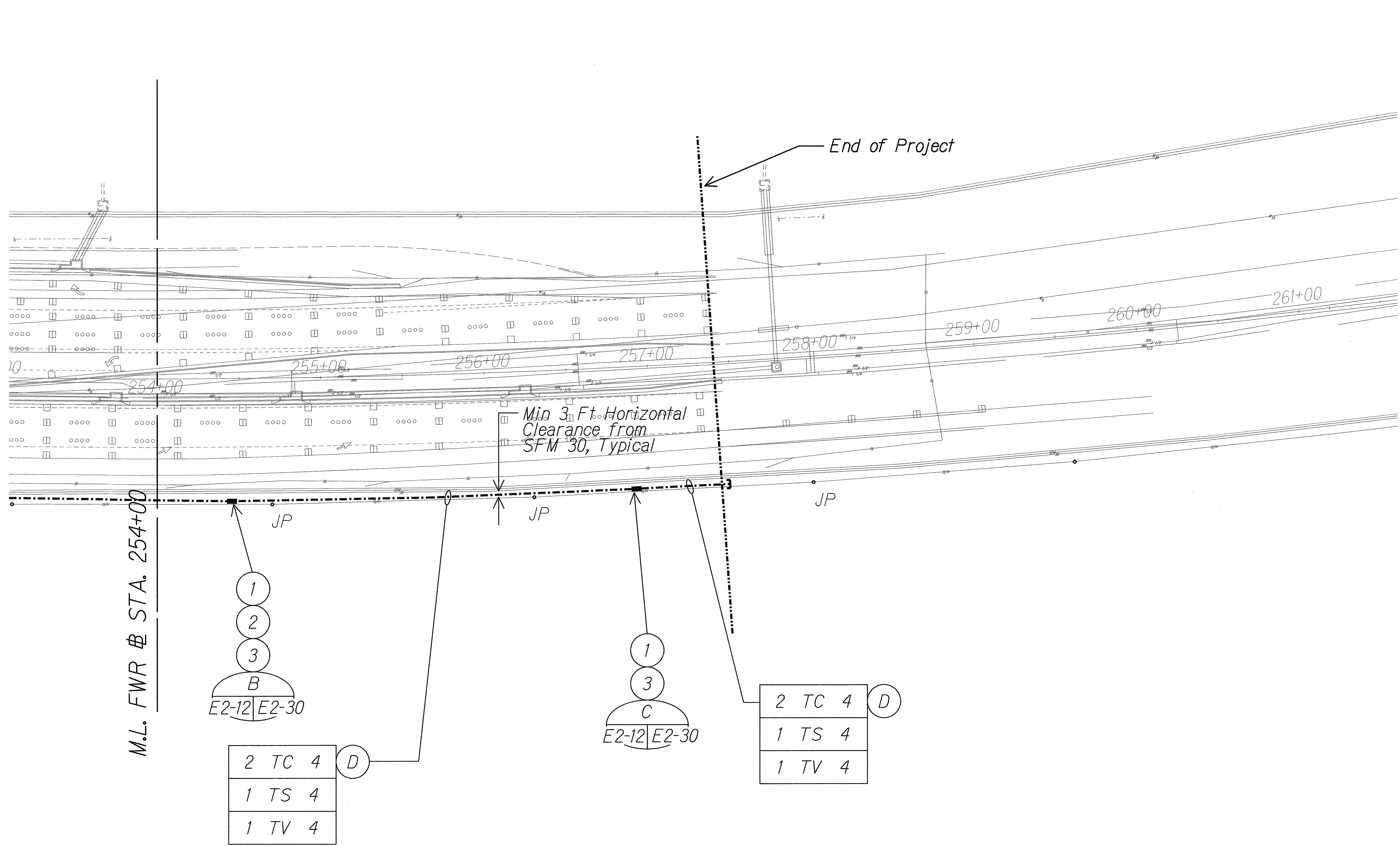
NEW SITE ELECTRICAL PLAN "K"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

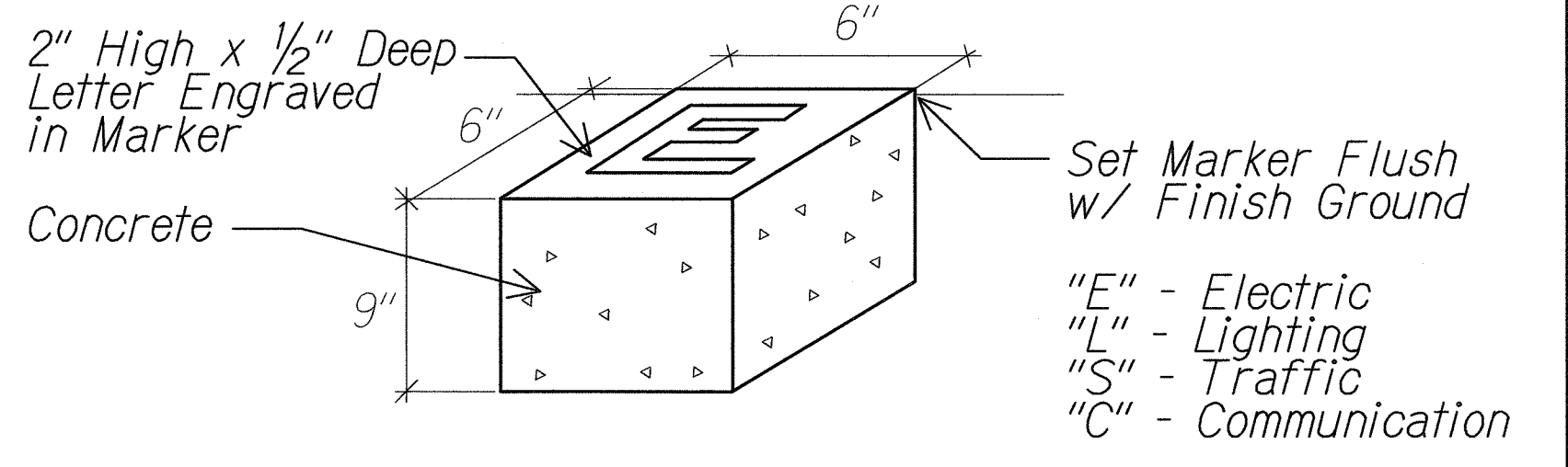
Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-11 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	218	371



A CONDUIT STUB OUT DETAIL
E2-1 | E2-12 NTS



B MARKER FOR STUB OUT
E2-1 | E2-12 NTS 06030-E1-05

NEW SITE ELECTRICAL PLAN "L"
Scale: 1" = 40'-0" 06030-E2-12

Light lines denote existing condition.
Bold lines denote new work.

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
N.	

J:\FORT WEAVER ROAD\ROAD\ROAD15.dgn

5/6/2011

MR. ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

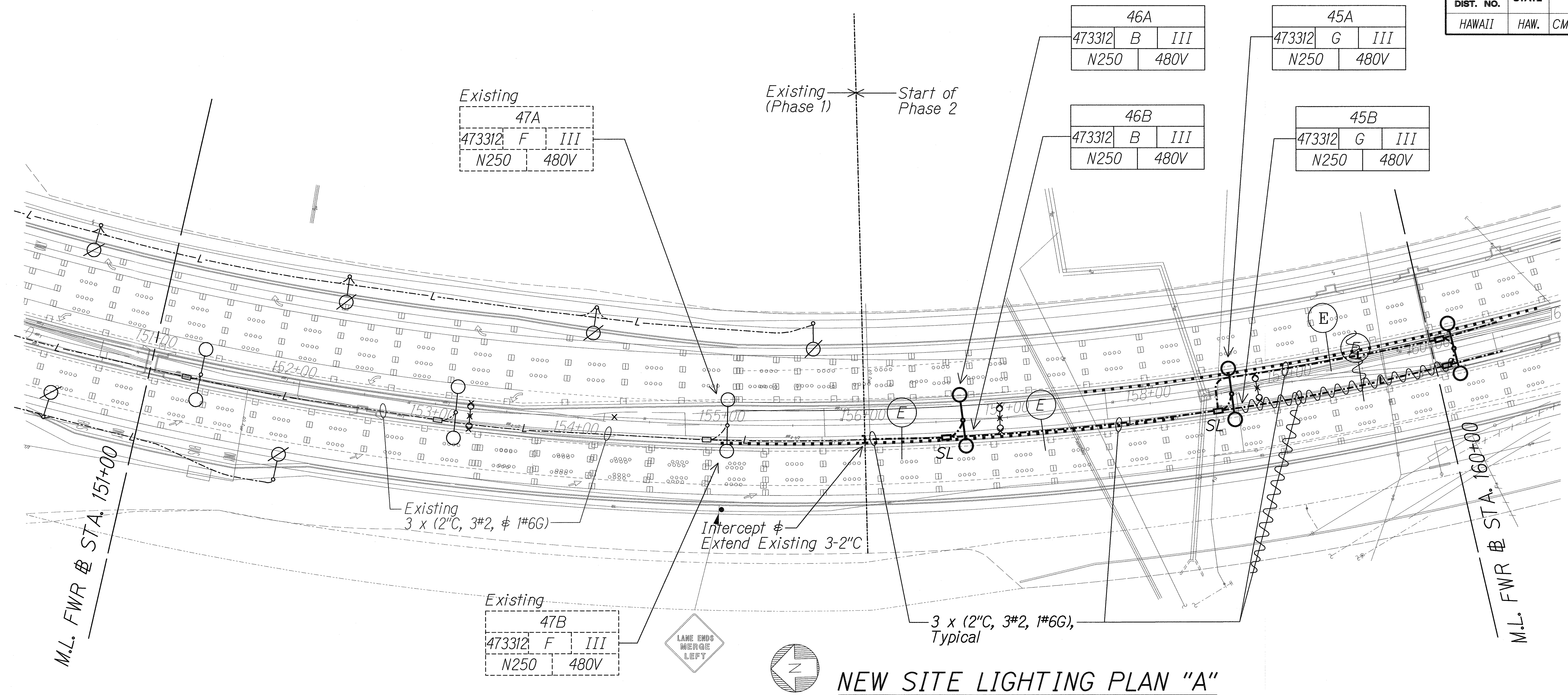
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE ELECTRICAL PLAN "L"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

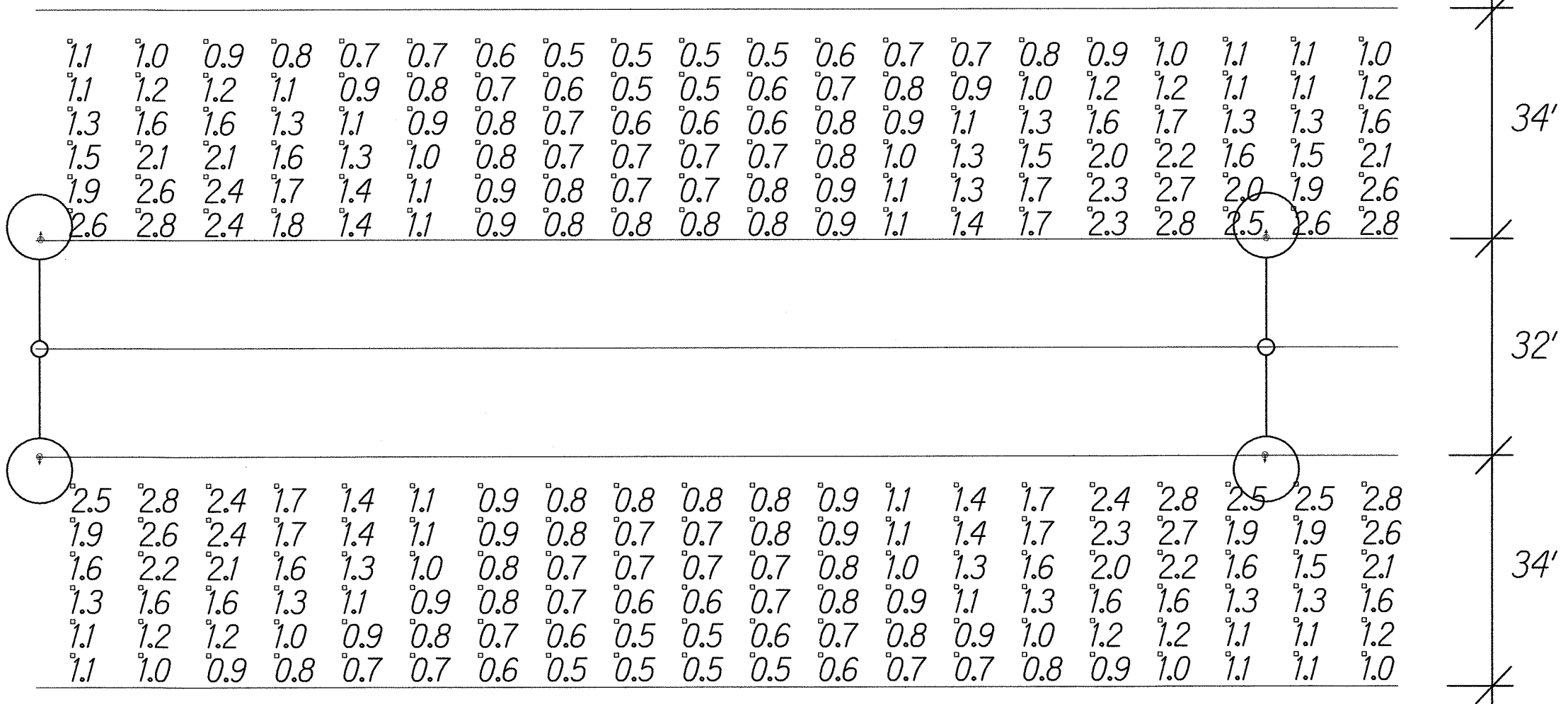
SHEET No. E2-12 OF 42 SHEETS



NEW SITE LIGHTING PLAN "A"
Scale: 1" = 40'-0"

GENERAL NOTES:

- Existing Highway Lighting System shall Remain in Operation at all Times. Remove Light Poles and Conductors only after the New Lighting System is in Operation.
- Extra Care shall be taken while Excavating for the Light Pole Foundation and Ductlines. Contractor shall Tone for Location of Utility Lines prior to Excavation.



Lamp: 250W High Pressure Sodium
Mounting Height: 35 Ft Nominal

TYPICAL ILLUMINATION PLAN
Scale: 1"=10'-0"

Light lines denote existing condition.
Bold lines denote new work.

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

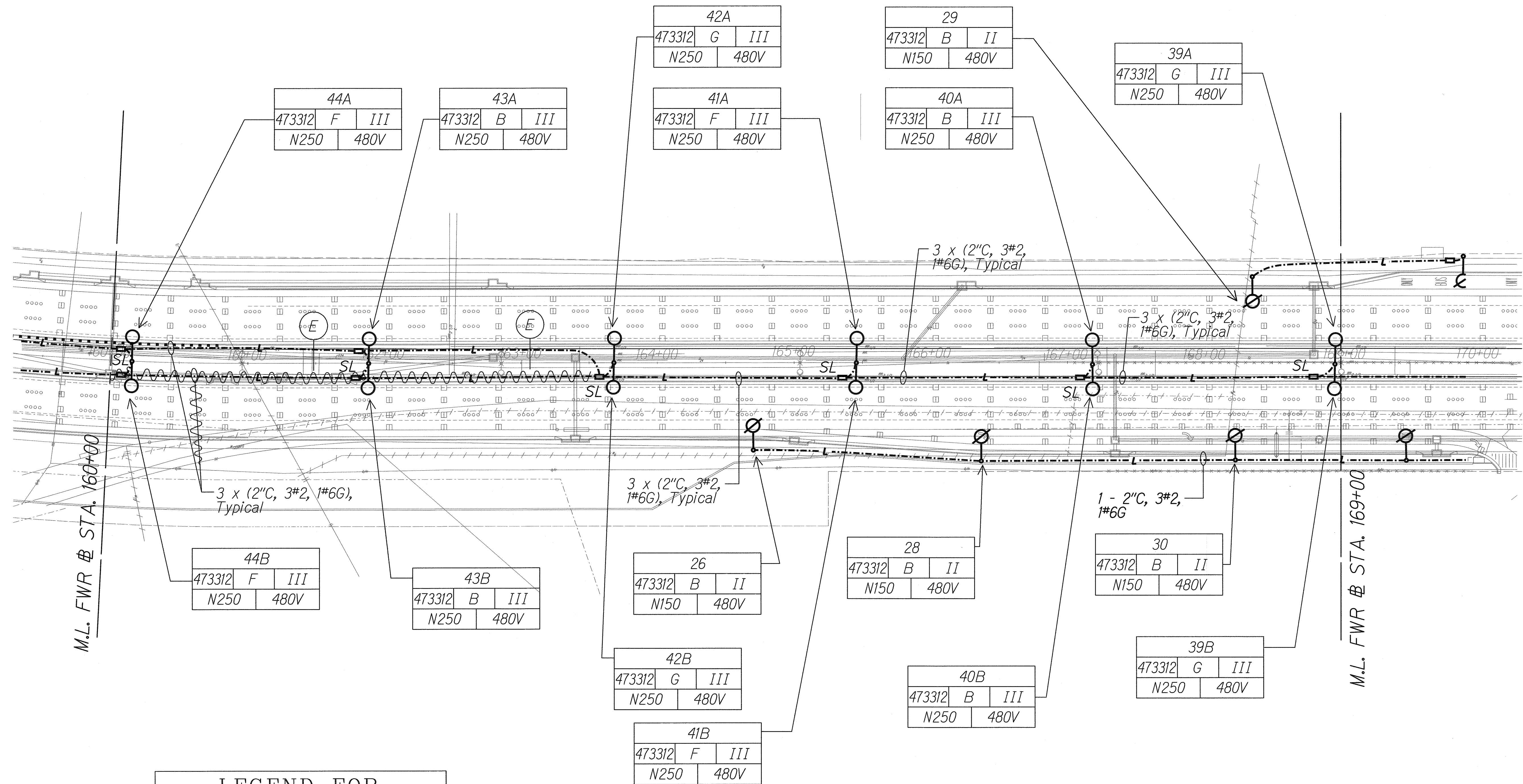
Numeric Summary					
Project: Project 1					
Label	Avg	Max	Min	Avg/Min	Max/Min
Roadway Top	1.25	2.8	0.5	2.50	5.60
Roadway Bottom	1.25	2.6	0.5	2.50	5.60

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE LIGHTING PLAN "A"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008



M.L. FWR @ STA. 160+00

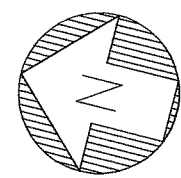
M.L. FWR @ STA. 169+00

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

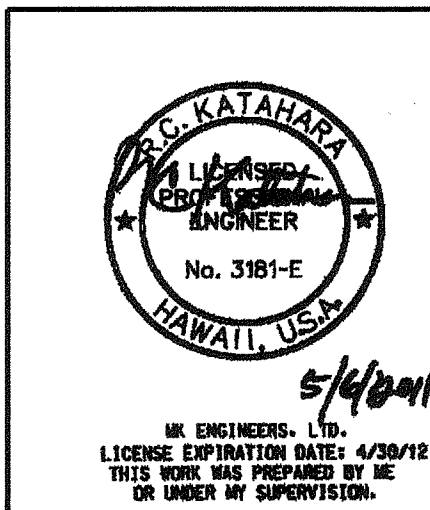
Double line for as-built deletion

Roadway Text for as-built posting



NEW SITE LIGHTING PLAN "B"
Scale: 1" = 40'-0"

Light lines denote existing condition.
Bold lines denote new work.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
NEW SITE LIGHTING PLAN "B"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-14 OF 42 SHEETS

AS-BUILT

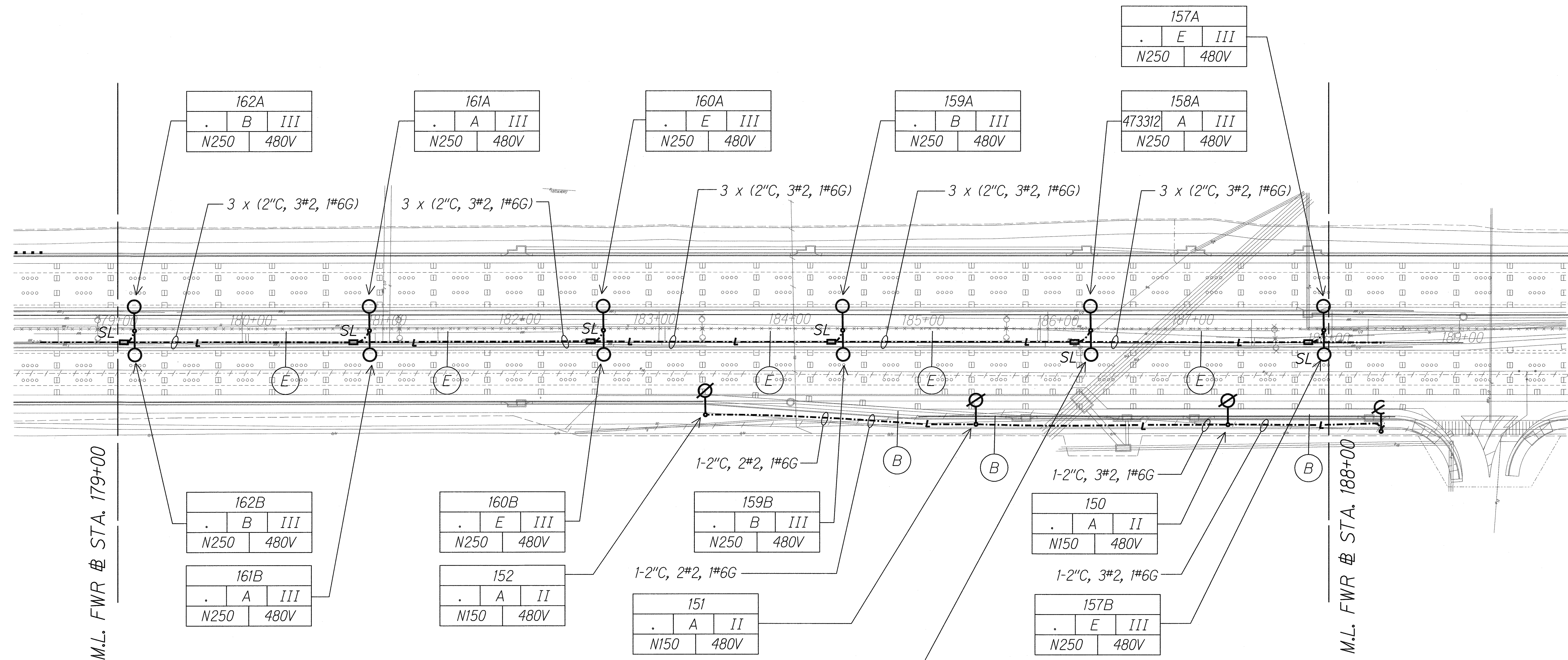
220

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	CHECKED BY	
	QUANTITIES BY	

J:\FORT WEAVER ROAD\ROAD\ROAD5.dgn

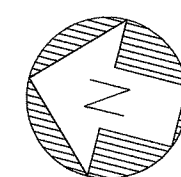
06030-E2-14.dgn 5/18/2011 1:19:47 PM

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	222	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

J:\FORT WEAVER ROAD\ROAD\ROAD1.dgn



NEW SITE LIGHTING PLAN "D"

Scale: 1" = 40'-0" 06030-E2-16

Light lines denote existing condition.
 Bold lines denote new work.

5/1/2011

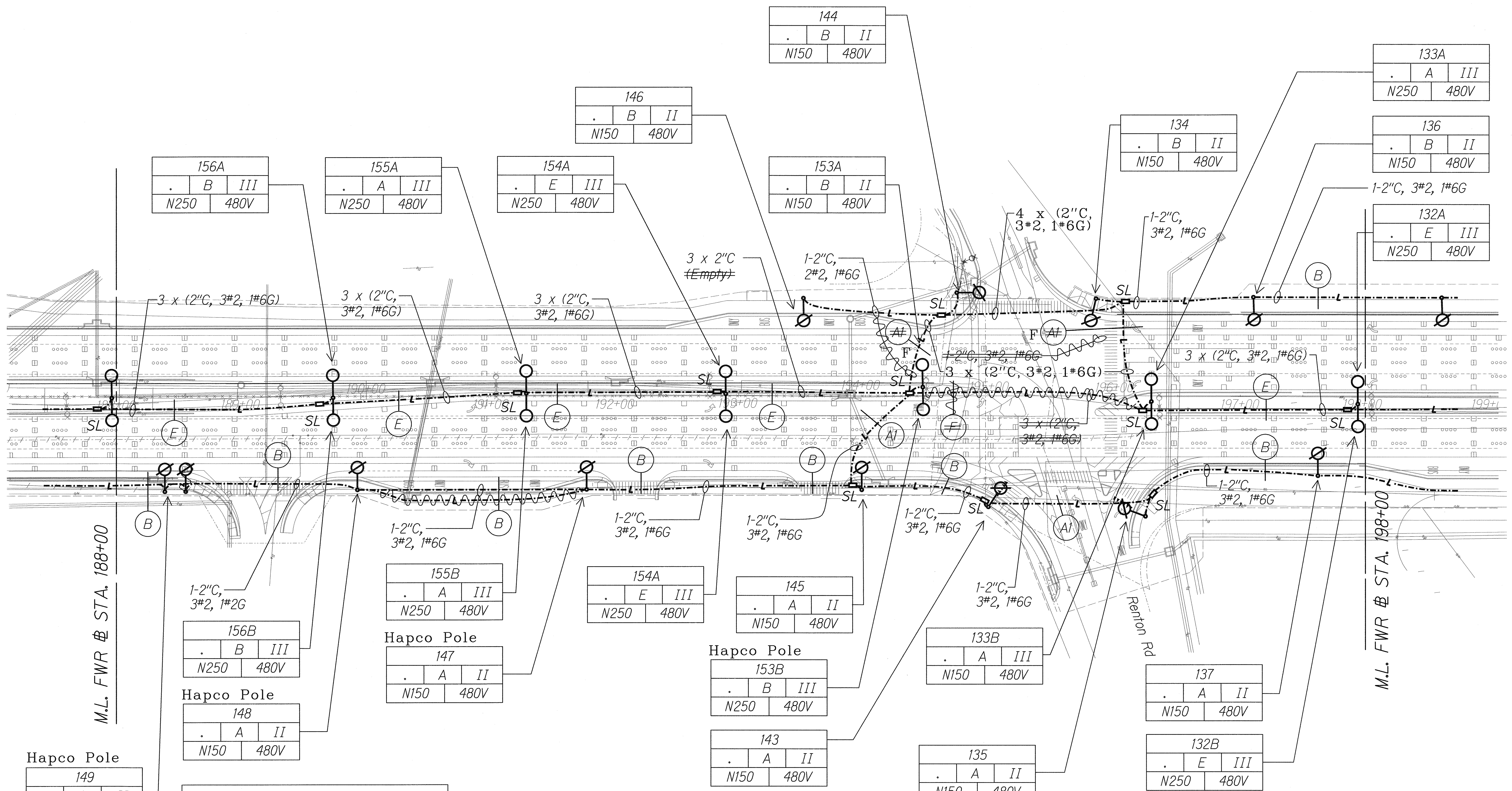
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

NEW SITE LIGHTING PLAN "D"

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-16 OF 42 SHEETS



SURVEY PLOTTED BY _____ DATE _____
 DRAWN BY _____
 CHECKED BY _____
 NOTE BOOK _____
 QUANTITIES BY _____
 CHECKED BY _____
 N. _____

J:\FORT WEAVER ROAD\ROAD\ROAD3.dgn

Hapco Pole
 149
 . A II
 N150 480V

LEGEND FOR

AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

156B

. B III

N250 480V

Hapco Pole

148

. A II

N150 480V

155B

. A III

N250 480V

Hapco Pole

147

. A II

N150 480V

154A

. E III

N250 480V

153B

. B III

N250 480V

143

. A II

N150 480V

133B

. A III

N150 480V

137

. A II

N150 480V

132B

. E III

N250 480V

135

. A II

N150 480V

145

. A II

N150 480V

154A

. E III

N250 480V

155A

. A III

N250 480V

156A

. B III

N250 480V

146

. B II

N150 480V

144

. B II

N150 480V

153A

. B II

N150 480V

134

. B II

N150 480V

133A

. A III

N250 480V

136

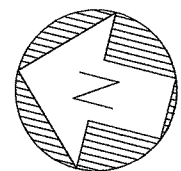
. B II

N150 480V

132A

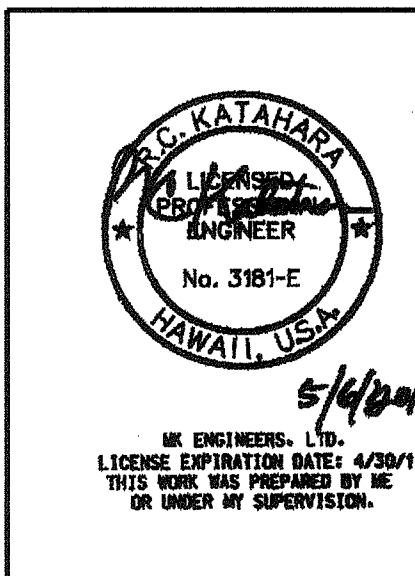
. E III

N250 480V



NEW SITE LIGHTING PLAN "E"
 Scale: 1" = 40'-0"

Light lines denote existing condition.
 Bold lines denote new work.



STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

NEW SITE LIGHTING PLAN "E"

FORT WEAVER ROAD WIDENING

VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40'

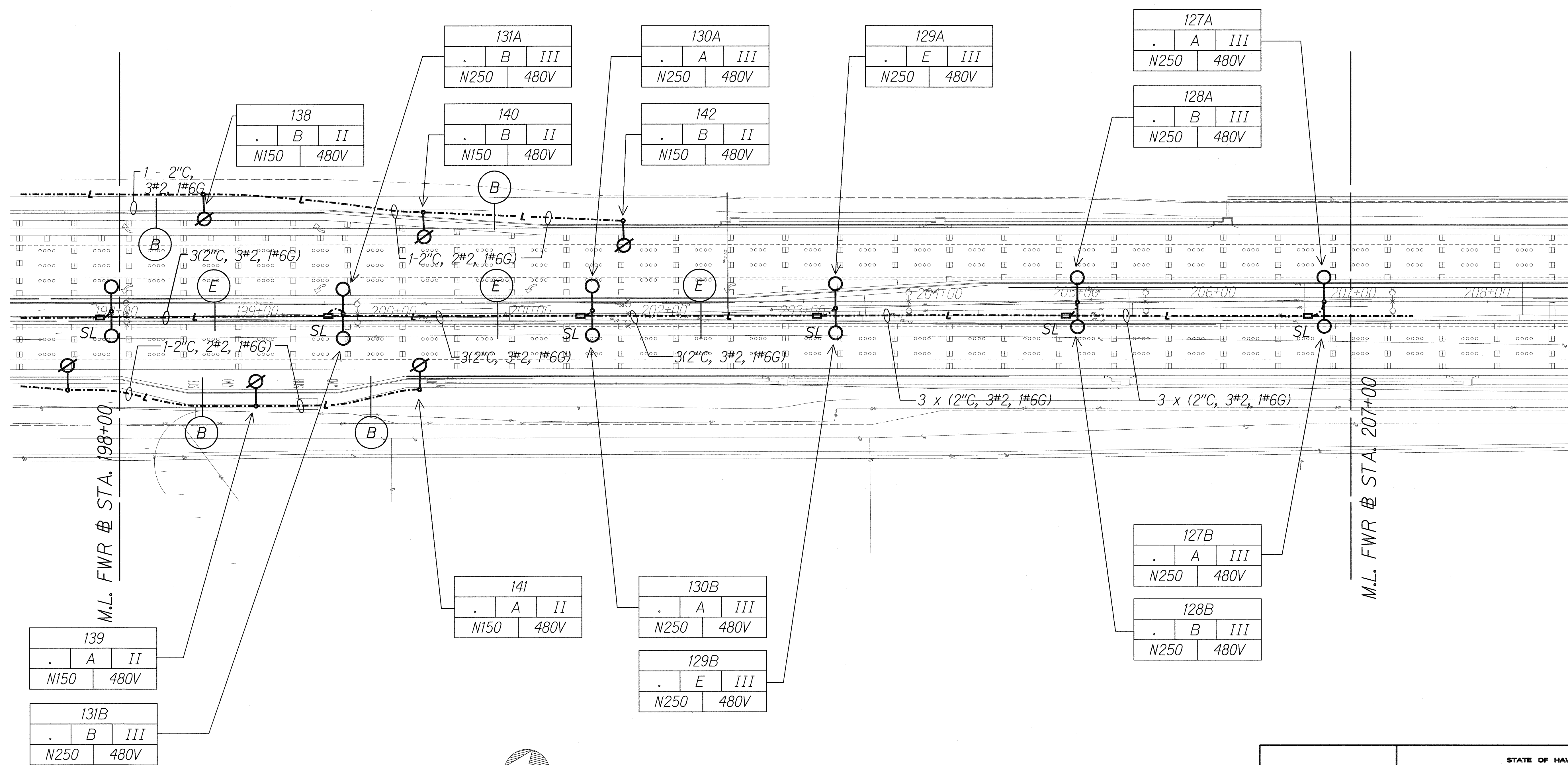
Date: Feb. 22 2008

SHEET No. E2-17 OF 42 SHEETS

AS-BUILT

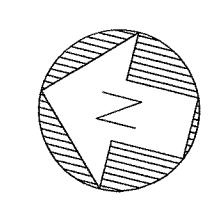
223

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	224	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

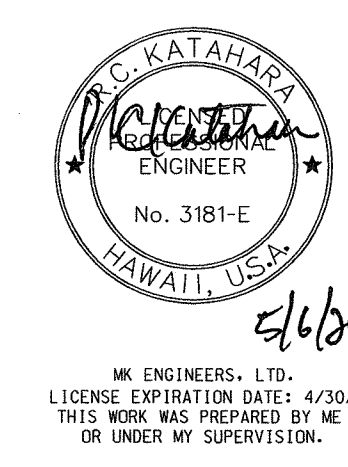
J:\FORT WEAVER ROAD\ROAD\ROAD9.dgn



NEW SITE LIGHTING PLAN "F"

Scale: 1" = 40'-0" 06030-E2-18

Light lines denote existing condition.
 Bold lines denote new work.

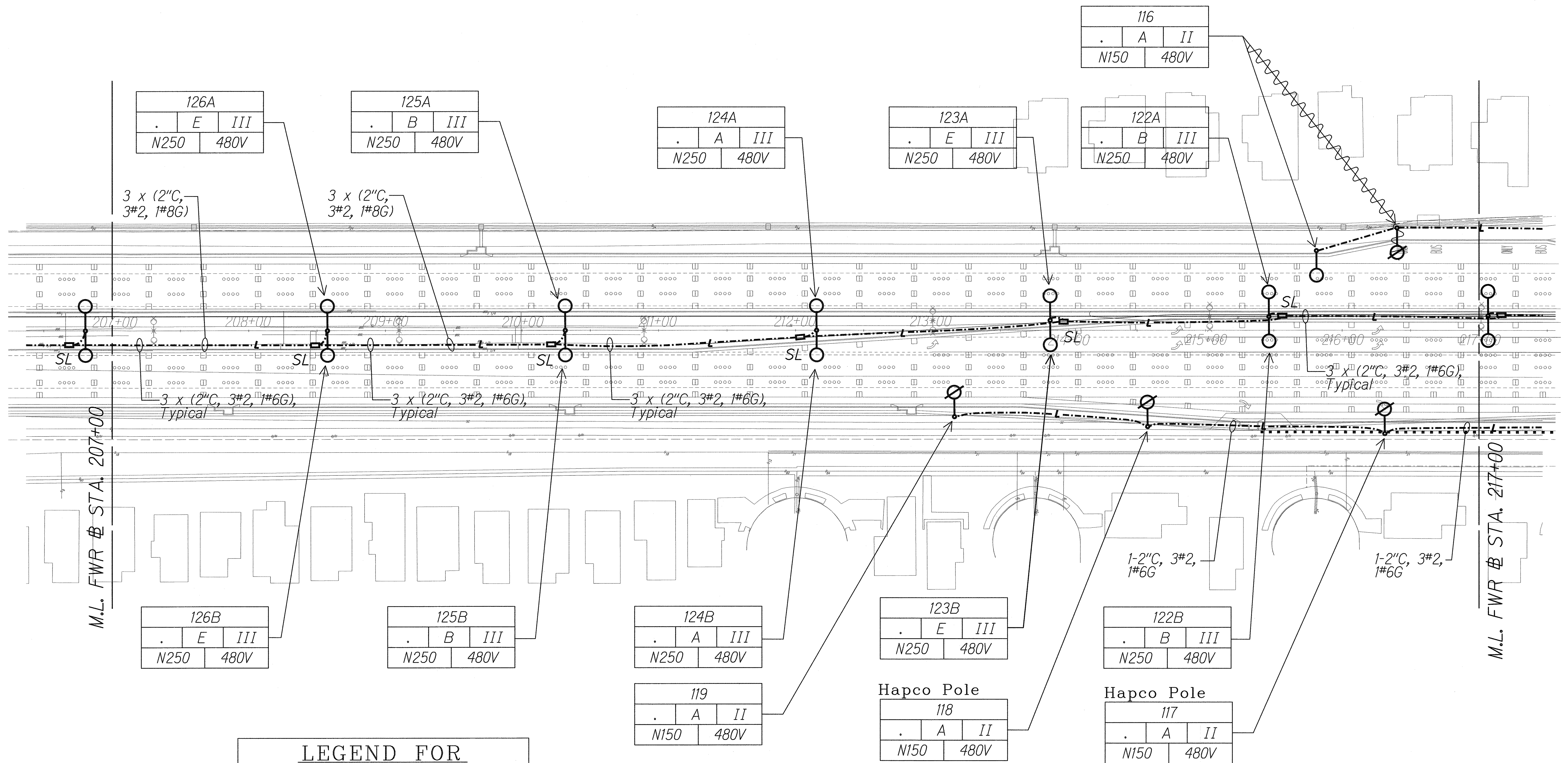


STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION NEW SITE LIGHTING PLAN "F"

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-18 OF 42 SHEETS



SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

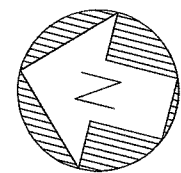
J:\FORT WEAVER ROAD\ROAD\ROAD00.dgn

LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

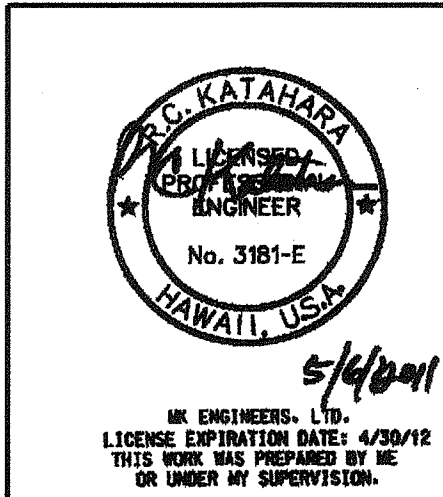
Double line for as-built deletion

Roadway Text for as-built posting



NEW SITE LIGHTING PLAN "G"
Scale: 1" = 40'-0" 06030-E2-19

Light lines denote existing condition.
Bold lines denote new work.



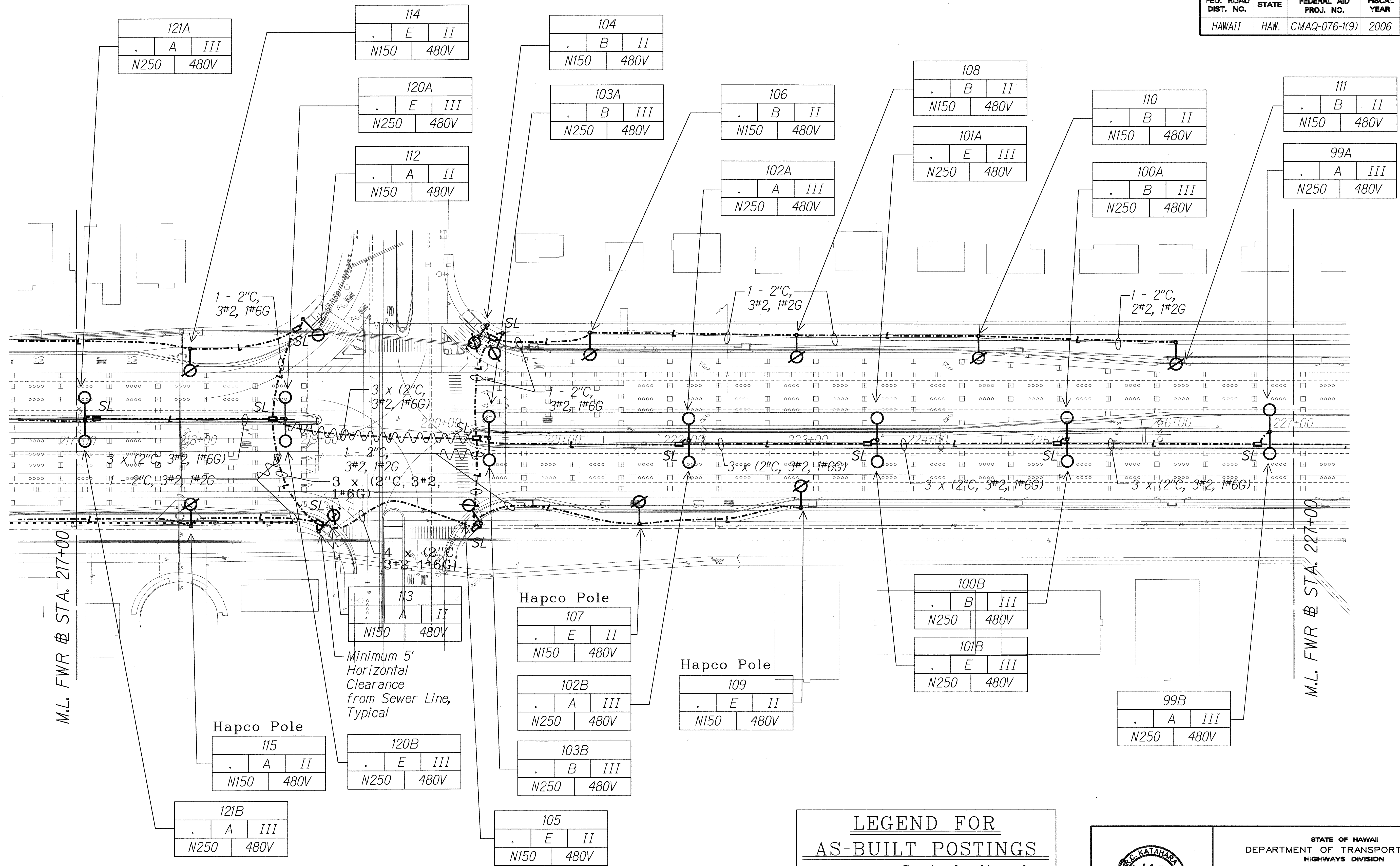
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE LIGHTING PLAN "G"

FORT WEAVER ROAD WIDENING
VICINITY OF AWA DRIVE TO GEIGER ROAD

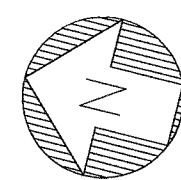
Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-19 OF 42 SHEETS



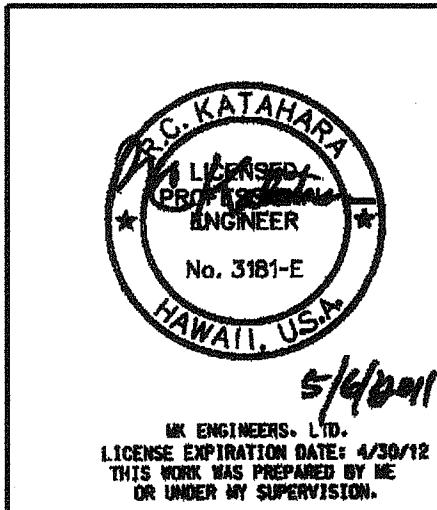
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

L:\FORT WEAVER ROAD\ROAD\ROAD1.dgn



NEW SITE LIGHTING PLAN "H"
Scale: 1" = 40'-0"
06030-E2-20
Light lines denote existing condition.
Bold lines denote new work.

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



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

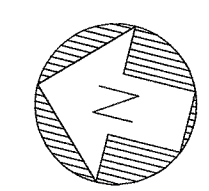
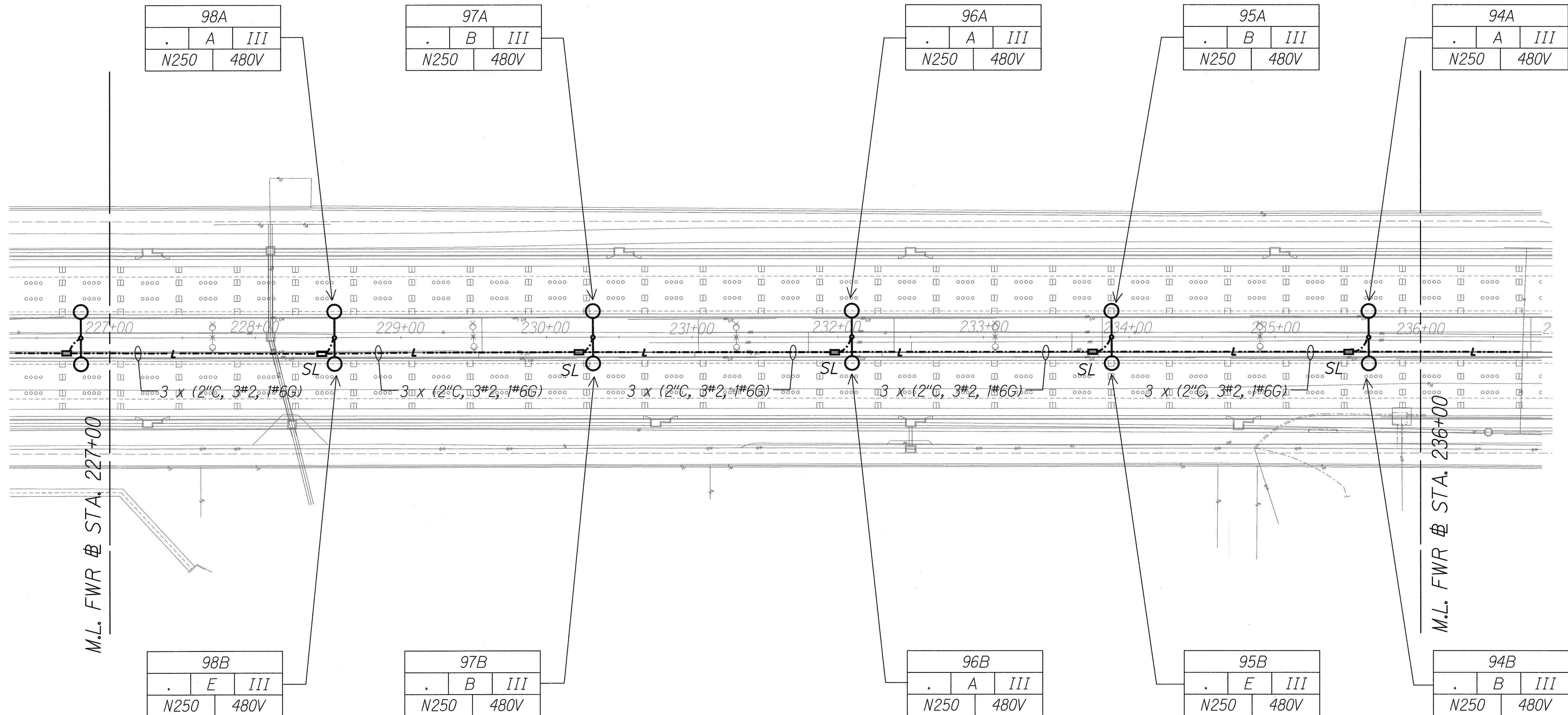
NEW SITE LIGHTING PLAN "H"

FORT WEAVER ROAD WIDENING
VICINITY OF AWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-20 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	227	371



NEW SITE LIGHTING PLAN "I"
Scale: 1" = 40'-0" 06030-E2-21

— Light lines denote existing condition.
— Bold lines denote new work.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

J:\FORT WEAVER ROAD\ROAD\ROAD12.dgn

MR. ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

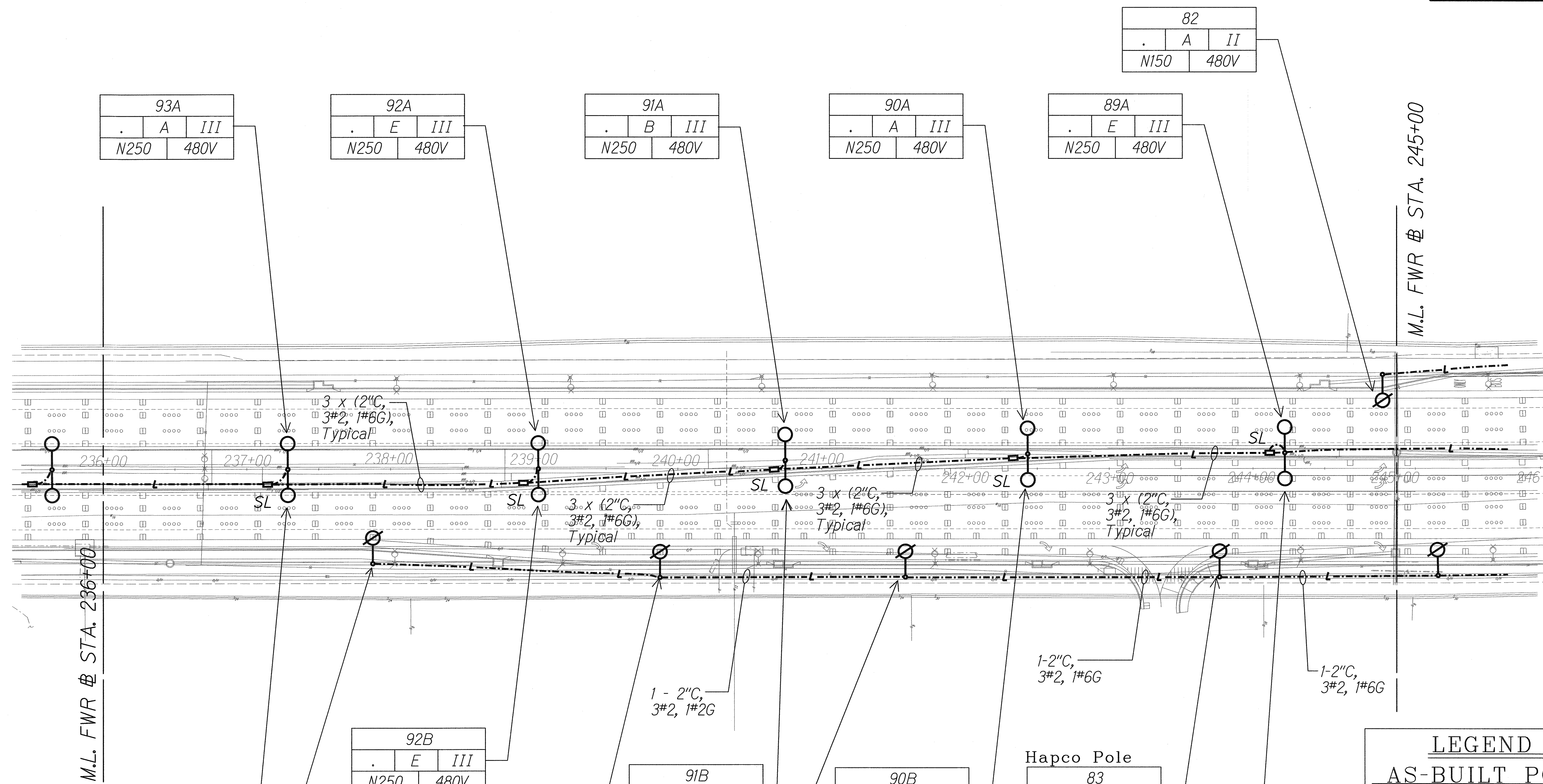
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE LIGHTING PLAN "I"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

SHEET No. E2-21 OF 42 SHEETS



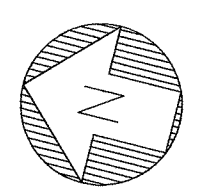
LEGEND FOR AS-BUILT POSTINGS

Squiggly line for as-built deletion

Double line for as-built deletion

Roadway Text for as-built posting

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
DATE	



NEW SITE LIGHTING PLAN "J"
Scale: 1" = 40'-0" 06030-E2-22

Light lines denote existing condition.
Bold lines denote new work.

5/4/2011

IN ENGINEERS - L.T.E.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

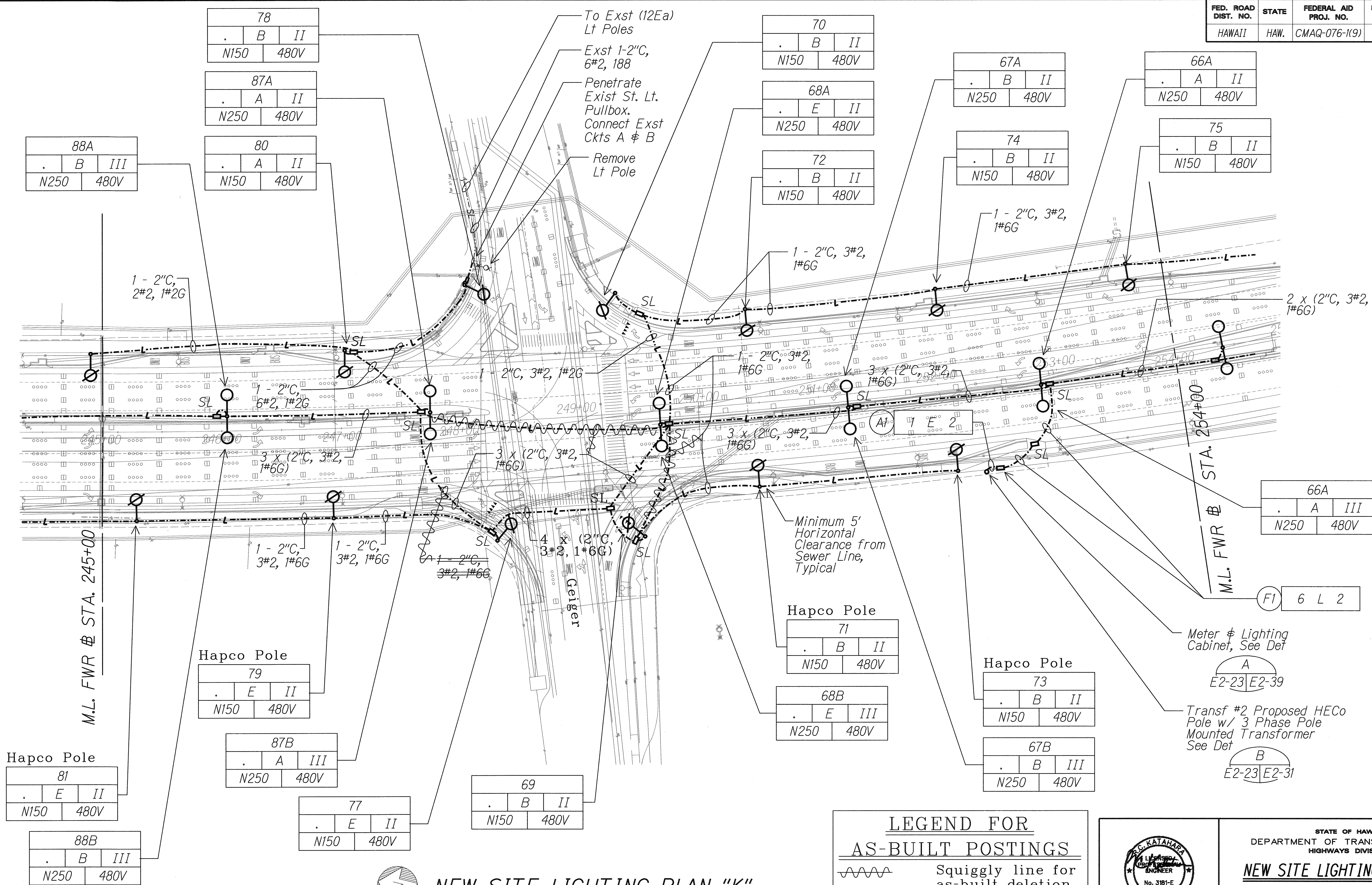
NEW SITE LIGHTING PLAN "J"

FORT WEAVER ROAD WIDENING
VICINITY OF AWA DRIVE TO GEIGER ROAD

Scale: 1" = 40' Date: Feb. 22 2008

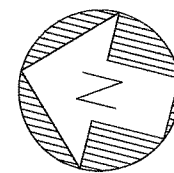
SHEET No. E2-22 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	229	371



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

J:\FORT WEAVER ROAD\ROAD\ROAD14.dgn



NEW SITE LIGHTING PLAN "K"

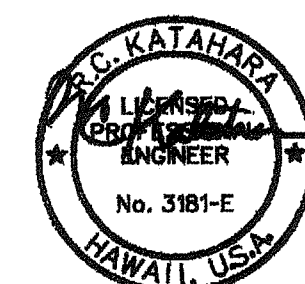
Scale: 1" = 40'-0"

06030-E2-23

Light lines denote existing condition.
Bold lines denote new work.

LEGEND FOR AS-BUILT POSTINGS

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



5/4/2011
K. KATAHARA
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NEW SITE LIGHTING PLAN "K"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40'

Date: Feb. 22 2008

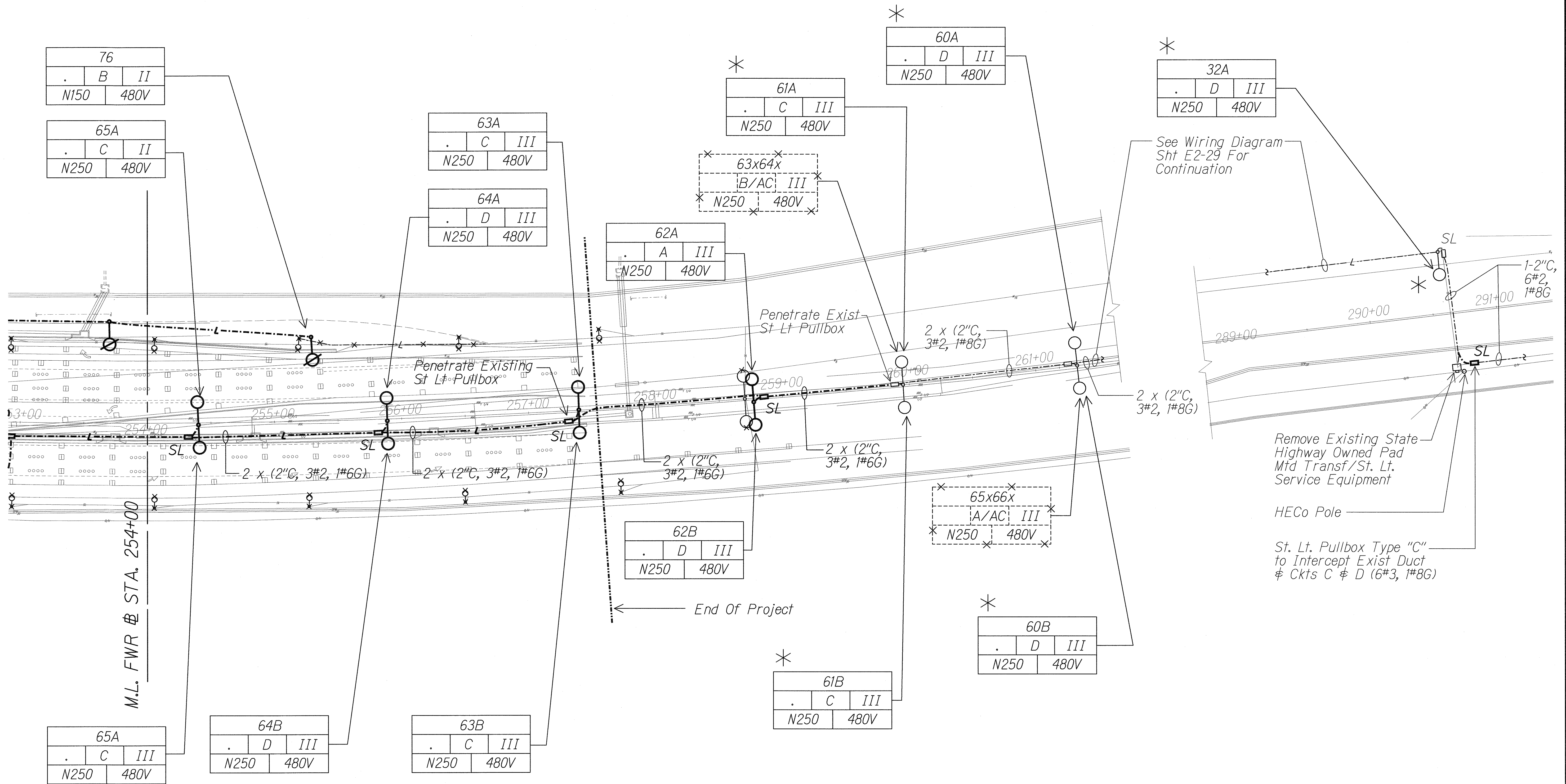
SHEET No. E2-23 OF 42 SHEETS

AS-BUILT

229

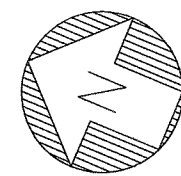
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	230	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY		
DESIGNED BY		
CHECKED BY		
NO.		

J:\FORT WEAVER ROAD\ROAD\ROAD\5.dgn



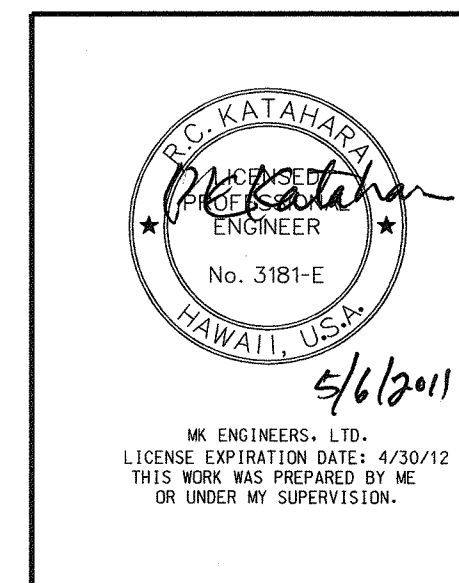
NEW SITE LIGHTING PLAN "L"

Scale: 1" = 40'-0"

06030-E2-24

Light lines denote existing condition.
Bold lines denote new work.

* Reconnect Lts to Circuit Number as Shown C or D. Replace I.D. Tag With New.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

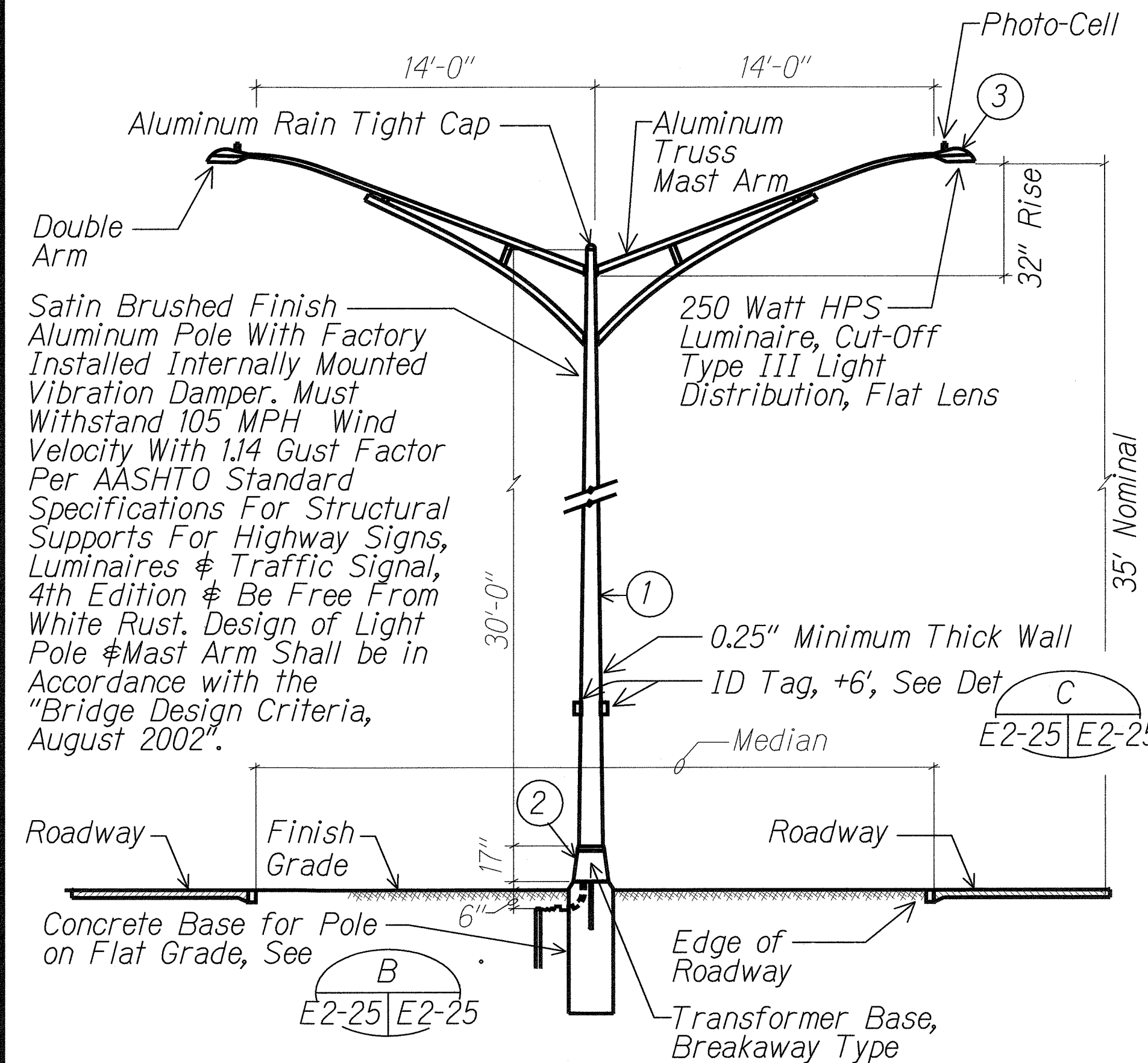
NEW SITE LIGHTING PLAN "L"

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 40'

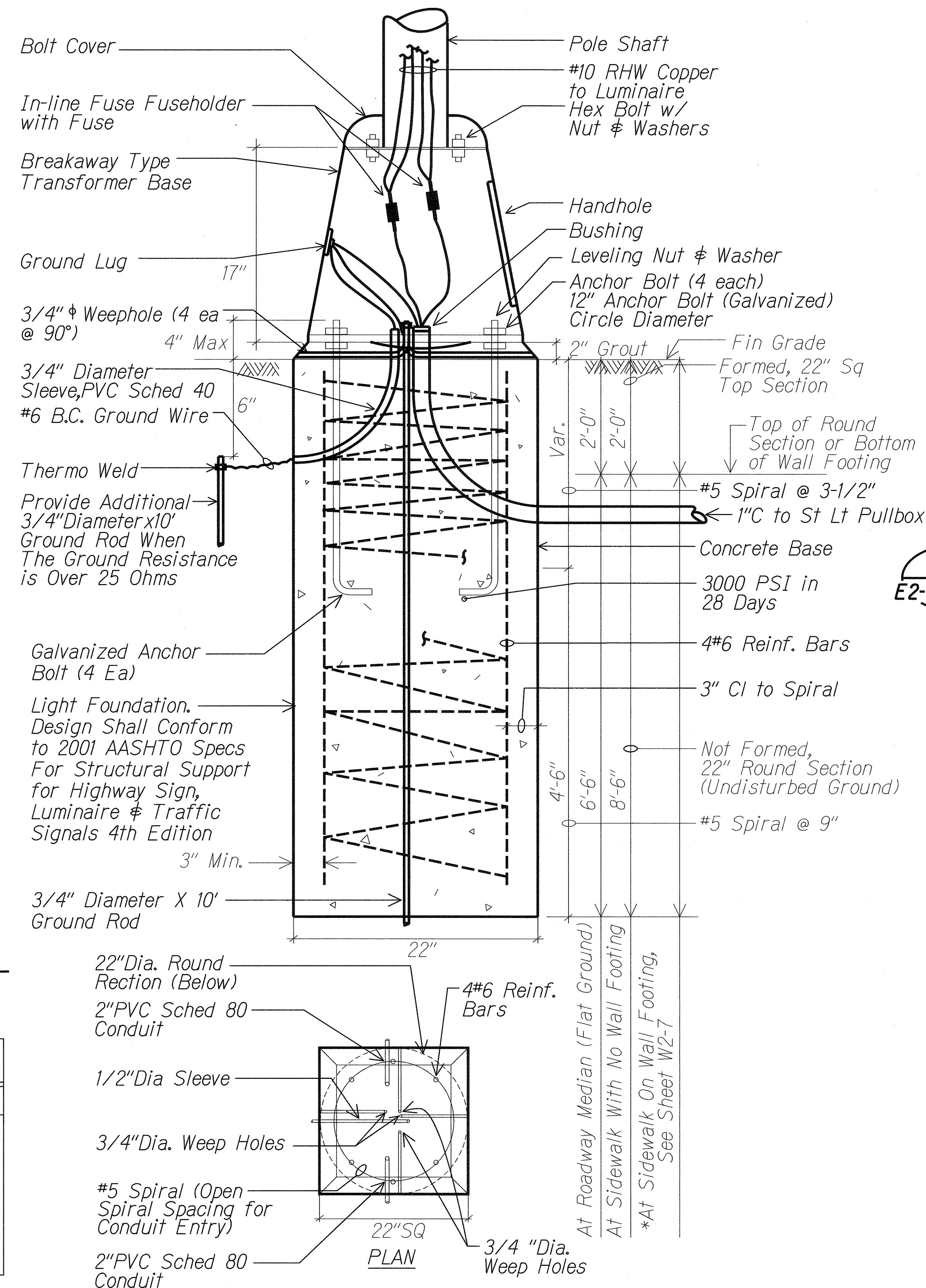
Date: Feb. 22 2008

SHEET No. E2-24 OF 42 SHEETS

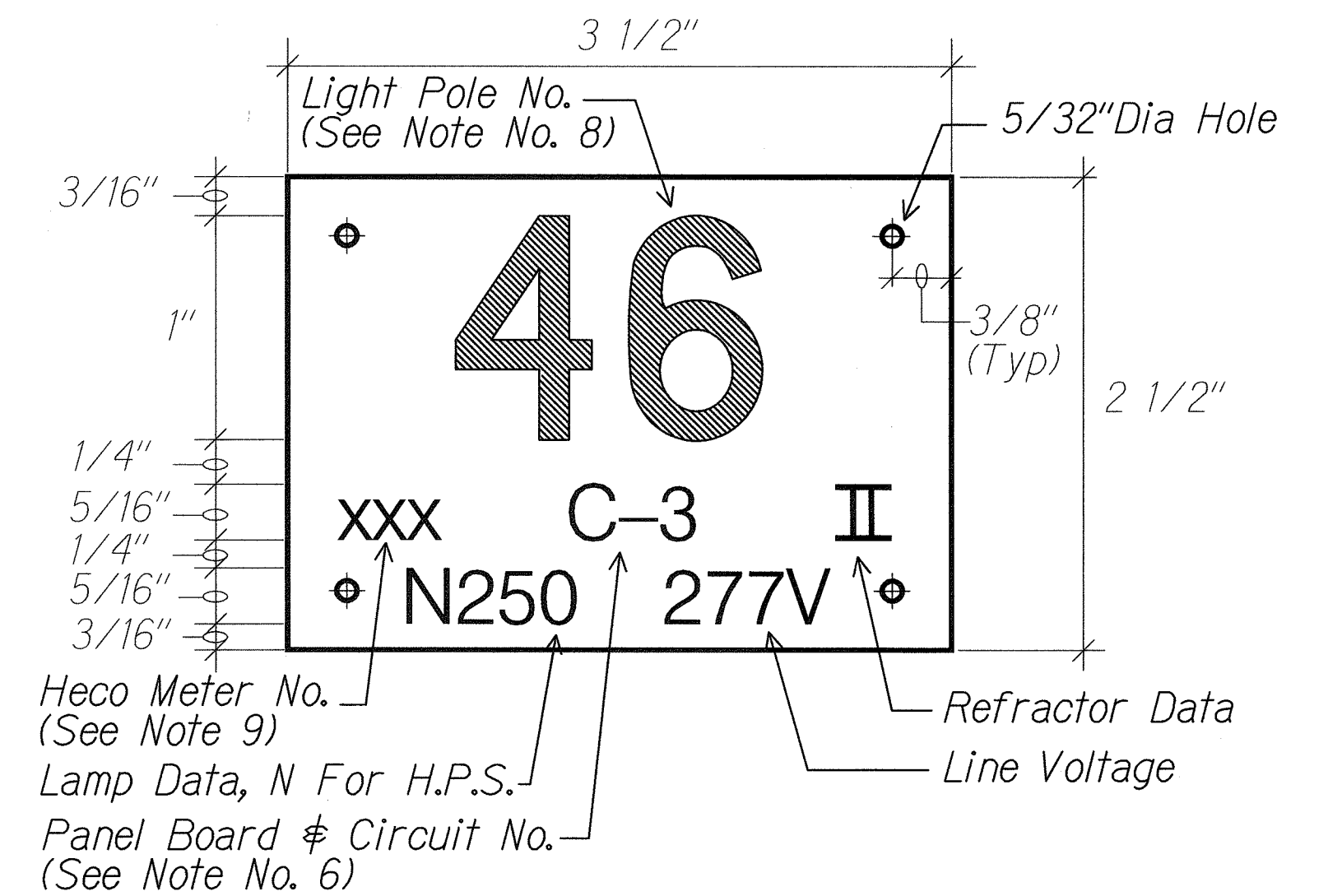


A STREET LIGHT STANDARD DETAIL
E2-1 E2-25 NTS

MATERIAL LIST		
ITEM	DESCRIPTION	MANUFACTURER
①	Light Pole, 30', Alum	
②	Transformer Base (Alum) (Breakaway Type)	
③	Luminaire, 250W HPS	



B TYPICAL TRANSFORMER BASE WIRING DETAIL
E2-25 E2-26 NTS



C STREET LIGHT POLE TAG DETAIL
E2-25 E2-25 NTS

- NOTES:**
- Use 3 Ply Laminated Flexible Plastic Black-White-Black Thickness Black Cap Sheet-0.010", White Base Sheet-0.052", Black Base Sheet-0.010".
 - Light Pole Number Size Shall Be 1" High and Engraved 1/8" Wide, White in Color (Number as Required).
 - Nomenclature Size Shall be 5/16" High and Engraved 1/32" Wide, White in Color (Heco Meter Number Panel Board and Circuit Number, Line Voltage, Lamp Data and Refractor Data as Required).
 - Attach to Aluminum and Steel Post with No. 8 Stainless Steel, 1/2" Long Drive Screws in 1/8" Drill Hole. Attach to Wood Poles with 4D Aluminum Nail.
 - Numbers are Inscribed by Cutting Through "Black Cap Sheet" to Expose "White Letters."
 - Nomenclature Required for Systems with Two or More Circuits (Letter Indicates Panel Board, Number Indicates Circuit).
 - For Light Poles Installed on Ramp, Assign Numbers to Include Ramp I.D. and Light Number. Legend May Be Less Than One (1) Inch in Height.
 - Light Numbers Shall be Obtained From the State. Use An Alphabet Suffix to Designate Lights Mounted on the Same Pole (e.g. 123A & 123B).
 - For Non-Metered System, Call Out the Contract Number.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**STREET LIGHT
STANDARD DETAILS**

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: Not to Scale Date: Feb. 22 2008

SHEET No. E2-25 OF 42 SHEETS

5/12/2011

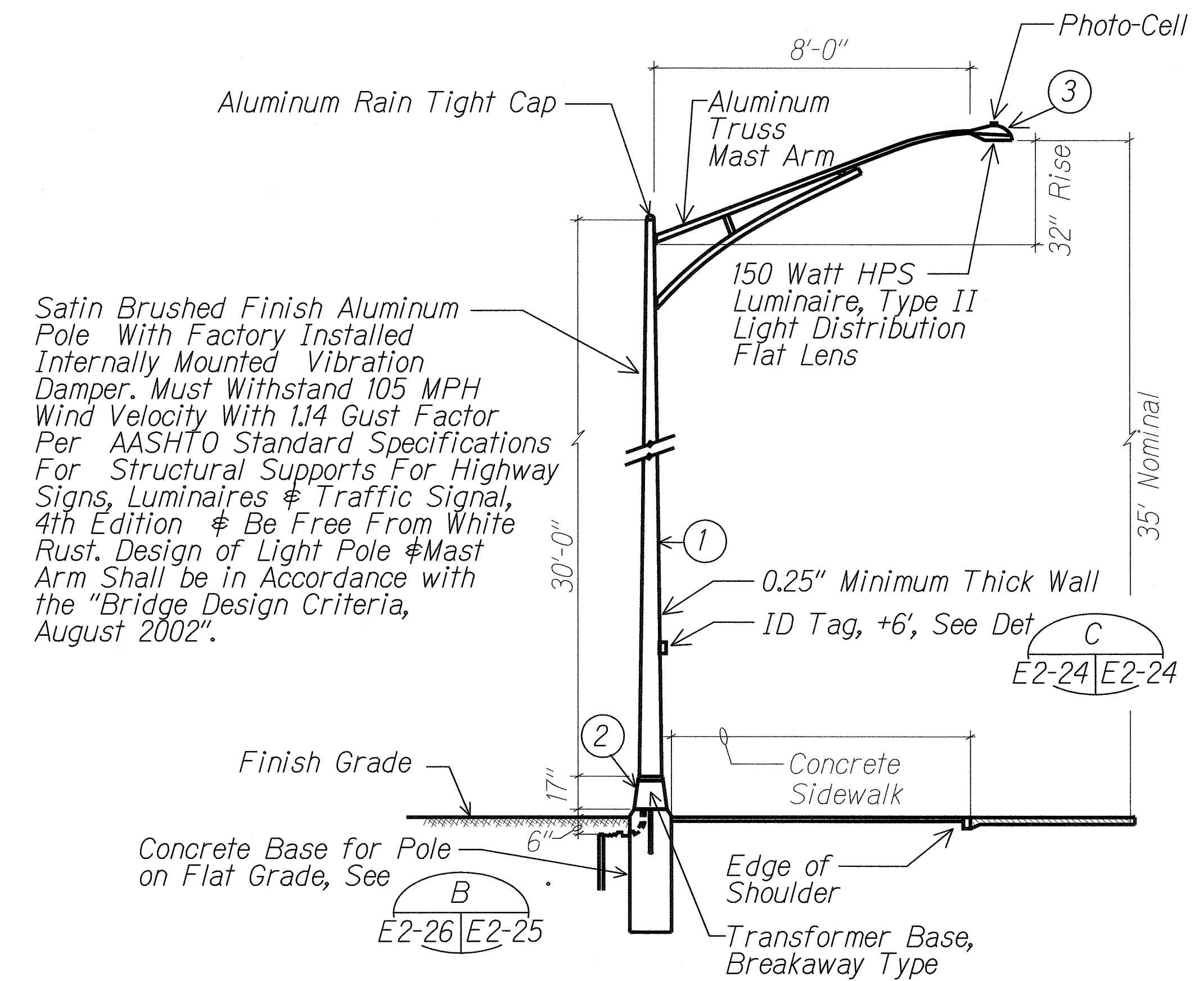
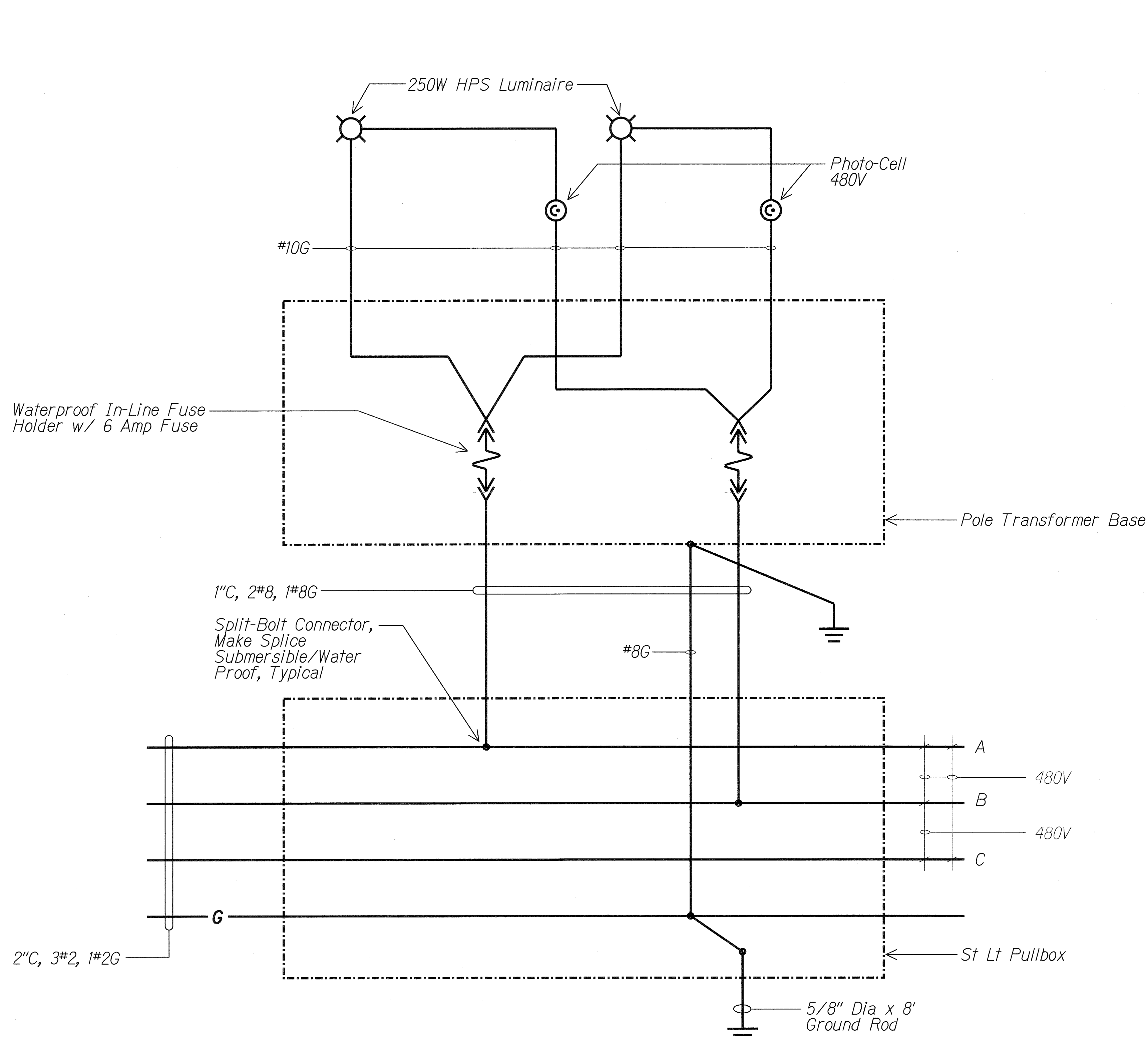
MR. ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**STREET LIGHT
STANDARD DETAILS**

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: Not to Scale Date: Feb. 22 2008

SHEET No. E2-25 OF 42 SHEETS



A STREET LIGHT STANDARD DETAIL

E2-25 E2-25 NTS

MATERIAL LIST

ITEM	DESCRIPTION	MANUFACTURER
①	Light Pole, 30', Alum	
②	Transformer Base (Alum) (Breakaway Type)	
③	Luminaire, 150W HPS	

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

TYPICAL STREET LIGHT WIRING DIAGRAM

NTS

MR. ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**STREET LIGHT STANDARD
DETAILS & DIAGRAM**

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: Not to Scale Date: Feb. 22 2008

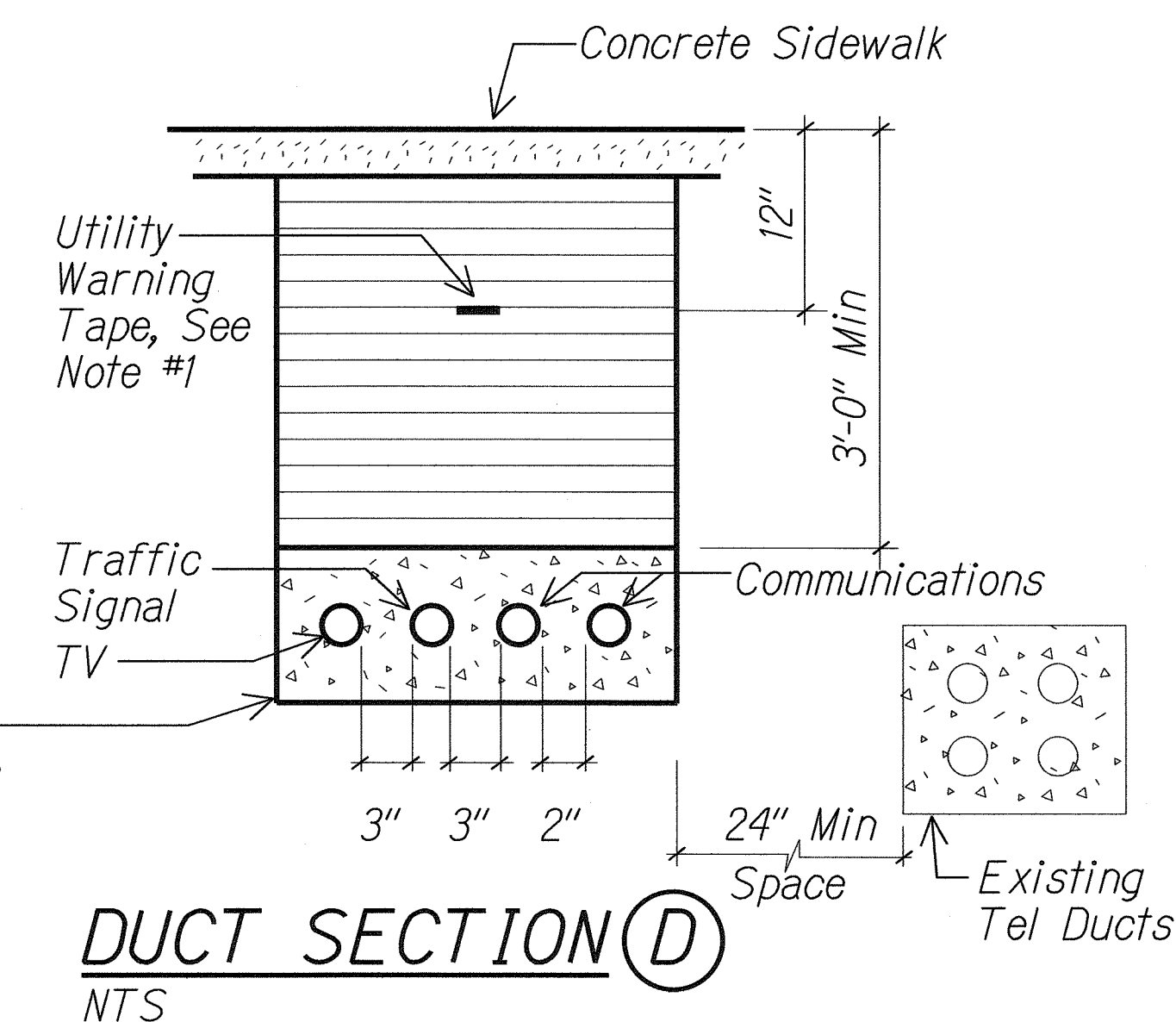
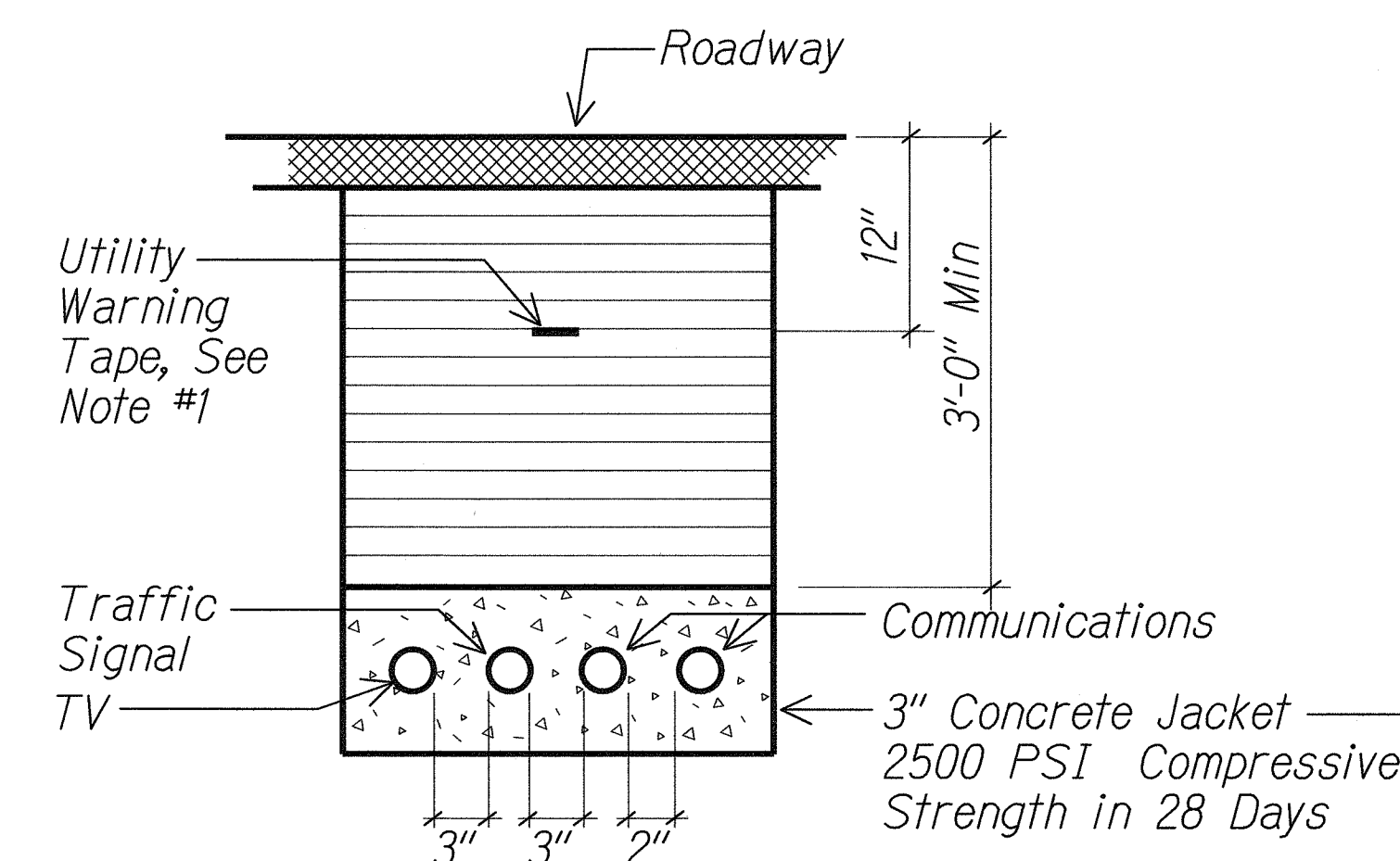
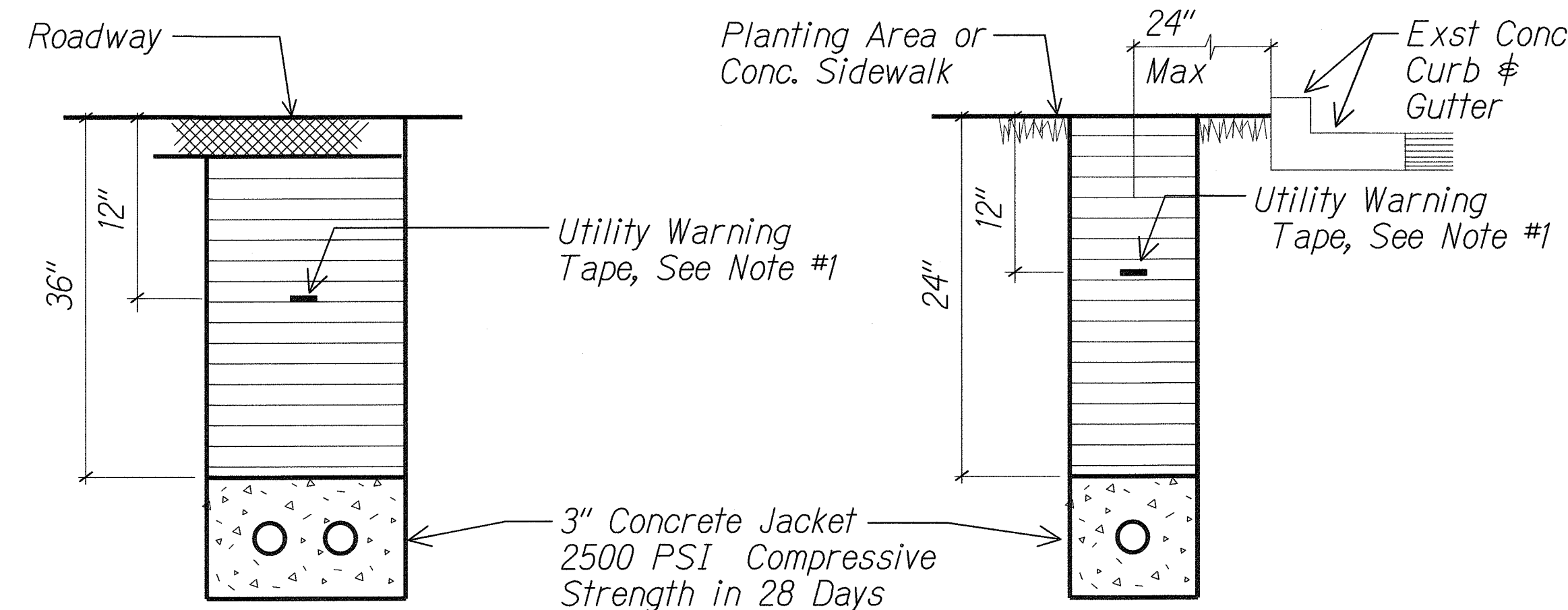
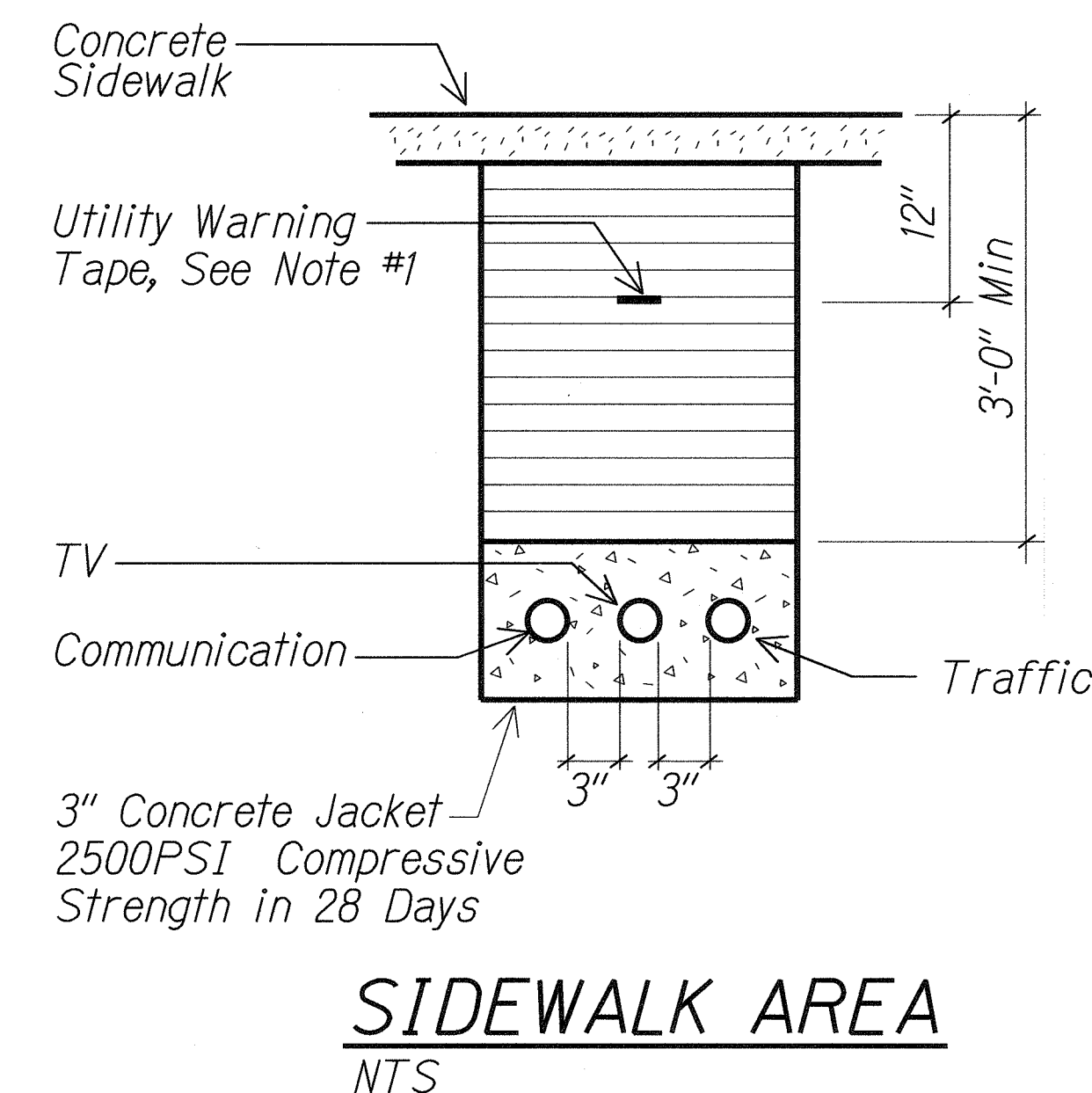
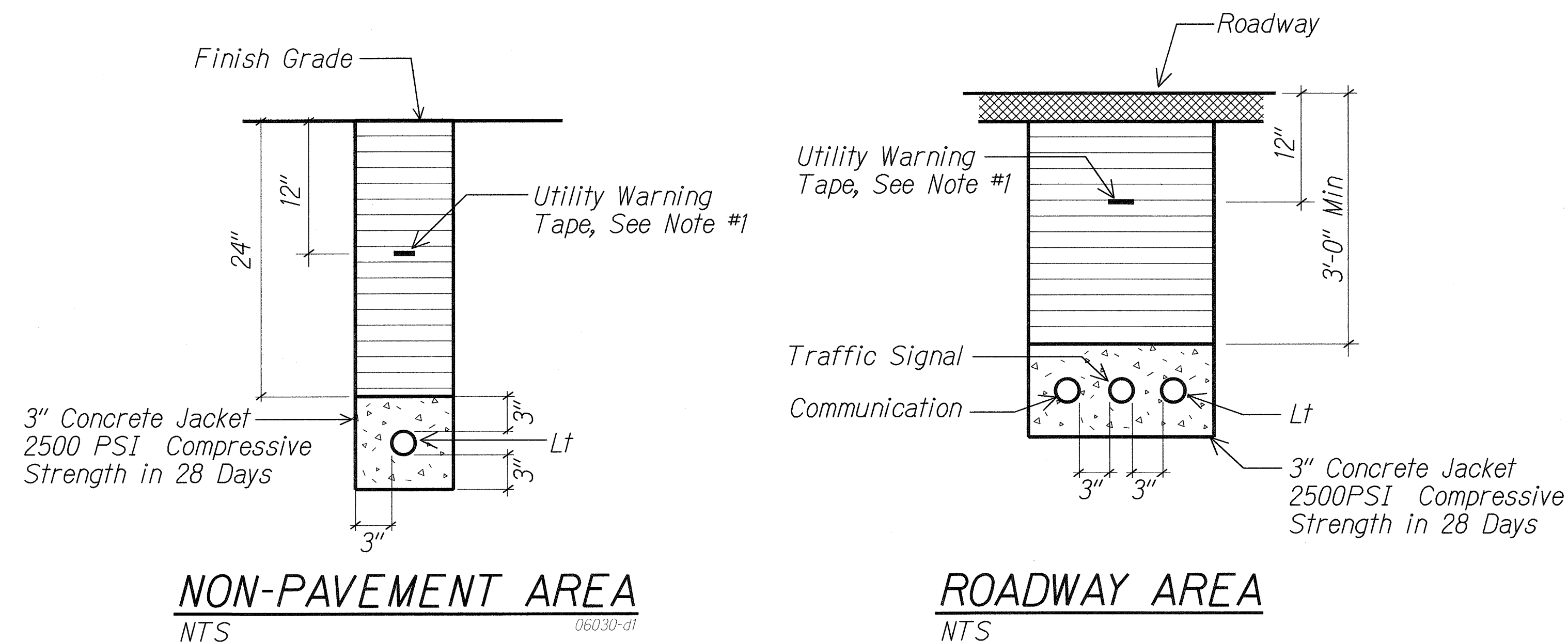
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	233	371

TYPICAL DUCT SECTIONS

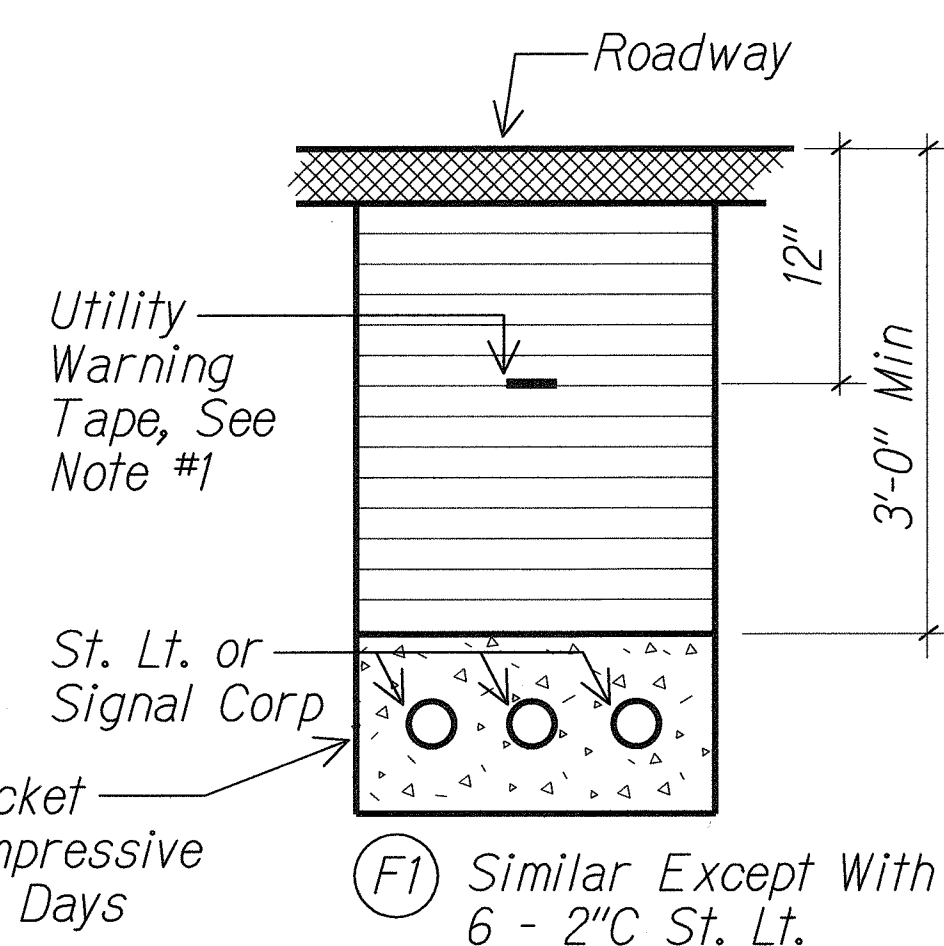
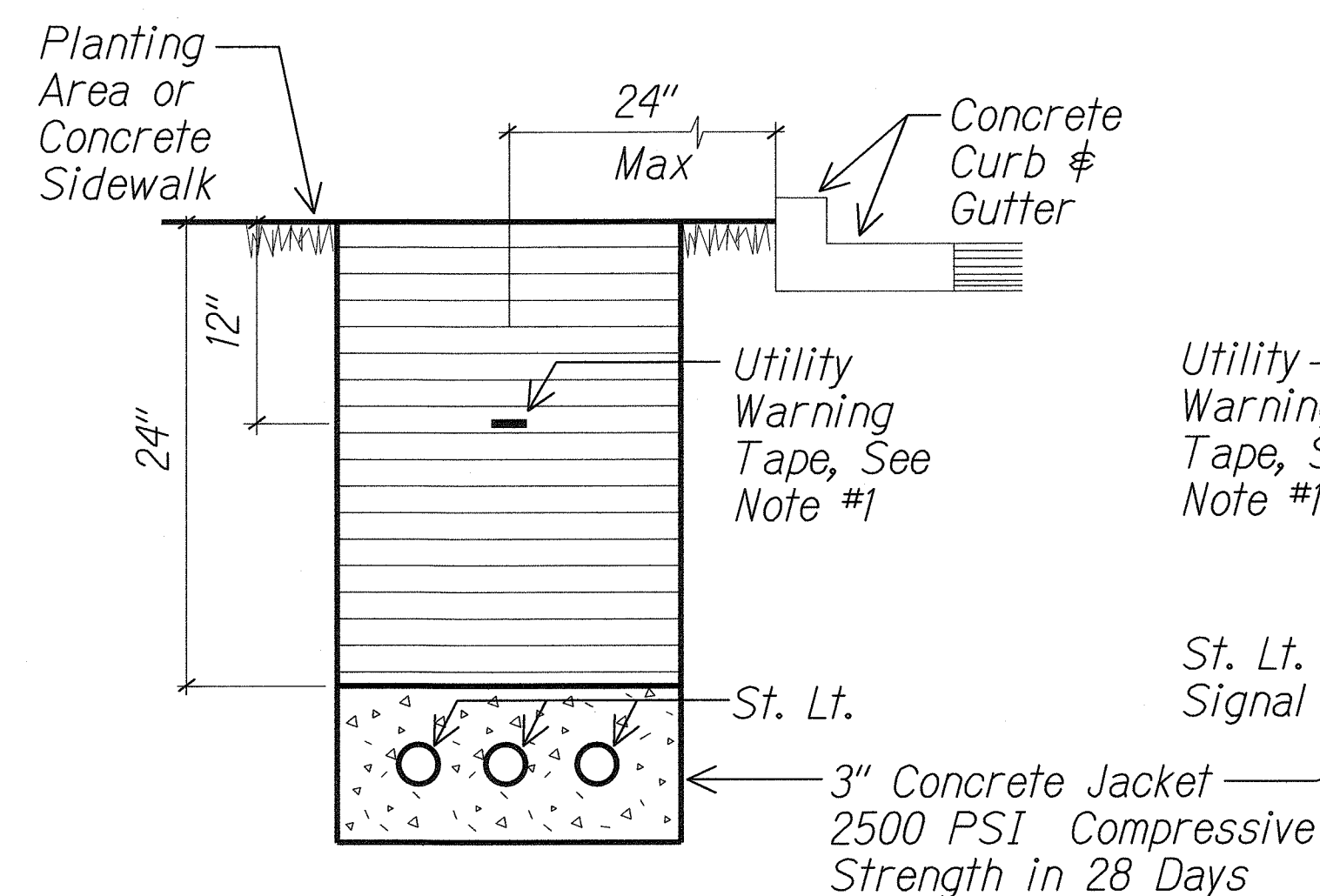
NTS

NOTES:

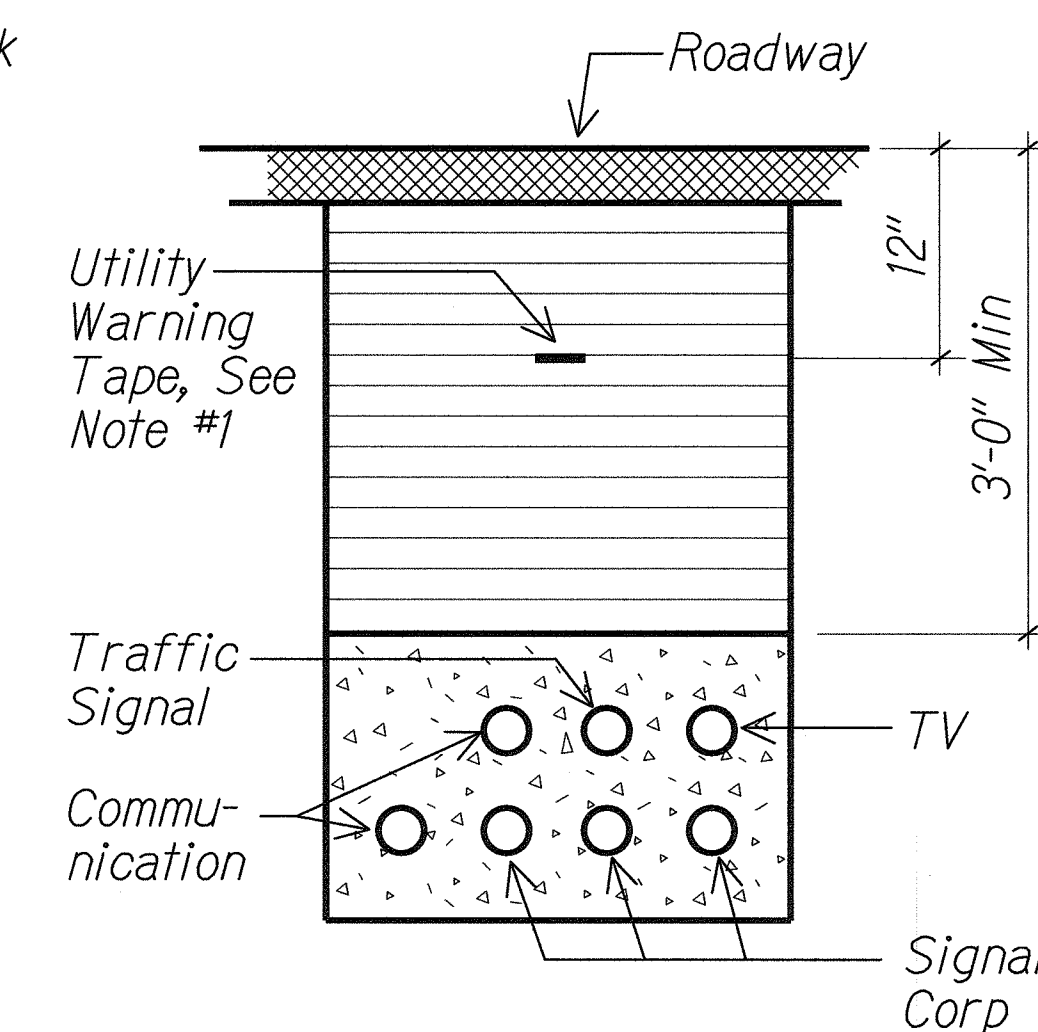
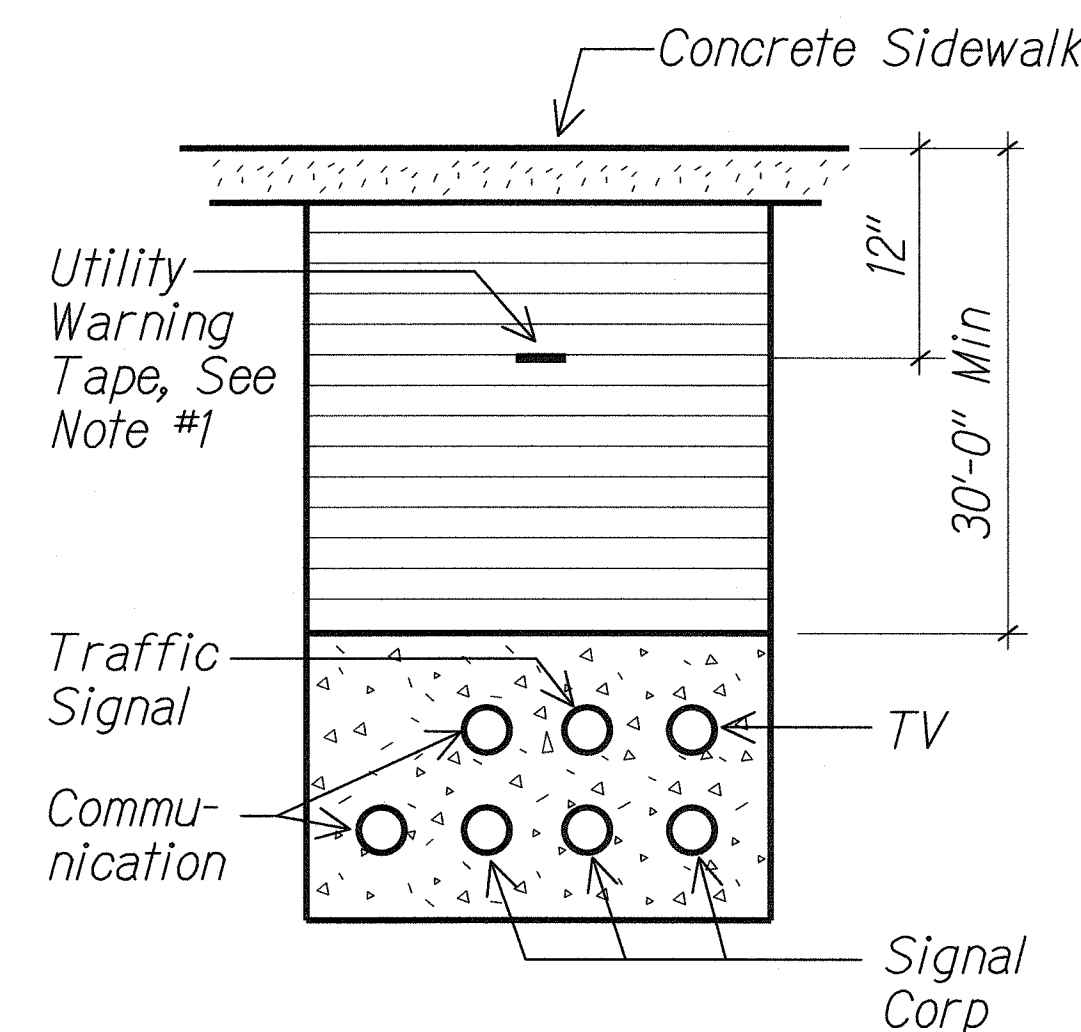
- 8 MIL Thick Red Colored Plastic Warning Tape 3" Wide, Entire Length of Duct. Tape to Have Continuous Metallic Backing and Corrosion Resistant Foil Core. Warning and Identification to be Imprinted on Tape and Shall Read "Caution Buried Electric Cable Below". Message Shall Be Repeated Approximately Every Ten Feet.
- See Sheets R2-45 and R2-46 for Trench Restoration Details and Typical Section for permeable Base course.



(A1) Similar Except One Conduit



(F1) Similar Except With 6 - 2"C St. Lt.



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

5/6/2011

MR. ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

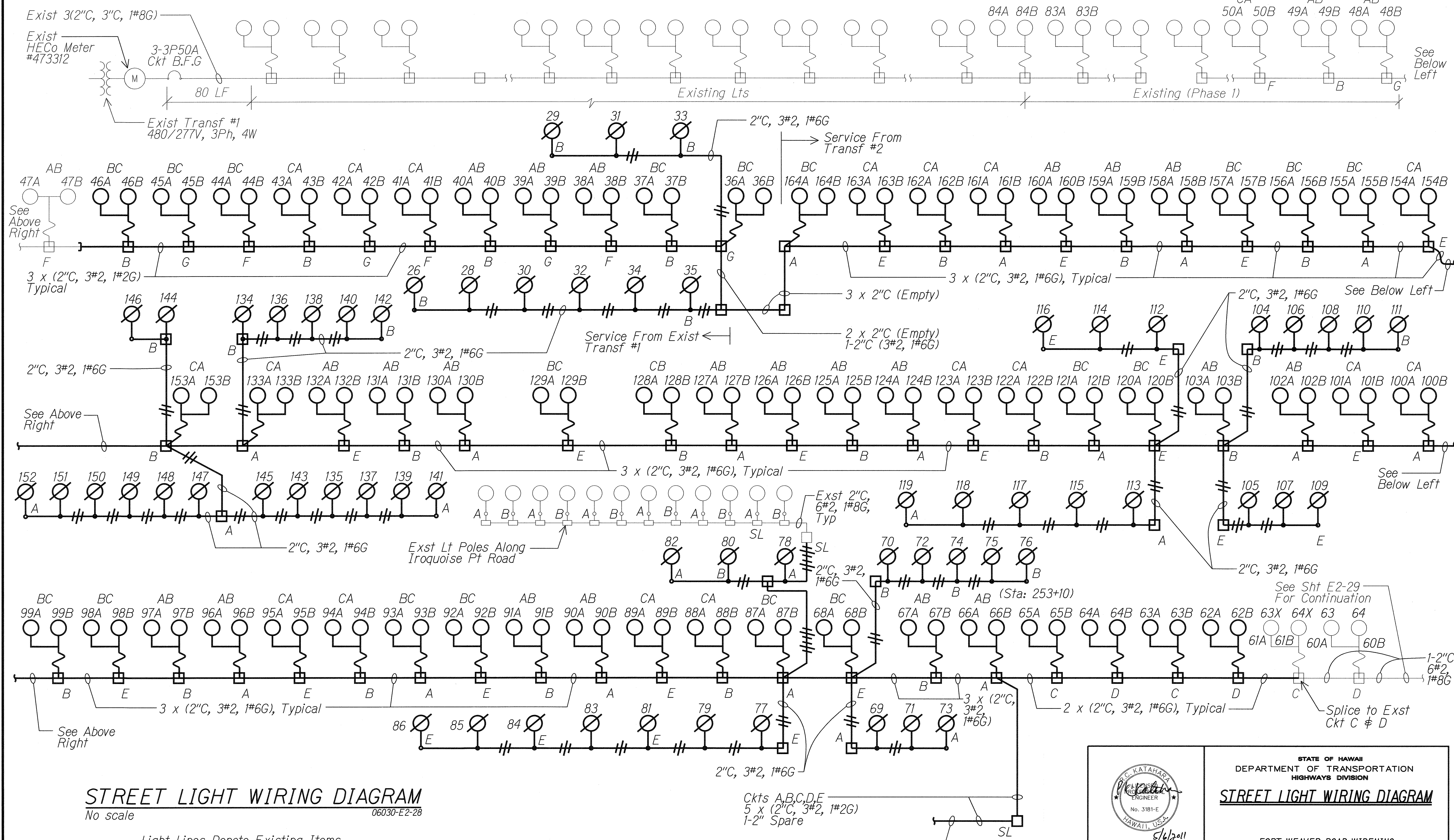
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DUCT SECTIONS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: Not to Scale Date: Feb. 22 2008

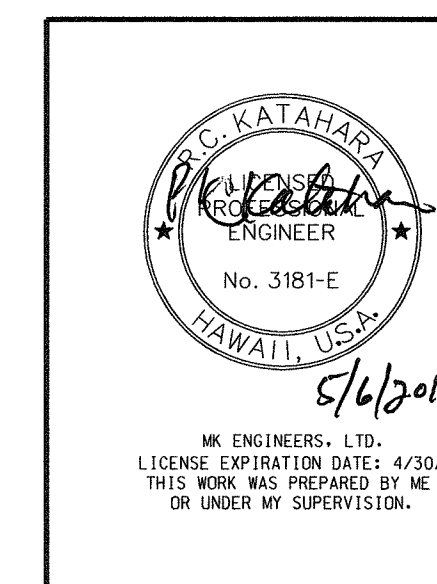
SHEET No.E2-27 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	234	371



STREET LIGHT WIRING DIAGRAM No scale 06030-E2-28

Light Lines Denote Existing Items
 Bold Lines Denote New



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

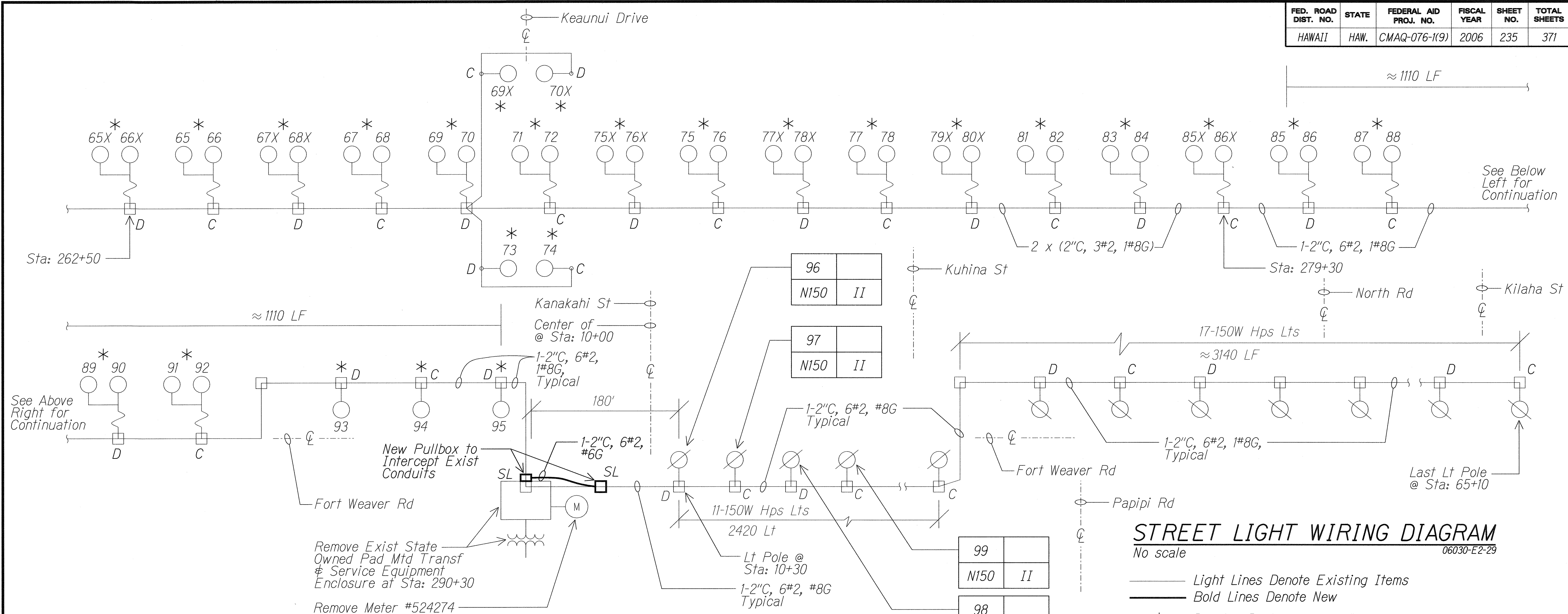
STREET LIGHT WIRING DIAGRAM

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: No Scale Date: Feb. 22, 2008

SHEET No. E2-28 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	235	371



STREET LIGHT WIRING DIAGRAM
No scale
06030-E2-29

Light Lines Denote Existing Items
Bold Lines Denote New
* Denotes Replacement of I.D. Tag. See Schedule

LIGHT POLE I.D. TAG SCHEDULE

Exist No.	New No.	New Ckt	Exist No.	New No.	New Ckt	Exist No.	New No.	New Ckt
65X/66X	60A	D	73	52	D	83/84	40A	D
	60B	D					40B	D
65/66	59A	C	74	51	C	85X/86X	39A	C
	59B	C					39B	C
67X/68X	58A	D	75X/76X	50A	D	85/86	38A	D
	58B	D		50B	D		38B	D
67/68	57A	C	75/76	49A	C	87/88	37A	C
	57B	C		49B	C		37B	C
69/70	56A	D	77X/78X	48A	D	89/90	36A	D
	56B	D		48B	D		36B	D
69X	55	C	77/78	43A	C	91/92	35A	C
				43B	C		35B	C
70X	54	D	79X/80X	42A	D	93	34	D
				42B	D		33	C
71/72	53A	C	81/82	41A	C	95	32	D
	53B	C		41B	C			

3 KVA D.T. Transf
Pnl B, 225A, 3PH, 4W
277/480V, Indust
Bolted, 25 Kaic

2" C, 3#2, 1#6G

Weather Head

To Transf #2
HECo Svc
277/480V
3 ϕ , 4W

7 Jaws 200A Meter
Socket w/ Comm
Bypass, 277/480V

*6G to 5/8" ϕ x 8'

Gnd Rod

Provide Directory

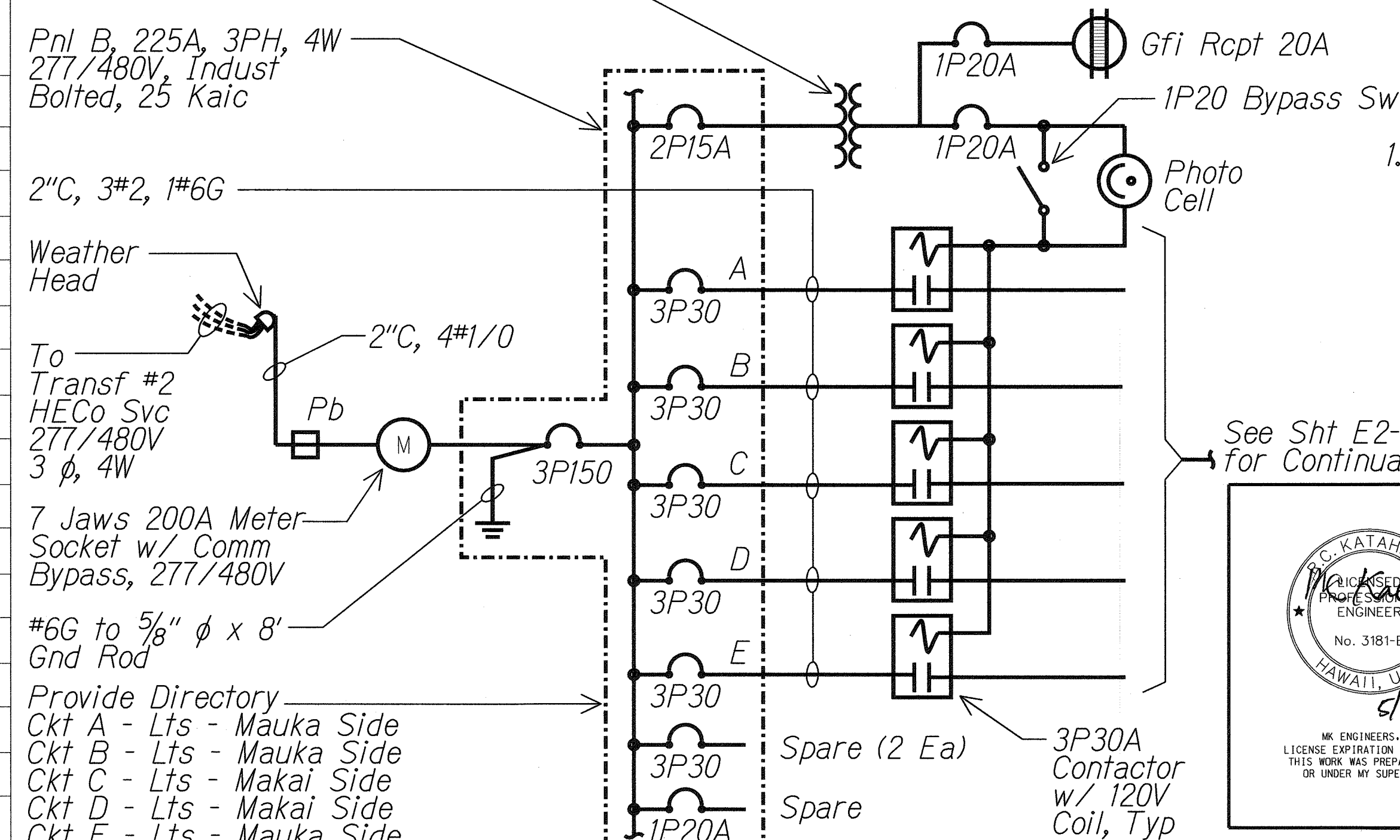
Ckt A - Lts - Mauka Side

Ckt B - Lts - Mauka Side

Ckt C - Lts - Makai Side

Ckt D - Lts - Makai Side

Ckt E - Lts - Mauka Side



LOAD TABULATION

1. Existing	2. New
Transformer No. 1	Transformer No. 2
Ckt B - 14,400 W	Ckt A - 15,880 W
F - 12,560 W	B - 14,460 W
G - 12,700 W	C - 11,100 W
	D - 11,800 W
	E - 12,680 W
	65,920 W - Total

See Sht E2-28
for Continuation

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

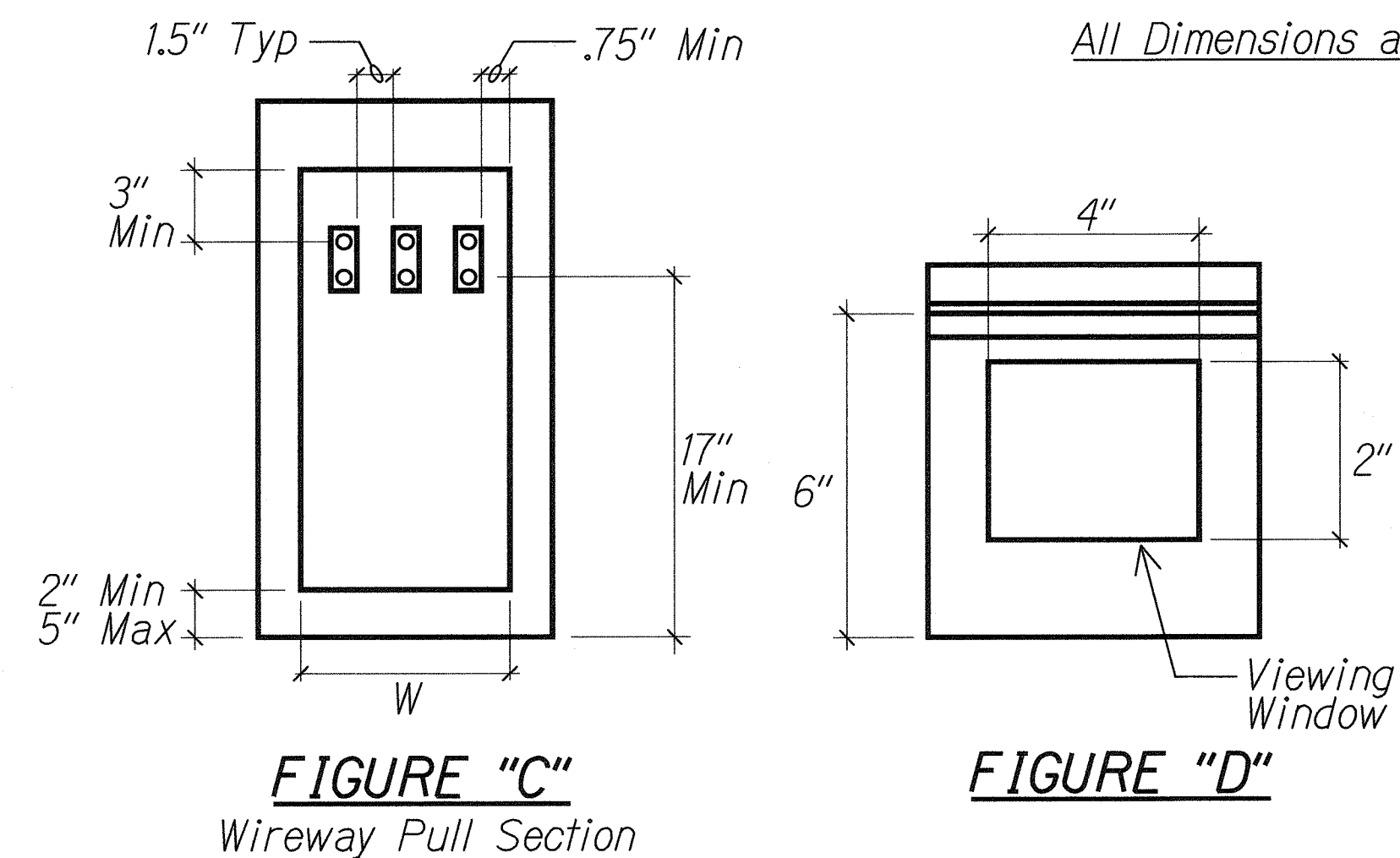
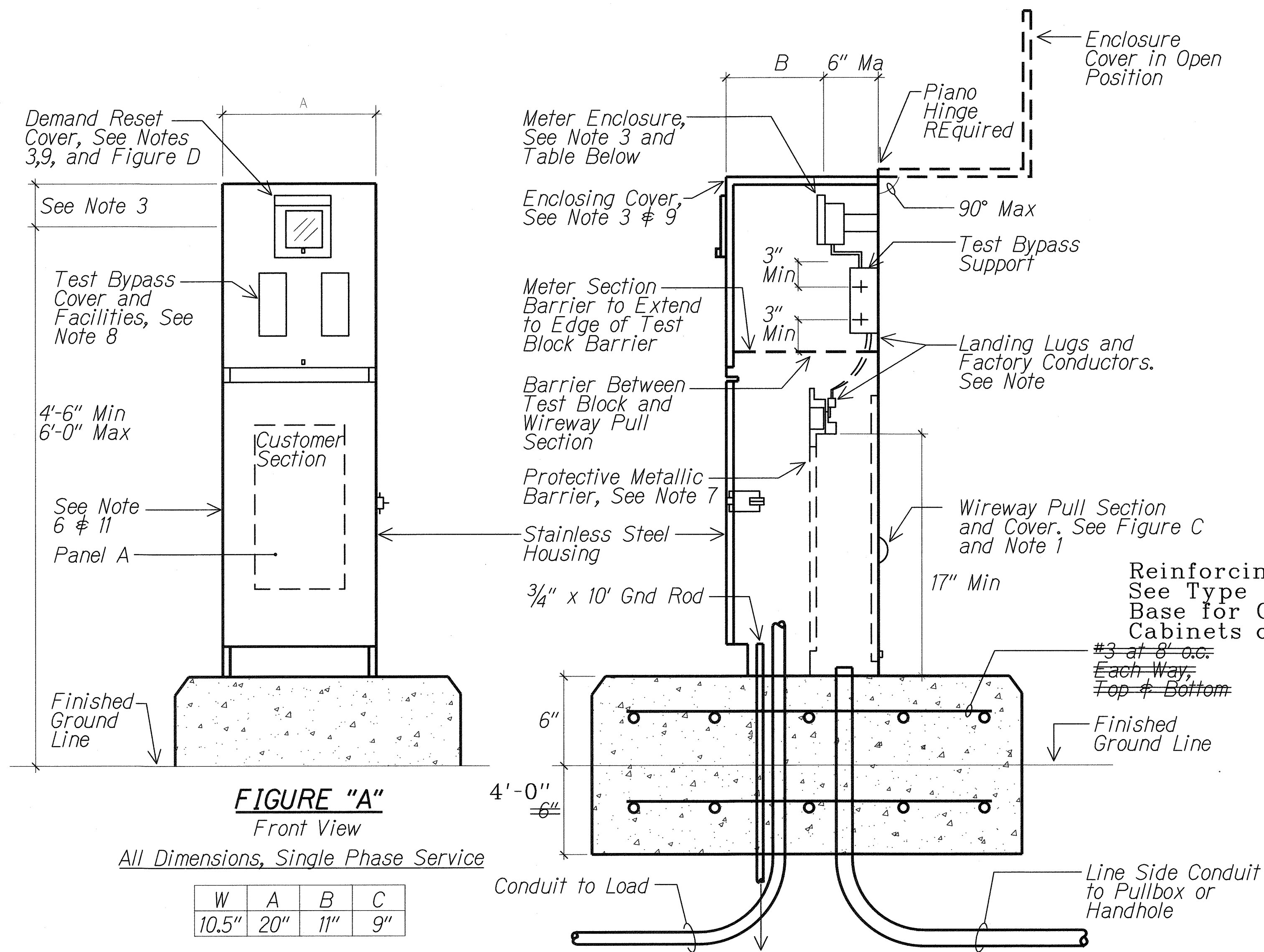
STREET LIGHT WIRING DIAGRAM

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: No Scale Date: Feb. 22 2008

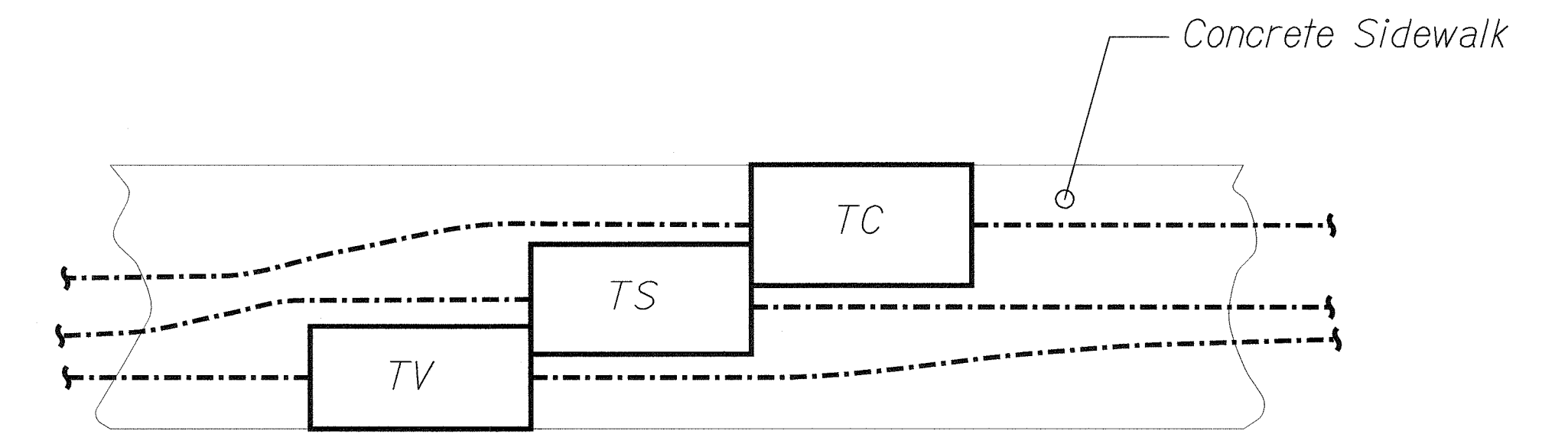
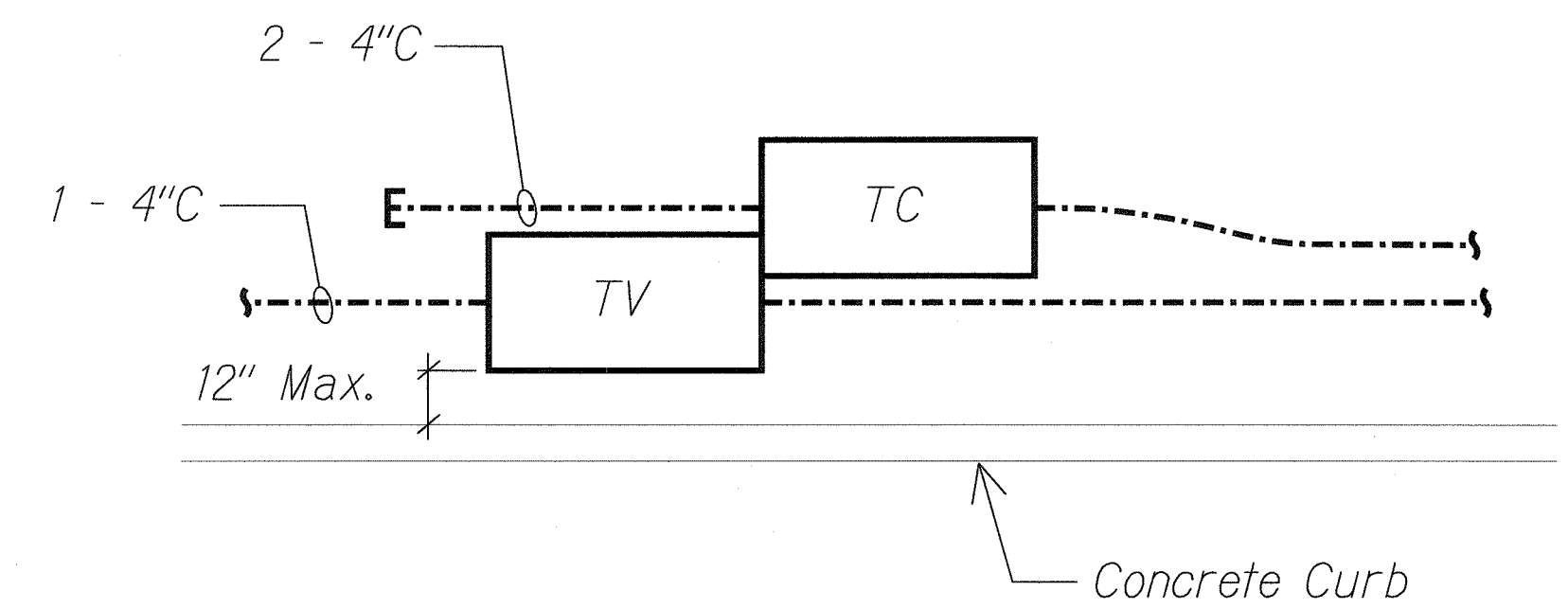
SHEET No. E2-29 OF 42 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

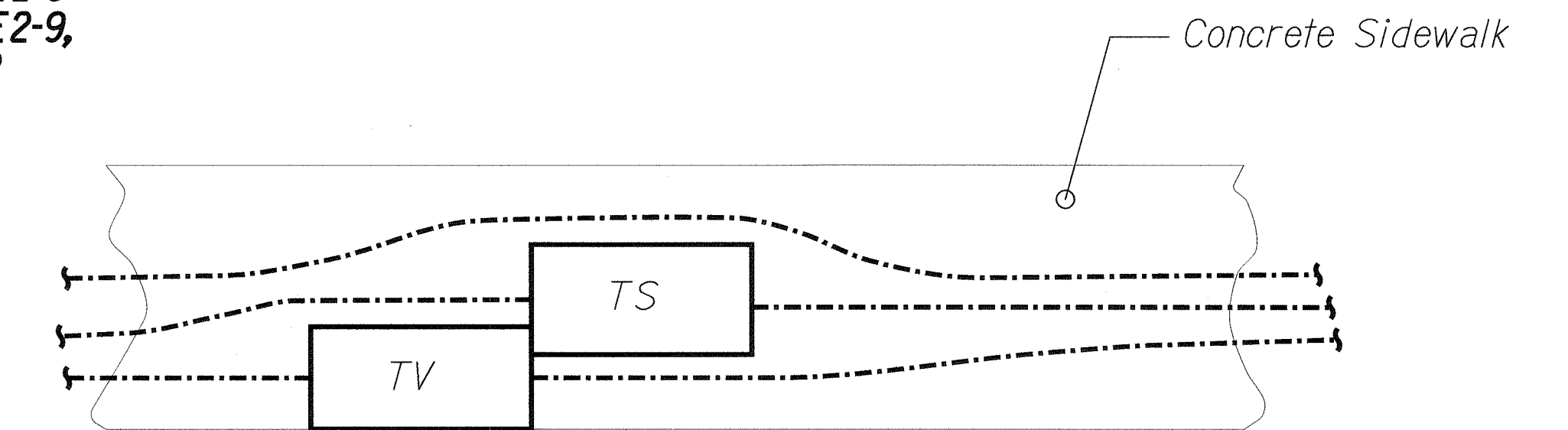


D TYPE I METER PEDESTAL DETAIL
E2-8, E2-31 NTS

NOTES:
1. See Sheet E2-36 for Meter Pedestal Notes.



E2-2,E2-3,E2-4,E2-5
E2-6,E2-7,E2-8,E2-9,
E2-10,E2-11,E2-12



E2-2,E2-3,E2-4,E2-5
E2-6,E2-7,E2-8,E2-9,
E2-10,E2-11,E2-12

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

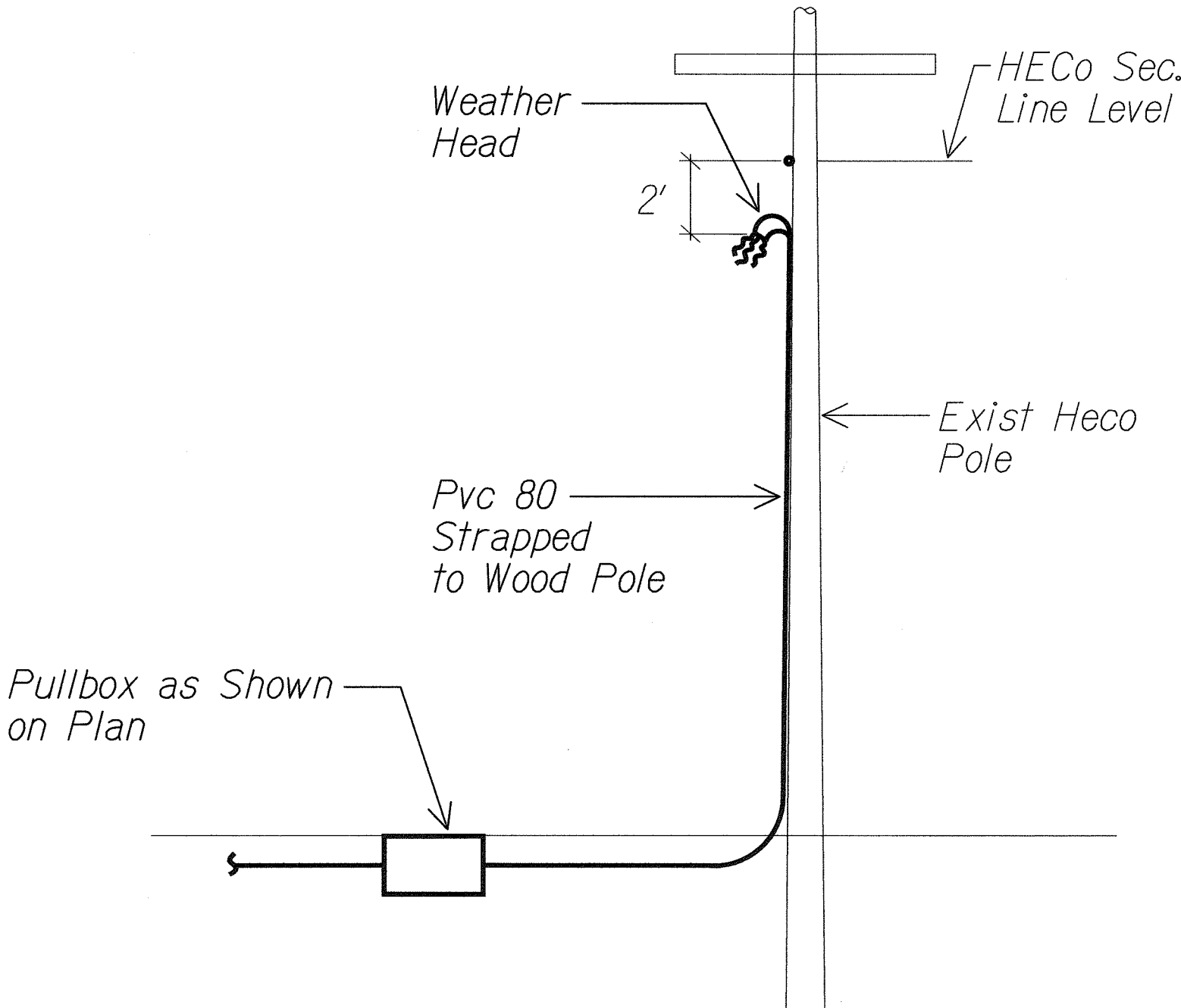
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PULLBOX GROUP PLANS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

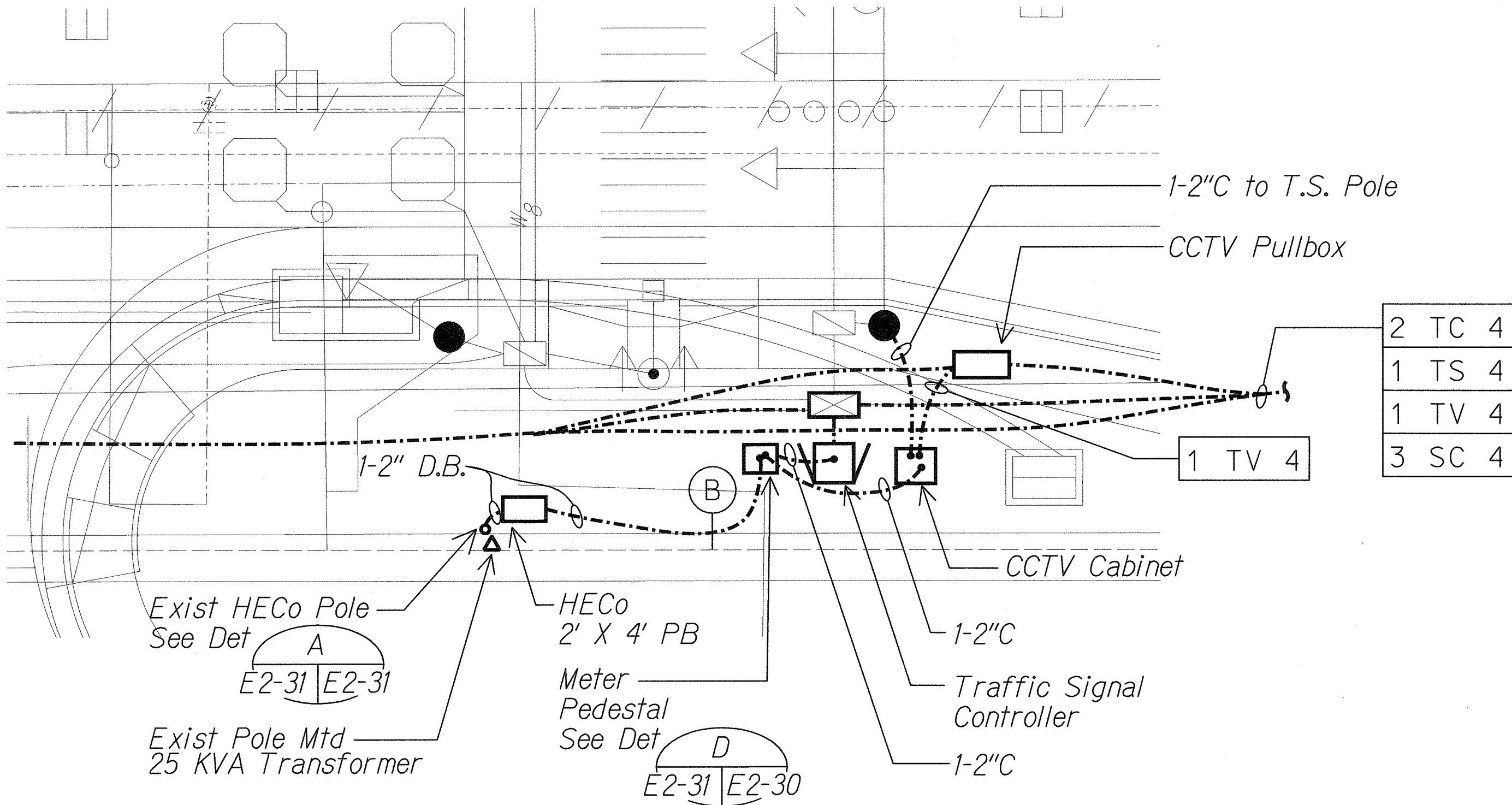
Scale: Not to Scale Date: Feb. 22 2008

SHEET No. E2-30 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	237	371



B CONDUIT RISER DETAIL
 E2-8, E2-31 NTS
 06030E2-31



A DETAILED SITE ELECTRICAL PLAN
 E2-3, E2-31 Scale: 1" = 10'-0"
 06030-E2-31

Light lines denote existing condition.
 Bold lines denote new work.

SURVEY PLOTTED BY	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
DATE	

J:\FORT WEAVER ROAD\ROAD\ROAD6.dgn

5/6/2011

MR. ENGINEERS, LTD.
 LICENSE EXPIRATION DATE: 4/30/12
 THIS WORK WAS PREPARED BY ME
 OR UNDER MY SUPERVISION.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

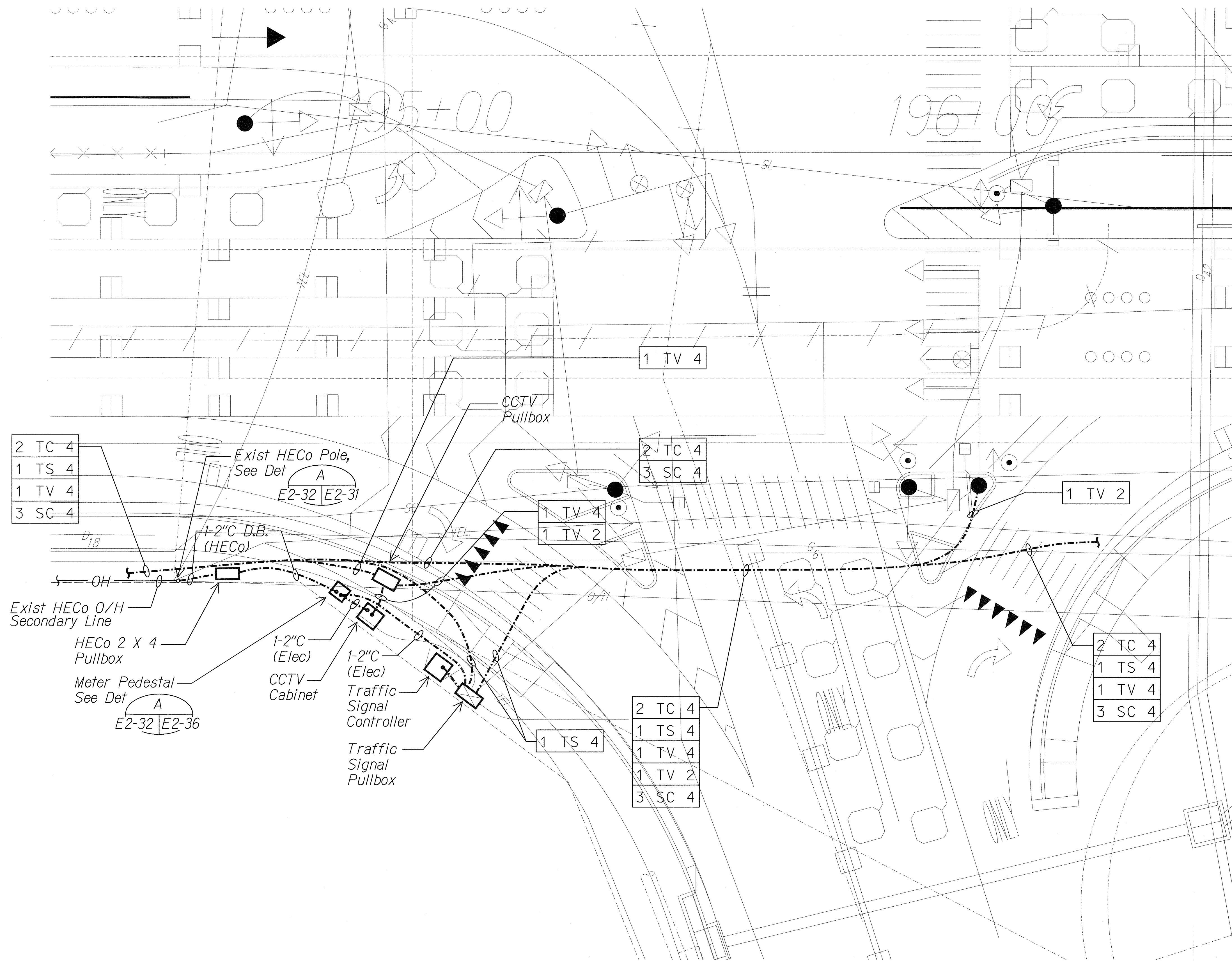
DETAILED SITE ELECTRICAL PLAN

FORT WEAVER ROAD WIDENING
 VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 10' Date: Feb. 22 2008

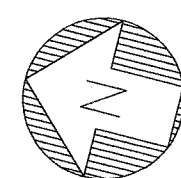
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	238	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

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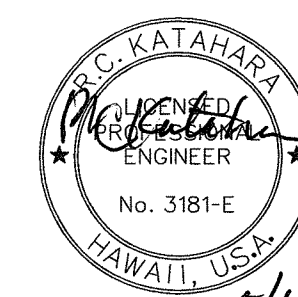
A
E2-5 E2-32

DETAILED SITE ELECTRICAL PLAN

Scale: 1" = 10'-0"

06030-E2-32

Light lines denote existing condition.
Bold lines denote new work.



5/1/2011
R.C. KATAHARA
LICENSED
ENGINEER
No. 3181-E
HAWAII, USA
MY ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
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OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILED SITE ELECTRICAL PLAN

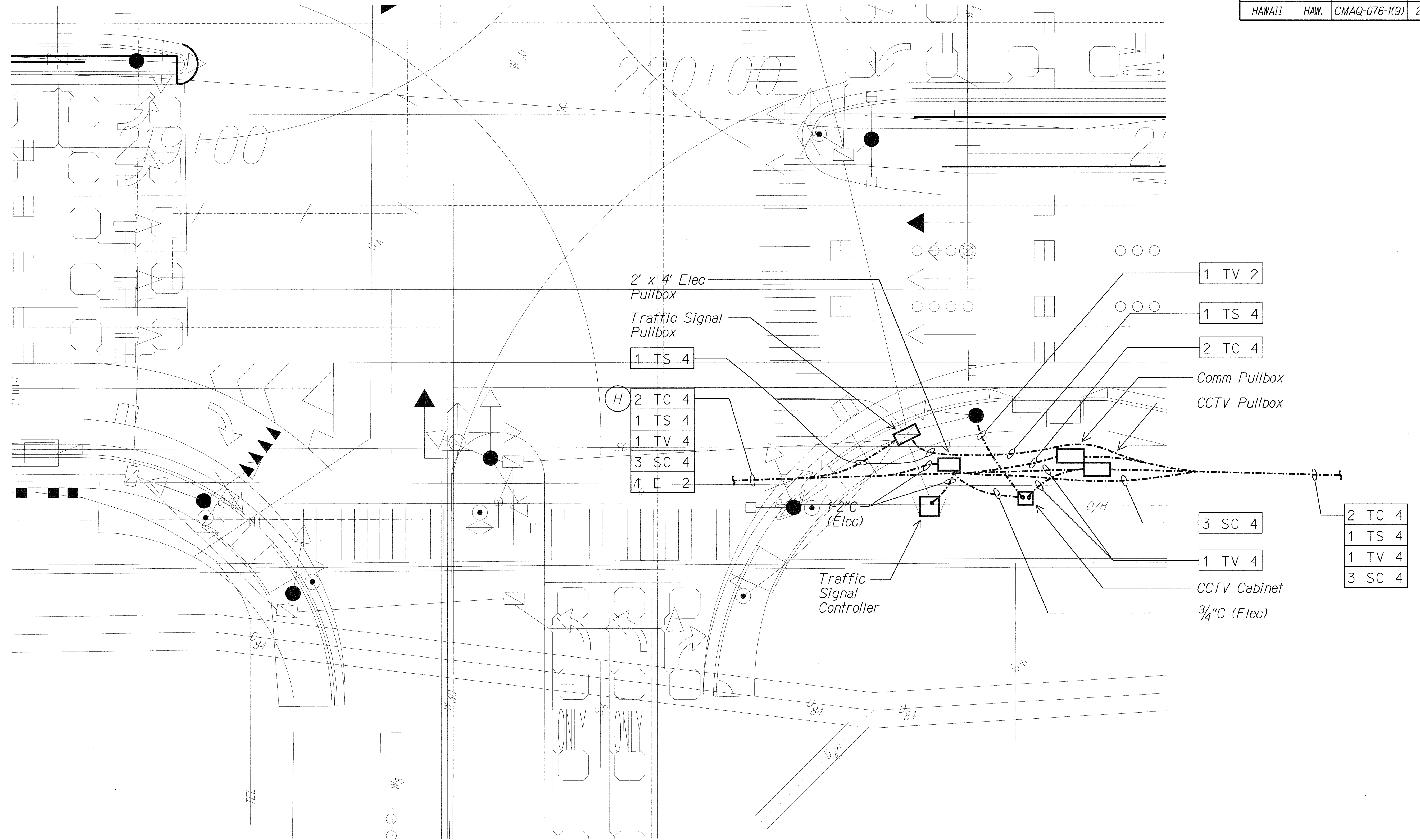
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 10'

Date: Feb. 22 2008

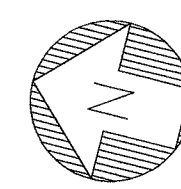
SHEET No. E2-32 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	239	371



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	

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A
E2-3 | E2-33 **DETAILED SITE ELECTRICAL PLAN**
Scale: 1" = 10'-0" 06030-E2-33

— Light lines denote existing condition.
— Bold lines denote new work.

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LICENSE EXPIRATION DATE: 4/30/12
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OR UNDER MY SUPERVISION.

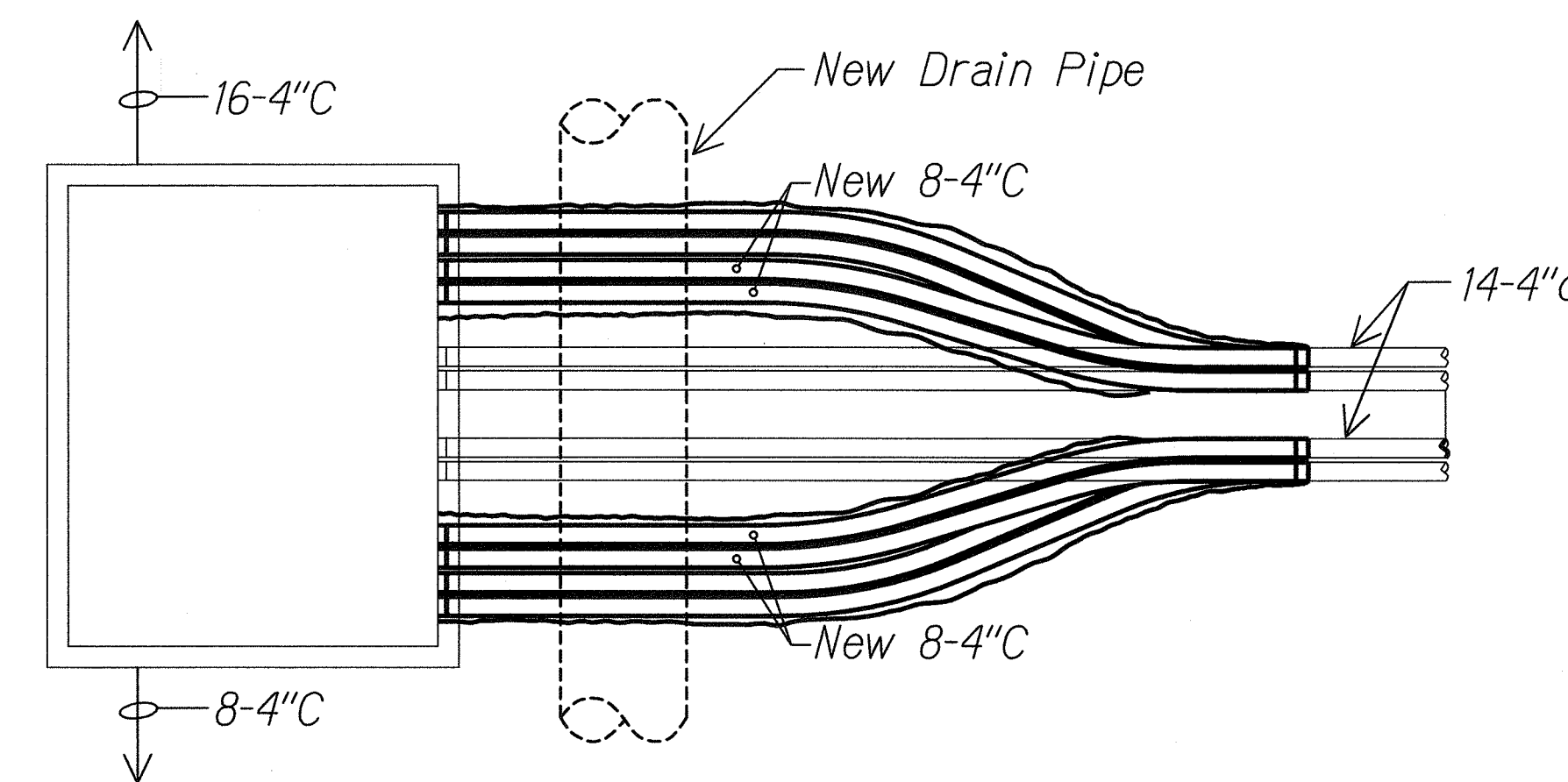
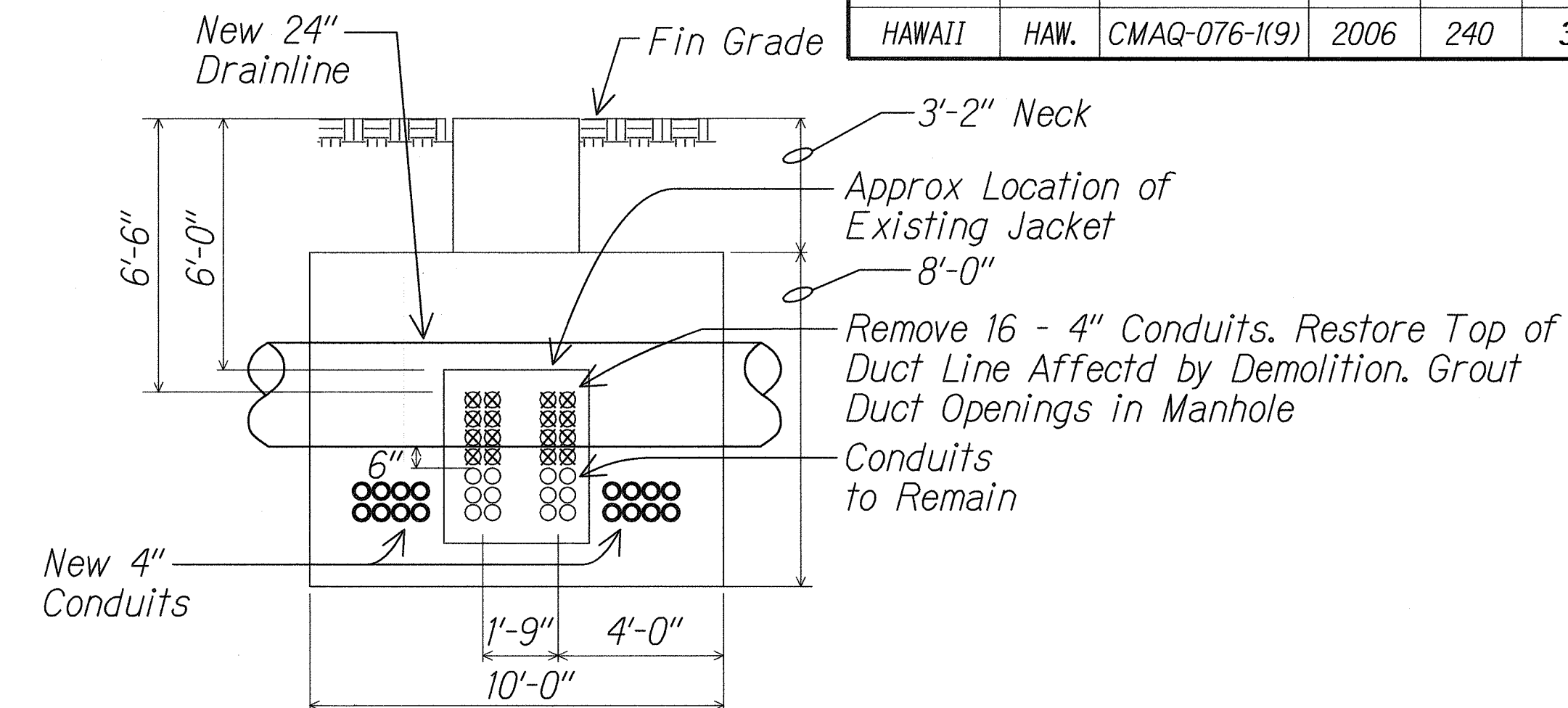
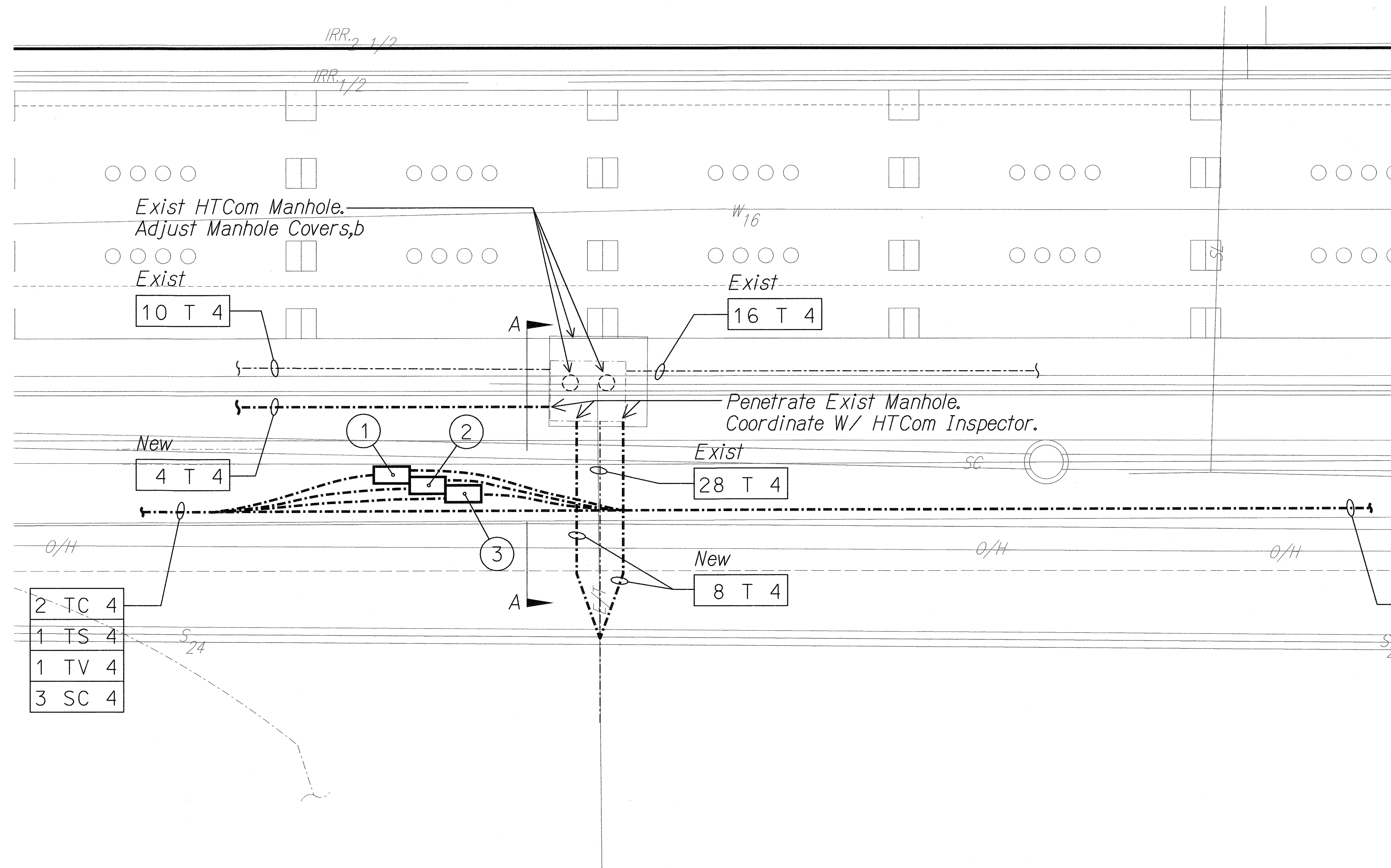
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILED SITE ELECTRICAL PLAN

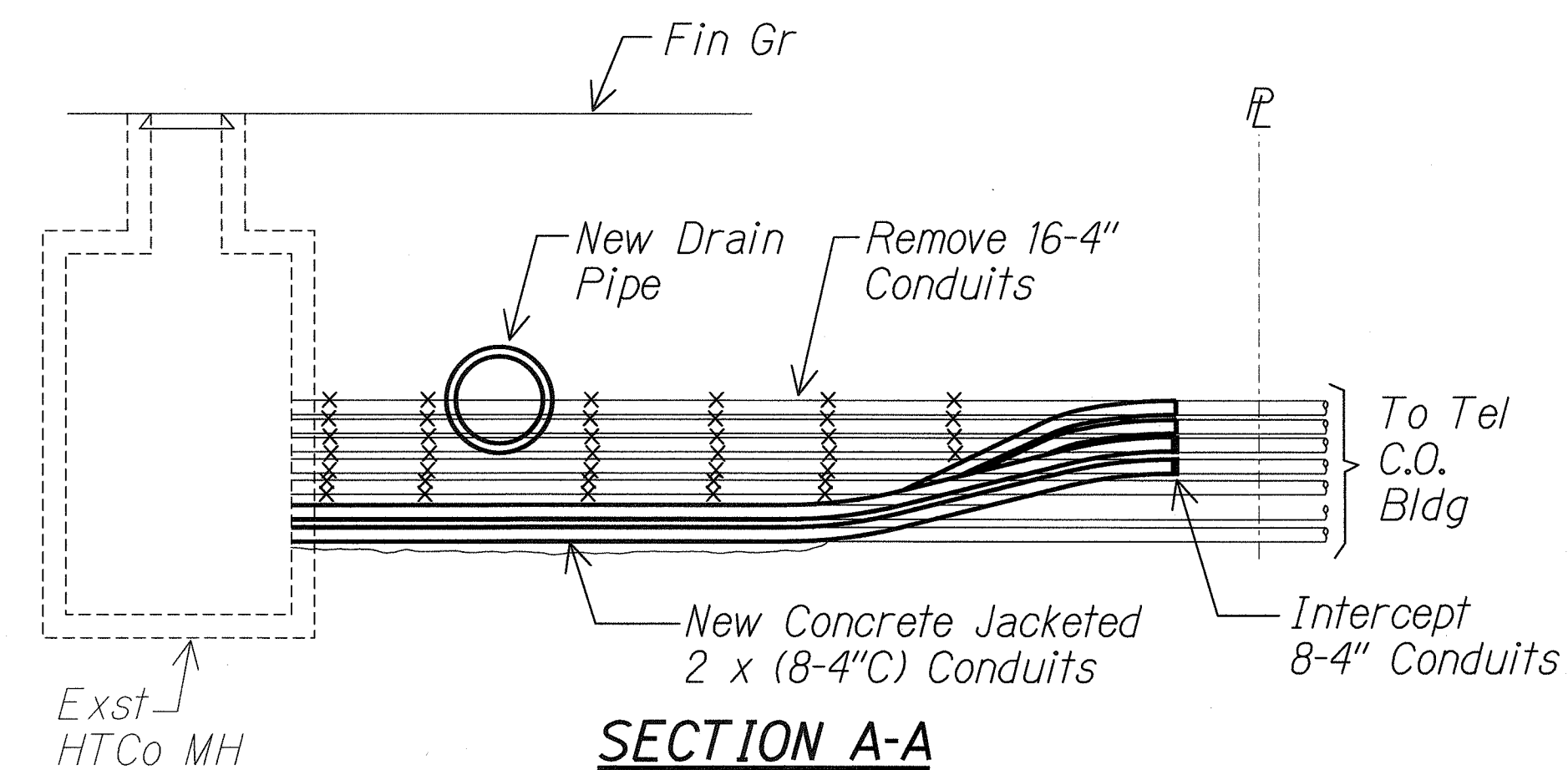
**FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD**

Scale: 1" = 10' Date: Feb. 22 2008

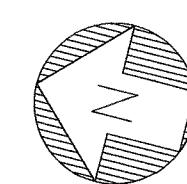
FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	240	371



PLAN



SECTION A-A



A
E2-9 E2-34

DETAILED SITE ELECTRICAL PLAN

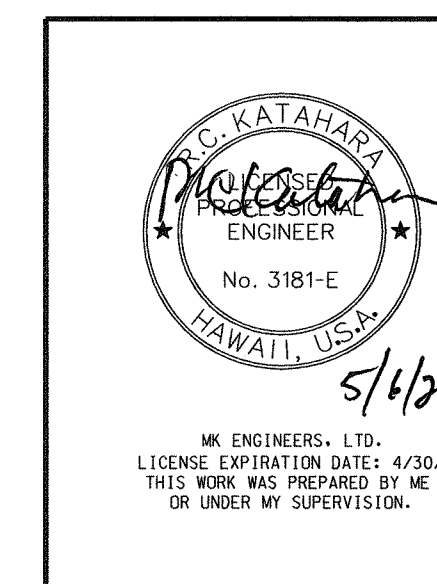
Scale: 1" = 10'-0"

06030-E2-34

Light lines denote existing condition.
Bold lines denote new work.

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
DETAILED SITE ELECTRICAL PLAN

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: 1" = 10'

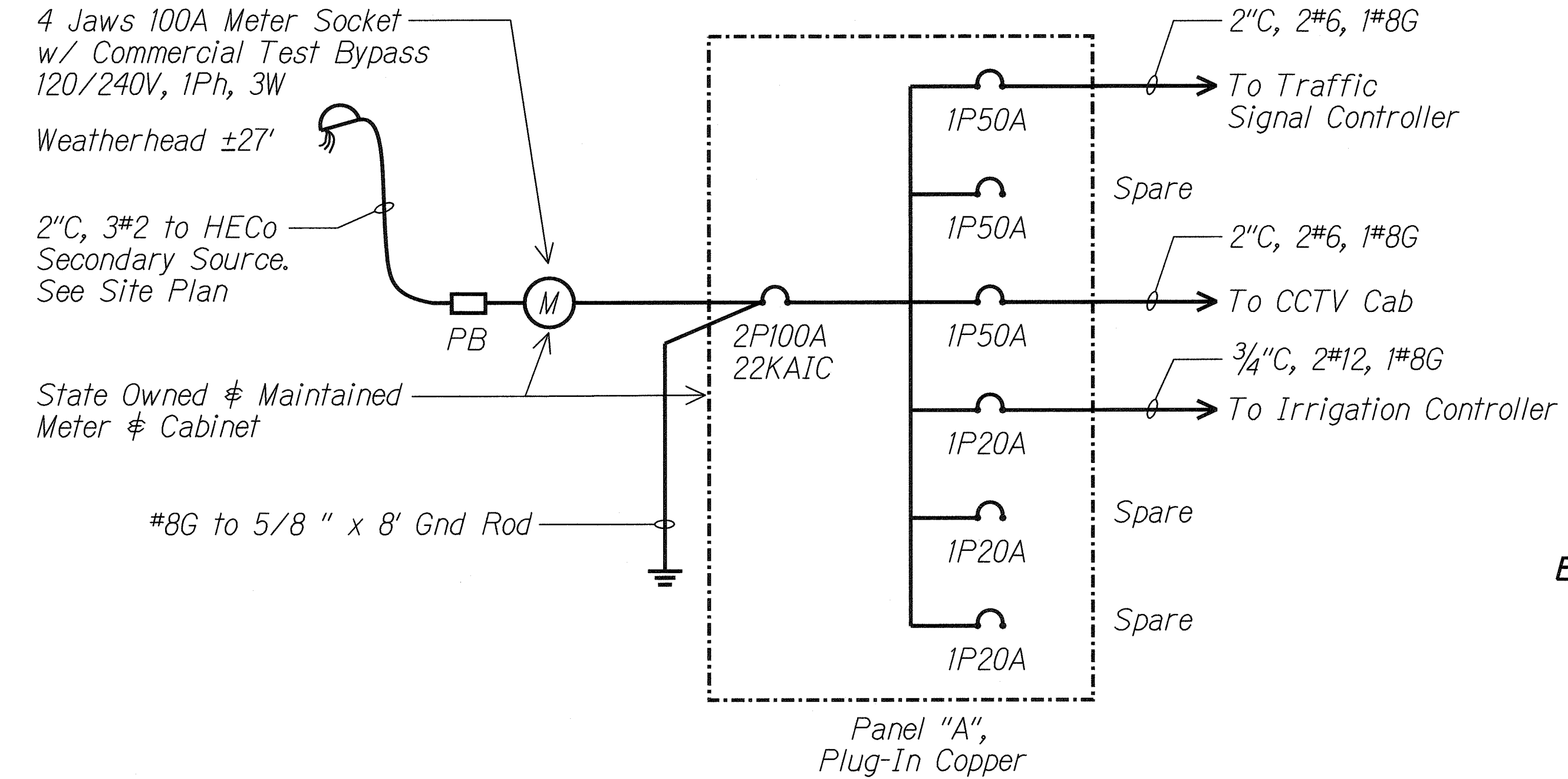
Date: Feb. 22 2008

SHEET No.E2-34 OF 42 SHEETS

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	242	371

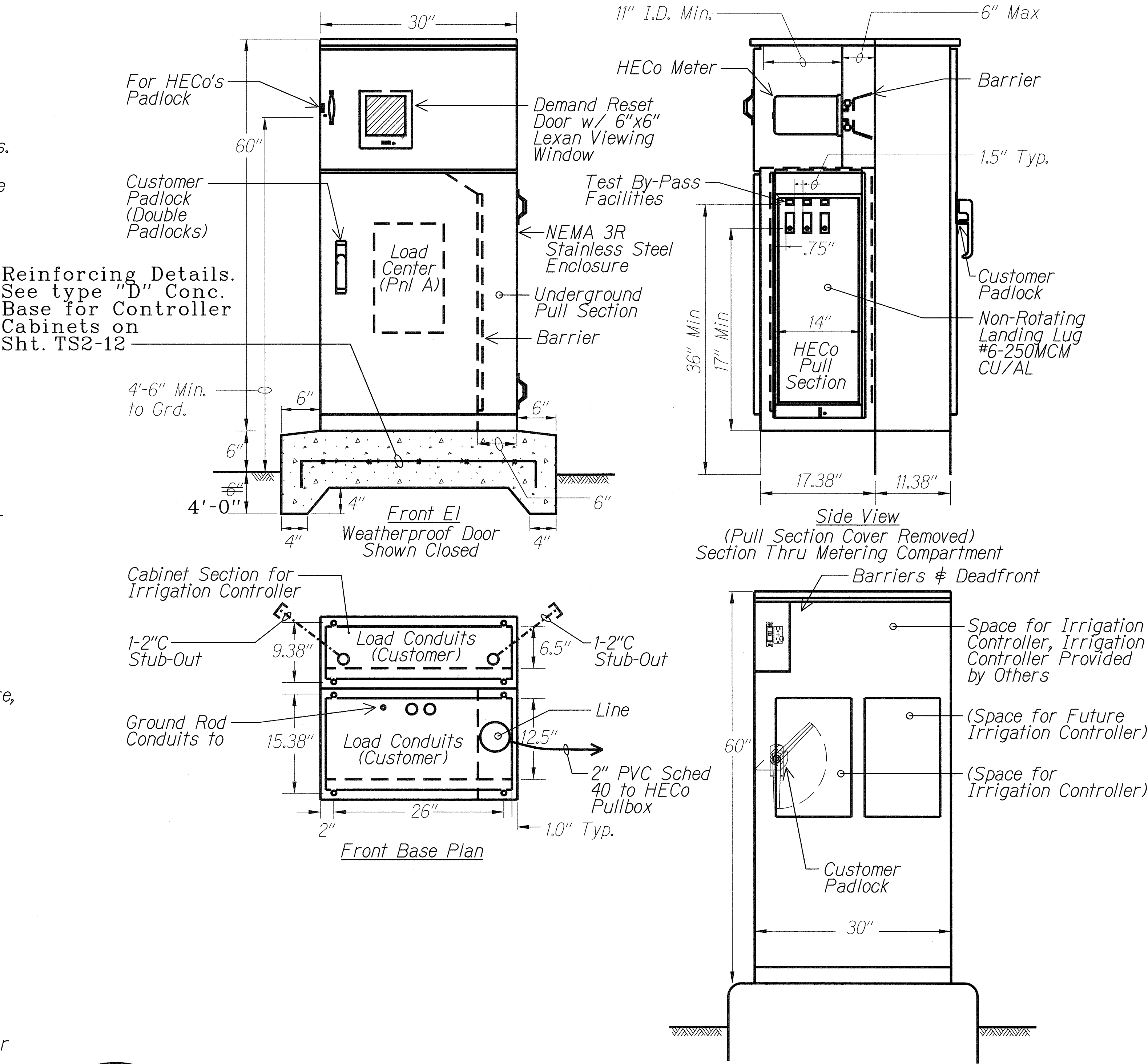
METER PEDESTAL NOTES:

- Wireways Shall Have The Minimum Dimensions Shown In The Table. The Bottom of The Wireway Must Accept a 3-Inch (Minimum Conduit).
- Service Conductors Shall Terminate On Landing Lugs. The Service Termination Lugs Must Be #6 Through 250 komil Pressure-Type Cu-Al Listed. Insulated Cables or Bus Shall Be Installed Between The Landing Lugs And The Commercial By-Pass Facility.
- The Meter Shall Be Enclosed. The Enclosure Cover Shall Be Hinged And Weigh Not More Than 25 Pounds. Allow a Minimum Clearance Of 11 Inches From The Face Of The Meter Socket To The Enclosure Cover. The Enclosure Cover Shall Have a Demand Reset Cover Constructed Of Steel. The Reset Cover Shall Have a Hinged Polycarbonate - Viewing Window. With The Minimum Dimensions as Dhown In Figure "D".
- Do Not Install Ringless Sockets.
- Internal Equipment Shall Be Secured Without Screws or Nuts On The Outer Surface Of The Enclosure That May Be Loosened From The Outside.
- Customer Section Shall Include:
A. Panel With Main CB & Branch CBs With Interrupting Rating Indicated
- Provide a Protective Metallic Barrier (16-Gauge Minimum) Between The Power Company Wireway And Customer Distribution Section. The Protective Barrier Shall Not Have a Clearance More Than 1/4-Inch Between The Power Company Wireway And Customer Section To Prevent Screws And Bolts From Protruding Into The Termination Section. All Unmetered (Line Side of Meter) Bus or Cable Shall Be Separated By Suitable Barriers From Metered (Load Side of Meter) Bus or Cable.
- The Pedestal Shall Be Supplied With Commercial By-Pass Blocks With Rigid Insulating Barriers Wired or Bussed To The Meter Socket By The Manufacturer. Connection Sequence is Line To Load From Left To Right. Identify Each Line And Load Position With 3/4-Inch (Minimum) Block Letter Labeling. Seal Commercial By-Pass Cover Panels, And Fit Them With a Lifting Handle. For Panels Exceeding 16 Inches Wide, Install Two Lifting Handles.
- All Power Company Compartments (Meter Cover, Demand Reset Cover, And Pull Section) Shall Have Provisions For The Power Company's Seal or Padlock.
- Install Warning Labels Including High Voltage And Instructing Personnel To Stay Clear of The Enclosure, On The Wireway Pull Section Cover And In Front Of The Meter Section Hinged Cover.
- Enclosure Similar To Tescoflex 24-000 Models.



METER PEDESTAL ONE-LINE DIAGRAM

NTS



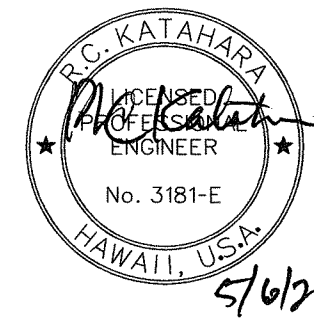
A TYPE II METER PEDESTAL DETAIL

E2-32 E2-36 NTS

E2-35

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 METER PEDESTAL DETAIL

FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: Not to Scale Date: Feb. 22 2008

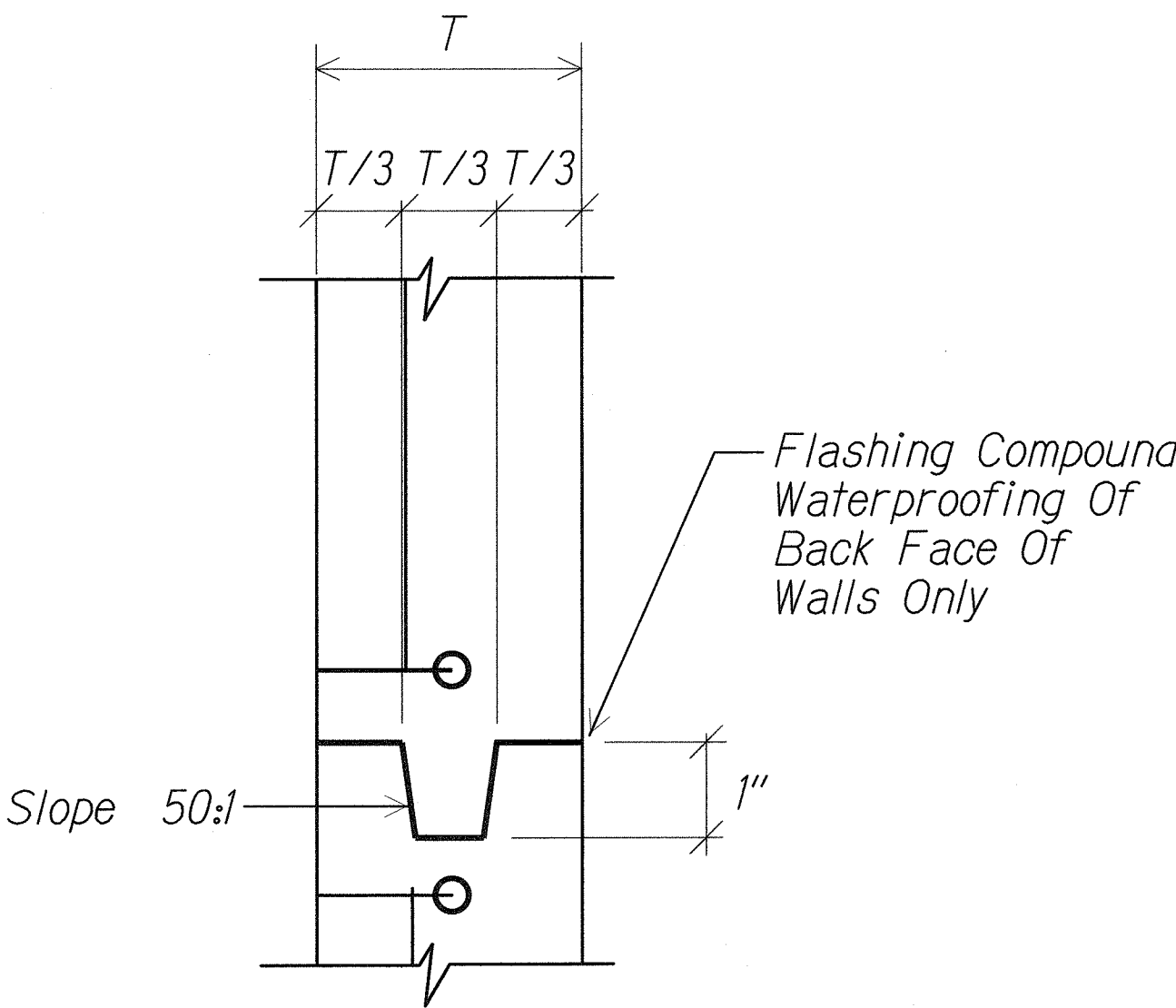
SHEET No. E2-36 OF 42 SHEETS

AS-BUILT

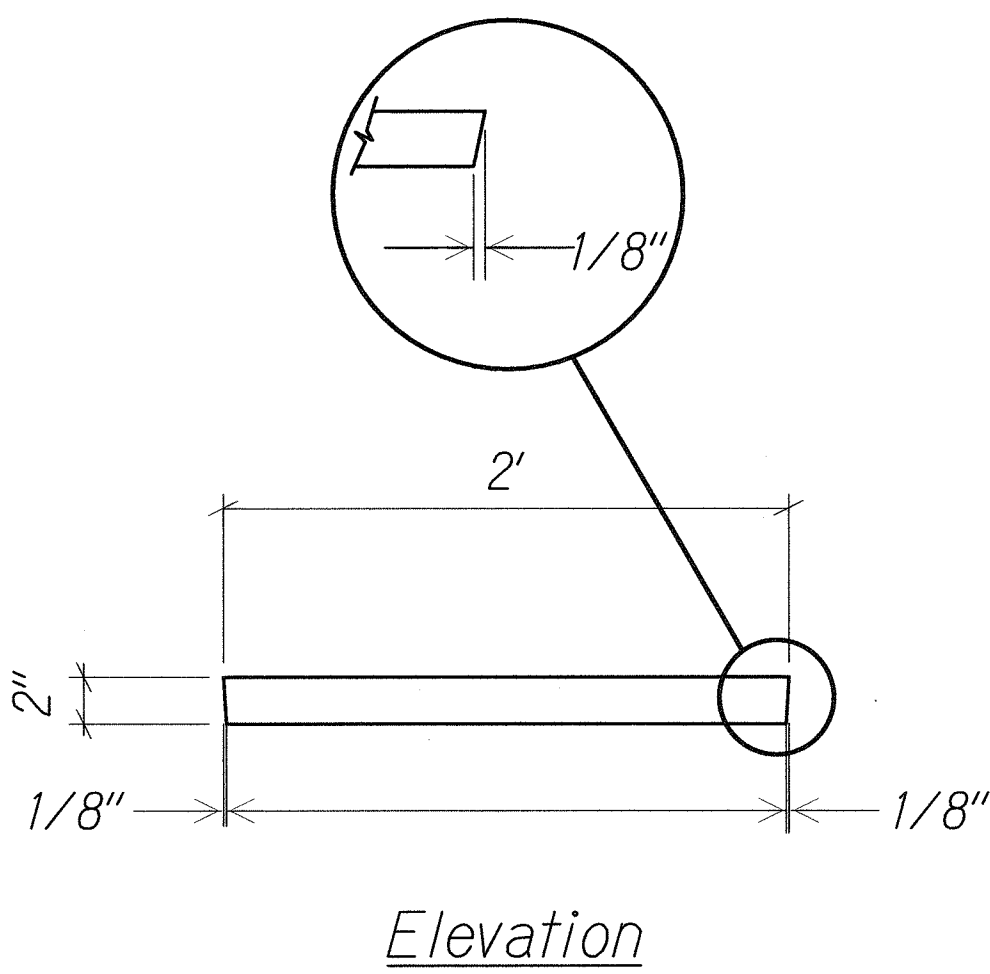
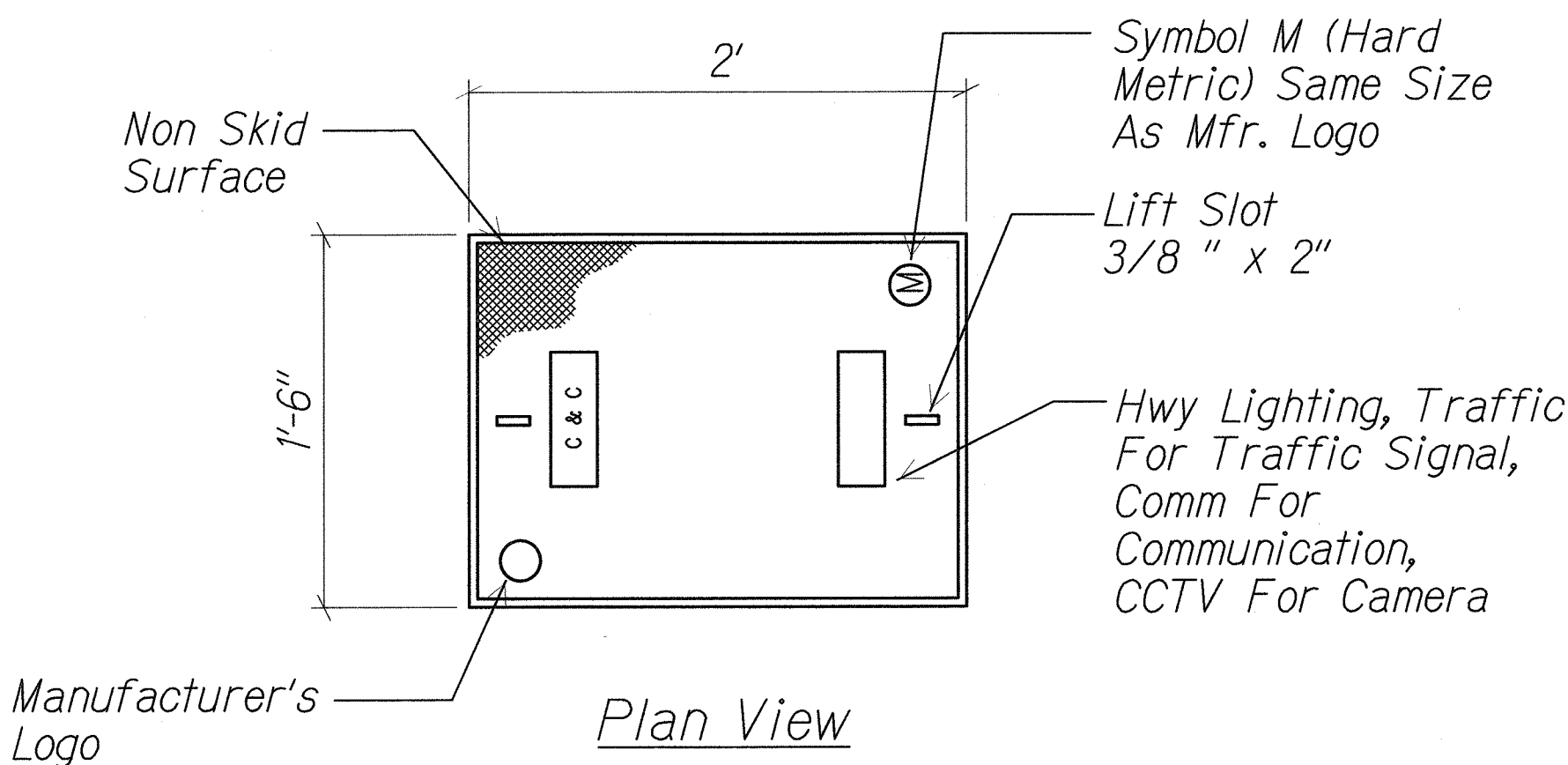
242

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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	244	371



A
TYPICAL CONSTRUCTION JOINT DETAIL
E2-37 E2-38 NOT TO SCALE



POLYMER CONCRETE COVER
NOT TO SCALE

GENERAL NOTES:

1. Provide a Minimum Of One 16 Dia. x 2.5m Copperweld Ground Rod In Each Pullbox. When Directed By The Street Light Inspector/Engineer, Install Additional Ground Rods. Cost Of Ground Rods Shall Be Incidental To The Pullboxes.
2. All Pre-Cast Concrete Pullboxes Sshall Be Manufactured In Two Pieces.
3. The Pullbox With Cover Shall Be Capable Of Supporting An MS 18 Loading.
4. The Maximum Weight Of The Pullbox Cover Shall Not Exceed 27 Kilograms.
5. The Openings For The Conduits On All Pullboxes Shall Be Pre-Cast Concrete knockouts.
6. After Installing The Conduits In The Openings Of The Pullboxes, The Contractor Shall Fill The Excess Opening In The Pre-cast Knockouts With Concrete Mortar.
7. Prior To Installing The Pullboxes, The Contractor Shall Level The Bottom Of The Trench And Achieve a Minimum Of 95% Relative Compaction Of The Bottom Of The Trench.
8. All Concrete Shall Be Class A (25MPA, Min).
9. Rebars Shall Be Grade 300 And All Lapped Spaces Shall Be 360 mm Minimum.
10. The #57 or #67 Size Aggregate Shall Conform To Latest Version Of AASHTO M43 (ASTM D 448).
11. Pullbox Shall Be Installed In a Location Protected From Vehicular Traffic (I.E. Raised Sidewalk, Behind A.C. Curbs, Street Light Standard Or Pipe Guards).

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
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5/1/2011

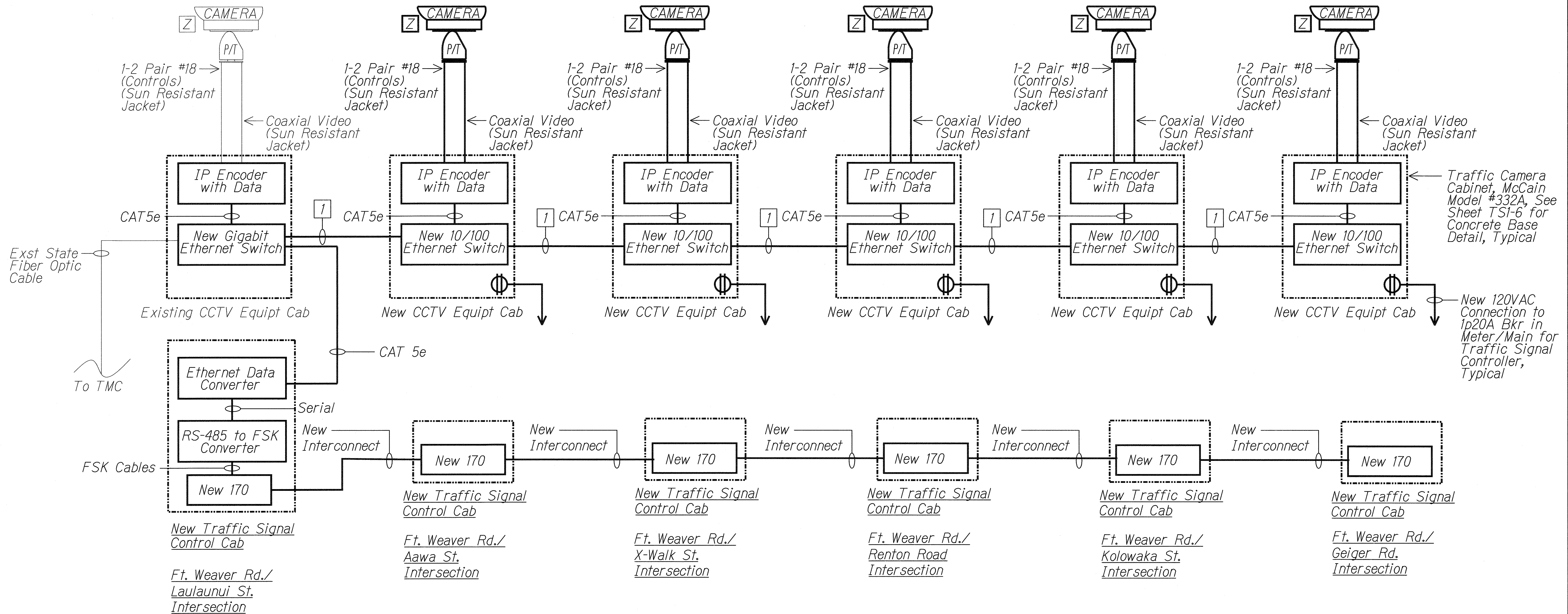
MR. ENGINEERS, LTD.
LICENSE EXPIRATION DATE: 4/30/12
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PULLBOX DETAILS

**FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD**

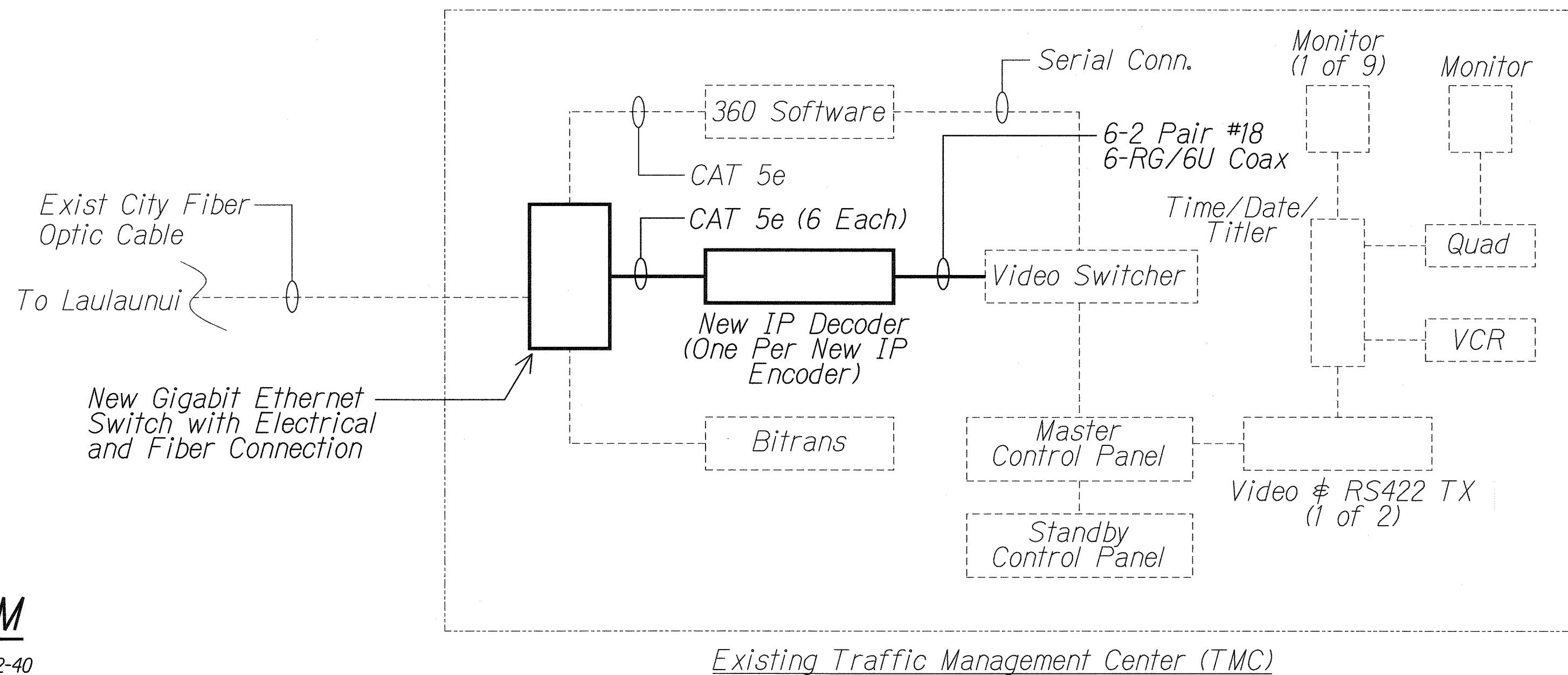
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	246	371



- Notes:**
- Light Lines Denote Existing Items.
Bold Lines Denote New Work.
 - 1 - Indicates One New 72 Strand Single Mode Fiber Optic Cable, 9/125 Micron Loose-Tube
 - Coordinate Interconnection of New CCTV System with the City's Existing Traffic Control System with the City Department of Transportation Services.
 - Coordinate all Work at the City's Traffic Management Center with the City Department of Transportation Services.

TRAFFIC CAMERA BLOCK DIAGRAM
No scale 06030-E2-40



5/6/2004

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HIGHWAYS DIVISION

TRAFFIC CAMERA DIAGRAM

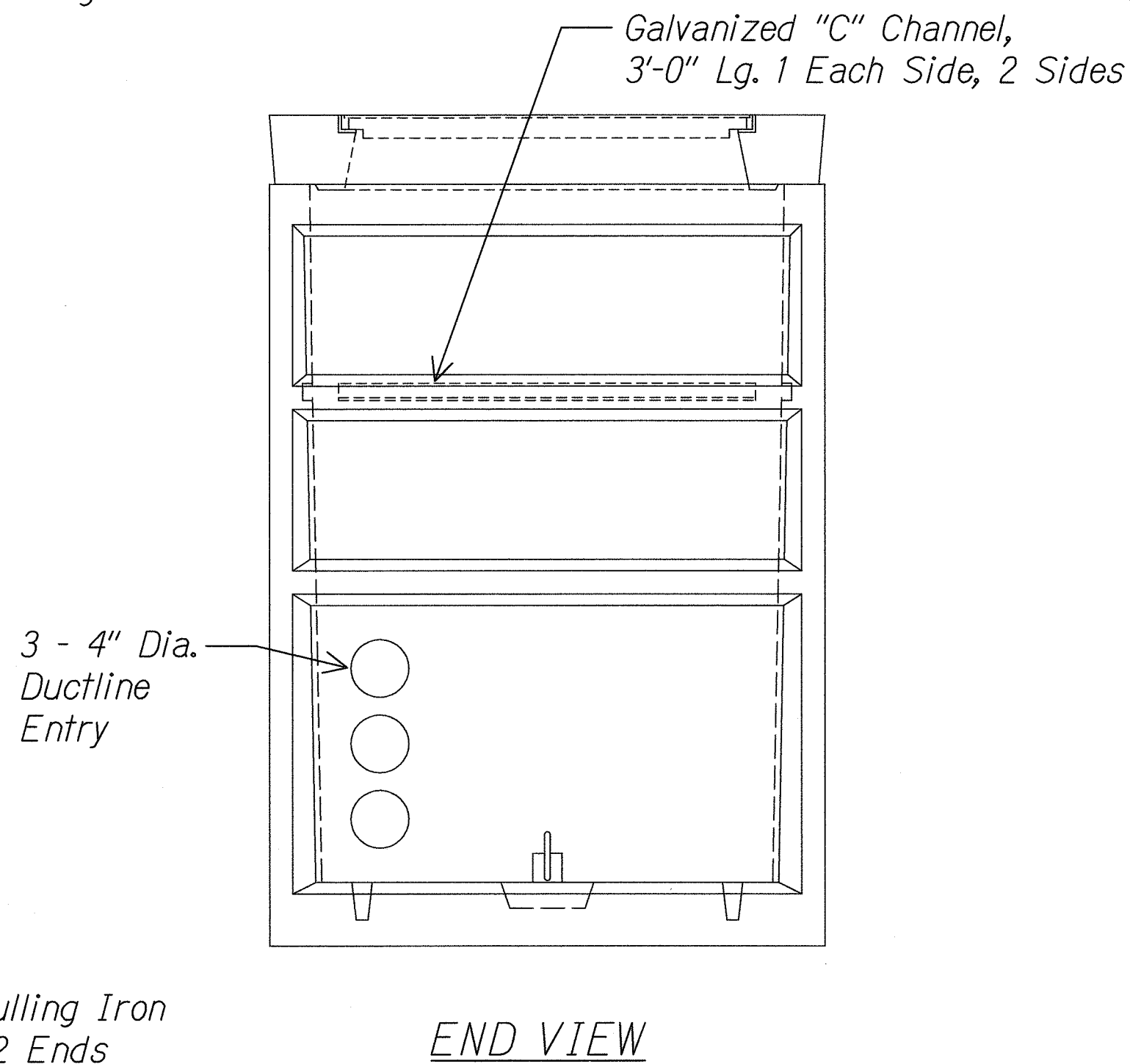
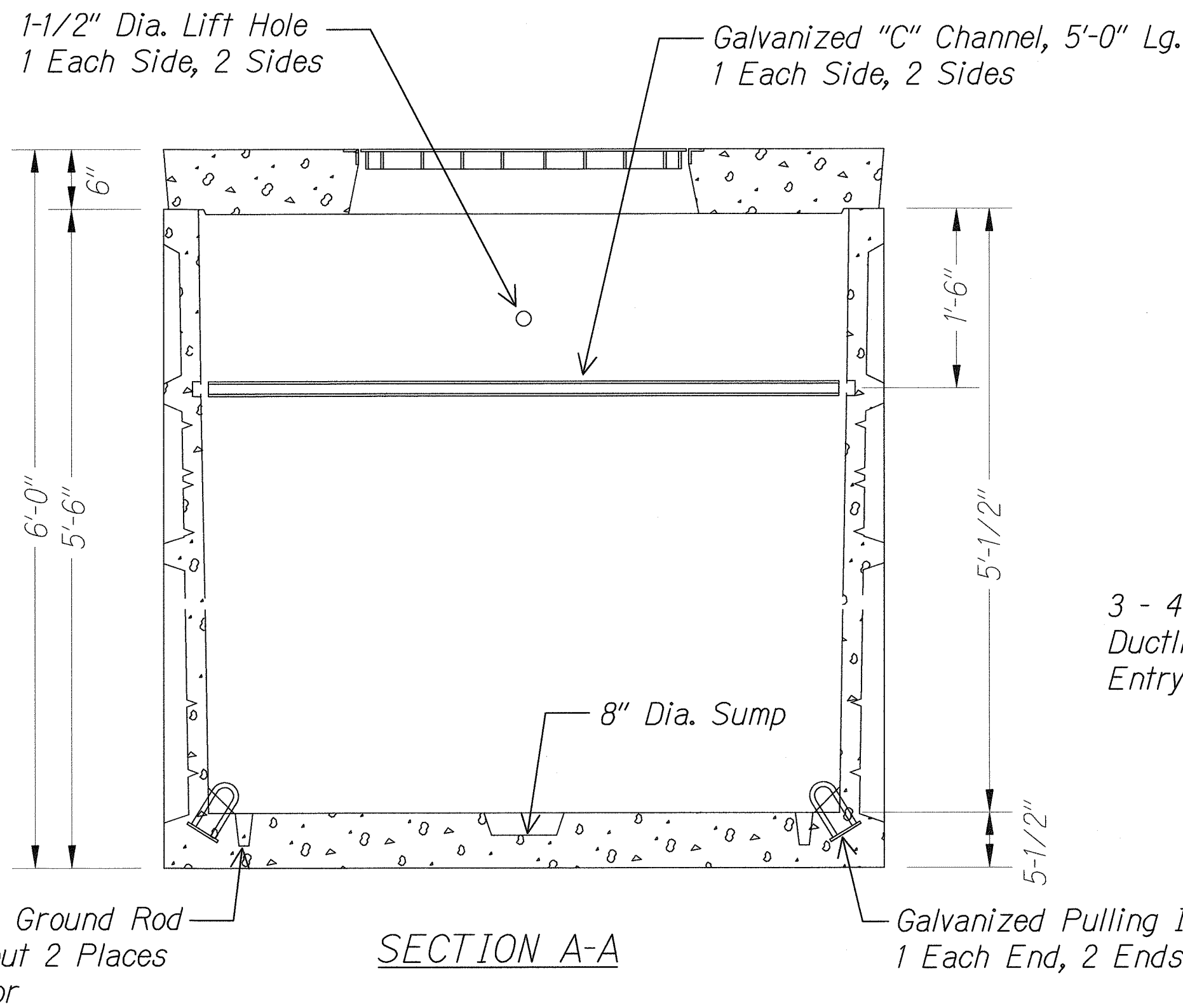
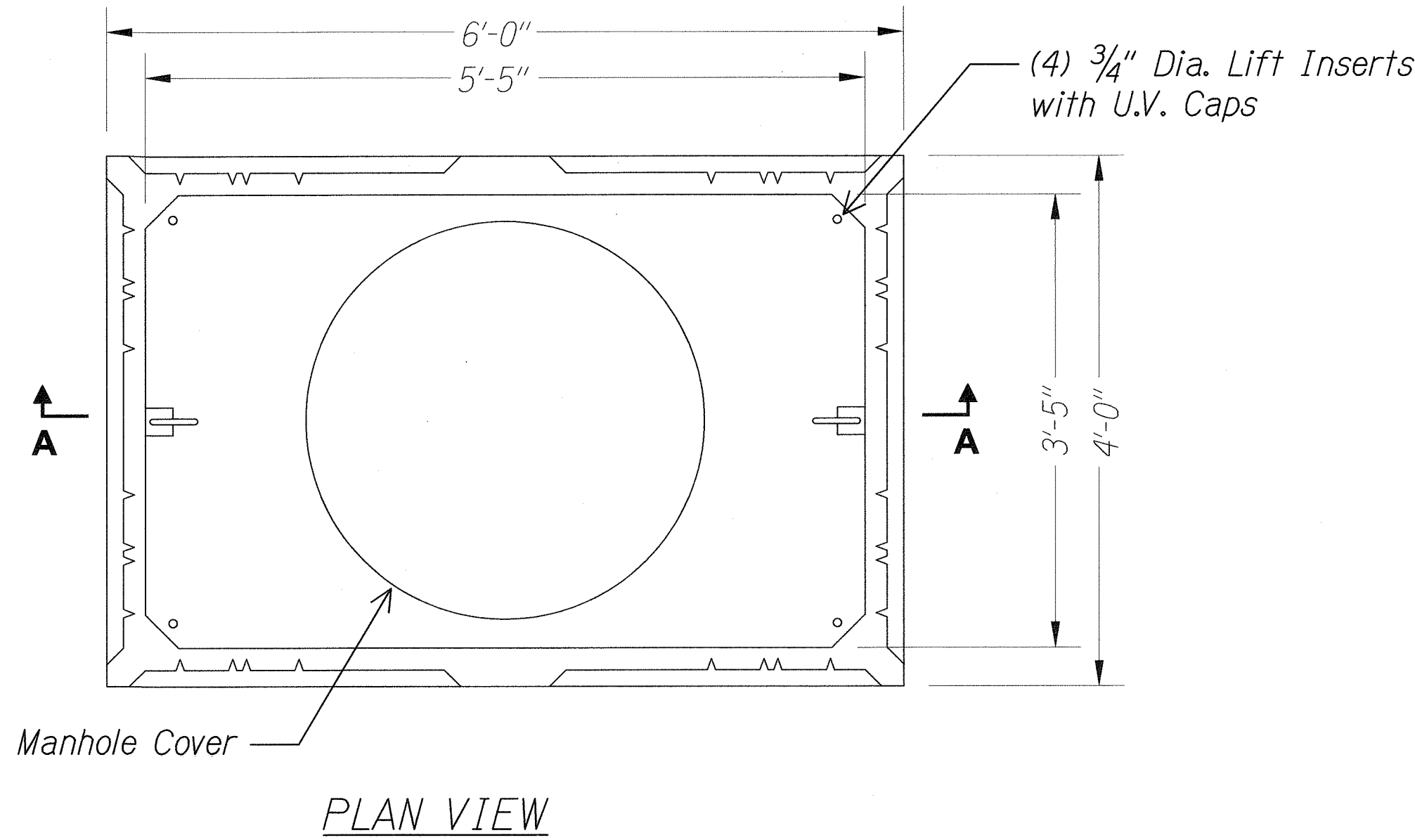
FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: No Scale Date: Feb. 22 2008

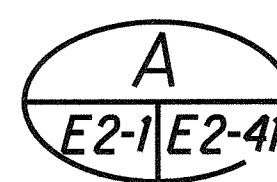
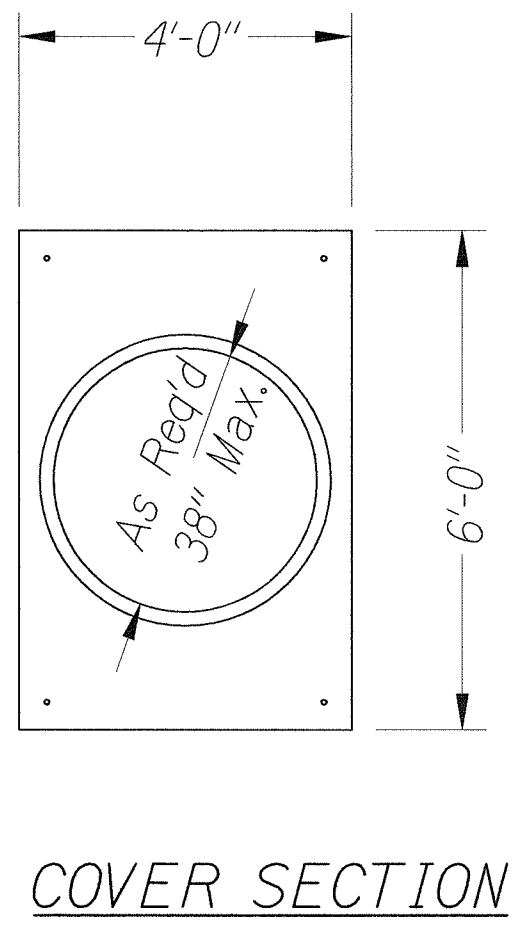
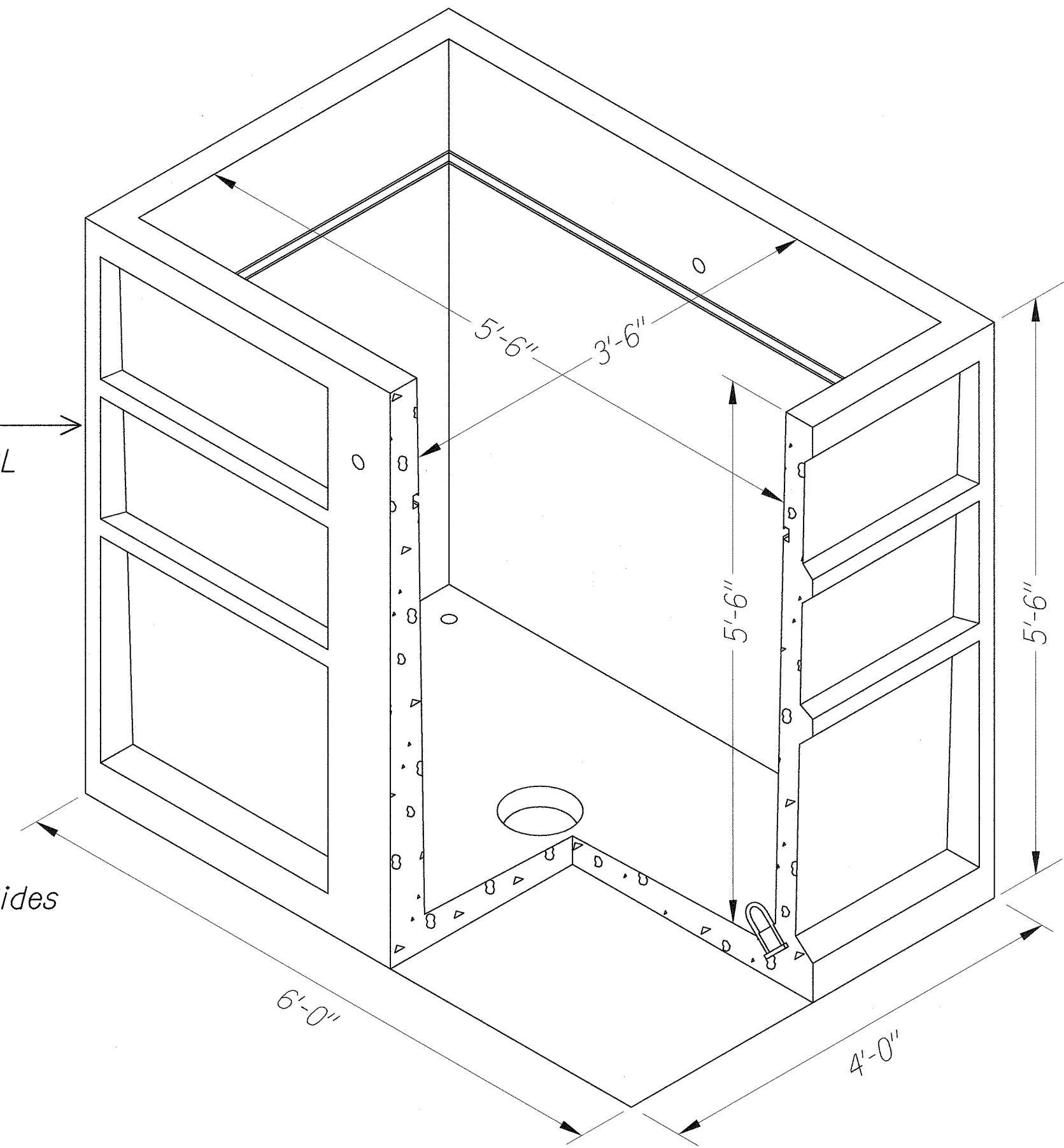
SHEET No. E2-40OF 42 SHEETS

SURVEY PLOTTED BY	DATE
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TRACED BY	
DESIGNED BY	
CHECKED BY	
NOTE BOOK	
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FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	247	371



Vault
No. 660-BL
6,050 lbs.

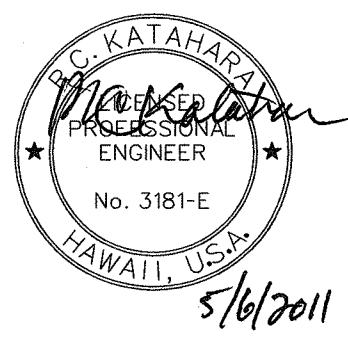


A COMMUNICATION VAULT STANDARD LAYOUT

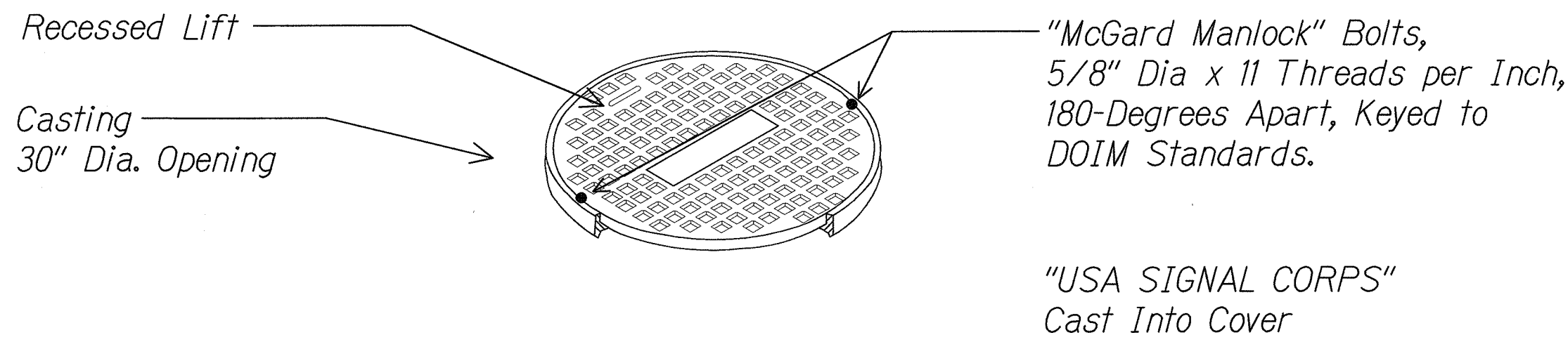
Notes:

1. Treat Interior and Exterior Surfaces (By the Contractor Installing te Precast Unit) With a Cement Based Heavy Duty Waterproof Coating to Form a Liquid Tight seal.
2. Provide Mastic in Joints Between Maintenance Hole Sections, Risers, Frame and Cover.
3. All Grout Work Shall be Concrete In Likeness.

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

	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
	MISCELLANEOUS DETAILS
	FORT WEAVER ROAD WIDENING VICINITY OF AAWA DRIVE TO GEIGER ROAD
	Scale: _____ Date: Feb. 22 2008

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-076-1(9)	2006	248	371

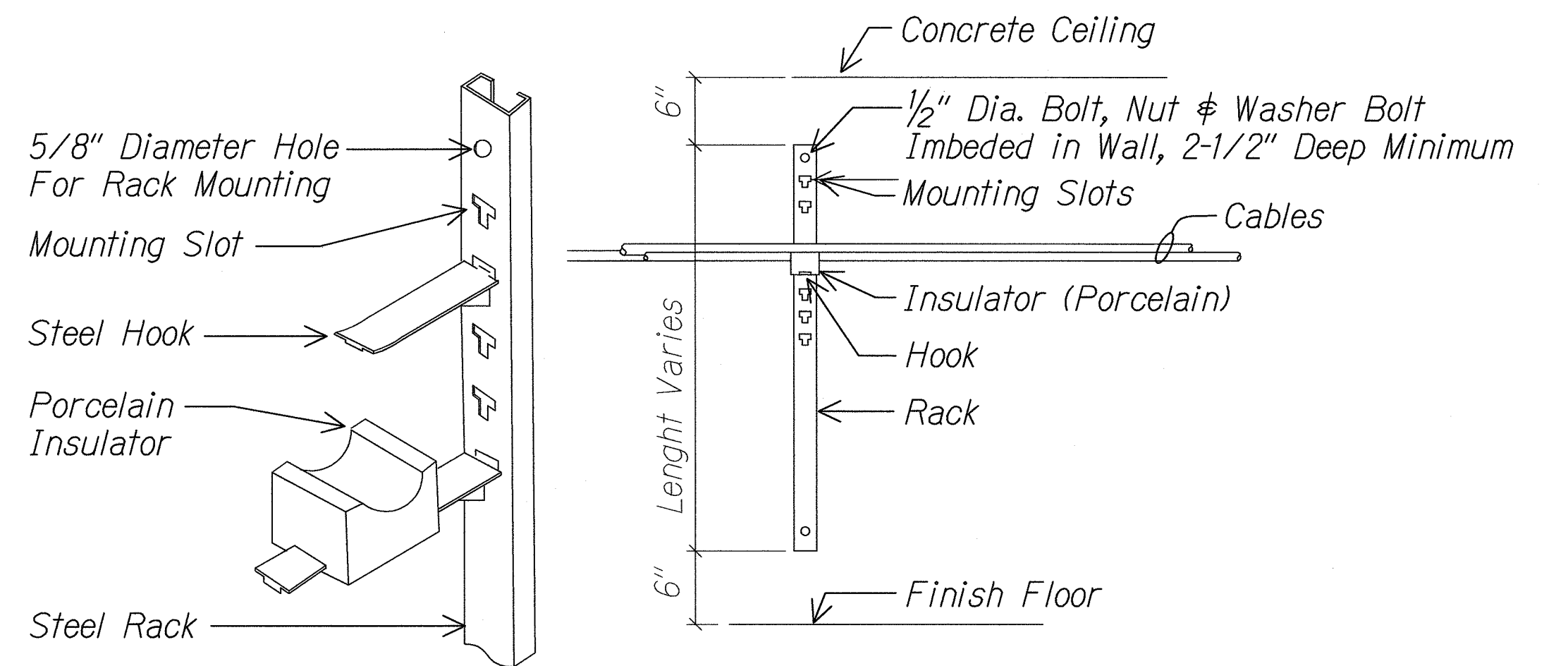


A SIGNAL CORPS MANHOLE COVER -
E2-42 E2-42 LOCKABLE TYPE

NTS

NOTES:

1. Cover Shall be The Locking Type, With "McGard Mainlock" Bolt, 5/8" x 11 Threads Per Inch, Keyed to US Army Signal Corps (DOIM) Standards.
2. "USA SIGNAL CORPS" Shall be Cast ermanently Into Cover.
3. Provide 6" High Stenciled Lettering on Inside of Maintenance Hole Neck of maintenance Hole Identification Number.
4. Manhole Shall be Designed for AASHTO H20 Rating.



C TYPICAL CABLE RACK
E2-42 E2-42 NTS

NOTES:

1. All Steel Parts Shall Be Hot Dipped Galv. After Fabrication.
2. Provide Min. of 2 Cable Racks Per Racking Wall of Ea. New Handhole. Provide Additional Racks in Existing Manholes & Handholes to Properly Rerack Cables as Required.

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

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OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS

FORT WEAVER ROAD WIDENING
VICINITY OF AAWA DRIVE TO GEIGER ROAD

Scale: Not to Scale Date: Feb. 22 2008