

STATE OF FLORIDA
CITY OF TAMPA

WALK-BIKE LAP PROJECT

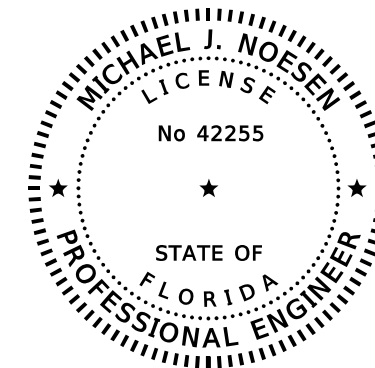
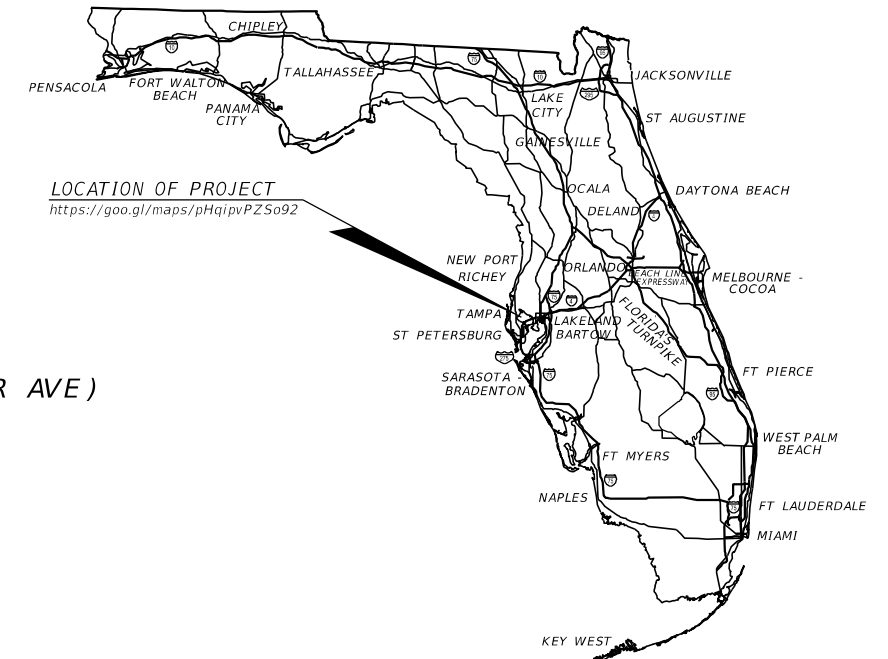
FINANCIAL PROJECT ID 437246-1-58-01

CITY CONTRACT NO. 1001220

HILLSBOROUGH COUNTY

46TH STREET FROM SR 580 (E BUSCH BLVD) TO SR 582 (E FOWLER AVE)

SIGNALIZATION PLANS



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:



ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED TO BE SIGNED AND SEALED
AND THE SIGNATURE MUST BE VERIFIED
ON ANY ELECTRONIC COPIES.

100% SUBMITTAL
SEPTEMBER 23, 2019

**SIGNALIZATION PLANS
ENGINEER OF RECORD:**

MICHAEL J. NOESEN, P.E.
P.E. LICENSE NUMBER 42255
BES INC.
11007 N. 56TH ST., SUITE 208
TEMPLE TERRACE, FL 33617
813-985-7800
CERTIFICATE OF AUTHORIZATION 9835

CITY PROJECT MANAGER:

NINA MABILEAU, E.I.

INDEX OF SIGNALIZATION PLANS

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T-3	GENERAL NOTES
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T-10, T-11	GUIDESIGN WORKSHEET
T-12	SIGN BRACKET ARM - ONE WAY
T-13	SIGN BRACKET ARM - SIGN PANEL DETAIL

FISCAL YEAR	SHEET NO.
21	T-1

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TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			T-4		T-5		T-6		T-7		T-8		T-9		PLAN	FINAL	PLAN	FINAL	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL					
630-2-11	CONDUIT, F& I, OPEN TRENCH	LF	60												60		60		
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	LF	230												230		230		
632-7-1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1												1		1		
632-7-6	SIGNAL CABLE, REMOVE - INTERSECTION	PI	1												1		1		
635-2-12	PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE	EA	10												10		10		
646-1-11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	3												3		3		
653-1-11	PED. SIGNAL, F&I, LED-COUNTDOWN, 1 WAY	AS	2												2		2		
653-1-12	PED. SIGNAL, F&I, LED-COUNTDOWN, 2 WAY	AS	1												1		1		
653-1-60	PED. SIGNAL, REMOVE PED SIGNAL - POLE/PEDESTAL TO REMAIN	AS	2												2		2		
654-2-22	RECTANGULAR RAPID FLASHING BEACON, F&I, SOLAR POWERED, COMPLETE SIGN ASSEMBLY, BACK TO BACK	AS			2		2		2		2		2		10		10		
660-1-103	LOOP DETECTOR, INDUCTIVE, F&I, TYPE 3	EA	4												4		4		
660-2-101	LOOP ASSEMBLY- F&I, TYPE A	AS	4												4		4		
660-2-106	LOOP ASSEMBLY- F&I, TYPE F	AS	4												4		4		
665-1-12	PEDESTRIAN DETECTOR, F&I, ACCESSIBLE	EA	4												4		4		
665-1-60	PEDESTRIAN DETECTOR, REMOVE - POLE/PEDESTAL TO REMAIN	EA	2												2		2		
670-5-110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	1												1		1		
670-5-600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1												1		1		
700-5-22	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12-18 SF	EA	6												6		6		

<table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS				DATE	DESCRIPTION	DATE	DESCRIPTION					BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 (813) 985-7800 CERTIFICATE OF AUTHORIZATION NO. 9835 MICHAEL J. NOESEN LICENSE NO. 42255			CITY OF TAMPA TRANSPORTATION DEPARTMENT <table border="1"> <tr> <th>CITY PROJECT NO.</th> <th>COUNTY</th> <th>FINANCIAL PROJECT ID</th> </tr> <tr> <td>1001220</td> <td>HILLSBOROUGH</td> <td>437246-1-58-01</td> </tr> </table>			CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	1001220	HILLSBOROUGH	437246-1-58-01	<h2>TABULATION OF QUANTITIES</h2>				SHEET NO. T-2
REVISIONS																																
DATE	DESCRIPTION	DATE	DESCRIPTION																													
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SIGNALIZATION NOTES:

1. ONE WEEK PRIOR TO THE START OF THE TRAFFIC SIGNAL INSTALLATION, CONTACT:

CITY TRAFFIC MANAGEMENT CENTER (TMC) - MR. BRIAN PASZKO
CITY OF TAMPA
1104 E TWIGGS ST
SUITE 200
TAMPA, FLORIDA 33602
PHONE: (813)-393-8439
EMAIL: Brian.Paszko@Tampagov.net

2. UNLESS OTHERWISE NOTED, ALL REMOVED EQUIPMENT SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY HIM.

3. FLASH TIMES FOR EACH RRFB IS CALCULATED BY THE DISTANCE FROM THE DETECTOR TO THE FAR CURB DIVIDED BY 3.0 FT/SEC WALKING SPEED ROUNDED UP TO THE NEAREST SECOND, PLUS 7 SECONDS.

4. W11-02 AND W16-7P SIGNS SHALL BE FLUORESCENT YELLOW GREEN COLOR.

PAY ITEM NOTES:

1. 630-2-11

TWO SEPARATE UNDERGROUND CONDUIT RUNS LOCATED 180 DEGREES APART ARE REQUIRED FOR MAST ARMS. INSTALL A MINIMUM OF TWO RUNS OF TWO INCH CONDUIT BETWEEN THE LAST LOW VOLTAGE (LOOPS) PULL BOX LOCATED NEAR THE CONTROLLER CABINET AND THE CONTROLLER CABINET.

2. 632-7-1:

WIRE EACH PHASE/MOVEMENT FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE/MOVEMENT. THIS INCLUDES THE LEFT TURN MOVEMENT WHICH HAVE CONDUCTORS AVAILABLE FOR EITHER PROTECTED OR PERMISSIVE MOVEMENTS. VERIFY COLOR CODES FOR SIGNAL CABLE AND INTERCONNECT CABLE WITH THE CITY OF TAMPA TRAFFIC SIGNAL SUPERVISOR BEFORE ORDERING, AND WIRE THE SIGNAL IN ACCORDANCE WITH THAT COLOR CODE AND F.D.O.T. SPECIFICATIONS. INSTALL ONE NEUTRAL PER APPROACH.

3. 635-2-12: PULL BOXES SHALL BE 17" X 30". ANY PULL BOXES THAT REMAIN AFTER THE CONSTRUCTION OF THE PROJECT BUT NO LONGER NEEDED FOR THE TRAFFIC OPERATION ARE TO BE REMOVED.

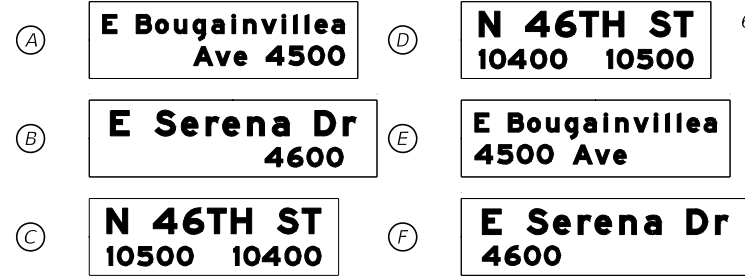
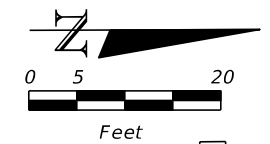
4. 665-1-11:

COORDINATE WITH THE CITY OF TAMPA SIGNAL SHOP FOR ACCEPTABLE CHOICES OF PEDESTRIAN DETECTORS AND OPERATIONS.

5. 670-5-110:

NOTIFY THE CITY OF TAMPA SIGNAL SHOP AND FDOT DISTRICT SEVEN TRAFFIC OPERATIONS AT LEAST 48 HOURS IN ADVANCE OF TURNING ON A NEW OR MODIFIED CONTROLLER CABINET ASSEMBLY.

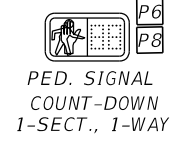
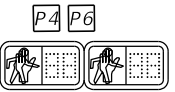
REVISIONS				BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 (813) 985-7800 CERTIFICATE OF AUTHORIZATION NO. 9835 MICHAEL J. NOESEN LICENSE NO. 42255	CITY OF TAMPA TRANSPORTATION DEPARTMENT			GENERAL NOTES	SHEET NO. T-3
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
					1001220	HILLSBOROUGH	437246-1-58-01		



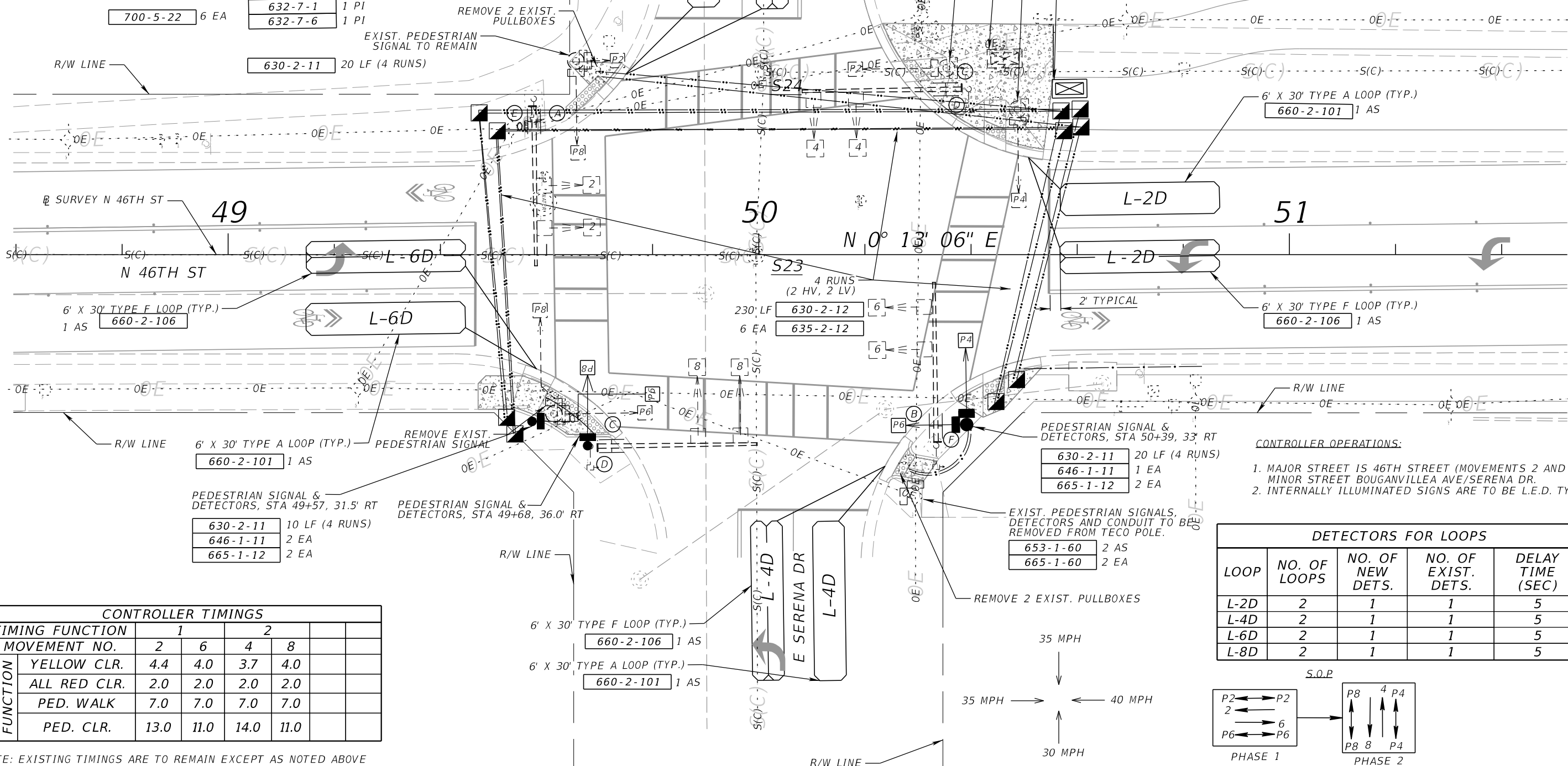
700-5-22	6 EA	632-7-1	1 PI
		632-7-6	1 PI

630-2-11	20 LF (4 RUNS)
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630-2-11	10 LF (4 RUNS)
635-2-12	4 EA
660-1-103	4 EA
670-5-110	1 AS
670-5-600	1 AS



653-1-11	2 AS
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PEDESTRIAN SIGNAL & DETECTORS, STA 49+57, 31.5' RT

630-2-11	10 LF (4 RUNS)
646-1-11	2 EA
665-1-12	2 EA

PEDESTRIAN SIGNAL & DETECTORS, STA 49+68, 36.0' RT

PEDESTRIAN SIGNAL & DETECTORS, STA 50+39, 33' RT

630-2-11	20 LF (4 RUNS)
646-1-11	1 EA
665-1-12	2 EA

CONTROLLER OPERATIONS:

1. MAJOR STREET IS 46TH STREET (MOVEMENTS 2 AND 6), MINOR STREET BOUGAINVILLEA AVE/SERENA DR.
2. INTERNALLY ILLUMINATED SIGNS ARE TO BE L.E.D. TYPE

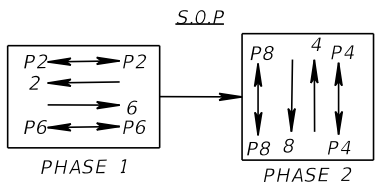
DETECTORS FOR LOOPS

LOOP	NO. OF LOOPS	NO. OF NEW DETS.	NO. OF EXIST. DETS.	DELAY TIME (SEC)
L-2D	2	1	1	5
L-4D	2	1	1	5
L-6D	2	1	1	5
L-8D	2	1	1	5

CONTROLLER TIMINGS

TIMING FUNCTION	1	2		
MOVEMENT NO.	2	6	4	8
YELLOW CLR.	4.4	4.0	3.7	4.0
ALL RED CLR.	2.0	2.0	2.0	2.0
PED. WALK	7.0	7.0	7.0	7.0
PED. CLR.	13.0	11.0	14.0	11.0

NOTE: EXISTING TIMINGS ARE TO REMAIN EXCEPT AS NOTED ABOVE



REVISIONS			
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BES INC.
11007 N. 56TH ST., #208
TEMPLE TERRACE, FL 33617
(813) 985-7800
CERTIFICATE OF AUTHORIZATION NO. 9835
MICHAEL J. NOESEN
LICENSE NO. 42255

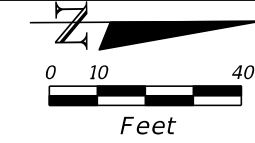
**CITY OF TAMPA
TRANSPORTATION DEPARTMENT**

CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001220	HILLSBOROUGH	437246-1-58-01

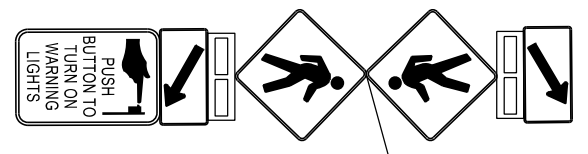
SIGNALIZATION PLAN

SHEET NO.
T-4

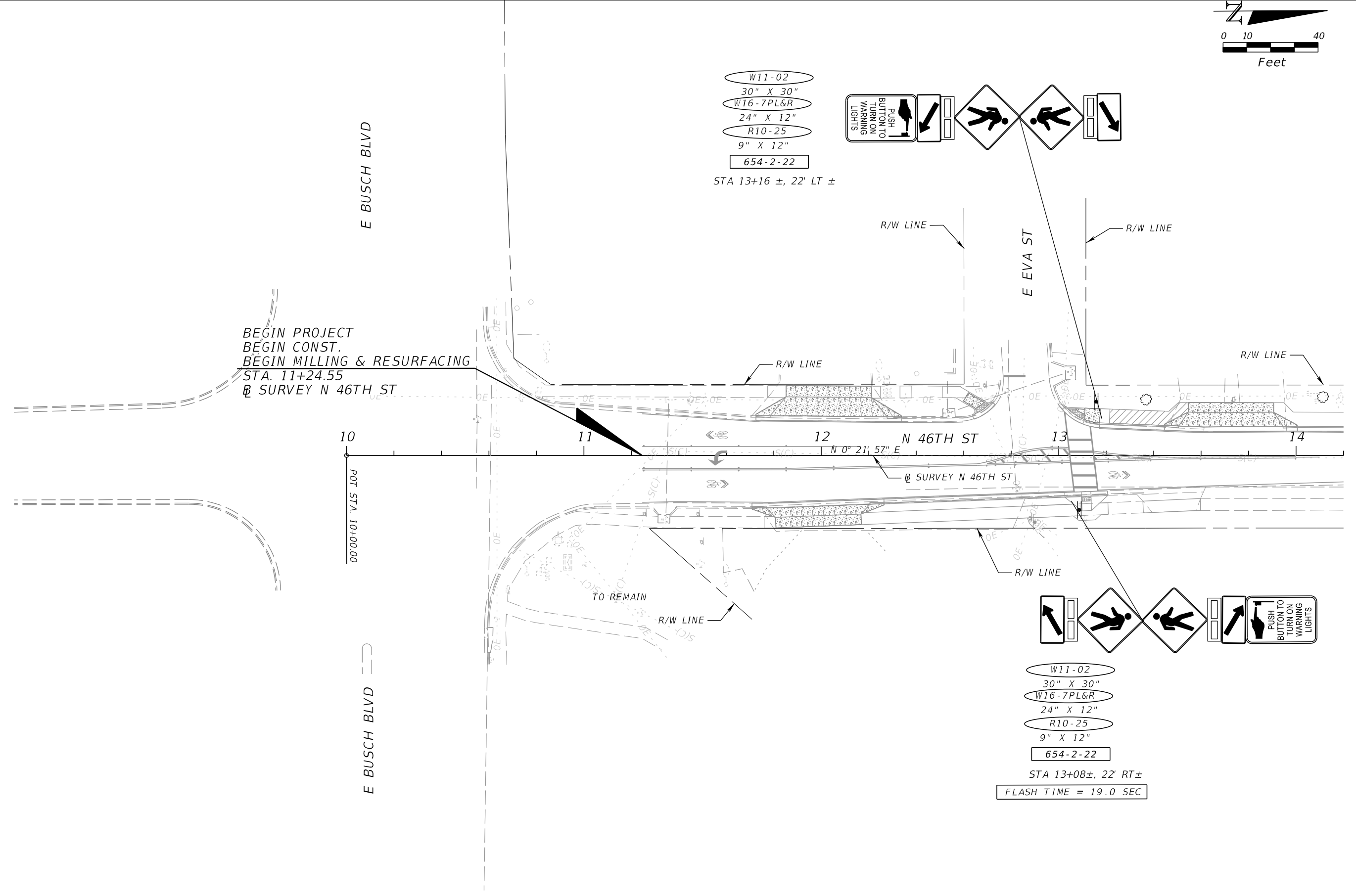
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W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 13+16 ±, 22' LT ±



BEGIN PROJECT
 BEGIN CONST.
 BEGIN MILLING & RESURFACING
 STA. 11+24.55
 @ SURVEY N 46TH ST



W11-02
 30" X 30"
 W16-7PL&R
 24" X 12"
 R10-25
 9" X 12"
 654-2-22
 STA 13+08±, 22' RT±
 FLASH TIME = 19.0 SEC



REVISIONS			
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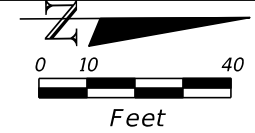
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CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
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RRFB PLAN (1)
EAST EVA STREET

SHEET NO.
 T-5

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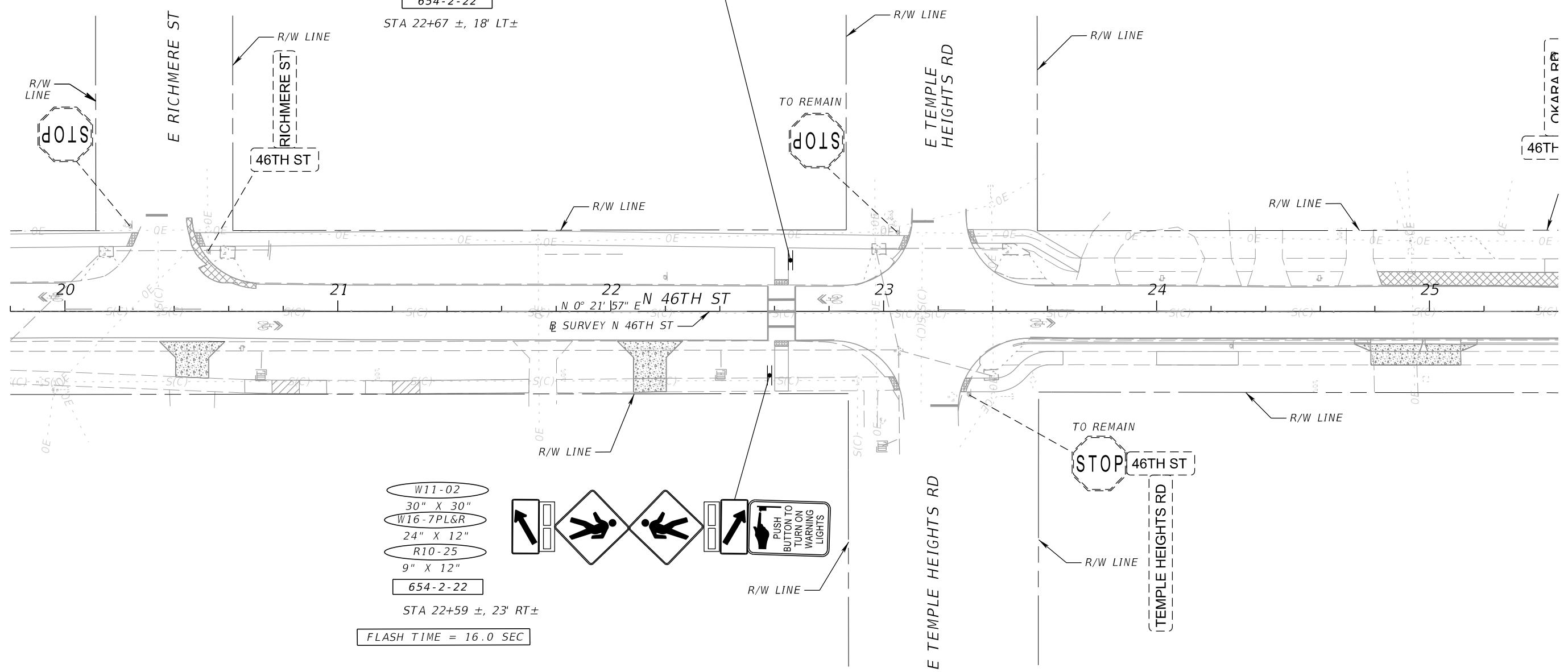
- W11-02
30" X 30"
- W16-7PL&R
24" X 12"
- R10-25
9" X 12"
- 654-2-22

STA 22+67 ±, 18' LT±

- W11-02
30" X 30"
- W16-7PL&R
24" X 12"
- R10-25
9" X 12"
- 654-2-22

STA 22+59 ±, 23' RT±

FLASH TIME = 16.0 SEC



REVISIONS			
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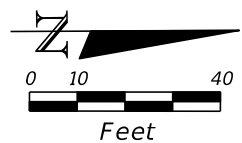
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RRFB (2)
EAST TEMPLE HEIGHTS RD

SHEET NO.
T-6

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- W11-02
30" X 30"
- W16-7PL&R
24" X 12"
- R10-25
9" X 12"
- 654-2-22

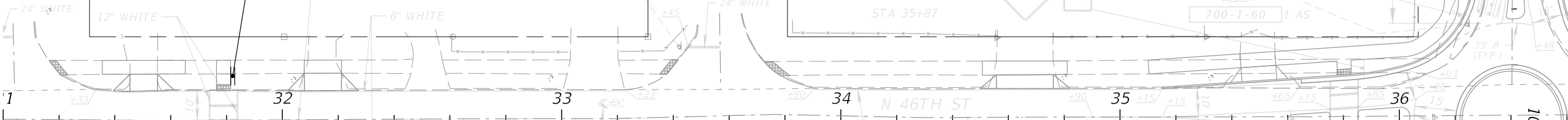
STA 31+82 ±, 15' LT±

E 98TH AVE

99TH AVE
TO REMAIN
46TH ST STOP

E 99TH AVE

END SIGNING AND PAVEMENT MARKING
STA. 103+74.98
B SURVEY E LINEBAUGH AVE
MATCH EXIST. MARKINGS



E 98TH AVE

TO REMAIN
46TH ST STOP

LINEBAUGH AVE
700-1-60 1 AS

6" YELLOW
10/30 SKIP
W/BDY RPM'S @ 40"

R4-7C
18" X 30"
700-1-11 1 AS
STA 35+62

W11-02
36" X 36"
W16-7PL
30" X 18"
700-1-12 1 AS
STA 35+74

R1-02
48" X 48"
700-1-11 1 AS
STA 36+04

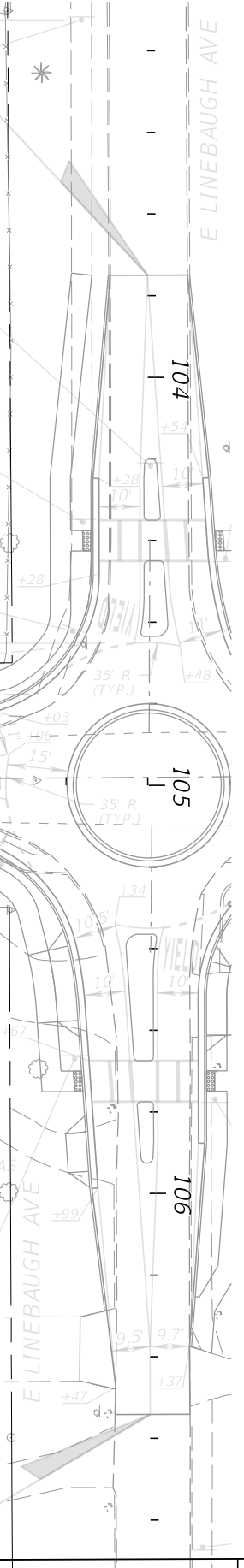
- W11-02
30" X 30"
- W16-7PL&R
24" X 12"
- R10-25
9" X 12"
- 654-2-22

STA 31+75 ±, 20' RT±

FLASH TIME = 17.0 SEC

W11-02
36" X 36"
W16-7PL
30" X 18"
700-1-12 1 AS
STA 36+22

END SIGNING AND PAVEMENT MARKING
STA. 106+54.15
B SURVEY E LINEBAUGH AVE
MATCH EXIST. MARKINGS



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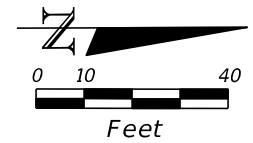
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MICHAEL J. NOESEN
LICENSE NO. 42255

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
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RRFB (3)
E 98TH AVE

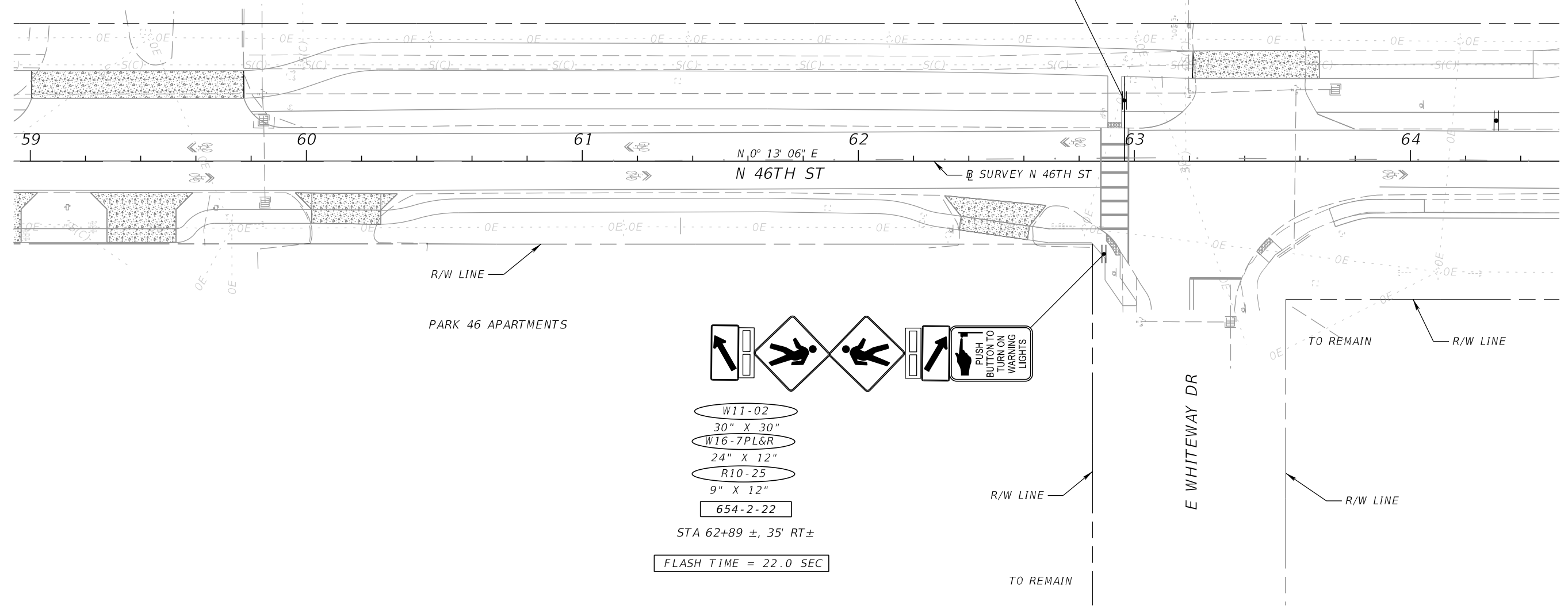
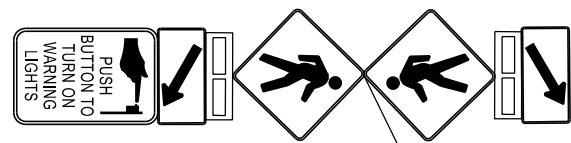
SHEET NO.
T-7

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- W11-02
30" X 30"
- W16-7PL&R
24" X 12"
- R10-25
9" X 12"
- 654-2-22

STA 62+97 ±, 22' LT±



- W11-02
30" X 30"
- W16-7PL&R
24" X 12"
- R10-25
9" X 12"
- 654-2-22

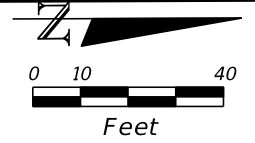
STA 62+89 ±, 35' RT±

FLASH TIME = 22.0 SEC

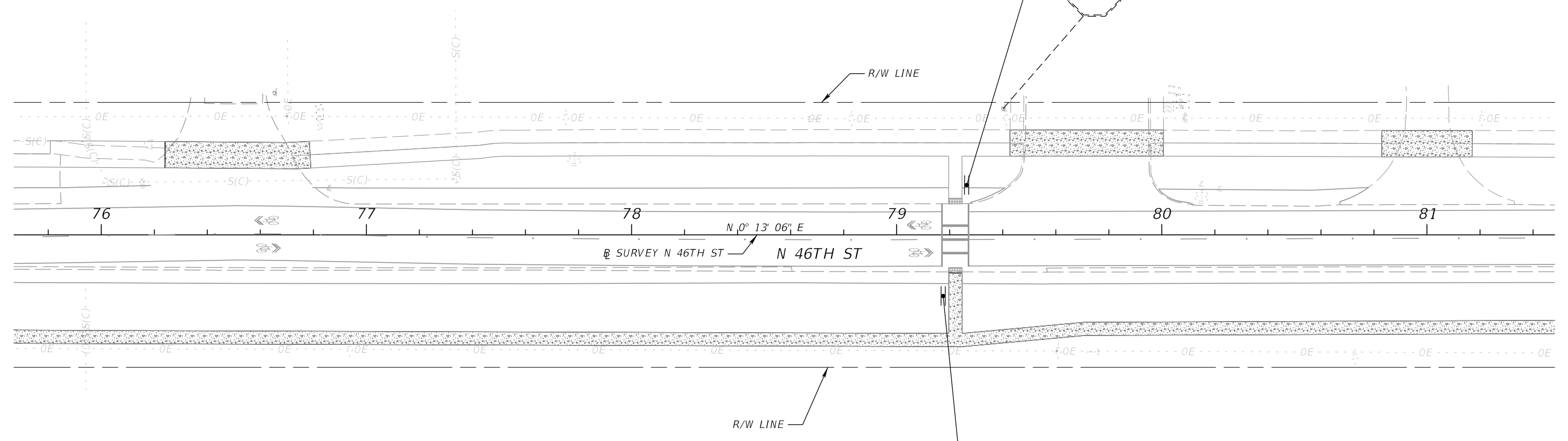
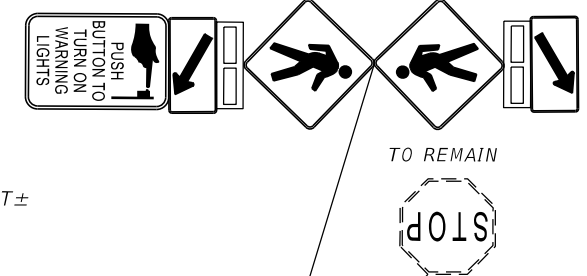


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DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
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- W11-02
30" X 30"
 - W16-7PL&R
24" X 12"
 - R10-25
9" X 12"
 - 654-2-22
- STA 79+26 ±, 20' LT±



- W11-02
30" X 30"
 - W16-7PL&R
24" X 12"
 - R10-25
9" X 12"
 - 654-2-22
- STA 79+18 ±, 23' RT±
FLASH TIME = 19.0 SEC



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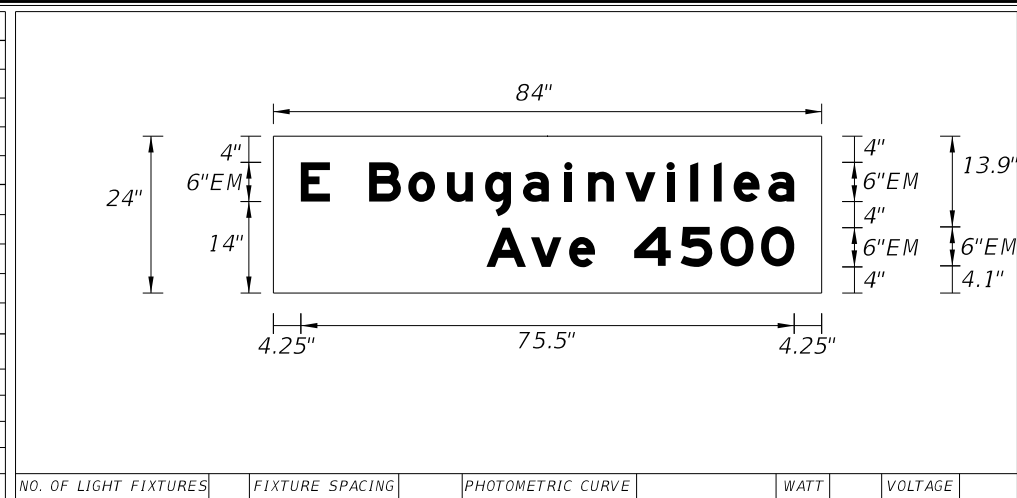
CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID
1001220	HILLSBOROUGH	437246-1-58-01

RRFB PLAN (5)
THE RETREAT APARTMENTS

SHEET NO.
T-9

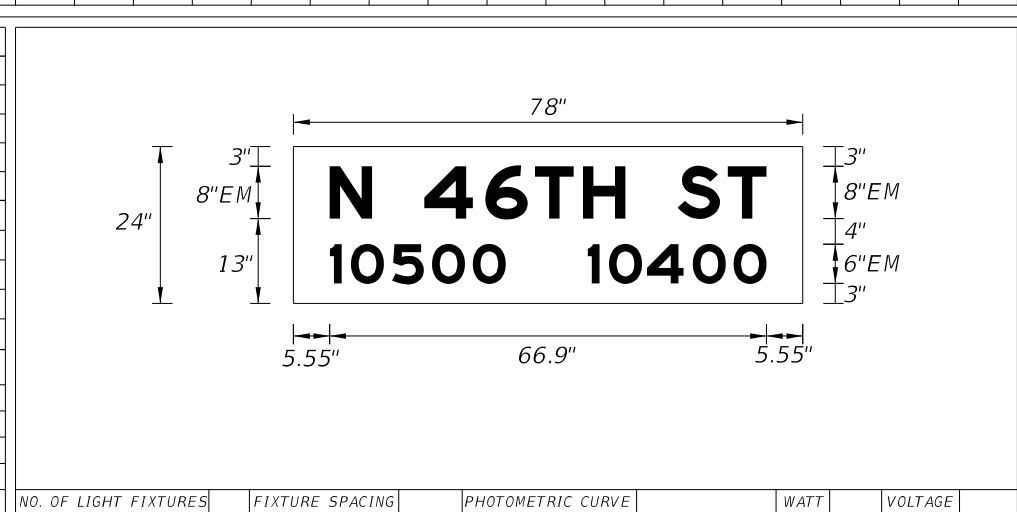
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SIGN NAME A		QTY	SIGN NUMBER	STATION(S)	
PANEL		BORDER		none	
WIDTH 7'-0"	WIDTH 0"				
HEIGHT 2'-0"	RADII 0"				
LEGEND White	COLOR Green				
COLOR Green					
SYMBOL(S)	ANGLE	X	Y	WID	HT
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH	



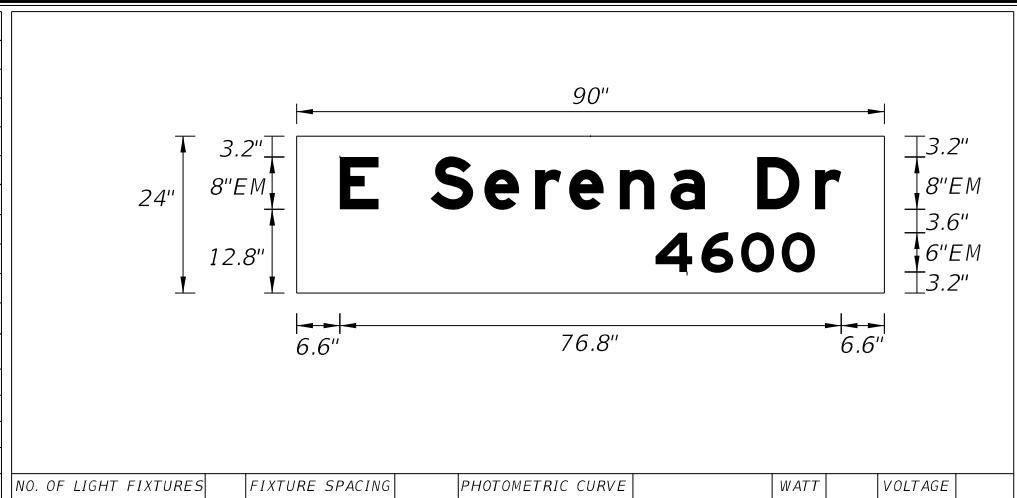
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COPY	A	v	e	L														
SPACE	32.6	6.8	5.8	4	34.7	16.6												
COPY	4	5	0	0	L													
SPACE	55.3	7.1	6.1	6.2	5	4.2	24.5											
COPY																		
SPACE																		
COPY																		
SPACE																		
COPY																		
SPACE																		

SIGN NAME C		QTY	SIGN NUMBER	STATION(S)	
PANEL		BORDER		none	
WIDTH 6'-6"	WIDTH 0"				
HEIGHT 2'-0"	RADII 0"				
LEGEND White	COLOR Green				
COLOR Green					
SYMBOL(S)	ANGLE	X	Y	WID	HT
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH	



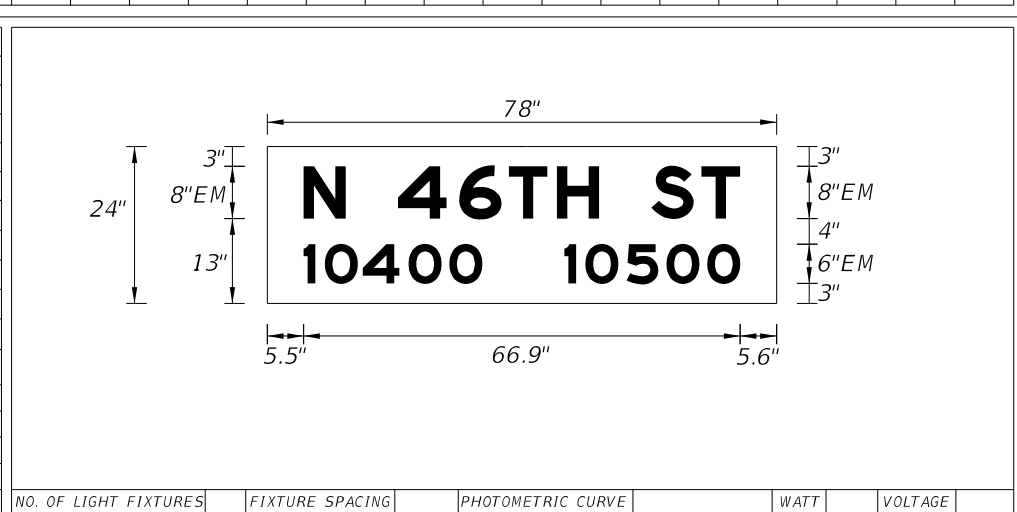
COPY	N	4	6	T	H	S	T	L										
SPACE	5.5	6.5	8	9.4	7.6	7.4	6.5	8	7.7	5.9	5.6	66.9						
COPY	1	0	5	0	0	L												
SPACE	5.6	3.2	6.3	6.1	6.2	5	45.5	26.9										
COPY	1	0	4	0	0	L												
SPACE	45.1	3.2	5.8	7	6.2	5	5.5	27.4										
COPY																		
SPACE																		
COPY																		
SPACE																		

SIGN NAME B		QTY	SIGN NUMBER	STATION(S)	
PANEL		BORDER		none	
WIDTH 7'-6"	WIDTH 0"				
HEIGHT 2'-0"	RADII 0"				
LEGEND White	COLOR Black				
COLOR Black					
SYMBOL(S)	ANGLE	X	Y	WID	HT
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH	



COPY	E	S	e	r	e	n	a	D	r	L								
SPACE	6.6	5.9	8	8.2	7.8	5.2	7.8	7.8	5.3	8	8.9	4	6.6	76.8				
COPY	4	6	0	0	L													
SPACE	55	7	6.1	6.2	5	10.7	24.4											
COPY																		
SPACE																		
COPY																		
SPACE																		
COPY																		
SPACE																		
COPY																		
SPACE																		

SIGN NAME D		QTY	SIGN NUMBER	STATION(S)	
PANEL		BORDER		none	
WIDTH 6'-6"	WIDTH 0"				
HEIGHT 2'-0"	RADII 0"				
LEGEND White	COLOR Green				
COLOR Green					
SYMBOL(S)	ANGLE	X	Y	WID	HT
SIGN NUMBER	NUMBER OF POSTS	CLEARANCE Edge Of Land	COLUMN SIZE	AVERAGE LENGTH	

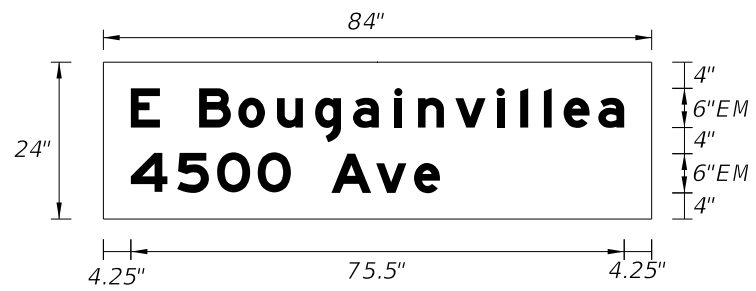


COPY	N	4	6	T	H	S	T	L										
SPACE	5.5	20	29.4	37	44.3	58.8	66.5	66.9										
COPY	1	0	4	0	0	L												
SPACE	5.6	8.8	14.6	21.7	27.9	27.4												
COPY	1	0	5	0	0	L												
SPACE	45.1	48.3	54.6	60.8	67	26.9												
COPY																		
SPACE																		
COPY																		
SPACE																		

REVISIONS			BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 (813) 985-7800 CERTIFICATE OF AUTHORIZATION NO. 9835 MICHAEL J. NOESEN LICENSE NO. 42255		CITY OF TAMPA TRANSPORTATION DEPARTMENT CITY PROJECT NO. COUNTY FINANCIAL PROJECT ID 1001220 HILLSBOROUGH 437246-1-58-01			GUIDESIGN WORKSHEET (1)		SHEET NO. T-10
DATE	DESCRIPTION	DATE	DESCRIPTION							

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SIGN NAME	E	QTY		SIGN NUMBER		STATION(S)	
PANEL		BORDER				none	
WIDTH	7'-0"	WIDTH	0"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	Green				
COLOR	Green						
SYMBOL(S)		ANGLE	X	Y	WID	HT	
SIGN NUMBER		NUMBER OF POSTS		CLEARANCE Edge Of Land		COLUMN SIZE	AVERAGE LENGTH



NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
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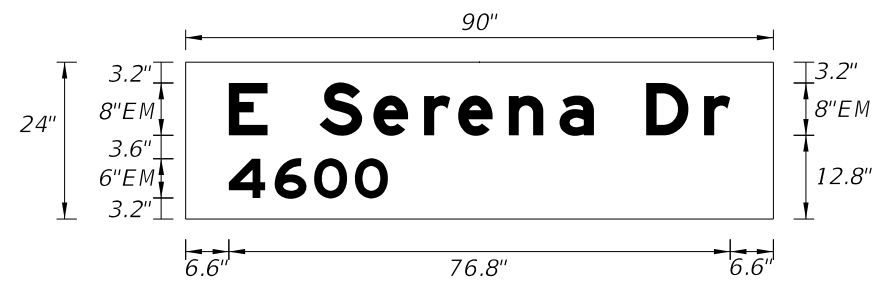
COPY		E		B	o	u	g	a	i	n	v	i	l	l	e	a	L				
SPACE	4.2	4.4	6	6	5.9	5.8	5.8	6.4	3.6	5.7	6.4	3.6	3.6	3.1	5.3	4	4.2	75.5			
COPY		4		5		0		0		L											
SPACE	4.2	7.1	6.1	6.2	5	55.3	24.5														
COPY		A		v		e		L													
SPACE	34.9	6.8	5.8	4	32.4	16.6															
COPY																					
SPACE																					
COPY																					
SPACE																					
COPY																					
SPACE																					

SIGN NAME		QTY		SIGN NUMBER		STATION(S)	
PANEL		BORDER					
WIDTH		WIDTH					
HEIGHT		RADII					
LEGEND		COLOR					
COLOR							
SYMBOL(S)		ANGLE	X	Y	WID	HT	
SIGN NUMBER		NUMBER OF POSTS		CLEARANCE Edge Of Land		COLUMN SIZE	AVERAGE LENGTH

NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
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COPY																					
SPACE																					
COPY																					
SPACE																					
COPY																					
SPACE																					
COPY																					
SPACE																					
COPY																					
SPACE																					

SIGN NAME	F	QTY		SIGN NUMBER		STATION(S)	
PANEL		BORDER				none	
WIDTH	7'-6"	WIDTH	0"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	Black				
COLOR	Black						
SYMBOL(S)		ANGLE	X	Y	WID	HT	
SIGN NUMBER		NUMBER OF POSTS		CLEARANCE Edge Of Land		COLUMN SIZE	AVERAGE LENGTH



NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
-----------------------	--	-----------------	--	-------------------	--	------	--	---------	--

COPY		E		S	e	r	e	n	a	D	r	L									
SPACE	6.6	5.9	8	8.2	7.8	5.2	7.8	7.8	5.3	8	8.9	4	6.6	76.8							
COPY		4		6		0		0		L											
SPACE	6.6	7	6.1	6.2	5	59	24.4														
COPY																					
SPACE																					
COPY																					
SPACE																					
COPY																					
SPACE																					
COPY																					
SPACE																					

SIGN NAME		QTY		SIGN NUMBER		STATION(S)	
PANEL		BORDER					
WIDTH		WIDTH					
HEIGHT		RADII					
LEGEND		COLOR					
COLOR							
SYMBOL(S)		ANGLE	X	Y	WID	HT	
SIGN NUMBER		NUMBER OF POSTS		CLEARANCE Edge Of Land		COLUMN SIZE	AVERAGE LENGTH

NO. OF LIGHT FIXTURES		FIXTURE SPACING		PHOTOMETRIC CURVE		WATT		VOLTAGE	
-----------------------	--	-----------------	--	-------------------	--	------	--	---------	--

COPY																					
SPACE																					
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REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

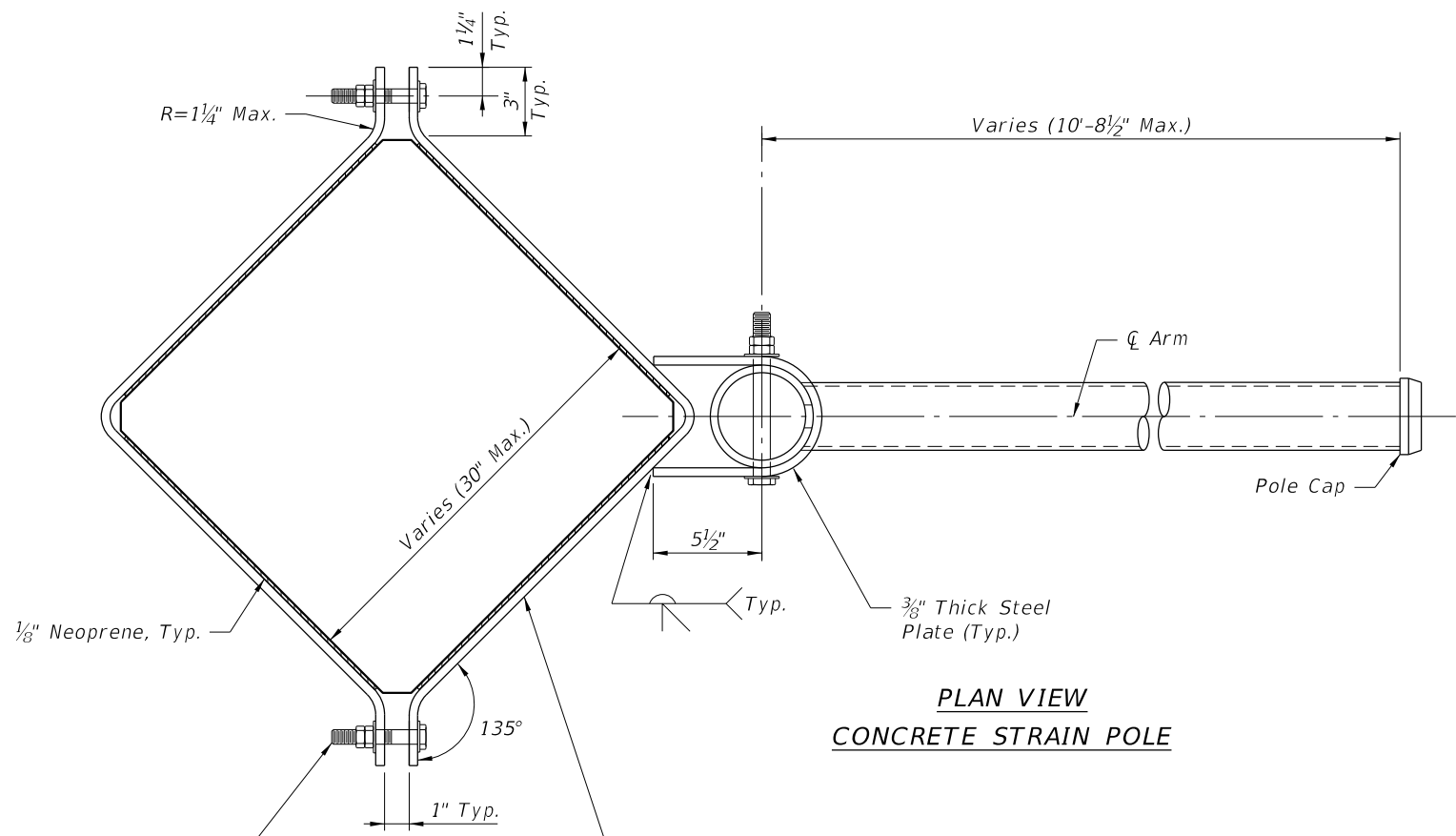
BES INC.
11007 N. 56TH ST., #208
TEMPLE TERRACE, FL 33617
(813) 985-7800
CERTIFICATE OF AUTHORIZATION NO. 9835
MICHAEL J. NOESEN
LICENSE NO. 42255

CITY OF TAMPA TRANSPORTATION DEPARTMENT		
CITY CONTRACT NO. 1001220	COUNTY HILLSBOROUGH	FINANCIAL PROJECT ID 436639-1-58-01

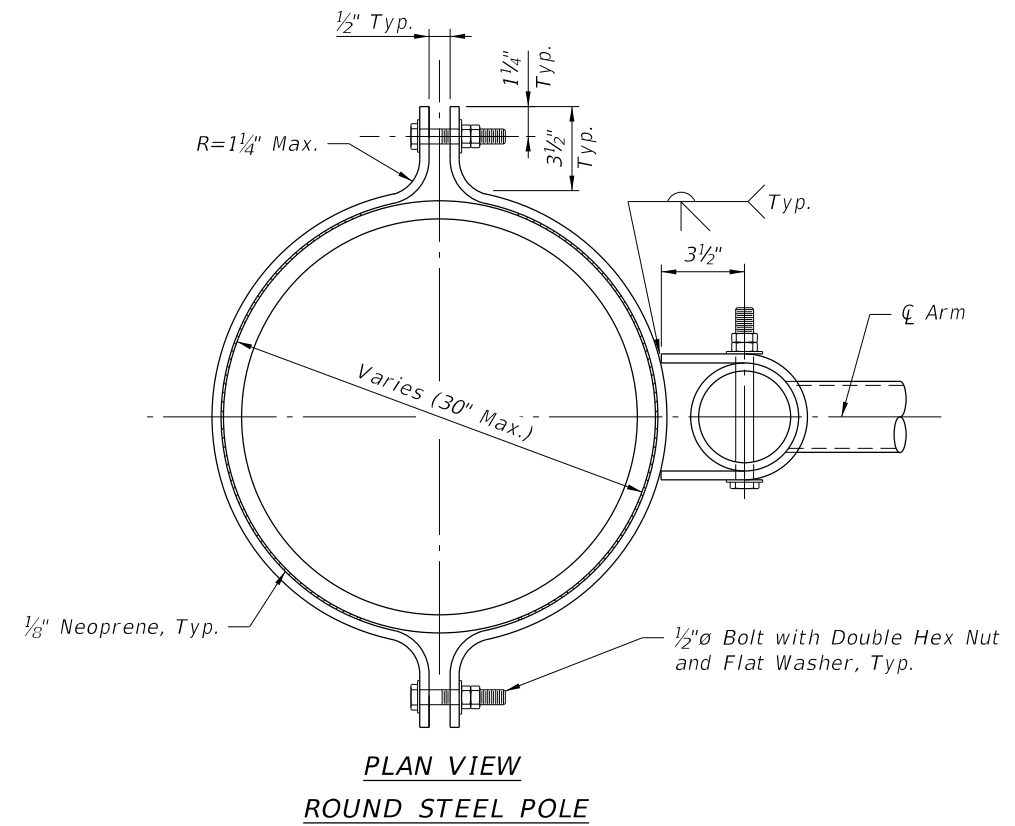
**GUIDESIGN
WORKSHEET (2)**

SHEET NO.
T-11

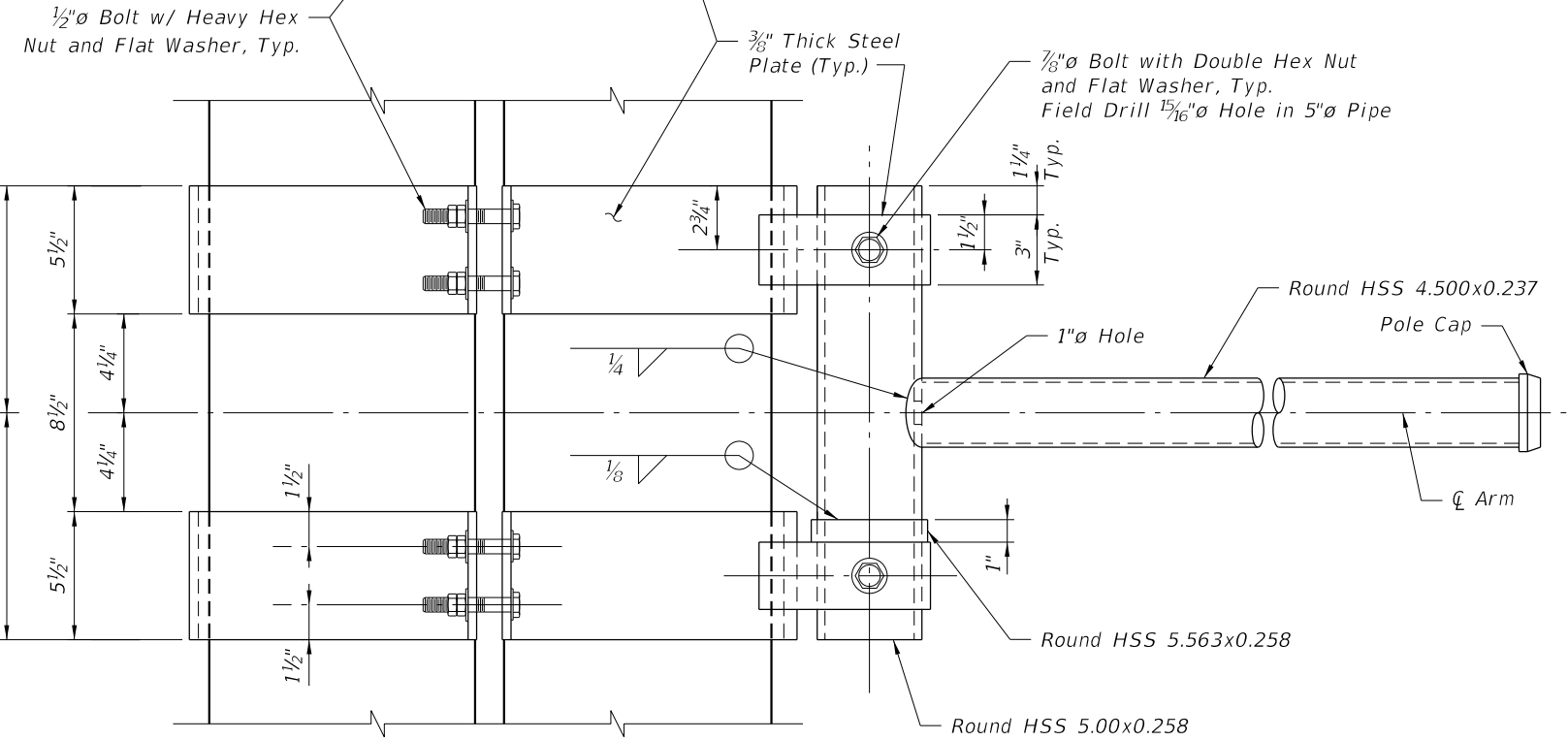
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**PLAN VIEW
CONCRETE STRAIN POLE**



**PLAN VIEW
ROUND STEEL POLE**



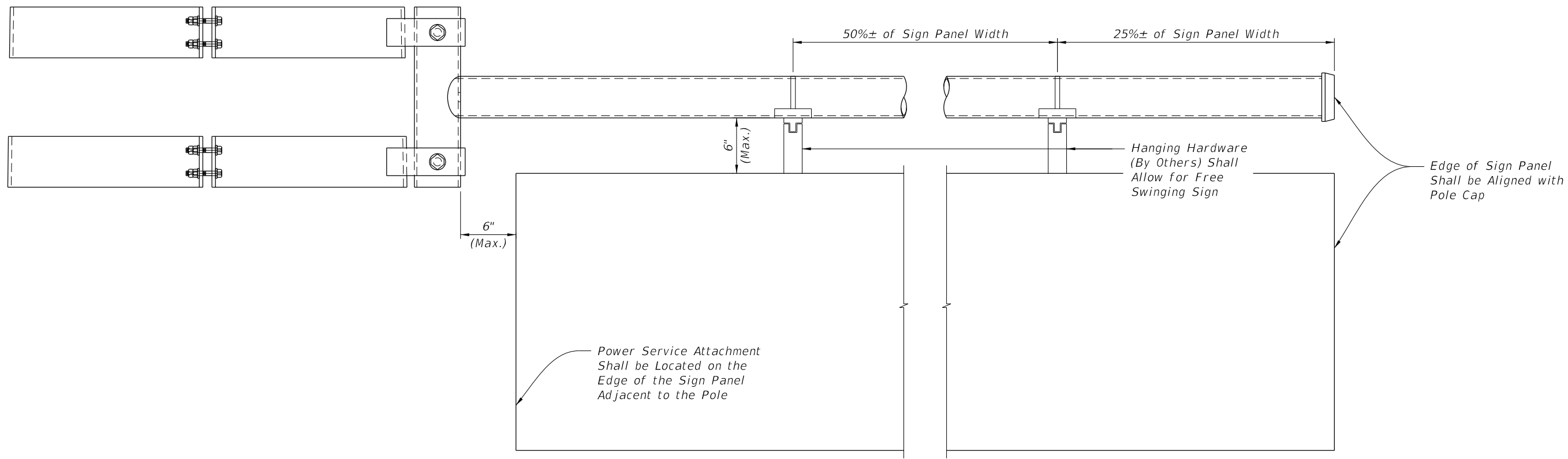
**ELEVATION VIEW
CONCRETE STRAIN POLE**
Round Steel Pole Similar

NOTES:

1. The Contractor shall verify the pole and dimensions required for installation of the Sign Bracket Arm and mounting angle before manufacturing Sign Bracket Arm.
2. Work this sheet with Sign Bracket Arm - Sign Panel Details sheet for additional installation details.
3. DESIGN WIND SPEED = 130 MPH
Design Loads from the center of the vertical pipe are as follows:
Horizontal Moment = 7581 FT LBS Vertical Moment = 1247 FT LBS
Horizontal Shear = 1338 LBS Vertical Shear = 226 LBS
4. The Contractor may propose an alternative Sign Bracket Arm design at no additional cost to the Department. The Contractor's alternative shall be designed in accordance with the latest edition of the FDOT Plans Preparation Manual and AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals.
5. If an alternate design is proposed the Contractor shall submit design calculations and shop drawings signed and sealed by a Professional Engineer Registered in the State of Florida.
6. All Structural Steel except for Structural Tubing shall conform to ASTM A572 Grade 50. Structural Tubing shall conform to ASTM A53 Grade B. All bracket plates shall be hot bent.
7. All Bolts shall be High Strength A325 Bolts and shall receive Electrodeposited Coating in accordance with ASTM B633.
8. The Complete Sign Bracket Arm Assembly shall be hot-dipped Galvanized in accordance with ASTM A123.
9. WELDING: All Welding shall be in accordance with American Welding Society Structural Welding Code (Steel), ANSI/AWS D1.1 (current edition). Required weld material is E70XX. Nondestructive testing is not required.
10. Field Welding shall not be permitted.
11. All materials and labor required to furnish and install the Complete Sign Bracket Arm Assembly shall be included in Pay Item No. 700-5-AB or 700-3-ABB.

REVISIONS				BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 (813) 985-7800 CERTIFICATE OF AUTHORIZATION NO. 9835 MICHAEL J. NOESEN LICENSE NO. 42255	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SIGN BRACKET ARM ONE WAY	SHEET NO. T-12
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		
						1001220	HILLSBOROUGH		437246-1-58-01

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INTERNALLY ILLUMINATED SIGN PANEL DETAIL

NOTES:

1. Sign panels shall be Level after installation.
2. Internally illuminated panels shall be two sided.
3. Aluminum signs shall be two panels mounted back to back with hangers sandwiched between.

REVISIONS				BES INC. 11007 N. 56TH ST., #208 TEMPLE TERRACE, FL 33617 (813) 985-7800 CERTIFICATE OF AUTHORIZATION NO. 9835 MICHAEL J. NOESEN LICENSE NO. 42255	CITY OF TAMPA TRANSPORTATION DEPARTMENT			SIGN BRACKET ARM SIGN PANEL DETAIL	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		CITY PROJECT NO.	COUNTY	FINANCIAL PROJECT ID		T-13
					1001220	HILLSBOROUGH	437246-1-58-01		

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