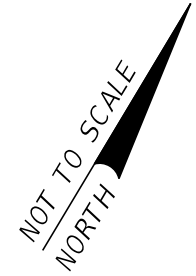


**PROJECT CONTROL**  
**SURVEY LINE S.R. 45 / NEBRASKA AVENUE AND SURVEY LINE TWIGGS STREET**  
**SECTIONS 18 AND 19, TOWNSHIP 29 SOUTH, RANGE 19 EAST**  
**SECTIONS 13 AND 24, TOWNSHIP 29 SOUTH, RANGE 18 EAST**  
**HILLSBOROUGH COUNTY, FLORIDA**



Curve C1	Curve C2
P.I. STA. 106+46.41	P.I. STA.23+62.90
$\Delta = 21^\circ 30' 38''$ (RT)	$\Delta = 21^\circ 28' 23''$ (RT)
D = 24° 23' 33"	D = 14° 08' 02"
T = 44.62'	T = 76.87'
L = 88.19'	L = 151.93'
R = 234.89'	R = 405.38'
P.C. STA. 106+01.79	P.C. STA.22+86.04
P.T. STA. 106+89.98	P.T. STA.24+37.96

Q18

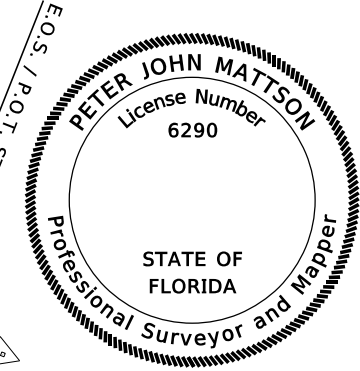
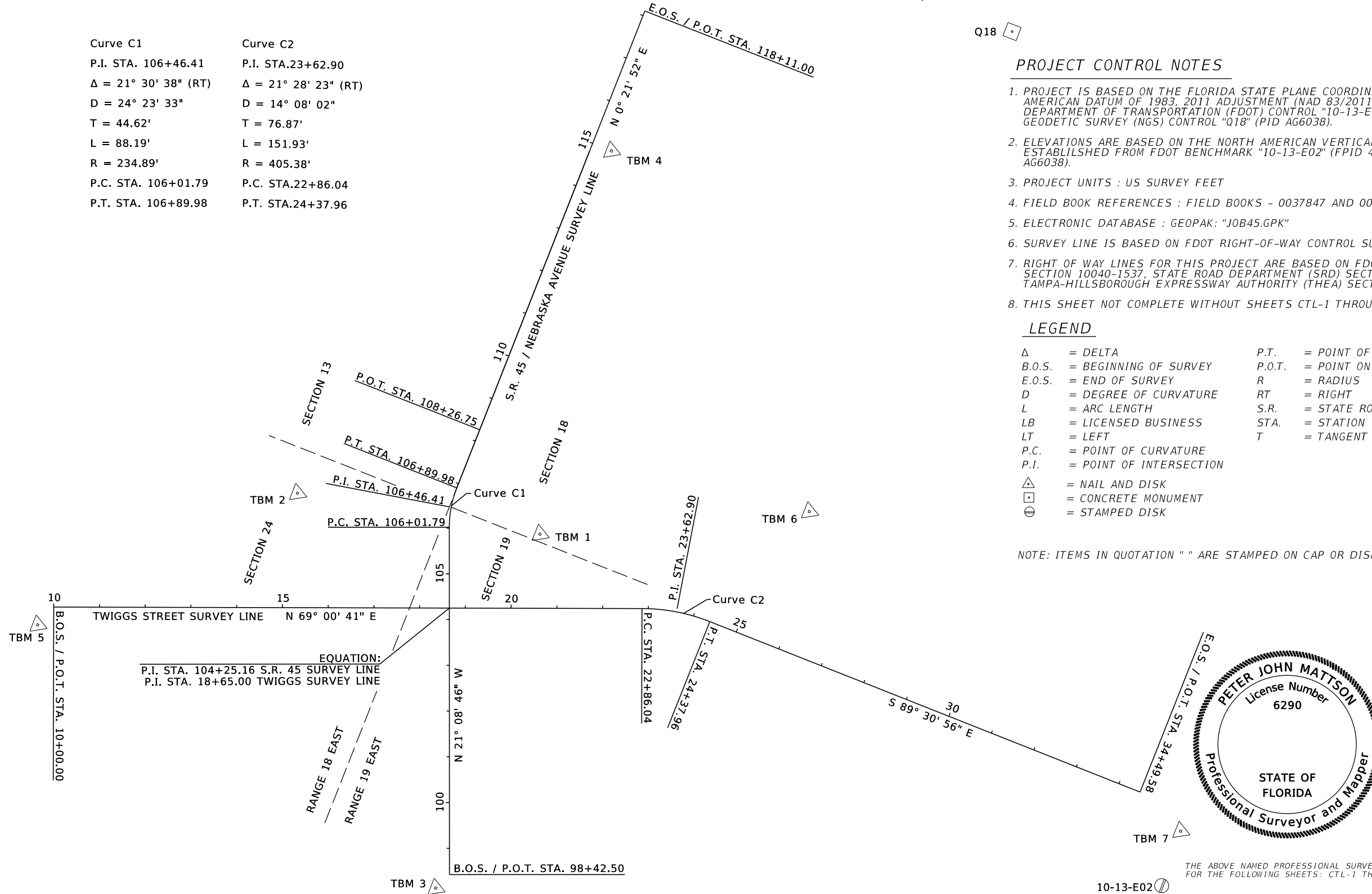
**PROJECT CONTROL NOTES**

- PROJECT IS BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, OF THE NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD 83/2011) AS ESTABLISHED FROM FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) CONTROL "10-13-E02" (FPID 428968-1) AND NATIONAL GEODETIC SURVEY (NGS) CONTROL "Q18" (PID AG6038).
- ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS ESTABLISHED FROM FDOT BENCHMARK "10-13-E02" (FPID 428968-1) AND NGS BENCHMARK "Q18" (PID AG6038).
- PROJECT UNITS : US SURVEY FEET
- FIELD BOOK REFERENCES : FIELD BOOKS - 0037847 AND 0037980
- ELECTRONIC DATABASE : GEOPAK: "JOB45.GPK"
- SURVEY LINE IS BASED ON FDOT RIGHT-OF-WAY CONTROL SURVEY SECTION 10040-1537.
- RIGHT OF WAY LINES FOR THIS PROJECT ARE BASED ON FDOT RIGHT-OF-WAY CONTROL SURVEY SECTION 10040-1537, STATE ROAD DEPARTMENT (SRD) SECTION 10040-1265, AND TAMPA-HILLSBOROUGH EXPRESSWAY AUTHORITY (THEA) SECTION 10002-2520-010.
- THIS SHEET NOT COMPLETE WITHOUT SHEETS CTL-1 THROUGH CTL-4.

**LEGEND**

$\Delta$	= DELTA	P.T.	= POINT OF TANGENCY
B.O.S.	= BEGINNING OF SURVEY	P.O.T.	= POINT ON TANGENT
E.O.S.	= END OF SURVEY	R	= RADIUS
D	= DEGREE OF CURVATURE	RT	= RIGHT
L	= ARC LENGTH	S.R.	= STATE ROAD
LB	= LICENSED BUSINESS	STA.	= STATION
LT	= LEFT	T	= TANGENT
P.C.	= POINT OF CURVATURE		
P.I.	= POINT OF INTERSECTION		
	= NAIL AND DISK		
	= CONCRETE MONUMENT		
	= STAMPED DISK		

NOTE: ITEMS IN QUOTATION " " ARE STAMPED ON CAP OR DISK



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

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ELEMENT ENGINEERING GROUP  
 1713 E. 9th AVENUE  
 TAMPA, FL 33605  
 CERTIFICATE OF AUTHORIZATION LB7831  
 PETER JOHN MATTSON, PSM. NO. 6290

THE ABOVE NAMED PROFESSIONAL SURVEYOR AND MAPPER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS: CTL-1 THROUGH CTL-4 IN ACCORDANCE WITH RULE 5J-17, F.A.C.

<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>				REVISIONS		DATE	DESCRIPTION			Peter J. Mattson, PSM Florida License No. 6290 Element Engineering Group 1713 E. 9th Avenue Tampa, FL 33605 Certificate of Authorization LB7831	TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		SHEET NO.  <b>PROJECT CONTROL</b>  CTL-1
REVISIONS													
DATE	DESCRIPTION												
		ROAD NO.	COUNTY	TWO NO.2 PROJECT ID									
		SR 45	HILLSBOROUGH	62787-DS-242									

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 5J-17.062, F.A.C.

**PROJECT CONTROL**  
**SURVEY LINE S.R. 45 / NEBRASKA AVENUE AND SURVEY LINE TWIGGS STREET**  
**SECTIONS 18 AND 19, TOWNSHIP 29 SOUTH, RANGE 19 EAST**  
**SECTIONS 13 AND 24, TOWNSHIP 29 SOUTH, RANGE 18 EAST**  
**HILLSBOROUGH COUNTY, FLORIDA**

**SURVEY LINE CONTROL STATE ROAD 45/NEBRASKA AVENUE**

STATION	(Y) NORTHING	(X) EASTING	(Z) ELEVATION	LATTITUDE	LONGITUDE	DESCRIPTION
BOS 98+42.50	1314900.5133	510773.8598	N/A	27°57'08.63298"	82°27'02.24777"	FOUND NAIL AND DISK "LB 6839"
P.I. 104+25.16	1315443.9349	510563.6676	N/A	27°57'06.42858"	82°27'03.64767"	NO POINT FOUND OR SET
P.C. 106+01.79	1315608.6771	510499.9463	N/A	27°57'08.05751"	82°27'04.54620"	SET NAIL & DISK "ELEMENT LB 7831"
P.I. 106+46.41	1315650.2905	510483.8505	N/A	27°57'07.54714"	82°27'08.11750"	FOUND NAIL AND DISK "URS LB 6889"
P.T. 106+89.98	1315694.9075	510484.1343	N/A	27°57'08.91077"	82°27'04.54487"	SET NAIL AND DISK "ELEMENT LB 7831"
P.O.T. 108+26.75	1315831.6808	510485.0041	N/A	27°57'10.26511"	82°27'04.54081"	SET NAIL AND DISK "ELEMENT LB 7831"
E.O.S. 118+11.00	1316815.9076	510491.2637	N/A	27°57'20.01103"	82°27'04.51152"	SET NAIL AND DISK "ELEMENT LB 7831"

**SURVEY LINE CONTROL TWIGGS STREET**

STATION	(Y) NORTHING	(X) EASTING	(Z) ELEVATION	LATTITUDE	LONGITUDE	DESCRIPTION
B.O.S./P.O.T. 10+00.00	1315134.1063	509756.0592	N/A	27°57'03.33111"	82°27'12.64043"	SET NAIL AND DISK "ELEMENT LB 7831"
P.I. 18+65.00	1315443.9349	510563.6676	N/A	27°57'06.42858"	82°27'03.64767"	NO POINT FOUND OR SET
P.O.T. 20+00.00	1315492.2896	510689.7104	N/A	27°57'06.91198"	82°27'02.24417"	SET NAIL AND DISK "ELEMENT LB 7831"
P.C. 22+86.04	1315594.7429	510956.7682	N/A	27°57'07.93620"	82°26'59.27043"	SET NAIL AND DISK "ELEMENT LB 7831"
P.I. 23+62.90	1315622.2748	511028.5337	N/A	27°57'07.54714"	82°27'08.11750"	SET NAIL AND DISK "ELEMENT LB 7831"
P.T. 24+37.96	1315621.6248	511105.3965	N/A	27°57'08.20780"	82°26'57.61418"	SET NAIL AND DISK "ELEMENT LB 7831"
E.O.S. 34+49.58	1315613.0704	512116.9759	N/A	27°57'08.15979"	82°26'46.33374"	SET NAIL AND DISK "ELEMENT LB 7831"

**VERTICAL CONTROL**

CONTROL POINTS	(Y) NORTHING	(X) EASTING	(Z) ELEVATION	LATTITUDE	LONGITUDE	SURVEY STATION	OFFSET	DESCRIPTION
TBM 1	1315666.1	510690.0	21.990'	27°57'08.63298"	82°27'02.24777"	105+86.8 (SR 45)	198.0' RT	SET NAIL AND DISK "TRAV. PT. LB 7831"
TBM 2	1315558.4	510163.2	21.289'	27°57'07.54714"	82°27'08.11750"	106+32.5 (SR 45)	337.1' LT	FOUND NAIL AND DISK "HEIDT LB 148"
TBM 3	1314862.0	510756.6	22.137'	27°57'00.67316"	82°27'01.47215"	98+12.8 (SR 45)	30.0' LT	SET NAIL AND DISK "TRAV. PT. LB 7831"
TBM 4	1316504.1	510533.7	22.028'	27°57'16.92559"	82°27'04.02583"	114+99.5 (SR 45)	44.4' RT	SET NAIL AND DISK "TRAV. PT. LB 7831"
TBM 5	1315085.1	509737.5	21.427'	27°57'02.84522"	82°27'12.84566"	9+65.1 (TWIGGS)	39.1' RT	SET NAIL AND DISK "TRAV. PT. LB 7831"
TBM 6	1315924.5	511221.5	16.778'	27°57'11.21087"	82°26'56.33185"	25+51.5 (TWIGGS)	303.8' LT	SET NAIL AND DISK "TRAV. PT. LB 7831"
TBM 7	1315591.2	512248.3	7.872'	27°57'07.94757"	82°26'44.86872"	35+81.1 (TWIGGS)	20.8' RT	SET NAIL AND DISK "TRAV. PT. LB 7831"

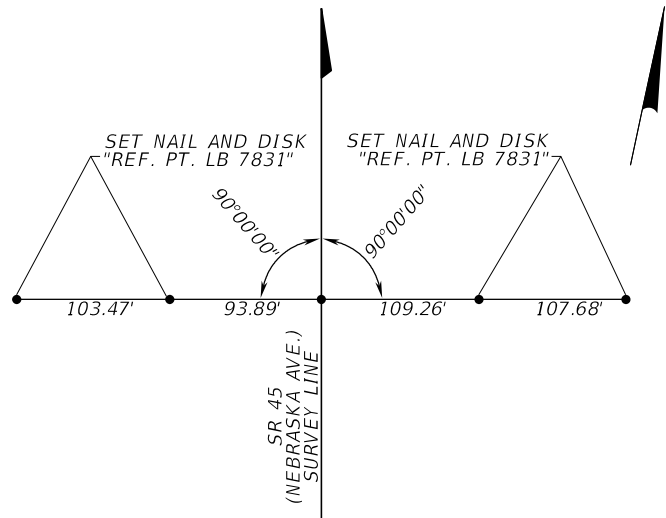
**HORIZONTAL CONTROL**

CONTROL POINTS	(Y) NORTHING	(X) EASTING	(Z) ELEVATION	LATTITUDE	LONGITUDE	SURVEY STATION	OFFSET	DESCRIPTION
Q18	1317808.1400	512276.4600	17.270'	27°57'29.90080"	82°26'44.64461"	128+14.57 (SR 45)	1778.85' RT	FOUND 8"X8" CONCRETE MONUMENT WITH BRASS USC&GS DISK "Q18 1933"
10-13-E02	1315030.2704	512368.3557	9.346'	27°57'02.39805"	82°26'43.50693"	93+88.31 (SR 45)	1533.94' RT	FOUND BRASS FDOT DISK IN CONCRETE SIDEWALK "10 13 E02 GPS"

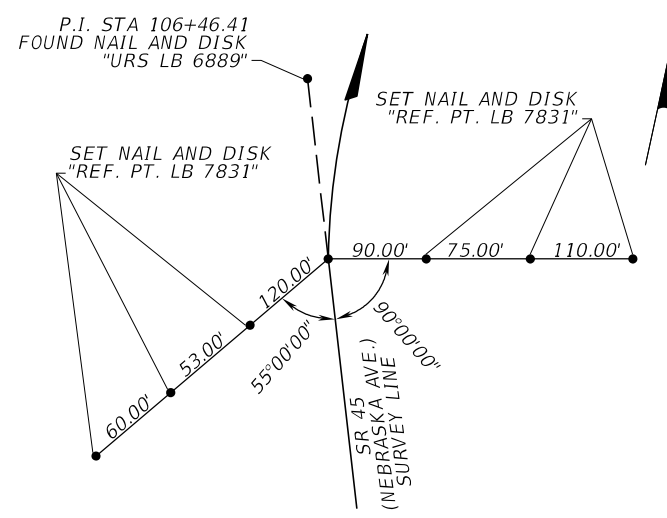
REVISIONS				Peter J. Mattson, PSM Florida License No. 6290 Element Engineering Group 1713 E. 9th Avenue Tampa, FL 33605 Certificate of Authorization LB7831	TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY			SHEET NO.  CTL-2
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	TWO NO.2 PROJECT ID	
					SR 45	HILLSBOROUGH	62787-DS-242	

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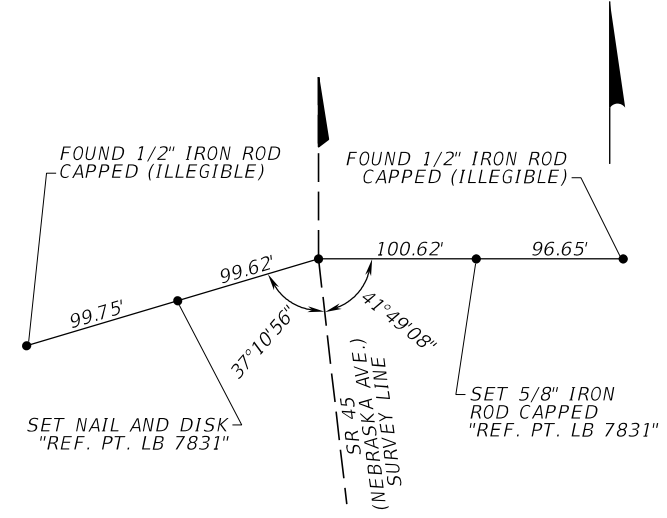
# SR 45 / NEBRASKA AVENUE SURVEY LINE REFERENCES



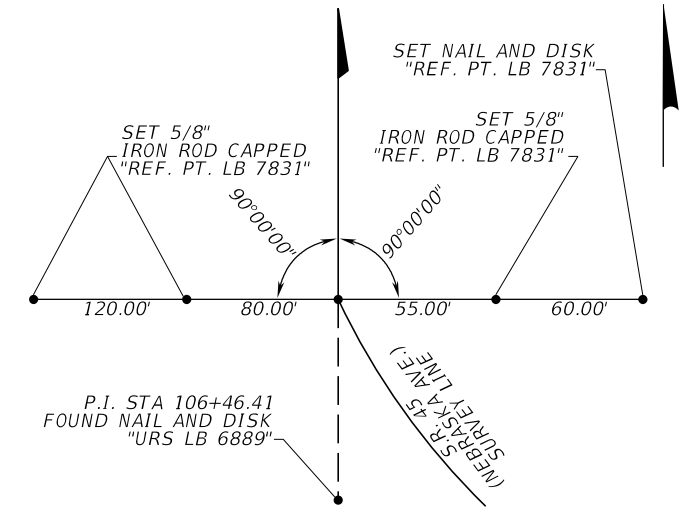
B.O.S./P.O.T. STA 98+42.50, SR 45 SURVEY LINE  
FOUND NAIL AND DISK "LB 6839"



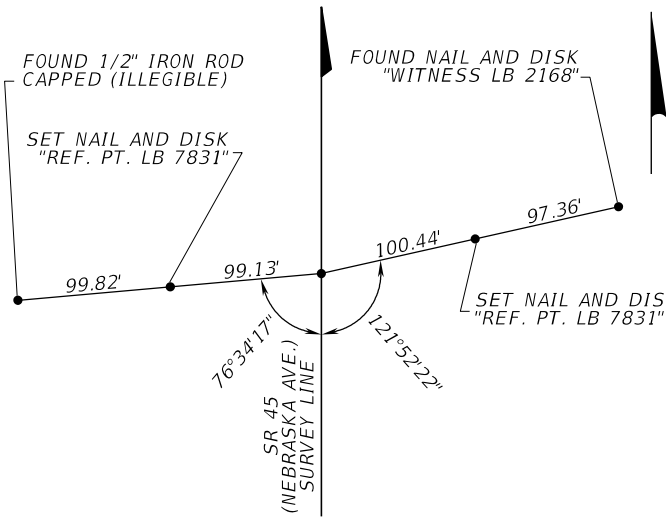
P.C. STA 106+01.79, SR 45 SURVEY LINE  
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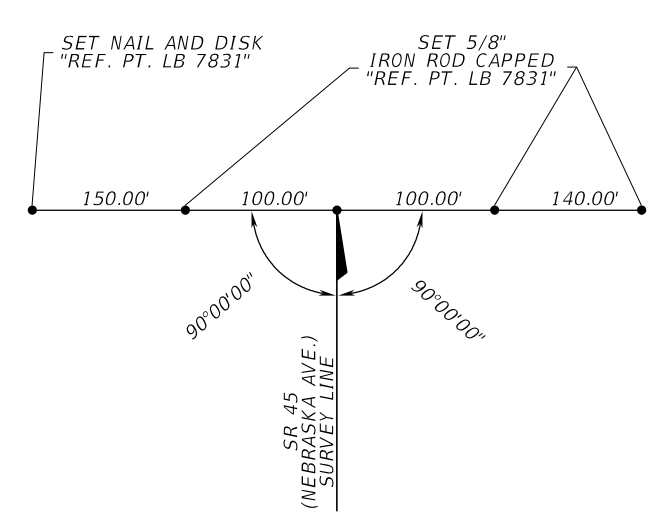
P.I. STA 106+46.41, SR 45 SURVEY LINE  
FOUND NAIL AND DISK "URS LB 6889"



P.T. STA 106+89.98, SR 45 SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"



P.O.T. STA 108+26.75, SR 45 SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"



E.O.S./P.O.T. STA 118+11.00, SR 45 SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"

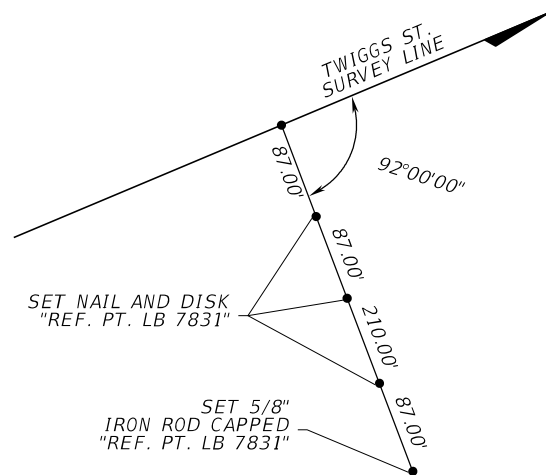
### LEGEND

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- B.O.S. = BEGINNING OF SURVEY
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- FDOT = FLORIDA DEPARTMENT OF TRANSPORTATION
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- SR = STATE ROAD
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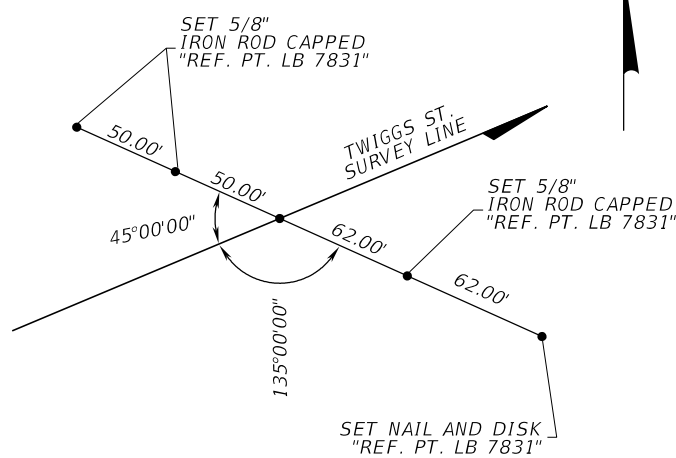
NOTE: ITEMS IN QUOTATION " " ARE STAMPED ON CAP OR DISK

REVISIONS				Peter J. Mattson, PSM Florida License No. 6290 Element Engineering Group 1713 E. 9th Avenue Tampa, FL 33605 Certificate of Authorization LB7831	TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY			SHEET NO.  CTL-3
DESCRIPTION	DATE	DESCRIPTION	ROAD NO.		COUNTY	TWO NO.2 PROJECT ID		
			SR 45	HILLSBOROUGH	62787-DS-242			

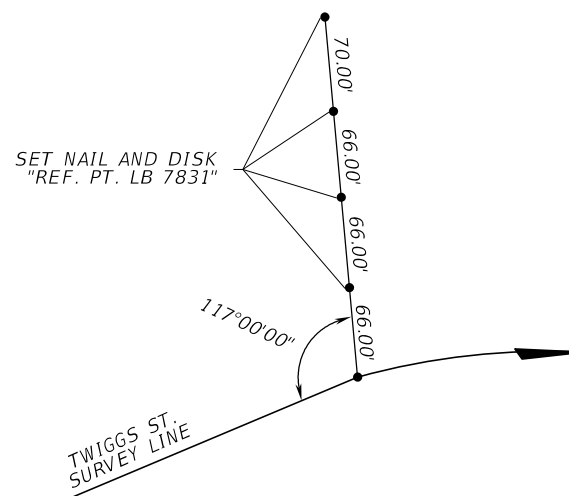
# TWIGGS STREET SURVEY LINE REFERENCES



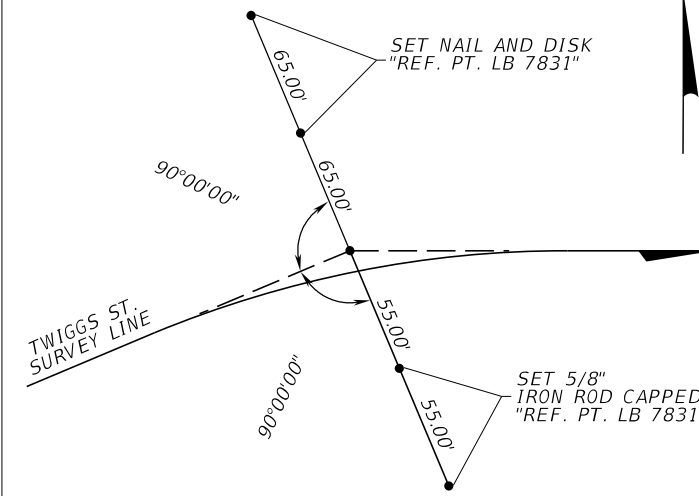
B.O.S./P.O.T. STA 10+00.00, TWIGGS SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"



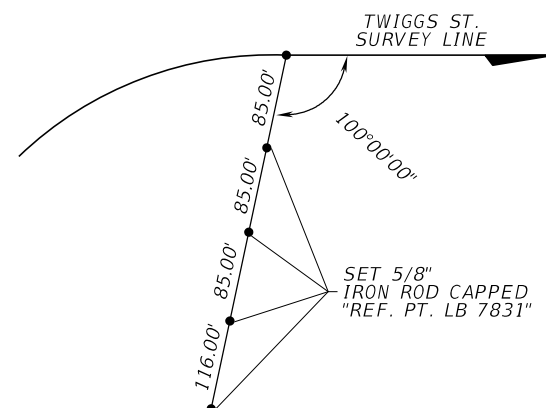
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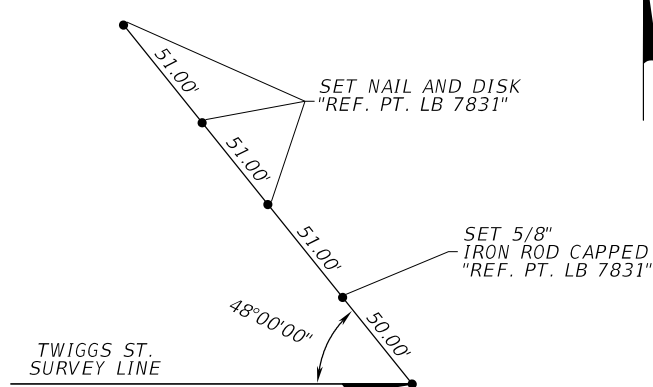
P.C. STA 22+86.04, TWIGGS SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"



P.I. STA 23+62.90, TWIGGS SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"



P.T. STA 24+37.96, TWIGGS SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"



E.O.S. / P.O.T. STA 34+49.58, TWIGGS SURVEY LINE  
SET NAIL AND DISK "ELEMENT LB 7831"

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- SR = STATE ROAD
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REVISIONS				Peter J. Mattson, PSM Florida License No. 6290 Element Engineering Group 1713 E. 9th Avenue Tampa, FL 33605 Certificate of Authorization LB7831	TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY			<h2 style="margin: 0;">PROJECT CONTROL</h2>	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	TWO NO.2 PROJECT ID		CTL-4
					SR 45	HILLSBOROUGH	62787-DS-242		

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