

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	138	145

TRAFFIC SIGNAL NOTES

- Should Any Defect Be Encountered During The Warranty Period, The Manufacturer Will Be Notified And He Shall Promptly Correct Such Defect. Service Call (By Factory Qualified Representative) During The Warranty Period For Repairs Or Other Maintenance Shall Be Answered Within 24 Hours And Shall Be Done At No Expense To The State. All Repairs Shall Be Done As Soon As Possible.
- All Traffic Signal Work Shall Conform To The Requirements Of The "Manual On Uniform Traffic Control Devices For Streets And Highway", Federal Highway Administration (2000) And Amendments.
- After Installing The Traffic Signal System, The Contractor Shall Apply Grease To All Parts Of The Traffic Signal System (i.e., Fittings, Brackets, Nipples, Elbows, Screws, Signal Head Assemblies, Bolts, Hinges, Etc.) As Directed By The Traffic Signal Inspector, To Prevent Rust And Corrosion. The Grease Material Shall Be Approved By The Signal Inspector.
- Connecting Into Existing Traffic Signal System And Marking All Necessary Adjustments Shall Not Be Paid For Separately, But Considered Incidental To The Various Traffic Signal Contract Items.
- The Contractor Shall Notify The Traffic Control Branch, Department Of Transportation Services, City & County Of Honolulu, (Phone No. 523-4589) Three (3) Working Days Prior To Commencing Any Work On The Traffic Signal System.
- The Department Of Transportation Services, City & County Of Honolulu, Will Assist The Engineer In Construction Inspection For The Traffic Signal System.
- The Traffic Signal System Shall Be Kept Operational During Construction. Any Relocation Required Shall Be Approved By The Traffic Control Branch, Department Of Transportation Services, And Paid For By The Contractor.
- The Contractor Shall Be Responsible For Any Damages To The Existing Traffic Signal Facilities, Including The Traffic Signal Interconnect System. Any And All Damages To These Facilities Shall Be Repaired By The Contractor At His Cost In Accordance With The Requirements Of The City And County Of Honolulu.
- The Contractor Shall Be Responsible For Any Damages To The Existing Traffic Signal Fiber Optic Cable System. Any And All Damages To These Facilities Shall Be Repaired By The Contractor At His Cost In Accordance With The Requirements Of The City And County Of Honolulu.
- The Contractor Shall Be Responsible For Any Traffic Control During Relocation Work Of The Traffic Signal System. The Contractor Shall Hire An Off-duty Police Officer For Traffic Control Work.

ELECTRICAL SYMBOL LIST

SYMBOL	DESCRIPTION
	Existing Traffic Signal Pullbox (Type As Noted)
	Replaced or Adjusted Traffic Signal Pullbox
	Relocated Pullbox (Type As Noted)
	Existing Traffic Signal Type I Standard With Attached Signals
	Existing Type II Traffic Signal Mast and Attached Signals
	Existing Street Light Standard
	Relocated Type I Standard With Attached Signals
	New Pedestrian Pushbutton
	Note Indicator
	Detail Indicator: Top Half Denotes Detail Number, Bottom Half Denotes Sheet Number
	New Traffic Signal Duct
	New Street Light Duct
	Denotes Street Light Pullbox
	Denotes Traffic Signal Pullbox
	Denotes Street Light
	Denotes Traffic Signal

ORIGINAL PLAN	DATE
NO.	
DESIGNED BY	
CHECKED BY	
DATE	



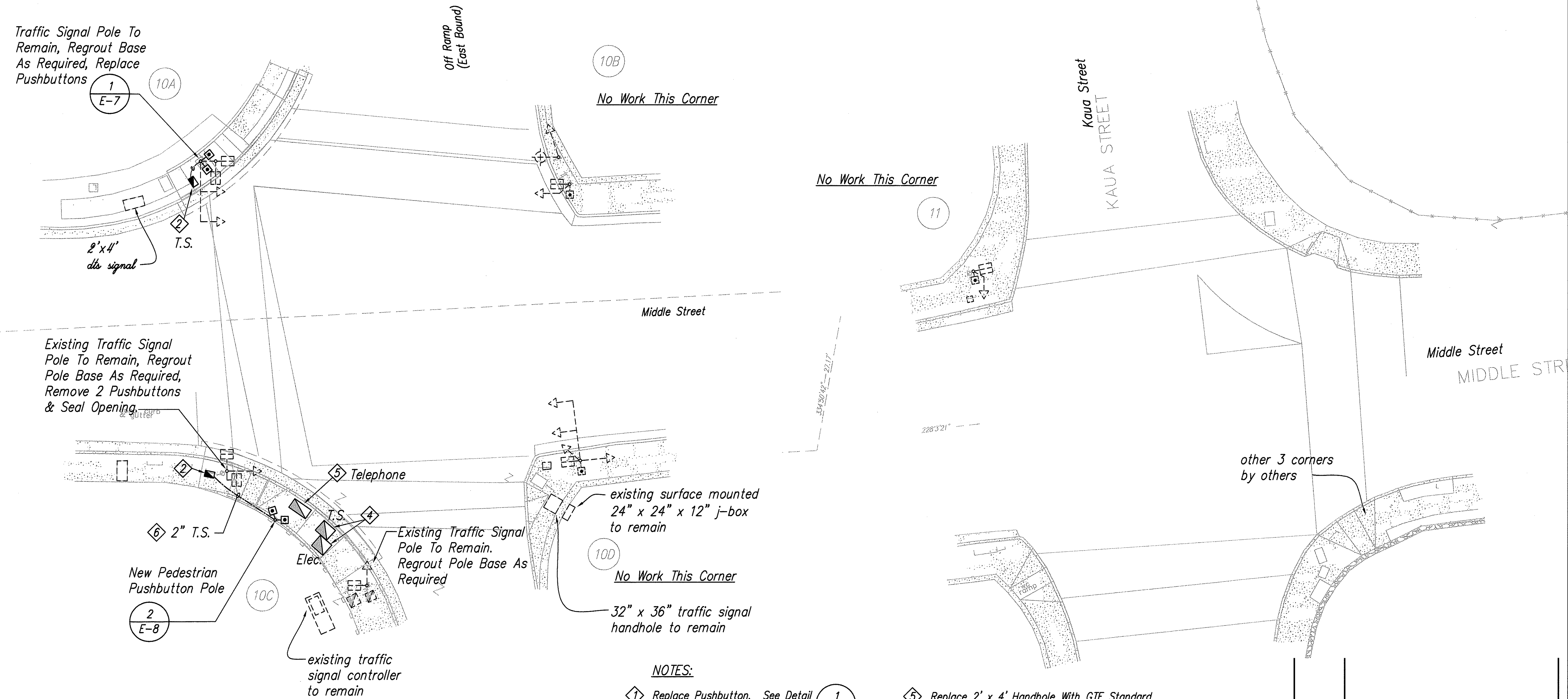
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Glen T. Karamatsu
PROJECT ENGINEER for ECS, Inc.

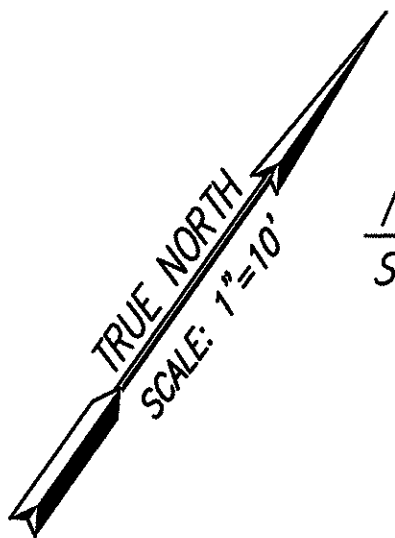
APRIL 30, 2004
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
ELECTRICAL SYMBOL LIST TRAFFIC SIGNAL NOTES	
PEDESTRIAN FACILITIES and ADA COMPLIANCE At Various Locations On Oahu, Phase II Federal Aid Project No. CMAQ-0300(87)	
Scale: As Noted	Date: August, 2002
SHEET No. E-1 OF 8 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	139	145



ORIGINAL PLAN	DATE	Aug 02
DESIGNED BY	CG	
CHECKED BY	GK	
NO.		



MIDDLE STREET ELECTRICAL PLAN - SITE 10 & 11
SCALE: 1" = 10'-0"

- NOTES:**
- Replace Pushbutton. See Detail 1 (E-7)
 - Replace HH (15" x 22") With Type "A" Polymer Concrete Box And Non-Skid Cover. Provide Bricks And Concrete Mortar As Required. To Match New Finished Sidewalk. See Detail On Sheet 84.
 - Replace HH (18" x 26" x 12"D) With Type "A" Polymer Concrete Box And Non-Skid Cover. Provide Bricks And Concrete Mortar As Required. To Match New Finished Sidewalk. See Detail On Sheet 84.
 - Adjust Handhole To Match Finished Sidewalk And Reuse Existing Galvanized Checked Cover Plate (36" X 32").

- Replace 2' x 4' Handhole With GTE Standard 435 TB Concrete Box And Non-Skid Covers, 2 Piece. Provide Bricks And Mortar As Required. To Match New Finished Sidewalk. Coordinate Work With Verizon Hawaii. See Detail 4/E7, Sheet 144.
- Provide 2-2/C#14 Pedestrian Pushbutton Cable, And Splice To Existing In Handhole.

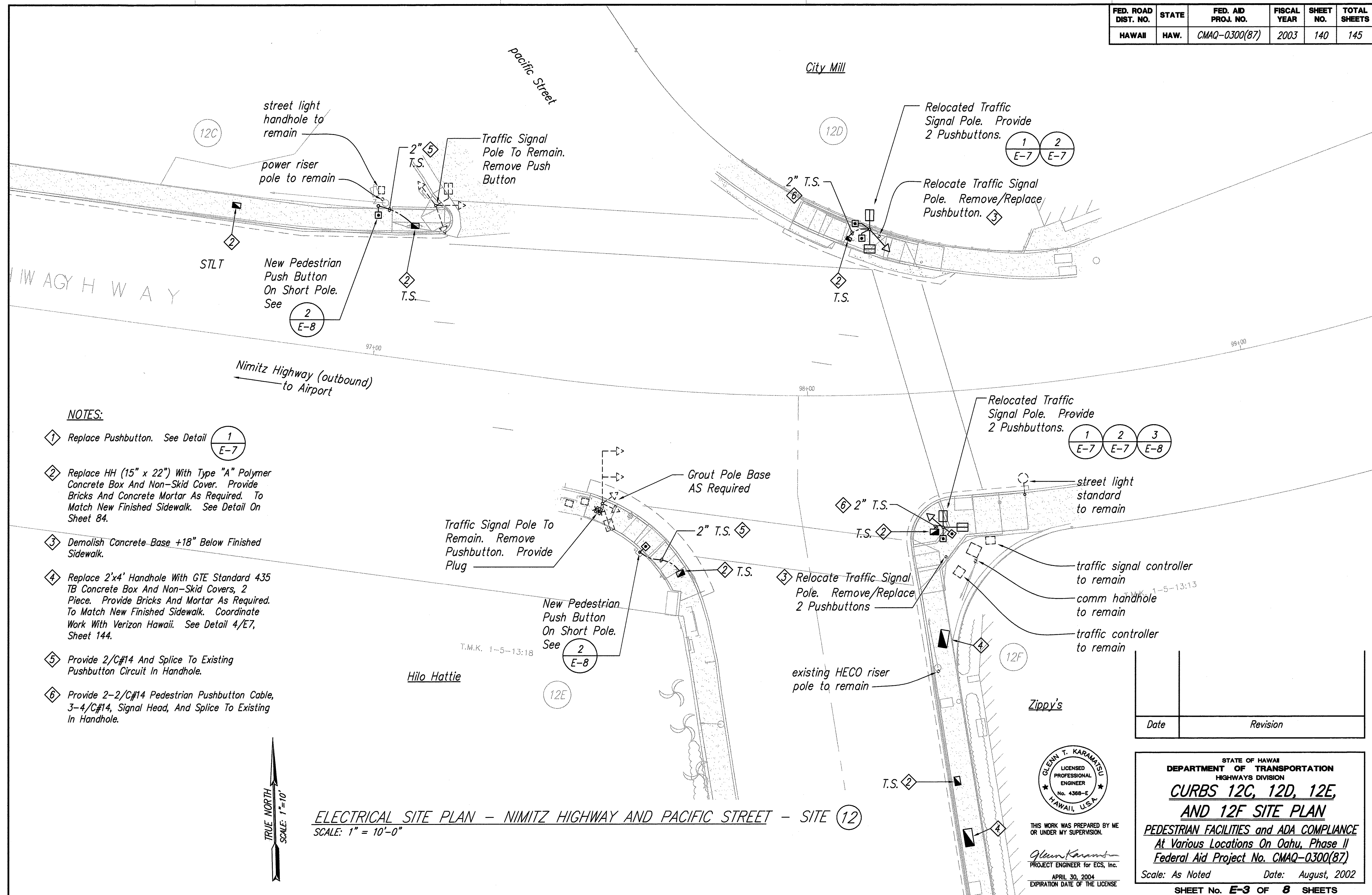


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Glenn Karamatsu
PROJECT ENGINEER for ECS, Inc.
APRIL 30, 2004
EXPIRATION DATE OF THE LICENSE

Date	Revision
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CURBS 10A, 10B, 10C, 10D, AND 11 SITE PLAN
PEDESTRIAN FACILITIES and ADA COMPLIANCE
At Various Locations On Oahu, Phase II
Federal Aid Project No. CMAQ-0300(87)
Scale: As Noted Date: August, 2002
SHEET No. **E-2** OF **8** SHEETS

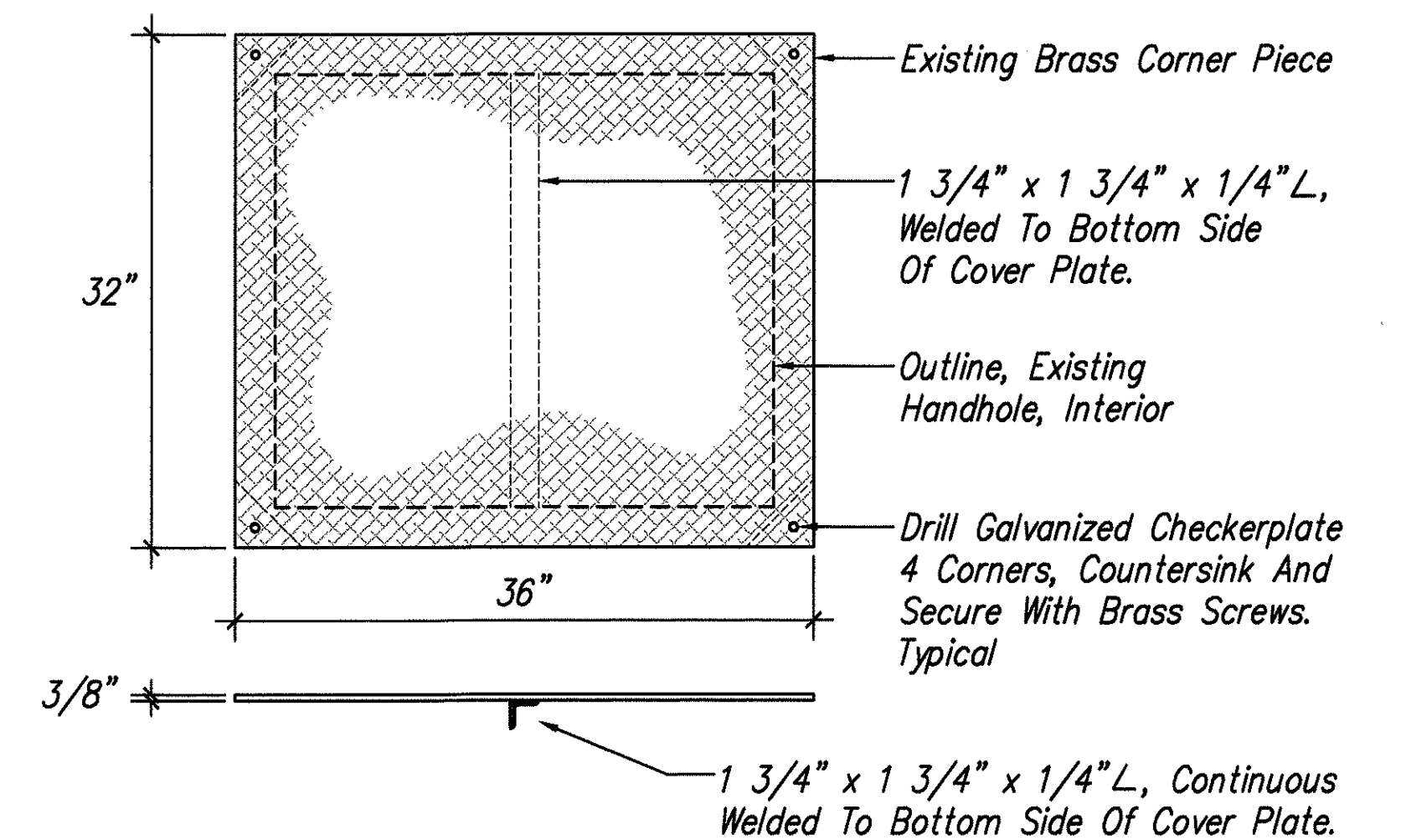
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	140	145



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	141	145

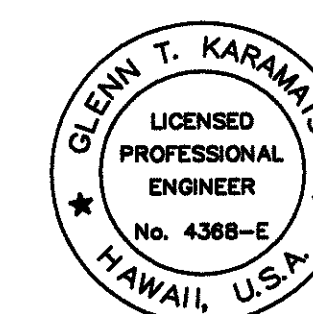
NOTES:

- 1 Replace Pushbutton. See Detail 1/E-7
- 2 Replace HH (15" x 22") With Type "B" Polymer Concrete Box And Non-Skid Cover. Provide Bricks And Concrete Mortar As Required. To Match New Finished Sidewalk. See Detail On Sheet 84.
- 3 Adjust HH (36" x 32") Handhole. Provide Galvanized Checkerplate Cover. See Detail 1/E4, Sheet 141.
- 4 Demolish Concrete Base 24" Below Finished Elevation.
- 5 Demolish Concrete Base 18" Below Finished Sidewalk.
- 6 Replace (36" X 32") Cover With Galvanized Checkerplate Cover, See Detail 1/E4, Sheet 141.
- 7 Provide 1-2/C#14, Pedestrian Pushbutton Cable, 3-4/C#14, Signal Head Cable And Splice To Existing In Handhole.
- 8 Provide 1-2/C#14, Pedestrian Pushbutton Cable, 1-4/C#14, Signal Head Cable And Splice To Existing In Handhole.
- 9 Provide 2-2/C#14, Pedestrian Pushbutton Cable, 4-4/C#14, Signal Head Cable And Splice To Existing In Handhole.



1 HANDHOLE - COVER DETAIL
E-4 Not to Scale

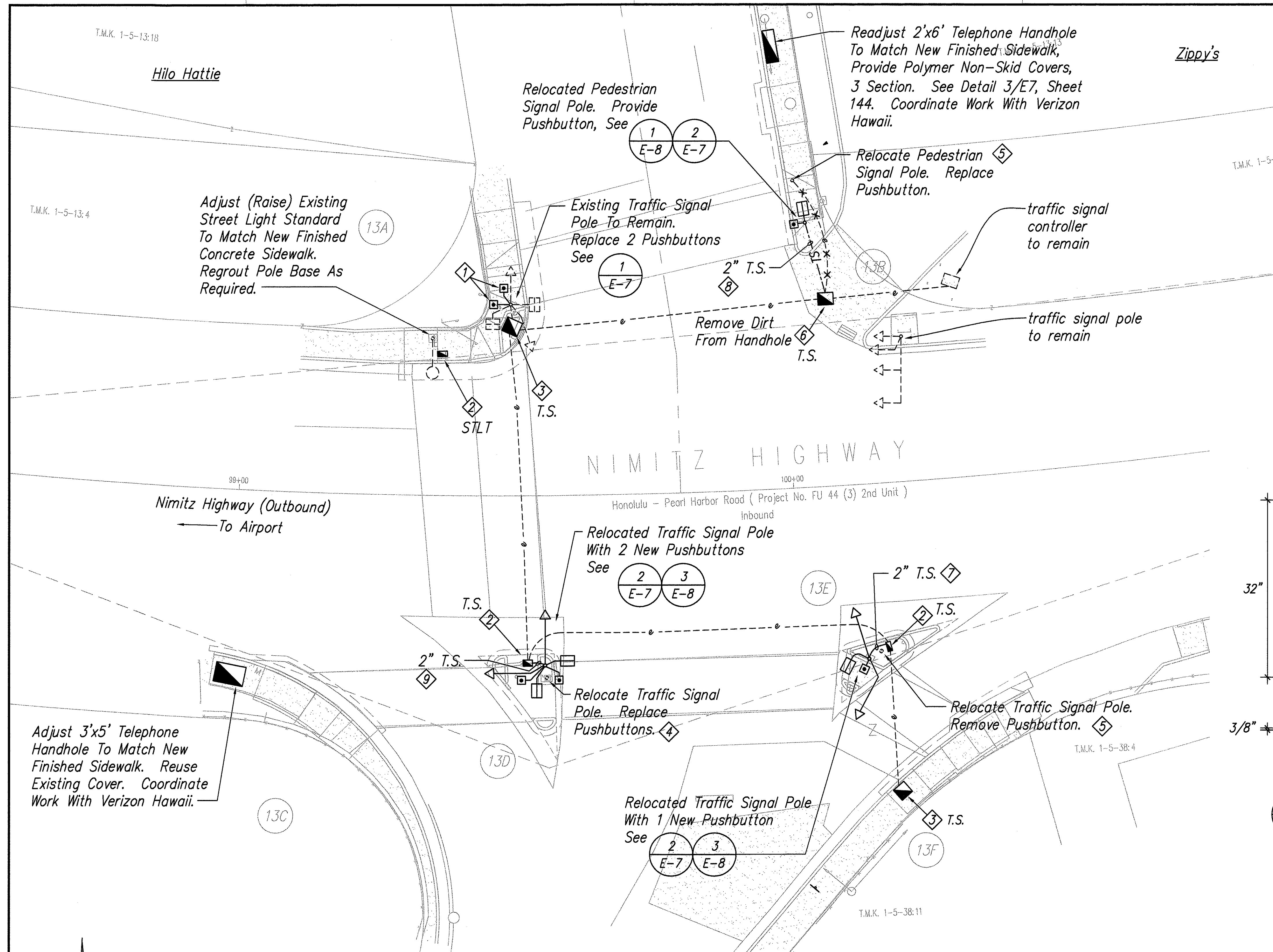
Date	Revision



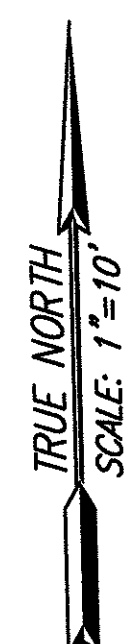
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Glenn Karamatsu
PROJECT ENGINEER for ECS, Inc.
APRIL 30, 2004
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CURBS 13A, 13B, 13C, 13D, 13E, AND 13F SITE PLAN
PEDESTRIAN FACILITIES and ADA COMPLIANCE
At Various Locations On Oahu, Phase II
Federal Aid Project No. CMAQ-0300(87)
Scale: As Noted Date: August, 2002
SHEET No. **E-4** OF **8** SHEETS

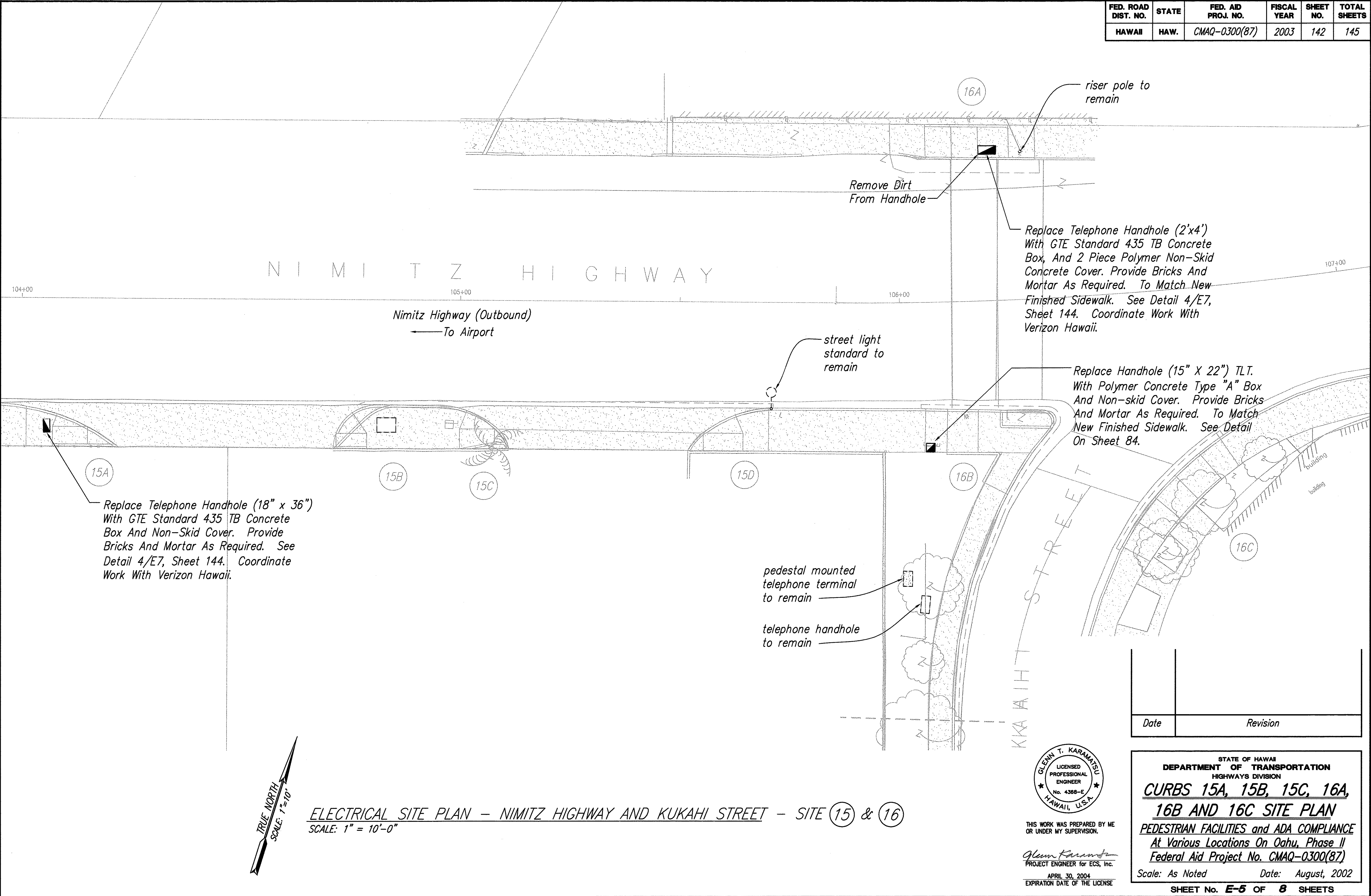


ELECTRICAL SITE PLAN - NIMITZ HIGHWAY AND PACIFIC STREET-SITE 13
SCALE: 1" = 10'-0"



ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	Aug 02
DRAWN BY	KH
DESIGNED BY	CG
CHECKED BY	GA
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	142	145



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	Aug 02
No.	DESIGNED BY	A
	CHECKED BY	N

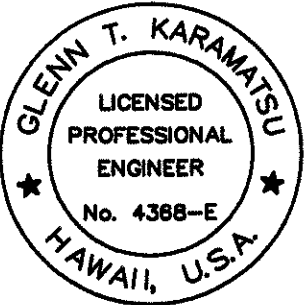
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	143	145

- NOTES:
- Replace HH (15" X 22") With Type "A" Polymer Concrete Box And Non-skid Cover. Provide Bricks And Concrete Mortar As Required. To Match New Finished Sidewalk. See Detail On Sheet 84.
 - Replace Pushbutton. See Detail

1
E-7
 - Add Pushbutton. Drill Pole. Provide New Wiring To TSPB.
 - Replace 2'x4' Handhole With 30" x 48" Polymer Concrete Box And Non-Skid Cover. Provide Bricks And Mortar As Required. To Match New Finished Sidewalk. See Detail 4/E7, Sheet 144.
 - Splice New Conductors To Existing.
 - Intercept Existing Street Lighting Circuit With Type "C" Handhole. See Detail On Sheet 84.

Date	Revision
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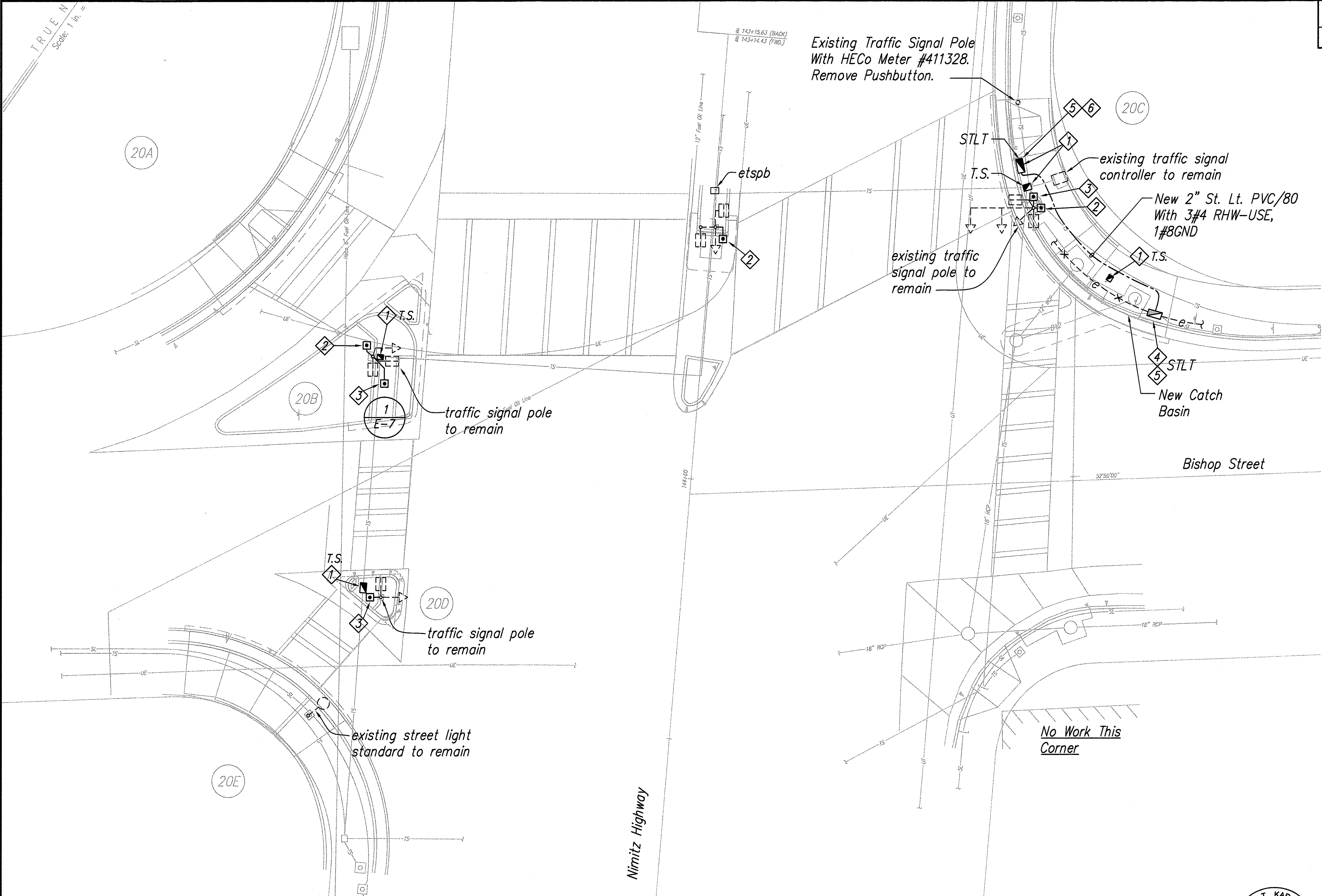
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
CURBS 20A, 20B, 20C, 20D,
SITE PLAN
PEDESTRIAN FACILITIES and ADA COMPLIANCE
At Various Locations On Oahu, Phase II
Federal Aid Project No. CMAQ-0300(87)
Scale: As Noted Date: August, 2002
SHEET No. **E-6** OF **8** SHEETS



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PROJECT ENGINEER for ECS, Inc.

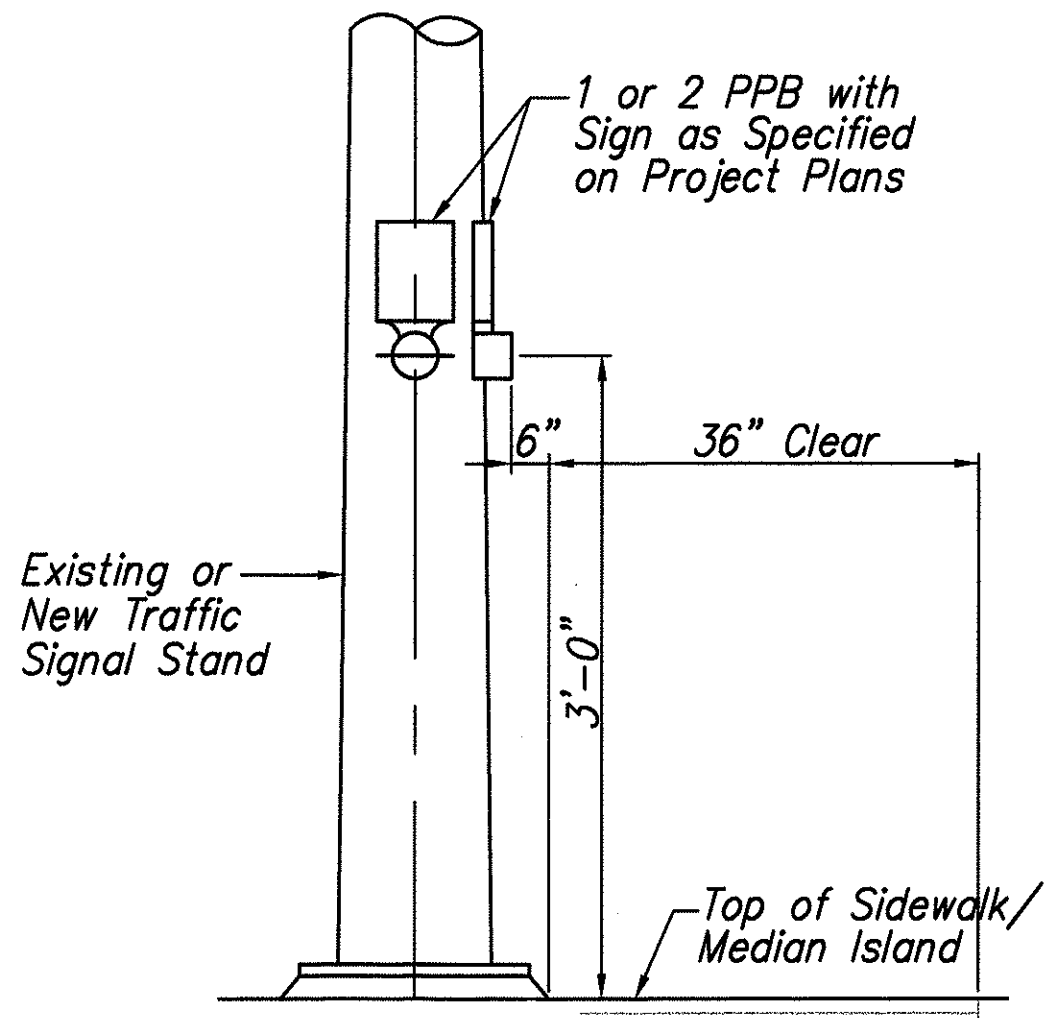
APRIL 30, 2004
EXPIRATION DATE OF THE LICENSE



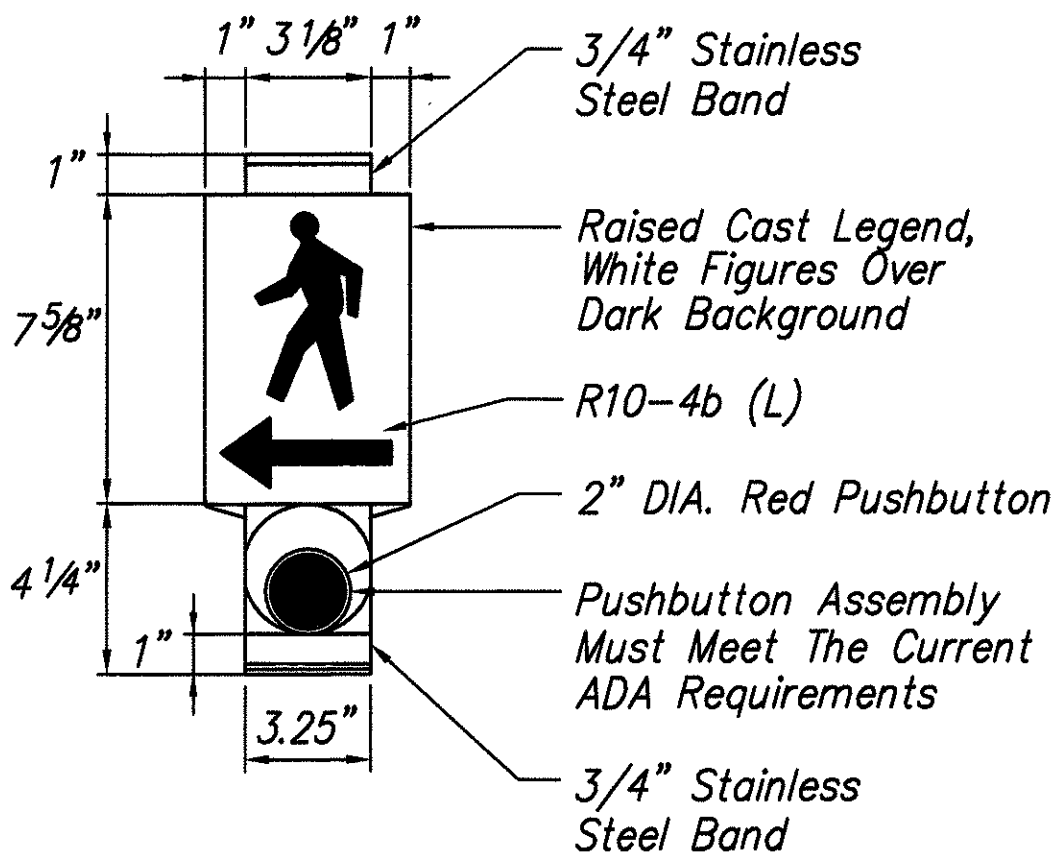
ELECTRICAL SITE PLAN – NIMITZ HIGHWAY AND BISHOP STREET – SITE 20
SCALE: 1" = 10'-0"

ORIGINAL PLAN	SURVEY PLANNED BY	DATE
NOTE BOOK	DRAWN BY	Aug 02
	DESIGNED BY	CG
	QUANTITIES BY	CG
	CHECKED BY	CG

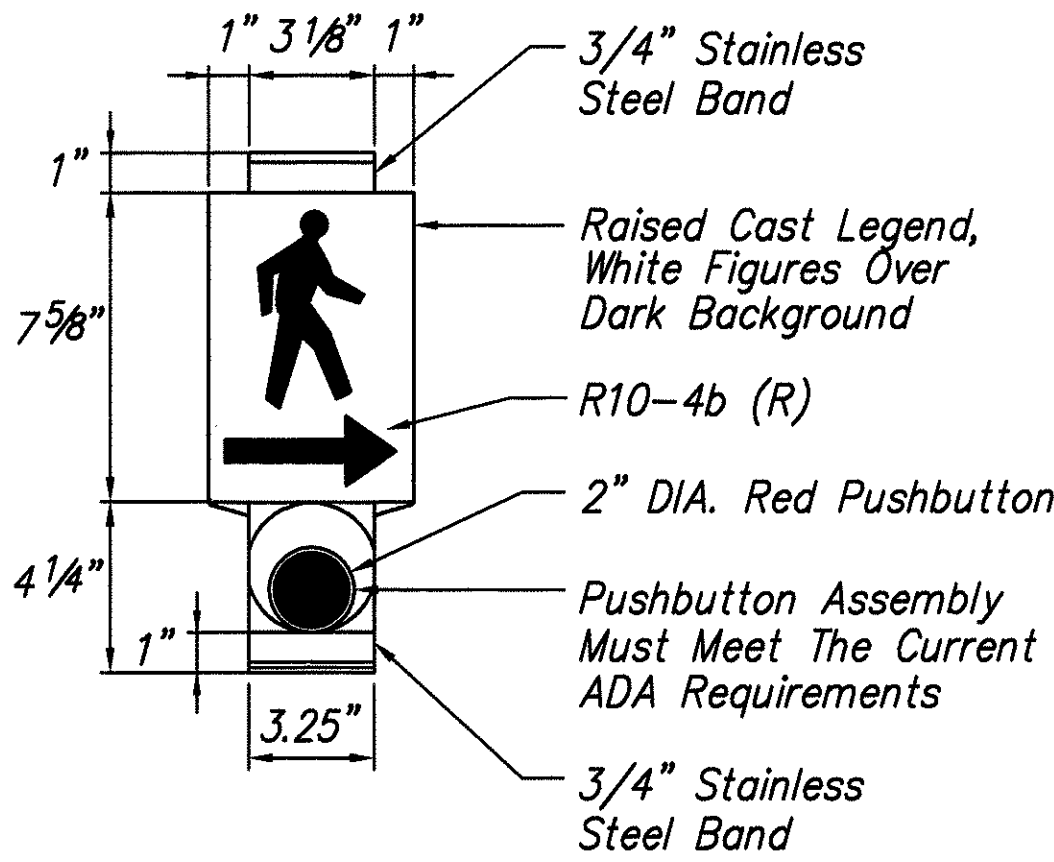
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CMAQ-0300(87)	2003	144	145



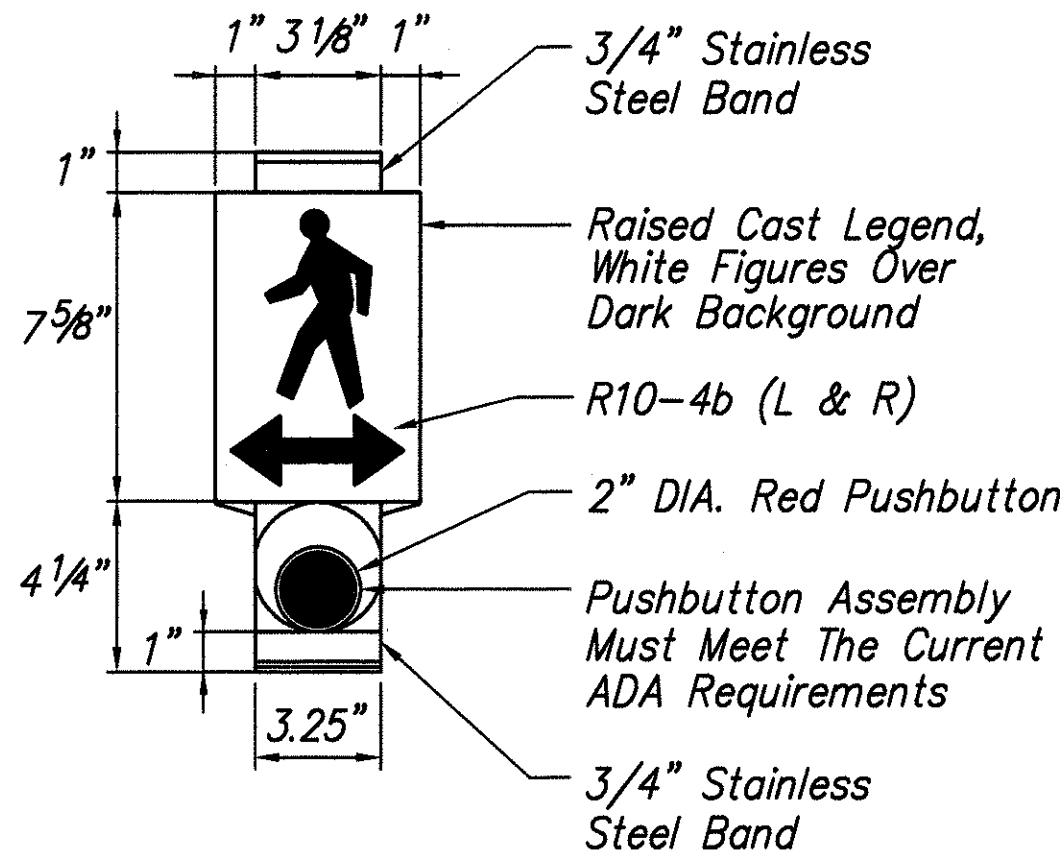
PPB ON TSS



LEFT

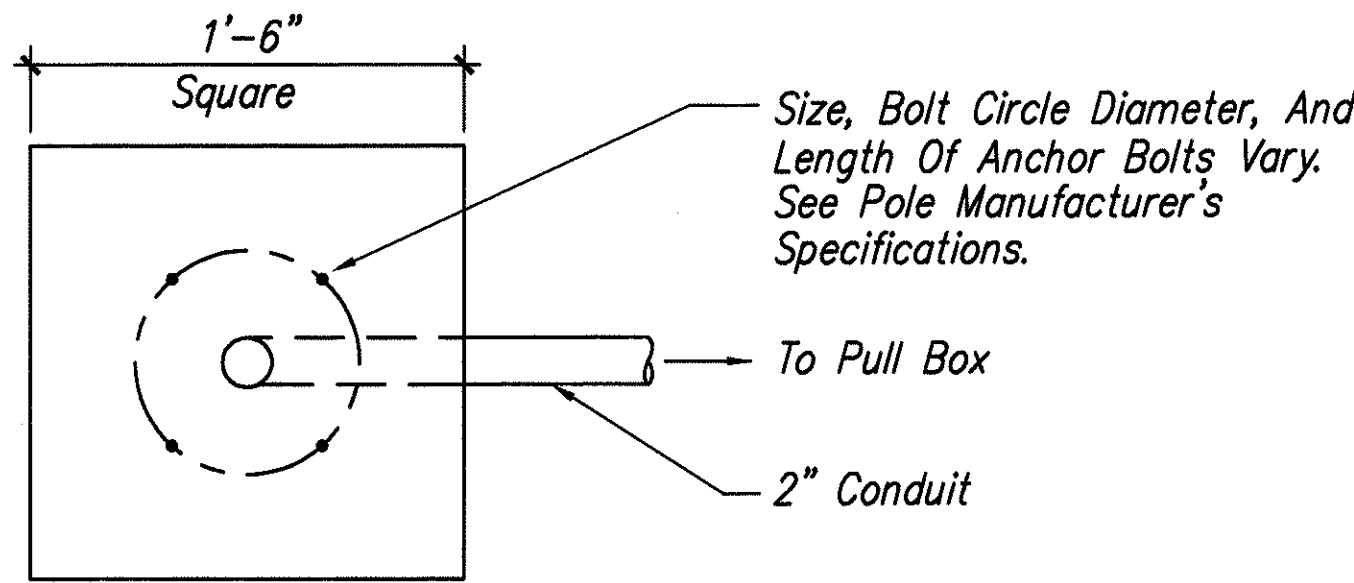


RIGHT

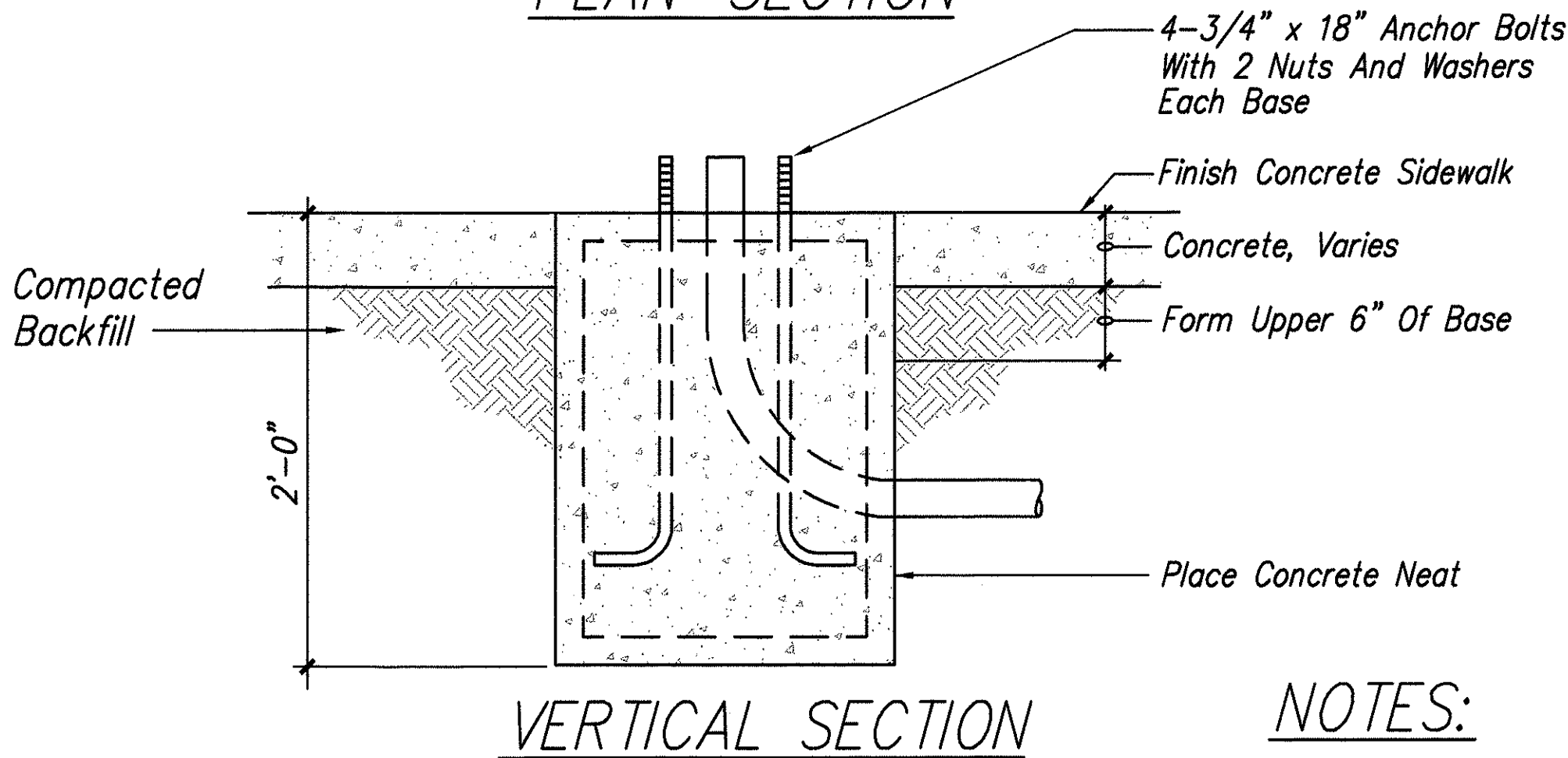


LEFT & RIGHT

1 PEDESTRIAN PUSH BUTTON DETAILS E-7 Not To Scale



PLAN-SECTION

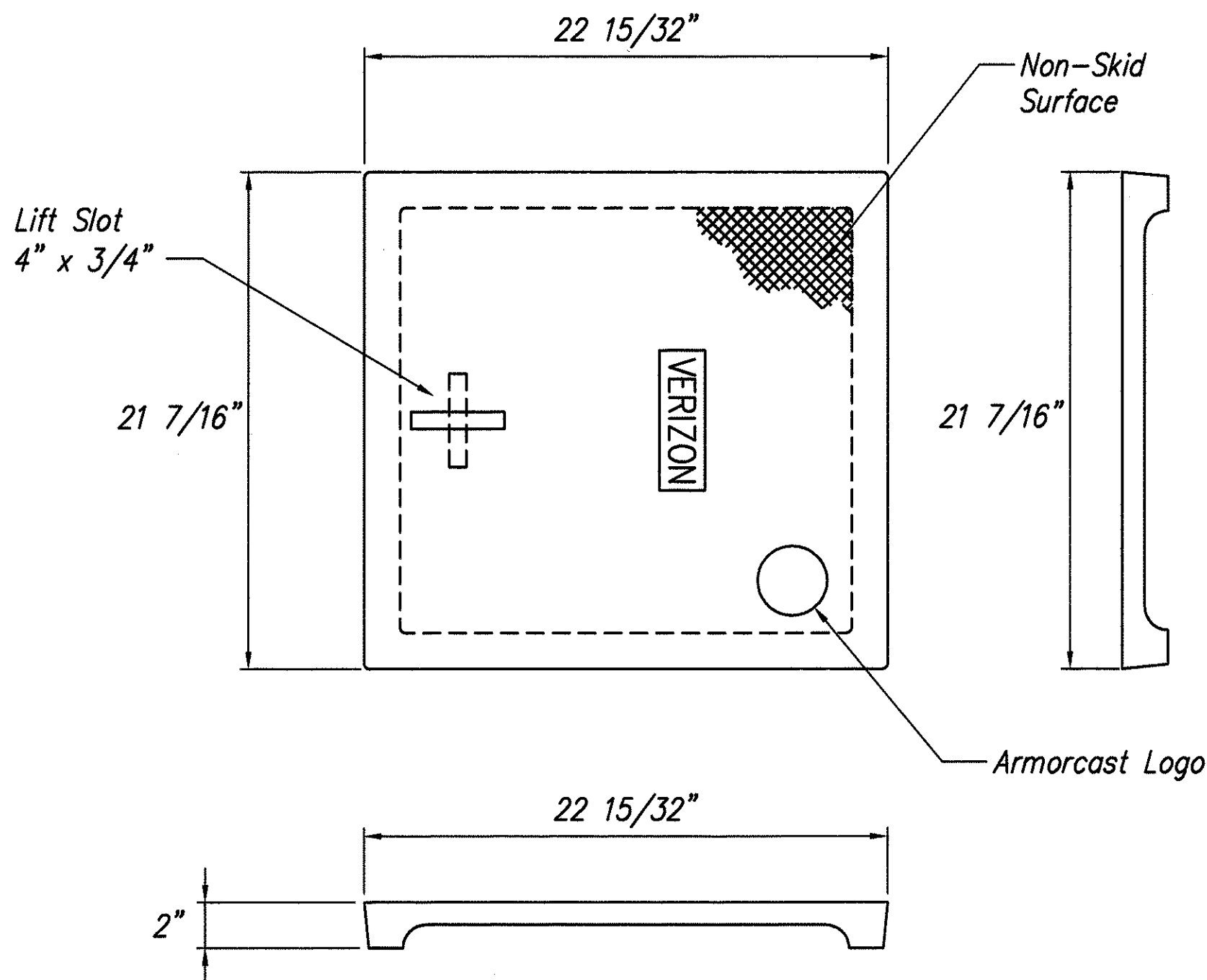


VERTICAL SECTION

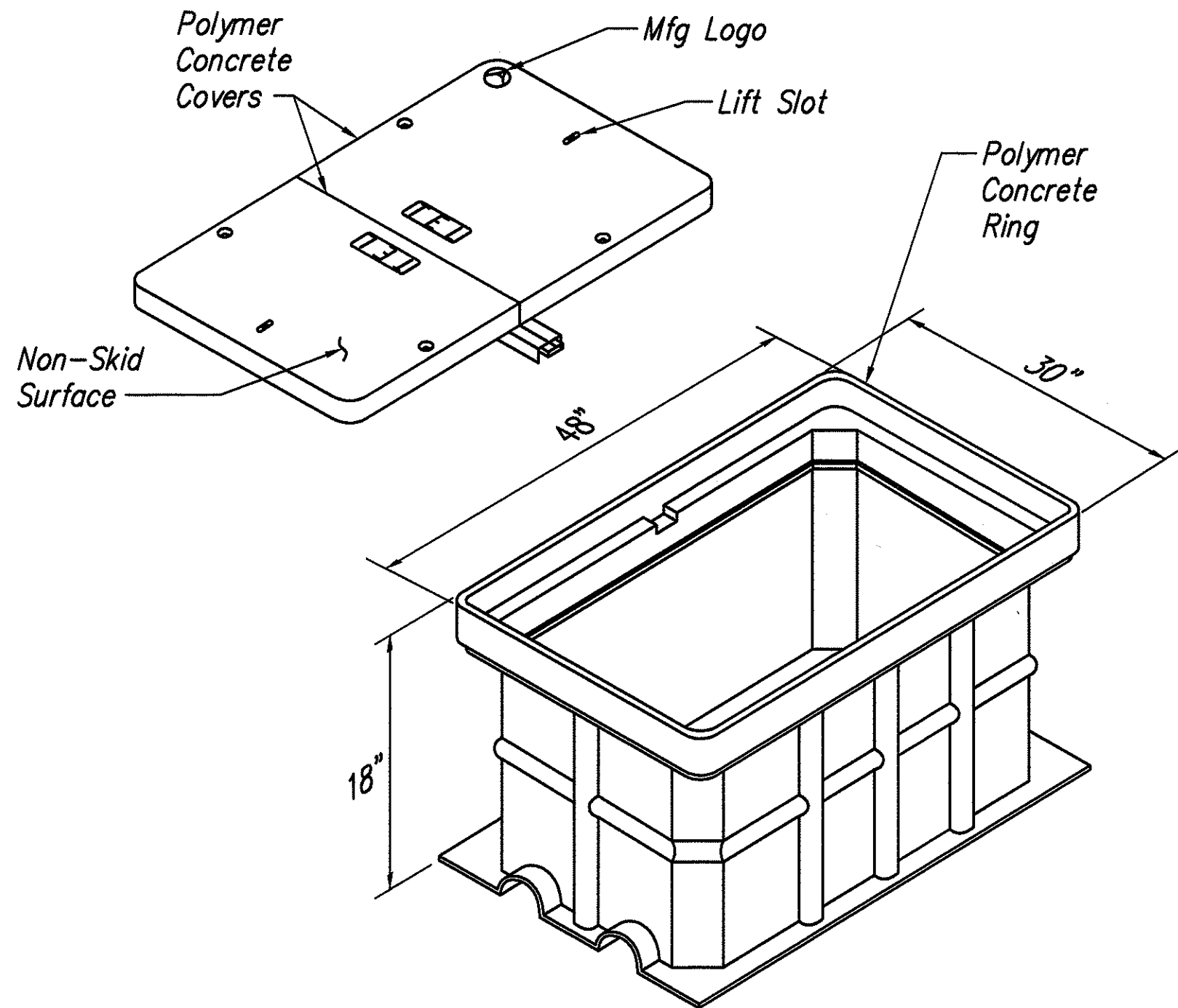
2 TYPE "A" CONCRETE BASE E-7 Not To Scale

NOTES:

- Concrete Shall Be Class "B".
- Type "A" Concrete Base Shall Be Used For Type I-8 & I-10, Traffic Signal Standards.
- Conduit Bend Is Incidental To Concrete Base.



3 VERIZON - HANDHOLE REPLACEMENT COVER E-7 Not To Scale



4 DETAIL - 30" X 48" HANDHOLE E-7 Not To Scale

SURVEY PLOTTED BY	DATE
DRAWN BY	Aug 02
TRACED BY	
NOTES BY	
CHECKED BY	
NO.	

Date	Revision

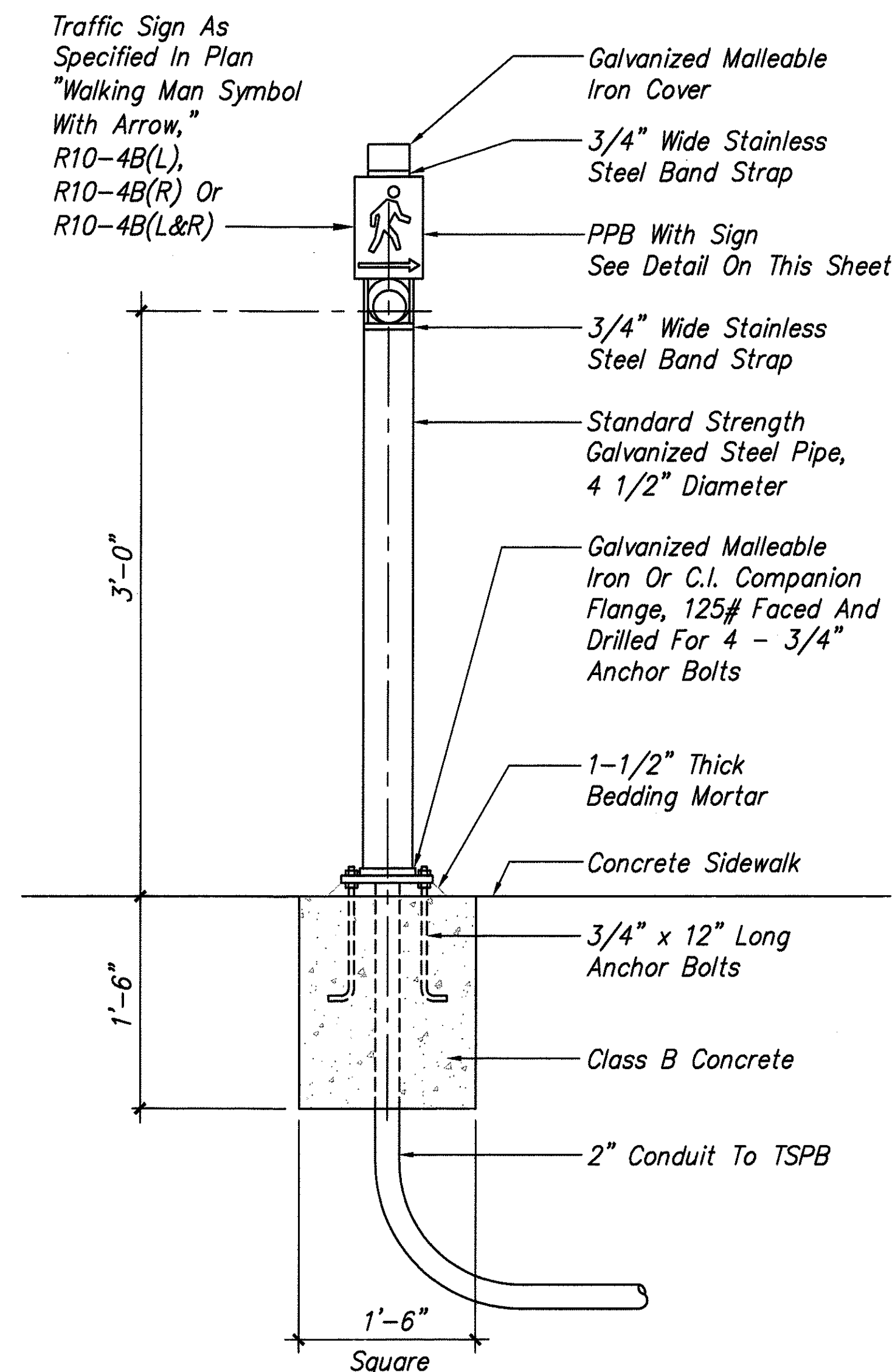


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PROJECT ENGINEER for ECS, Inc.

APRIL 30, 2004
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEDESTRIAN PUSHBUTTON AND TYPE "A" CONC. BASE DETAIL
PEDESTRIAN FACILITIES and ADA COMPLIANCE
At Various Locations On Oahu, Phase II
Federal Aid Project No. CMAQ-0300(87)
Scale: As Noted Date: August, 2002
SHEET No. E-7 OF 8 SHEETS

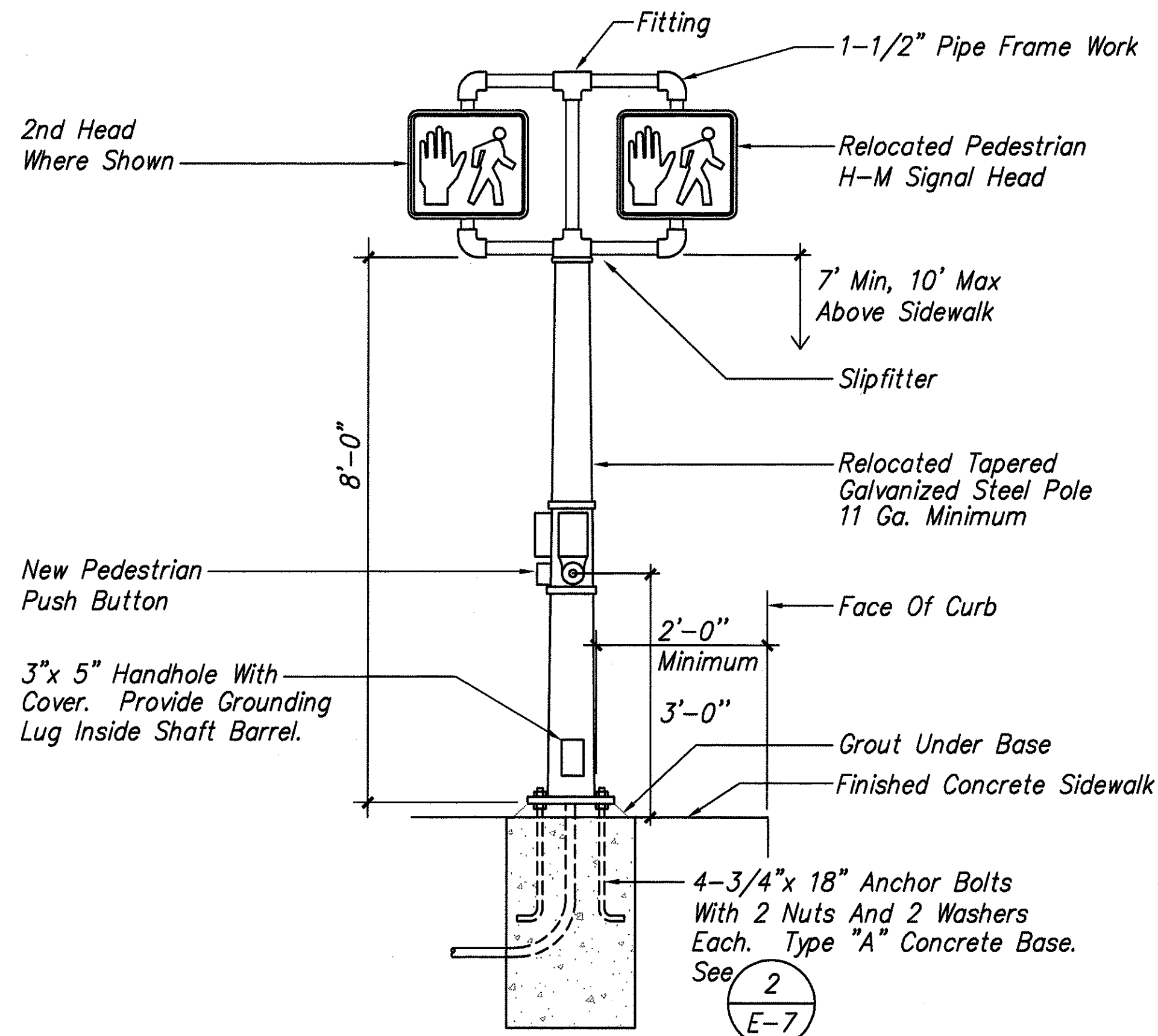


NOTES:

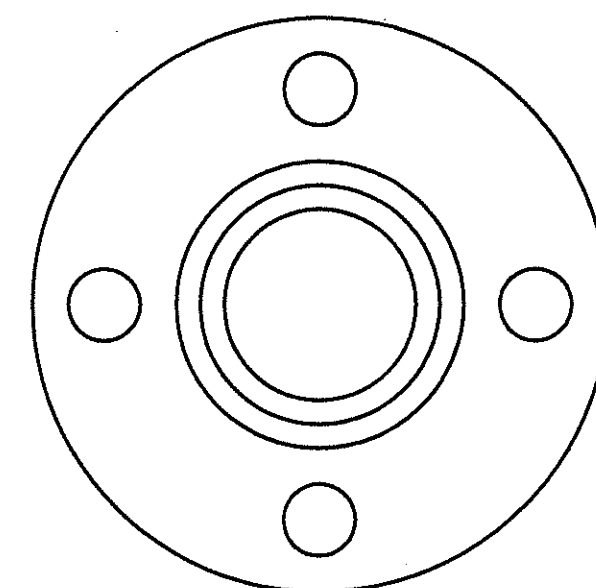
1. Conduits Shall Protrude 2" Max. Above Finished Surface Of Foundation.
2. Conduits Shall Slope Away From Post Foundation.

2 PEDESTRIAN PUSHBUTTON POST AND FOOTING DETAIL
E-8 Not To Scale

Data Table For PPB Post		
Amount of PPB	Dimensions	
	A	B
1 → 2	4 1/2"	9"

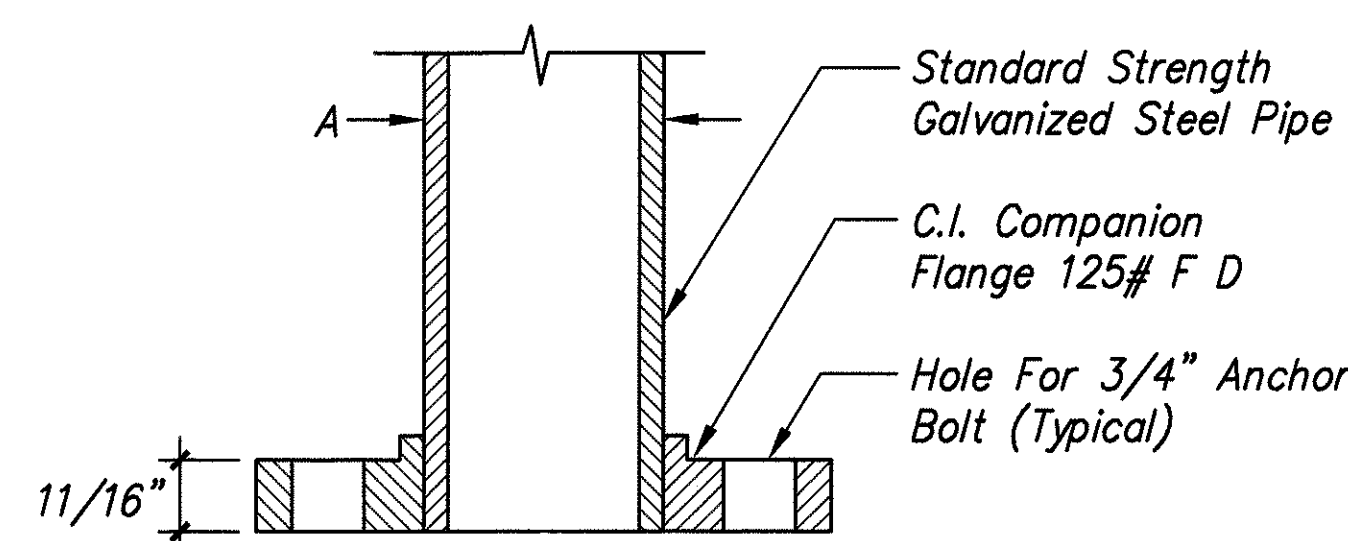


1 PEDESTRIAN PUSH BUTTON POST
E-8 Not to Scale



TOP VIEW

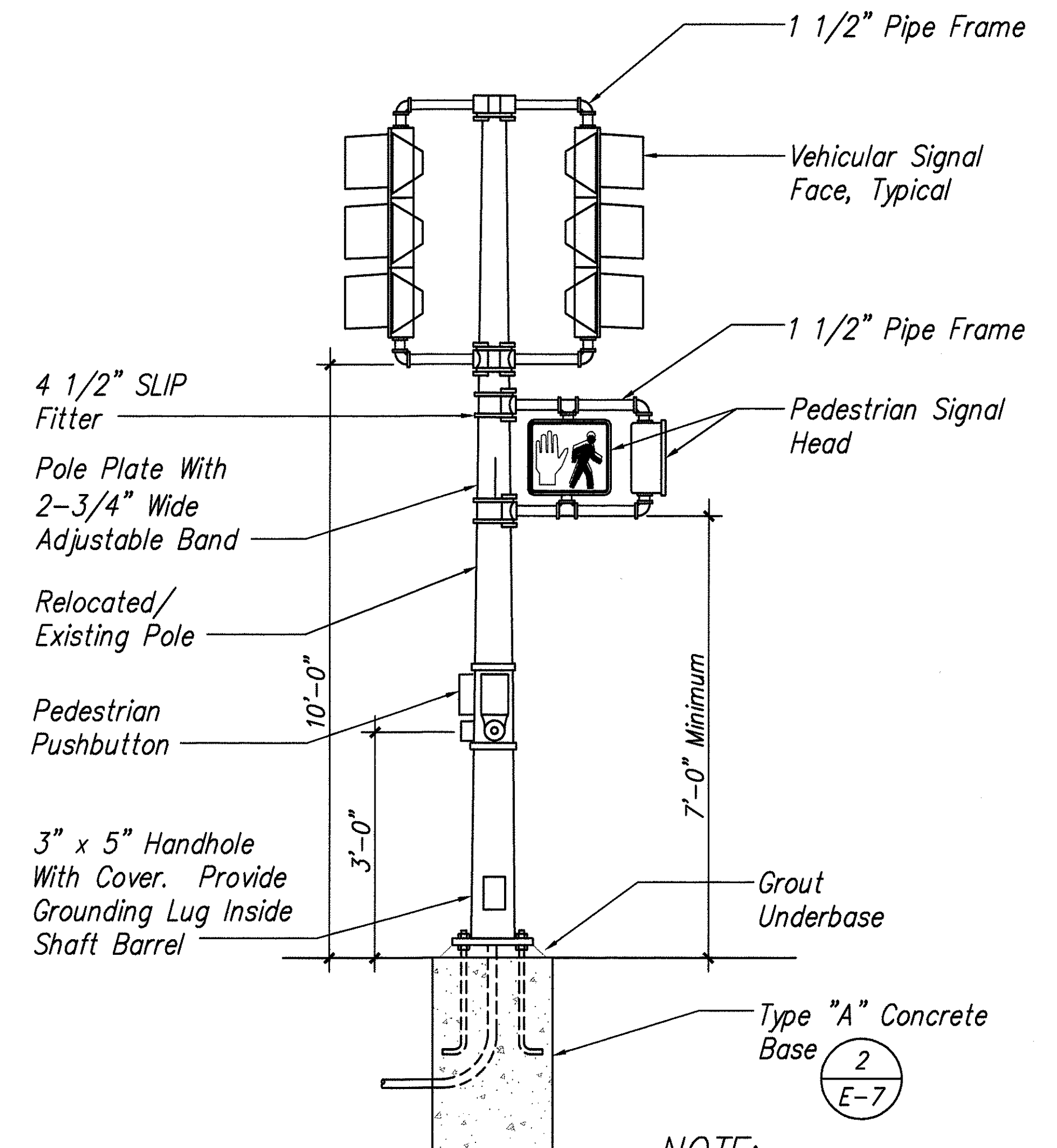
FLANGE DETAIL
Not To Scale



SECTION

NOTES:

1. Standards Shall Be Designed In Accordance With Standard Specifications For Structural Supports For Highway Signs, Luminaires, And Traffic Signals, 4th Edition, 2001.
2. Submit Shop Drawings For Approval. Push Buttons Must Be ADA Complaint.

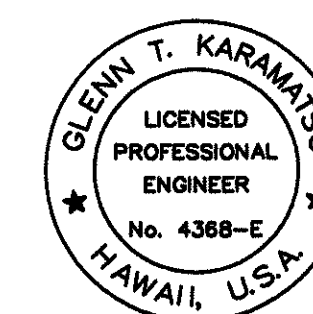


NOTE:

See Plan For Actual Number Of Heads And Pushbutton.

3 TYPE I TSS DETAIL
E-8 Not to Scale

Date	Revision



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Glenn Karamatsu
PROJECT ENGINEER for ECS, Inc.

APRIL 30, 2004
EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
PEDESTRIAN PUSHBUTTON POST AND TYPE I T.S.S. DETAILS
PEDESTRIAN FACILITIES and ADA COMPLIANCE
At Various Locations On Oahu, Phase II
Federal Aid Project No. CMAQ-0300(87)
Scale: As Noted Date: August, 2002
SHEET No. **E-8** OF **8** SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	Aug 02
TRACED BY	u
CHECKED BY	u
QUANTITIES BY	u
CHECKED BY	u
ORIGINAL PLAN	No.
NOTE BOOK	No.