

COMPONENTS OF CONTRACT PLANS SET
ROADWAY PLANS
SIGNALIZATION PLANS

A DETAILED INDEX APPEARS ON THE
KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2	SUMMARY OF PAY ITEMS
3	TYPICAL SECTION
4	SUMMARY OF QUANTITIES
5	GENERAL NOTES/ REFERENCE POINTS
6	ROADWAY PLAN SHEET
7	DRAINAGE STRUCTURES

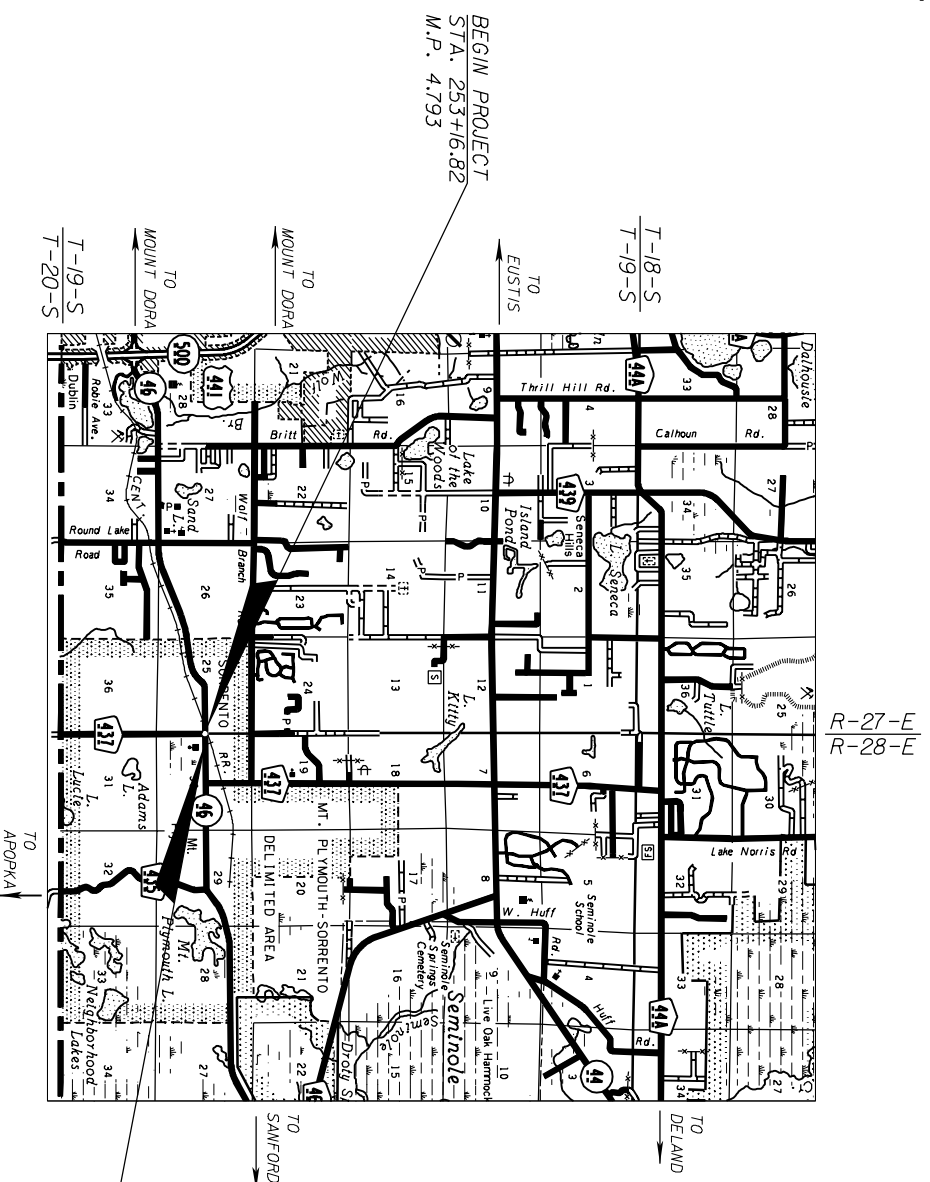
GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED 2006,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2007,
AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 07/01/07
For Design Standards Modifications click on
"Design Standards" of the following web site:
<http://www.dot.state.fl.us/ddesign/>

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT PLANS

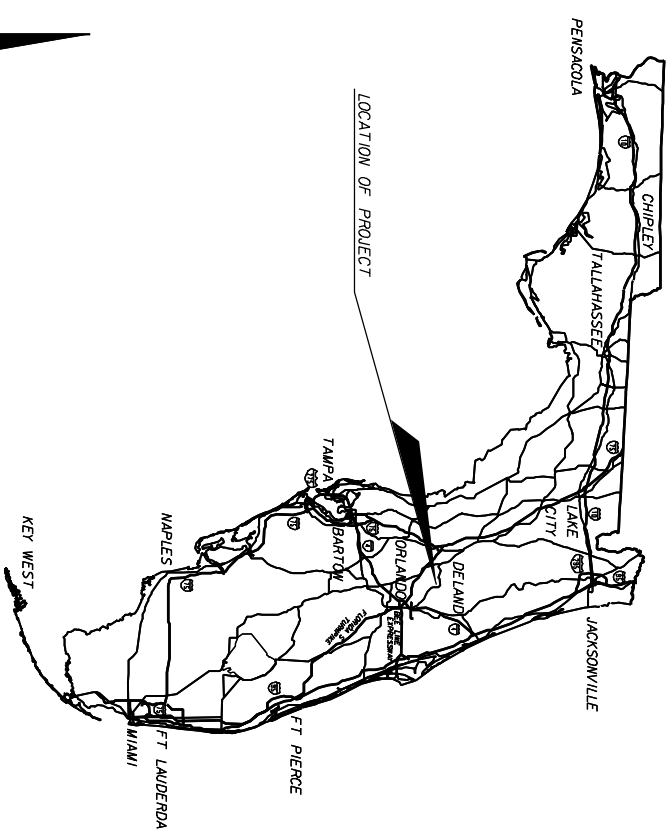
FINANCIAL PROJECT ID 416218-1-52-01
LAKE COUNTY (11130)
STATE ROAD NO. 46



PROJECT LENGTH IS BASED ON \bar{C} OF CONSTRUCTION

LENGTH OF PROJECT		
ROADWAY	LINEAR FEET	MILES
ROADWAY	138.54	0.026
BRIDGES	0.00	0.000
NET LENGTH OF PROJECT	138.54	0.026
EXCEPTIONS	0.00	0.000
GROSS LENGTH OF PROJECT	138.54	0.026

FDOT PROJECT MANAGER: VICKI MITCHELL



ROADWAY SHOP DRAWINGS
TO BE SUBMITTED TO:
C. BRIAN FULLER, P.E.
METRIC ENGINEERING, INC.
105 W. WISCONSIN AVENUE, SUITE 210
DELAND, FLORIDA 32720

PLANS PREPARED BY:
C. BRIAN FULLER, P.E.
P.E. LICENSE NUMBER 49524
METRIC ENGINEERING, INC.
105 W. WISCONSIN AVENUE, SUITE 210
DELAND, FLORIDA 32720
CERTIFICATE OF AUTHORIZATION EB-0002294

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

ROADWAY PLANS
ENGINEER OF RECORD: C. BRIAN FULLER, P.E.

P.E. NO.: 49524

KEY SHEET REVISIONS	
DATE	DESCRIPTION

FISCAL YEAR	SHEET NO.
08	1

DATE: 08/08/07 PROPOSAL SUMMARY OF PAY ITEMS
 PROPOSAL : E5L70 LEAD PROJECT : 41621815201 COUNTY : LAKE
 PROJECT(S) : 41621815201 COUNTY/SECTION : 11130000

PAGE: 1 A0001
 MANDIST: 05

0001 SUMMARY OF ROADWAY

P	ALT	ITEM NUMBER	ITEM DESCRIPTION	UN	QTY	TOTAL
S				117		
C				117		
P	ALT	ITEM NUMBER	ITEM DESCRIPTION	UN	QTY	TOTAL
		10101-1	MOBILIZATION	LS	1,000	1,000
		10102-1	MAINTENANCE OF TRAFFIC	LS	1,000	1,000
		10102-14	TRAFFIC CONTROL OFFICER	1WH	4,000	4,000
		10102-60	WORK ZONE SIGNS	1ED	308,000	308,000
		10102-74	1 BARRICADE TEMPORARY, TYPES I, II, DI, VP & DRUM	1ED	56,000	56,000
		10102-77	HIGH INTENSITY FLASHING LIGHTS, TEMP, TYPE B	1ED	154,000	154,000
		10110-1	1 CLEARING & GRUBBING	1LS	1,000	1,000
		10120-71	1 REGULAR EXCAVATION, 3-R PROJECTS ONLY	1LS	1,000	1,000
		10400-1	1 CONCRETE CLASS I, MISCELLANEOUS	1CY	5,000	5,000
		10425-1	1-561 INLETS, DT BOT, TYPE F, <10'	1EA	1,000	1,000
		10425-2	43 MANHOLES, P-7, PARTIAL	1EA	1,000	1,000
		10430-94	1 DESILTING PIPE, 0 - 24"	1LF	436,000	436,000
		10430-171-101	1 PIPE CULVERT OPTIONAL MATERIAL, ROUND - SHAPE, 10-24", STORM SEWER	1LF	12,000	12,000
		10570-1	2 PERFORMANCE TURF, SOD	1SY	156,000	156,000
		10999-25	1 INITIAL CONTINGENCY AMOUNT, DO NOT BID	1LS	1,000	1,000

FLORIDA DEPARTMENT OF TRANSPORTATION

DATE: 08/08/07 PROPOSAL SUMMARY OF PAY ITEMS
 PROPOSAL : E5L70 LEAD PROJECT : 41621815201 COUNTY : LAKE
 PROJECT(S) : 41621815201 COUNTY/SECTION : 11130000

PAGE: 2 A0002
 MANDIST: 05

0002 SUMMARY OF SIGNING

P	ALT	ITEM NUMBER	ITEM DESCRIPTION	UN	QTY	TOTAL
S				117		
C				117		
P	ALT	ITEM NUMBER	ITEM DESCRIPTION	UN	QTY	TOTAL
		10700-20-11	1 SINGLE POST SIGN, F&I, LESS THAN 12 SF	1AS	4,000	4,000
		10700-20-12	1 SINGLE POST SIGN, F&I, 12-20 SF	1AS	1,000	1,000
		10700-20-60	1 SINGLE POST SIGN, REMOVE	1AS	3,000	3,000
		10700-48-60	1 SIGN PANELS, REMOVE	1EA	2,000	2,000
		10710-17	1 PAINTED PAVEMENT MARKINGS, REMOVE	1SF	28,000	28,000
		10711-11-121	1 THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	1LF	88,000	88,000
		10711-11-125	1 THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	1LF	51,000	51,000
		10711-11-170	1 THERMOPLASTIC, STANDARD, WHITE, ARROW	1EA	1,000	1,000
		10711-11-221	1 THERMOPLASTIC, STANDARD, YELLOW, SOLID, 6"	1LF	100,000	100,000

FLORIDA DEPARTMENT OF TRANSPORTATION

DATE: 08/08/07 PROPOSAL SUMMARY OF PAY ITEMS
 PROPOSAL : E5L70 LEAD PROJECT : 41621815201 COUNTY : LAKE
 PROJECT(S) : 41621815201 COUNTY/SECTION : 11130000

PAGE: 3 A0003
 MANDIST: 05

0003 SUMMARY OF SIGNALIZATION

P	ALT	ITEM NUMBER	ITEM DESCRIPTION	UN	QTY	TOTAL
S				117		
C				117		
P	ALT	ITEM NUMBER	ITEM DESCRIPTION	UN <td>QTY</td> <td>TOTAL</td>	QTY	TOTAL
		10630-1-12	1 CONDUIT - SIGNALS, FURNISH & INSTALL, UNDERGROUND	1LF	332,000	332,000
		10630-1-13	1 CONDUIT - SIGNALS, FURNISH & INSTALL, UNDER EXISTING PAVEMENT	1LF	14,000	14,000
		10630-7-14	1 CONDUIT, SIGNALS, F & I, UNDERGROUND - JACKED	1LF	182,000	182,000
		10632-7-1	1 CABLE, SIGNAL, FURNISH & INSTALL	1PI	1,000	1,000
		10634-4-112	1 SPAN WIRE ASSEMBLY, F&I, 2 WIRE, DIAGONAL	1PI	1,000	1,000
		10634-5-1	1 FIBERGLASS INSULATOR, FURNISH & INSTALL	1LF	10,000	10,000
		10635-1-11	1 PULL & JUNCTION BOXES, F&I, PULL BOX	1EA	8,000	8,000
		10635-1-15	1 PULL & JUNCTION BOXES, F&I, FIBER OPTICS	1EA	1,000	1,000
		10639-1-12	1 SIGNALS, ELECTRICAL POWER SERVICE, OVERHEAD, METER FURNISHED BY CONTRACTOR	1AS	1,000	1,000
		10639-2-1	1 SIGNALS, ELECTRICAL SERVICE WIRE	1LF	30,000	30,000
		10641-14-142	1 PREST CONC POLE, F&I - WITH FOUNDATION, TYPE N-V, 142"	1EA	1,000	1,000
		10641-14-144	1 PREST CONC POLE, F&I - WITH FOUNDATION, TYPE N-V, 144"	1EA	1,000	1,000
		10650-51-311	1 TRAFFIC SIGNAL, F&I, 3 SECTION, 1 WAY, STANDARD	1AS	5,000	5,000
		10650-51-321	1 TRAFFIC SIGNAL, F&I, 3 SECTION, 2 WAY, STANDARD	1AS	1,000	1,000
		10650-51-511	1 TRAFFIC SIGNAL, F&I, 5 SECTIONS, 1 WAY, STANDARD	1AS	1,000	1,000
		10660-1-101	1 LOOP DETECTOR INDUCTIVE, F&I, TYPE 1	1EA	4,000	4,000
		10660-1-102	1 LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	1EA	3,000	3,000
		10660-2-102	1 LOOP ASSEMBLY, F&I, TYPE B	1AS	4,000	4,000
		10660-2-106	1 LOOP ASSEMBLY, F&I, TYPE F	1AS	3,000	3,000
		10670-5-111	1 TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA, 1 PREEMPTION	1AS	1,000	1,000
		10690-10-1	1 SIGNAL HEAD TRAFFIC ASSEMBLY REMOVAL	1EA	6,000	6,000
		10690-32-1	1 POLE REMOVAL, SHALLOW, DIRECT BURIAL	1EA	2,000	2,000
		10690-50-1	1 CONTROLLER ASSEMBLY, REMOVE, COMPLETE ASSEMBLY	1EA	1,000	1,000
		10690-80-1	1 SPAN WIRE ASSEMBLY, REMOVE	1EA	1,000	1,000
		10690-90-1	1 CONDUIT & CABLING REMOVE	1PI	1,000	1,000
		10690-100-1	1 SIGNAL EQUIPMENT MISCELLANEOUS REMOVE	1PI	1,000	1,000
		10699-1-1	1 INTERNAL ILLUM SIGN, ST NAME	1EA	4,000	4,000

STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION


ROAD NO. 46 COUNTY LAKE FINANCIAL PROJECT ID 416218-1-52-01

SUMMARY OF PAY ITEMS

SHEET NO. 2

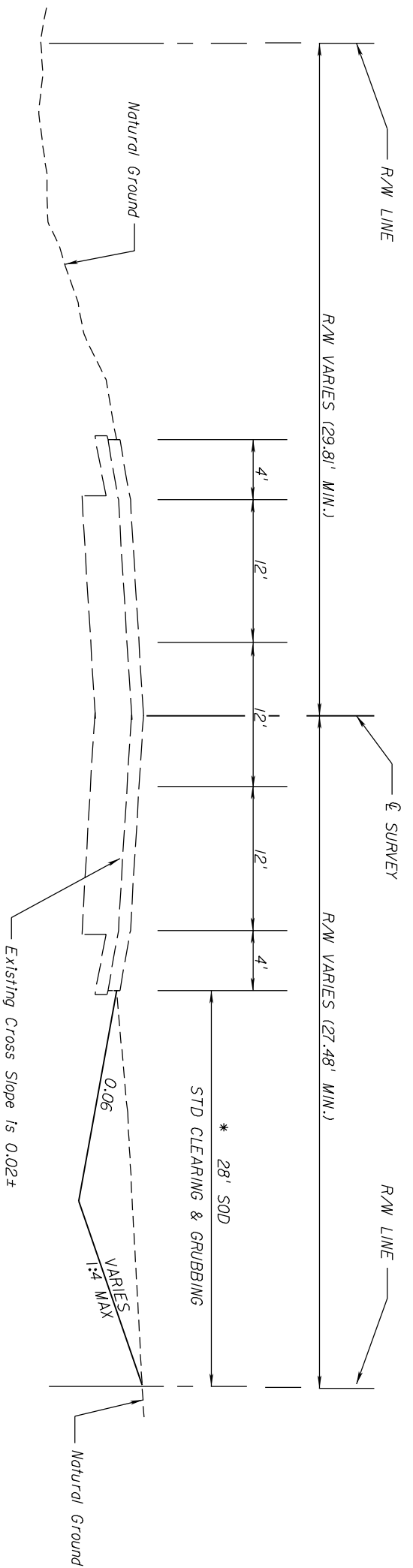
REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION


 C. BRIAN FULLER, P.E. # 49524
 METRIC ENGINEERING, INC.
 105 W. WISCONSIN AVE - SUITE 210
 DELAND, FLORIDA 32720
 TEL. (386) 734-4410
 FAX. (386) 734-5230
 FLORIDA CERT. NO. EB-0002294

ENGINEERS
 SURVEYORS

8/8/2007 8:54:04 AM C:\USG\HOME\PROJECT\41621815201\roadlog\cases\rd01.dgn




TYPICAL SECTION
SR 46
STA. 253+16.82 TO STA. 254+55.36

* STA 254+09.00 TO 254+36.00

TRAFFIC DATA

CURRENT YEAR = 2004 AADT = 14400
 K = 10%; D = 57%; T = 11%; (24 HOUR)
 DESIGN SPEED = 45 MPH
 POSTED SPEED = 45 MPH

REVISIONS			
DATE	BY	DESCRIPTION	DATE


 C. BRIAN FULLER, P.E. # 49524
 METRIC ENGINEERING, INC.
 105 W. WISCONSIN AVENUE - SUITE 210
 DELAND, FLORIDA 32720
 TEL. (386) 734-4410
 FAX. (386) 734-5230
 FLORIDA CERT. NO. EB-0002294

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
46	LAKE	416218-1-52-01

TYPICAL SECTIONS

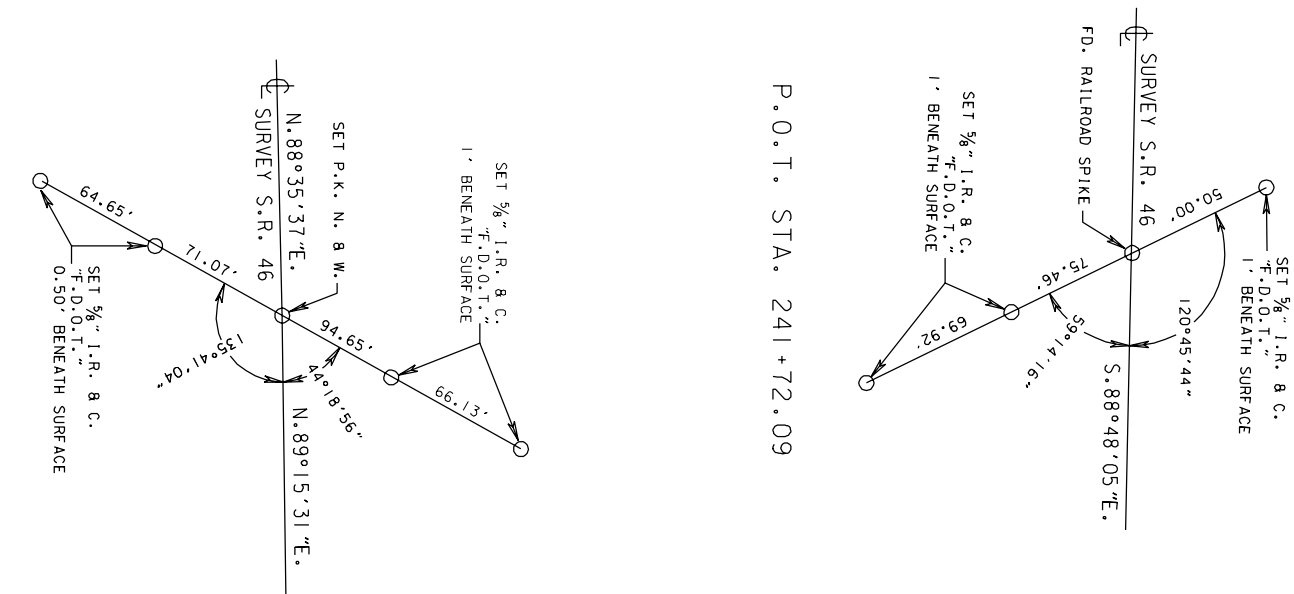
6/4/2007	10:51:20 AM	C:\OSG\HOME\PROJECT\416218\20\Roadway\TYPSECT.DWG	SHEET NO. 3
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GENERAL NOTES

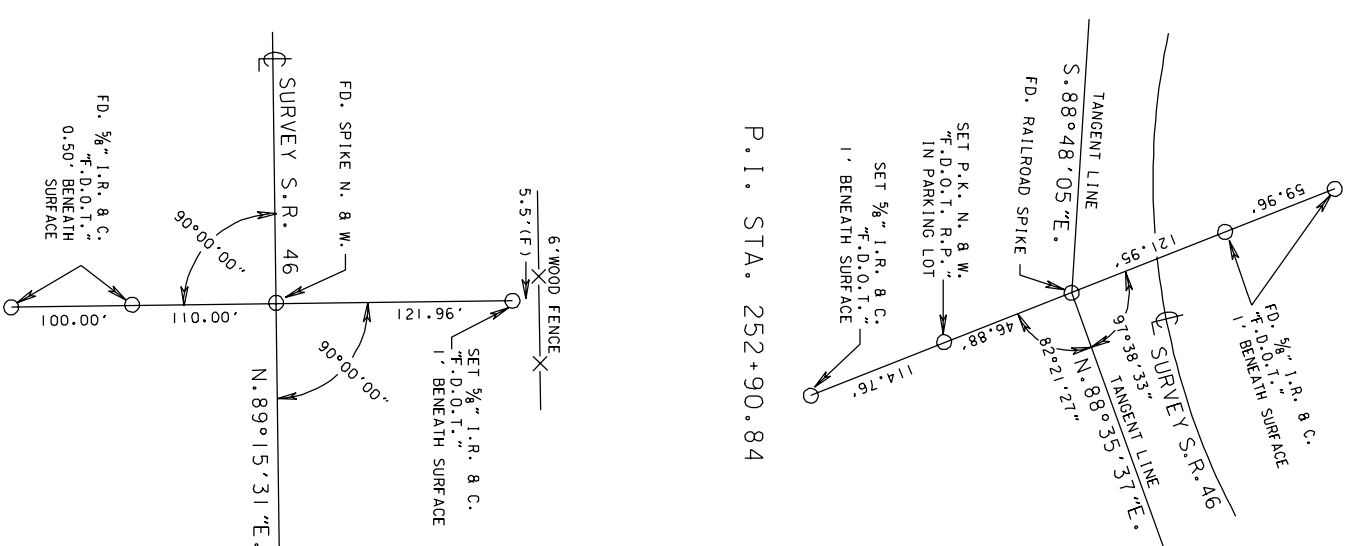
- THE BENCH MARK DATUM USED FOR THE PLANS IS NAVD 88.
- EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE ONE CALL OF FLORIDA INC (1-800-432-4770) AND UTILITY OWNERS LISTED BELOW TWO BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.
 UTILITY OWNERS:
 TELEPHONE NUMBERS
 SPRINT- FLORIDA, INC (407) 814-5344
 FLORIDA POWER CORP. d/b/d PROGRESS ENERGY FLORIDA INC. (D) (407) 942-9401
 THE FOLLOWING LIST OF UTILITY COMPANIES HAVE FACILITIES WITHIN THE PROJECT LIMITS. IT HAS BEEN DETERMINED THAT NO RELOCATION IS ANTICIPATED FOR THIS PROJECT.
 FLORIDA POWER CORP. d/b/d PROGRESS ENERGY FLORIDA INC. (T) (407) 942-9280
 FLORIDA GAS TRANSMISSION (407) 838-7171
 TECO/PEOPLES GAS (352) 483-7232
 COMCAST COMMUNICATIONS (352) 787-8183 EXT. 159
 TRANSPORTATION STATISTICS OFFICE (800) 414-4848
- THE LOCATIONS OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED V, Vn, AND Wn) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.
- ALL STAKING OF PROPOSED CONSTRUCTION TO ALLOW FOR PROPER INSTALLATION/RELOCATION OF UTILITY FACILITIES, AS INDICATED ON THE UTILITY WORK SCHEDULE, SHALL BE PERFORMED BY THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE IMPACTED UTILITIES AND STAKE THE ITEMS REQUESTED. THIS STAKING SHALL BE SEPARATE AND IN ADDITION TO THE NORMAL STAKING FOR THE PROJECT. THE COST OF THIS STAKING SHALL BE INCIDENTAL TO AND INCLUDED IN THE COST OF THE PROJECT.
- EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL REMOVE BURIED OUT OF SERVICE UTILITY FACILITIES WITHIN THE LIMITS OF ALL EXCAVATION. THE COST OF THIS WORK SHALL BE INCIDENTAL TO AND INCLUDED IN THE COST OF WORK BEING PERFORMED WHEN THE LINES ARE ENCOUNTERED.
- ANY PUBLIC LAND CORNER OR BENCH MARK WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE ENGINEER SHOULD NOTIFY THE DISTRICT LOCATION SURVEYOR, WITHOUT DELAY, BY TELEPHONE.
- FILTER FABRIC USED TO WRAP PIPE JOINTS IN ACCORDANCE WITH SPECIFICATIONS 430 SHALL MEET REQUIREMENTS OF INDEX 199, TYPE D-3 WITH A.O.S. (SIEVE NUMBER) OF 70 TO 100.
- SOD MUST BE INSPECTED AND TESTED BY THE DEPARTMENT OF AGRICULTURE AND DETERMINED TO BE FREE OF NOXIOUS WEEDS.
- TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH FOOT DESIGN STANDARDS, INDEX 600 SERIES.
- THERE ARE NO LANE CLOSURE RESTRICTIONS FOR SR 46, HOWEVER A LANE CAN BE CLOSED ONLY DURING ACTIVE WORK PERFORMED.
- THE EXISTING POSTED SPEED 45 MPH SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

TRAFFIC CONTROL PLAN

P. I. STA. 260+38.82



P. O. T. STA. 276+71.80



REVISIONS			
DATE	BY	DESCRIPTION	

<p>C. BRIAN FULLER, P.E. # 49524 METRIC ENGINEERING, INC. 105 W. WISCONSIN AVE. - SUITE 210 DELAND, FLORIDA 32720 TEL. (386) 734-4410 FAX. (386) 734-4230 FLORIDA CERT. NO. EB-0002294</p>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		GENERAL NOTES & REFERENCE POINTS
	ROAD NO.	COUNTY	
46	LAKE	416218-1-52-01	

DATE	BY	DESCRIPTION	SHEET NO.
			5

BEGIN CONSTRUCTION
STA. 249+99 (RT)

BEGIN PROJECT
STA. 253+16.82

{ELEC}

R/W LINE

WH

R/W LINE

DRWY AND PARKING

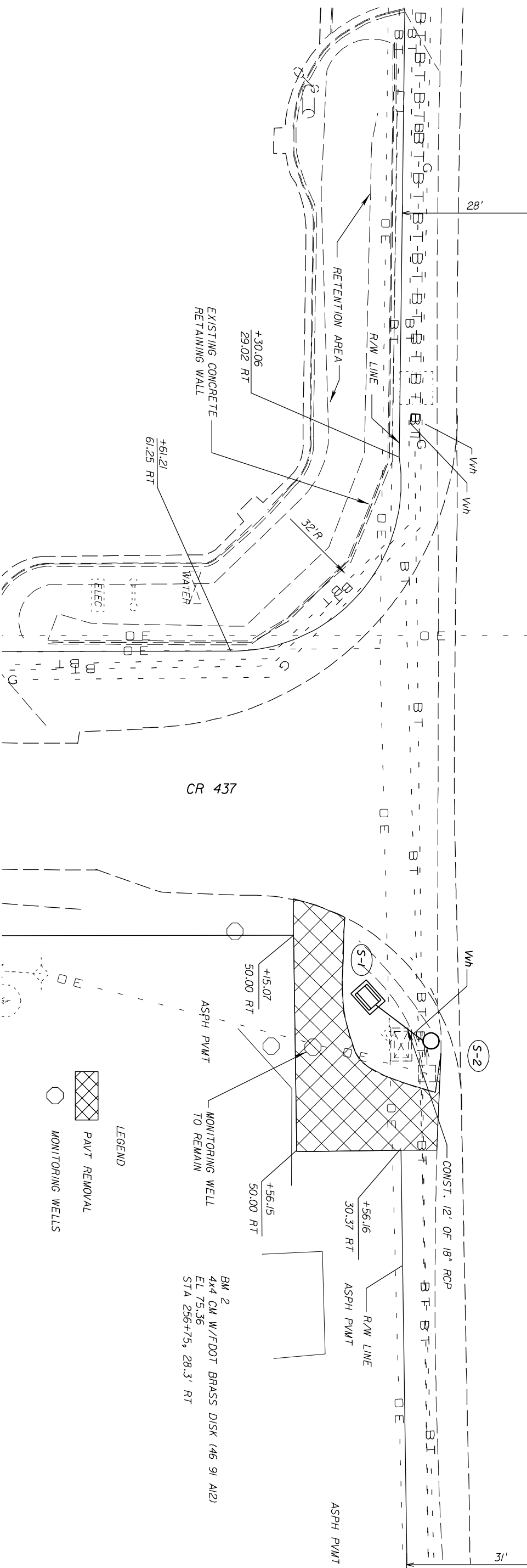
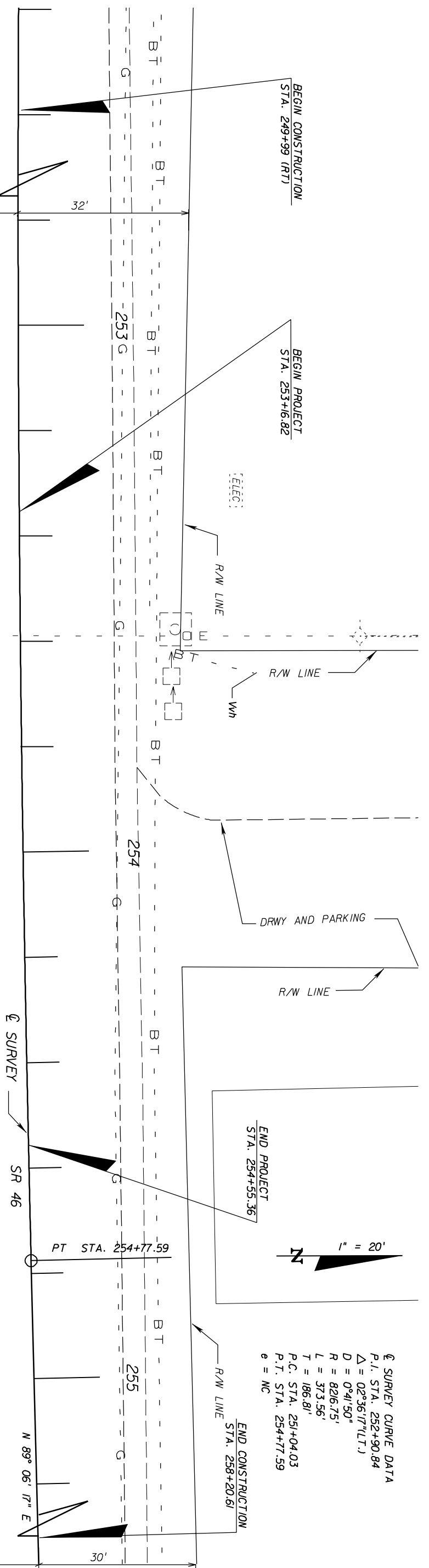
R/W LINE

END PROJECT
STA. 254+55.36

1" = 20'

☉ SURVEY CURVE DATA
P.I. STA. 252+90.84
 $\Delta = 02^{\circ}36'17''(LT.J)$
 $D = 0^{\circ}41'50''$
 $R = 8216.75'$
 $L = 373.56'$
 $T = 186.81'$
P.C. STA. 251+04.03
P.T. STA. 254+77.59
 $e = NC$

END CONSTRUCTION
STA. 258+20.61



BM 2
4x4 CM W/FDOT BRASS DISK (46 91 A12)
EL 75.36
STA 256+75, 28.3' RT

REVISIONS

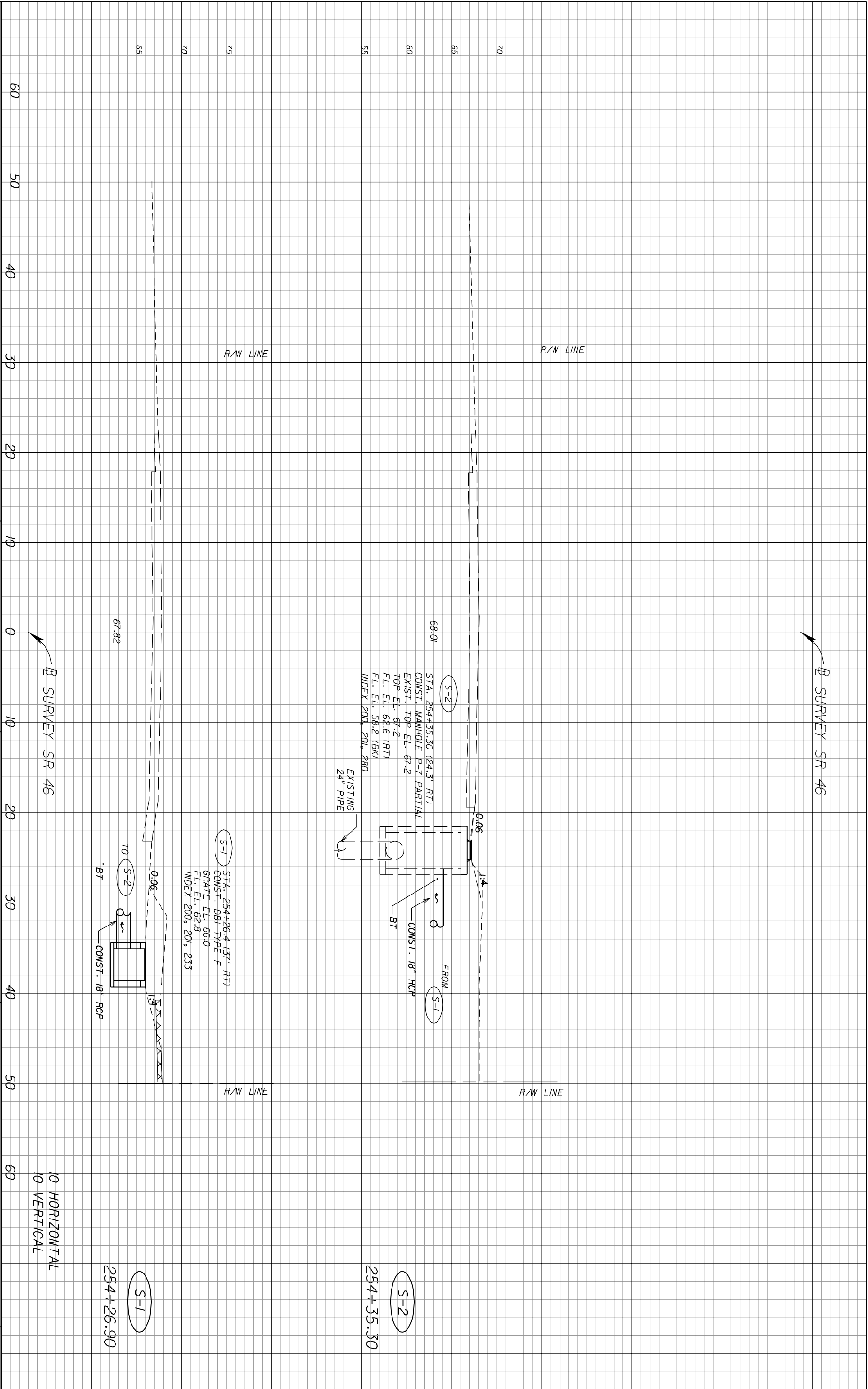
DATE	BY	DESCRIPTION

C. BRIAN FULLER, P.E. # 49524
METRIC ENGINEERING, INC.
105 W. WISCONSIN AVENUE - SUITE 210
DELAND, FLORIDA 32720
TEL. (386) 734-4410
FAX. (386) 734-5230
FLORIDA CERT. NO. EB-0002294

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
ROAD NO. 46
COUNTY LAKE
FINANCIAL PROJECT ID 416218-1-52-01

PLAN SHEET

SHEET NO. 6



REVISIONS		DESCRIPTION	
DATE	BY	DATE	BY

		C. BRIAN FULLER, P.E. # 49524 METRIC ENGINEERING, INC. 615 CRESCENT EXECUTIVE CT SUITE 524 LAKE MARY, FLORIDA 32746 TEL. (407) 644-1898 FAX. (407) 644-1921 FLORIDA CERT. NO. EB-0002294	
ROAD NO. 46		COUNTY LAKE	
FINANCIAL PROJECT ID 416218-1-52-01		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION	

DRAINAGE STRUCTURES		SHEET NO. 7
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NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

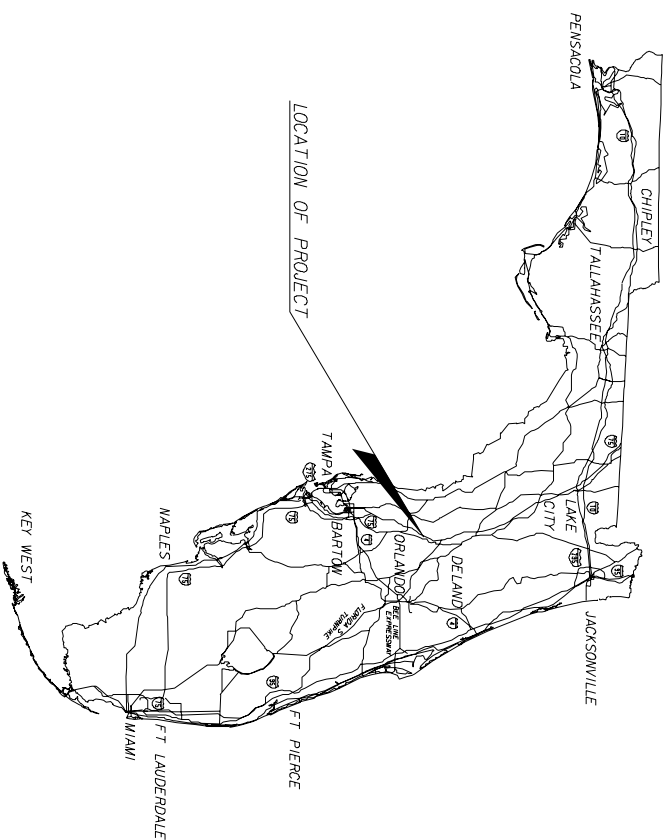
CONTRACT PLANS

INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3	GENERAL NOTES
T-4 - T-5	SIGNAL PLAN SHEET
T-6	STRAIN POLE SCHEDULE

FINANCIAL PROJECT ID 416218-1-52-01
LAKE COUNTY (11130)
STATE ROAD NO. 46

SIGNALIZATION PLANS



SIGNALIZATION SHOP DRAWINGS
TO BE SUBMITTED TO:

KHALED S. SHAABAN
METRIC ENGINEERING, INC.
615 CRESCENT EXECUTIVE COURT, SUITE 524
LAKE MARY, FL 32746

SIGNALIZATION PLANS PREPARED BY:

KHALED S. SHAABAN, P.E. # 56023
METRIC ENGINEERING, INC.
615 CRESCENT EXECUTIVE COURT, SUITE 524
LAKE MARY, FL 32746
CONTRACT NO. C-7634
VENDOR # F-59-1685550
CERTIFICATE OF AUTHORIZATION NO. EB-0002294

NOTE: THE SCALE OF THESE PLANS MAY
HAVE CHANGED DUE TO REPRODUCTION.

SIGNALIZATION PLANS
ENGINEER OF RECORD: KHALED S. SHAABAN

P.E. NO. 56023

KEY SHEET REVISIONS	
DATE	DESCRIPTION
BY	

FDOT PROJECT MANAGER: VICKI MITCHELL

PAA/TGI

B/B/2007

8:54:55 AM


C:\USG\HOME\PROJECT\416218\201\signus\kvs\sgpl.dgn

FISCAL YEAR	SHEET NO.
08	T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			T-4		T-5														PLAN	FINAL			
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL			
630-1-12	CONDUIT (F&I) (UNDERGROUND)	LF	332																	332		332	
630-1-13	CONDUIT (F&I) (UNDERPAVEMENT)	LF	10																	14		14	
630-1-14	CONDUIT (F&I) (UNDERGROUND - JACKED)	LF	182		4															182		182	
632-7-1	CABLE (SIGNAL) (F&I)	PI	1																	1		1	
634-4-112	SPAN WIRE ASSEMBLY	PI	1																	1		1	
634-5-1	FIBERGLASS INSULATOR	LF	10																	10		10	
635-1-11	PULL & JUNCTION BOXES (FIBER OPTIC)	EA	7		1															8		8	
635-1-15	PULL & JUNCTION BOXES (FIBER OPTIC)	EA	1																	1		1	
639-1-12	ELEC POWER SERVICE (OVERHEAD)	AS	1																	1		1	
639-2-1	ELECTRICAL SERVICE WIRE	LF	30																	30		30	
641-14-142	PRESTRESSED CONCRETE POLES (F&I)(TYPE N-V,42')	EA	1																	1		1	
641-14-144	PRESTRESSED CONCRETE POLES (F&I)(TYPE N-V,44')	EA	1																	1		1	
650-51-311	TRAFFIC SIGNAL (F&I) 3-SEC., 1 WAY STANDARD)	AS	5																	5		5	
650-51-321	TRAFFIC SIGNAL (F&I) 3-SEC., 2 WAY STANDARD)	AS	1																	1		1	
650-51-511	TRAFFIC SIGNAL (F&I) 5-SEC., 1 WAY STANDARD)	AS	1																	1		1	
660-1-101	LOOP DETECTOR, IND. (F&I) TYPE 1, 1 CH.(R.S.TD)	EA	4																	4		4	
660-1-102	LOOP DETECTOR, IND. (F&I) TYPE 2, 1 CH.(R.S.TD)	EA	3																	3		3	
660-2-102	LOOP ASSEMBLY (F&I) TYPE B1	AS	2																	4		4	
660-2-106	LOOP ASSEMBLY (F&I) TYPE F1	AS	3																	3		3	
670-5-111	TRAFFIC CONTROLLER ASSEMBLY (F&I) NEMA 1 PRE EM)	AS	1																	1		1	
690-10	SIGNAL HEAD TRAFFIC ASSEMBLY, REMOVAL	EA	6																	6		6	
690-32-1	POLE REMOVAL (SHALLOW)	EA	2																	2		2	
690-50	CONTROLLER ASSEMBLY, REMOVAL	EA	1																	1		1	
690-80	SPAN WIRE ASSEMBLY REMOVE	EA	1																	1		1	
690-90	CONDUIT & CABLING, REMOVE	PI	1																	1		1	
699-1-100	SIGNAL EQUIPMENT, MISCELLANEOUS REMOVE	PI	1																	1		1	
699-1-1	INTERNALLY ILLUMINATED SIGN	AS	4																	4		4	
700-20-11	SIGN SINGLE POST (F&I, 12 - 20)	AS	4																	4		4	
700-20-12	SIGN SINGLE POST (F&I, 12 - 20)	AS	1																	3		3	
700-20-60	SIGN SINGLE POST (REMOVE)	AS	3																	2		2	
700-48-60	SIGN PANEL (REMOVE)	EA	2																	28		28	
710-17	PAINTED PAVEMENT MARKINGS (REMOVE)	SF	28																	88		88	
711-11-121	TRAFFIC STRIPE SOLIDTHERMO., WHITE, 6"	LF	88																	51		51	
711-11-125	TRAFFIC STRIPE SOLIDTHERMO., WHITE, 24"	LF	51																	1		1	
711-11-170	TRAFFIC STRIPE SOLIDTHERMO., WHITE, ARROWS)	EA	1																	100		100	
711-11-221	TRAFFIC STRIPE SOLIDTHERMO., YELLOW, 6"	LF	100																				

REVISIONS			
DATE	BY	DESCRIPTION	DATE



KHALED S. SHAABAN, P.E. # 56023
 METRIC ENGINEERING, INC.
 615 CRESCENT EXECUTIVE COURT
 SUITE 524
 LAKE MARY, FL 32746
 TEL: (407) 644-1896
 FAX: (407) 644-2376
 FLORIDA CERT. NO. EB-0002294

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.: 46 COUNTY: LAKE FINANCIAL PROJECT ID: 416218-1-52-01

TABULATION OF QUANTITIES

8/8/2007

8:55:12 AM

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SHEET NO. T-2

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

GENERAL

- 1) UNLESS OTHERWISE NOTED ALL REMOVED EQUIPMENT SHALL BE TURNED OVER TO LAKE COUNTY AT 28127 CR 561 TAVERNES, FLORIDA 32778.
- 2) THE CONTRACTOR SHALL MAINTAIN THE EXISTING TRAFFIC SIGNALS DURING THIS PROJECT.
- 3) THE CONTRACTOR SHALL CONTACT THE ENGINEER AT LAKE COUNTY TRAFFIC DIVISION, FRED SCHWEIDER, (352) 343-9655 48 HOURS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
- 4) THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FDOT SPECIFICATION 105-5.10. THE CONTRACTOR SHALL COORDINATE THE FINAL ACCEPTANCE INSPECTION IN ACCORDANCE WITH FDOT SPECIFICATION 611-2.2 WITH THE ENGINEER AT LEAST TEN DAYS IN ADVANCE. THE LAKE COUNTY TRAFFIC DIVISION AT (352) 742-7666 AND RAY MARLIN AT (386) 943-5318 SHOULD ALSO BE CONTACTED TEN DAYS BEFORE THE INSPECTION IS TO BE PERFORMED SO THEY MAY BE PRESENT.
- 5) THE CONTRACTOR SHALL VERIFY COLOR CODES FOR THE SIGNAL WITH LAKE COUNTY BEFORE ORDERING.
- 6) IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING, DIRECTIONAL BORING, OR TRENCING. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE SPECIFICATIONS.
- 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING LAKE COUNTY TRAFFIC OPERATIONS AT (352) 742-7666, 48 HOURS IN ADVANCE OF ALL PHASES OF CONSTRUCTION INCLUDING, INSTALLING SIGNAL POLES, GROUND RODS, UNDERGROUND CONDUIT, SIGNAL HEAD ASSEMBLIES, AND LOOP INSTALLATION.
- 8) THE CONTRACTOR SHALL HAND DIG THE FIRST 4' AT EACH POLE LOCATION TO VERIFY NO UTILITY CONFLICTS.
- 9) PULL BOXES AND COVERS SHALL BE NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FDOT FIBER OPTICS" AS APPROPRIATE.
- 10) A GENERATOR SWITCH BOX ASSEMBLY WITH POWER INDICATOR LIGHT SHALL BE INSTALLED.
- 11) A GENERATOR PAD, 3' X 3' X 4" CONCRETE SHALL BE INSTALLED.
- 12) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS, INCLUDING THE ELECTRIC PERMIT, AND TO COORDINATE APPLICATION FOR POWER, WITH THE LAKE COUNTY TRAFFIC OPERATIONS.
- 13) THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND PHONE NUMBERS AND HAVE AN MSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO-HOUR MINIMUM RESPONSE TIME.
- 14) OPTICOM PREEMPTION OR EQUIVALENT SHALL BE USED WHEN EMERGENCY PREEMPTION IS REQUESTED.
- 16) A PHOTOCELL SHALL BE INSTALLED NEAR THE ELECTRICAL SERVICE WITHIN REACH OF A LIFT TRUCK. CARE TO BE GIVEN TO INSTALL WHERE STREET LIGHTING DOES NOT AFFECT OPERATION.

SIGNAL CABLE, LOOPS, CONDUIT, & PULL BOXES

- 1) THE MOUNTING OR ATTACHMENT OF THE ELECTRICAL SERVICE TO THE TRAFFIC SIGNAL CABINET SHALL BE PROHIBITED.
- 2) TYPE 'F' LOOPS SHALL BE 40' X 6' AND EXTEND 5' BEYOND THE STOP BAR, UNLESS OTHERWISE NOTED ON THE PLANS.
- 3) MULTIPLE CONDUIT RUNS IN THE SAME TRENCH SHALL BE JACK AND BORED OR DIRECTIONAL BORED FOR THE FIRST CONDUIT ONLY. SUBSEQUENT CONDUIT RUNS WILL BE PAID FOR AS UNDERGROUND.
- 4) ANY NEW OR EXISTING STRIPING CUT BECAUSE OF LOOP PLACEMENT SHALL BE RE-STRIPED PRIOR TO ACCEPTANCE.
- 5) EXISTING LOOPS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 6) ALL CONDUITS TO BE INSTALLED UNDER PAVEMENT, SIDEWALK, OR DRIVEWAY SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF THE BASE COURSE.

SIGNING AND PAVEMENT MARKINGS

- 1) THE CONTRACTOR SHALL APPLY THERMOPLASTIC AS THE FINAL PAVEMENT MARKINGS A MINIMUM OF FOURTEEN (14) DAYS AFTER THE FIRST APPLICATION OF PAINT BUT PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. ALL PAVEMENT MARKINGS SHALL BE PAID FOR UNDER LUMP SUM PAINTED PAVEMENT MARKINGS.

CONTROLLER

- 1) THE CONTROLLER ASSEMBLY SHALL BE A "LAKE COUNTY" NAZTEC REGIONAL TS2-1; WITH A TS2-2 CONTROLLER ETHERNET ENABLED FOR COUNTY CLOSED LOOP SYSTEM.
- 3) DELAY TIMES SHALL BE SET TO 5 SECONDS.
- 4) GROUNDING FOR THE CONTROLLER ASSEMBLY SHALL MEASURE 25 OHMS OR LESS.
- 5) A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN ALL CONTROLLER CABINETS.


SIGNAL HEADS & OVERHEAD SIGNS

- 1) ALL SIGNAL DISPLAYS SHALL BE LED.
- 2) CONTRACTOR IS NOT TO USE JONES PLUGS.
- 3) ALL SIGNAL HEADS SHALL BE CAST ALUMINUM.
- 4) THE OVERHEAD SIGNS ARE TO BE INSTALLED ONE FOOT BELOW THE MESSENGER CABLE.
- 5) INTERNALLY STREET NAME SIGNS SHALL BE INSTALLED 1' BELOW THE MESSENGER CABLE WHERE POSSIBLE, POWERED BY A SEPARATE CIRCUIT BREAKER, AND SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH, LAKE COUNTY PUBLIC WORKS INTERNALLY ILLUMINATED STREET NAME SIGN DETAIL.

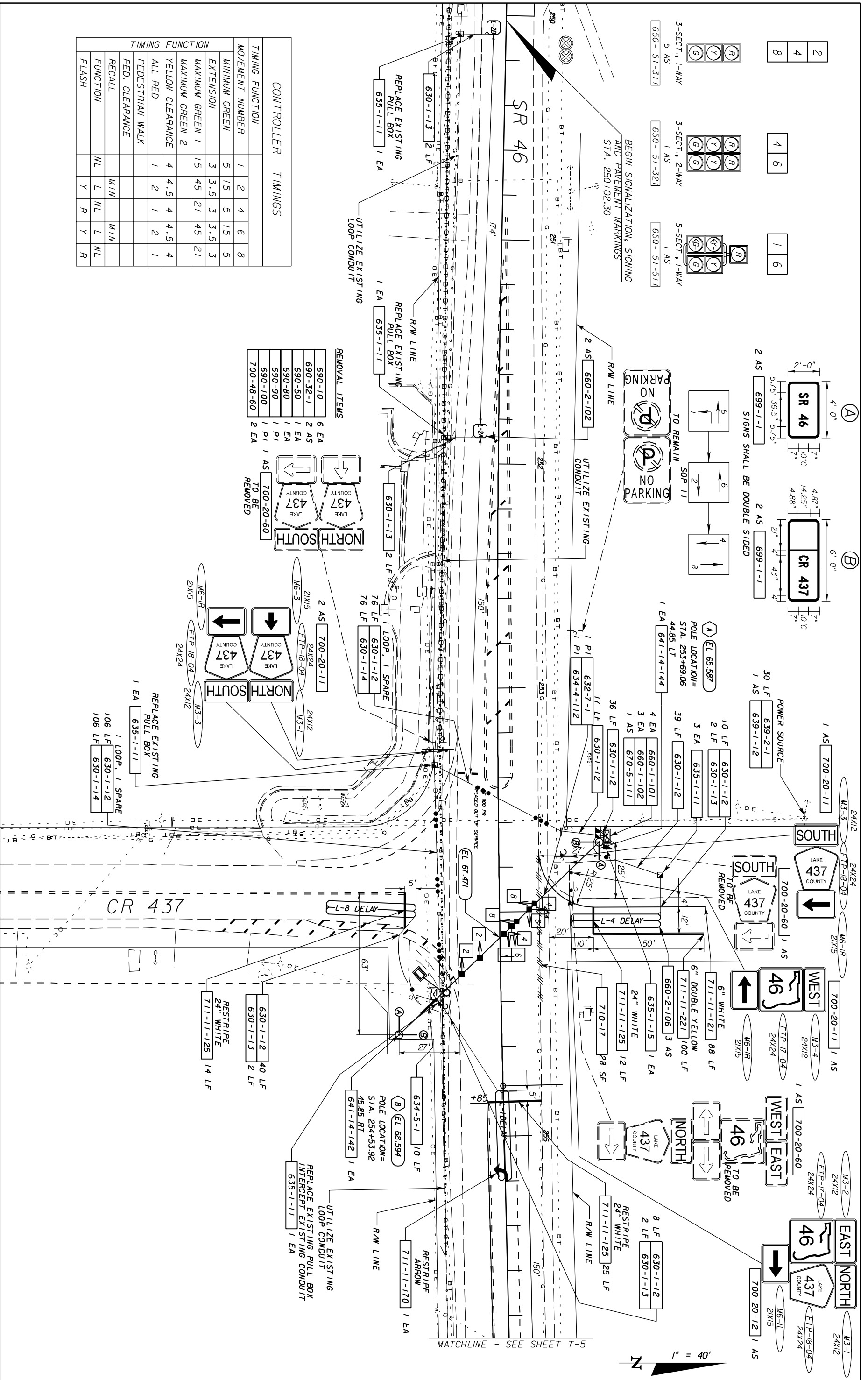
PAY ITEM NOTES

- 1) PAY ITEM NO. 639-1-12 TO INCLUDE ALL FEES BY THE POWER COMPANY FOR ENERGIZING THE POWER SERVICE.
- 2) AN OFF DUTY OFFICER SHALL BE PRESENT AT THE TRAFFIC SIGNAL WHEN SIGNAL IS NOT IN USE, AND THE COST FOR THIS SERVICE SHALL BE INCLUDED IN PAY ITEM NO. 102-14 FOUND IN THE ROADWAY PLANS.
- 3) PAY ITEM 690-100 INCLUDES REMOVAL OF ABANDONED PULL BOXES.

R E V I S I O N S			
DATE	BY	DESCRIPTION	DATE

 <p> KHALED S. SHAABAN, P.E. # 56023 METRIC ENGINEERING, INC. 615 CRESCENT EXECUTIVE COURT SUITE 524 LAKE MARY, FL 32746 TEL: (407) 644-1896 FAX: (407) 644-2376 FLORIDA CERT. NO. EB-0002294 </p>	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		ROAD NO.: 46	COUNTY: LAKE	FINANCIAL PROJECT ID: 416218-1-52-01
	GENERAL NOTES				

SHEET NO. T-3

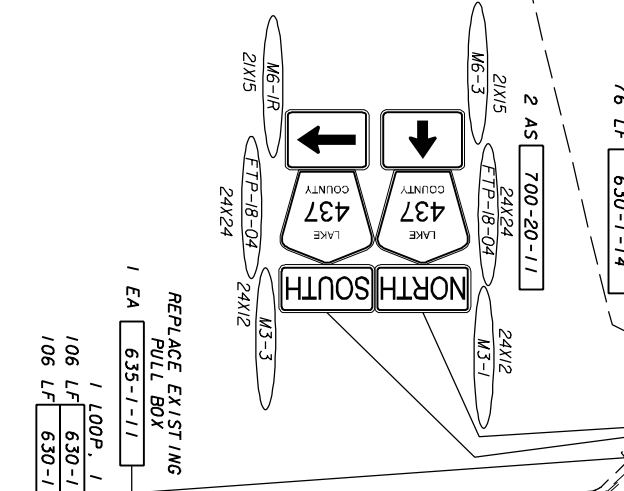


CONTROLLER TIMINGS

MOVEMENT NUMBER	1	2	4	6	8
MINIMUM GREEN	5	15	5	15	5
EXTENSION	3	3.5	3	3.5	3
MAXIMUM GREEN 1	15	45	21	45	21
MAXIMUM GREEN 2	4	4.5	4	4.5	4
YELLOW CLEARANCE	1	2	1	2	1
ALL RED					
PEDESTRIAN WALK					
PED. CLEARANCE					
RECALL					
FUNCTION	NL	L	NL	L	NL
FLASH					

REMOVAL ITEMS

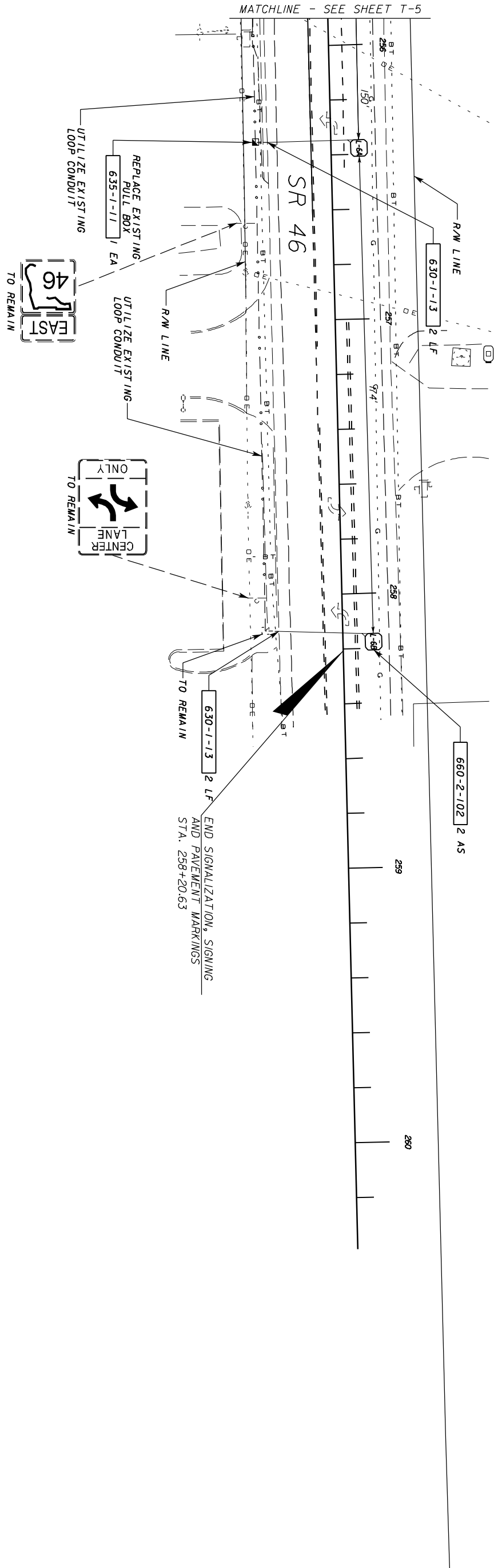
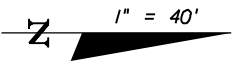
690-10	6 EA
690-32-1	2 AS
690-50	1 EA
690-80	1 EA
690-90	1 PI
690-100	1 PI
700-48-60	2 EA



TIMING FUNCTION

MOVEMENT NUMBER	1	2	4	6	8
MINIMUM GREEN	5	15	5	15	5
EXTENSION	3	3.5	3	3.5	3
MAXIMUM GREEN 1	15	45	21	45	21
MAXIMUM GREEN 2	4	4.5	4	4.5	4
YELLOW CLEARANCE	1	2	1	2	1
ALL RED					
PEDESTRIAN WALK					
PED. CLEARANCE					
RECALL					
FUNCTION	NL	L	NL	L	NL
FLASH					

REVISIONS		STATE OF FLORIDA		SIGNALIZATION PLANS	
DATE	BY	DESCRIPTION	DATE	BY	SHEET NO.
					T-4
DEPARTMENT OF TRANSPORTATION			FINANCIAL PROJECT ID		
ROAD NO. 46			LAKE		
COUNTY LAKE			416218-1-52-01		
SR 46 AND CR 437					



REVISIONS			
DATE	BY	DESCRIPTION	

KHALED S. SHAABAN, P.E. # 56023
 METRIC ENGINEERING, INC.
 615 CRESCENT EXECUTIVE COURT
 SUITE 524
 LAKE WORTH, FL 32746
 TEL. (407) 644-1898
 FAX. (407) 644-2376
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
46	LAKE	416218-1-52-01

SIGNALIZATION PLANS
SR 46 AND CR 437

SHEET NO.	T-5
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