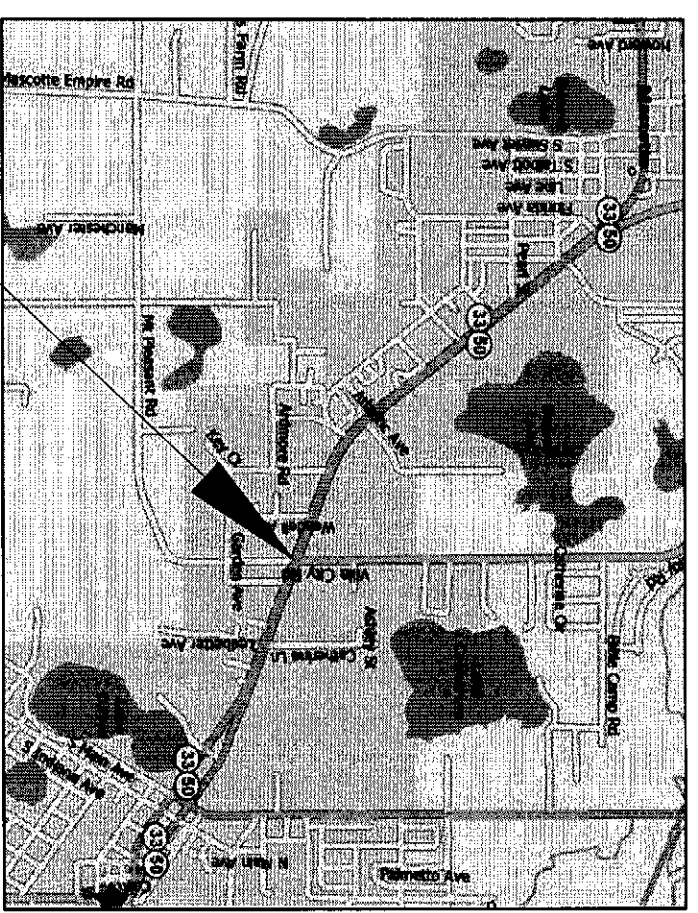


**LAKE COUNTY, FLORIDA**  
**SECTION 11020 - M.P. 14.921**  
**SR 50 AT CR 565 (VILLA CITY ROAD)**  
**PERMIT NO. 05-A-592-0077**

**SIGNALIZATION PLANS**

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3	GENERAL NOTES
T-4	SIGNALIZATION PLAN
T-5	SIGNALIZATION DETAILS
T-6	POLE SCHEDULE & DETAILS
T-7	SIGNING, STRIPING & ROADWORK
T-8	GUIDESIGN WORKSHEET

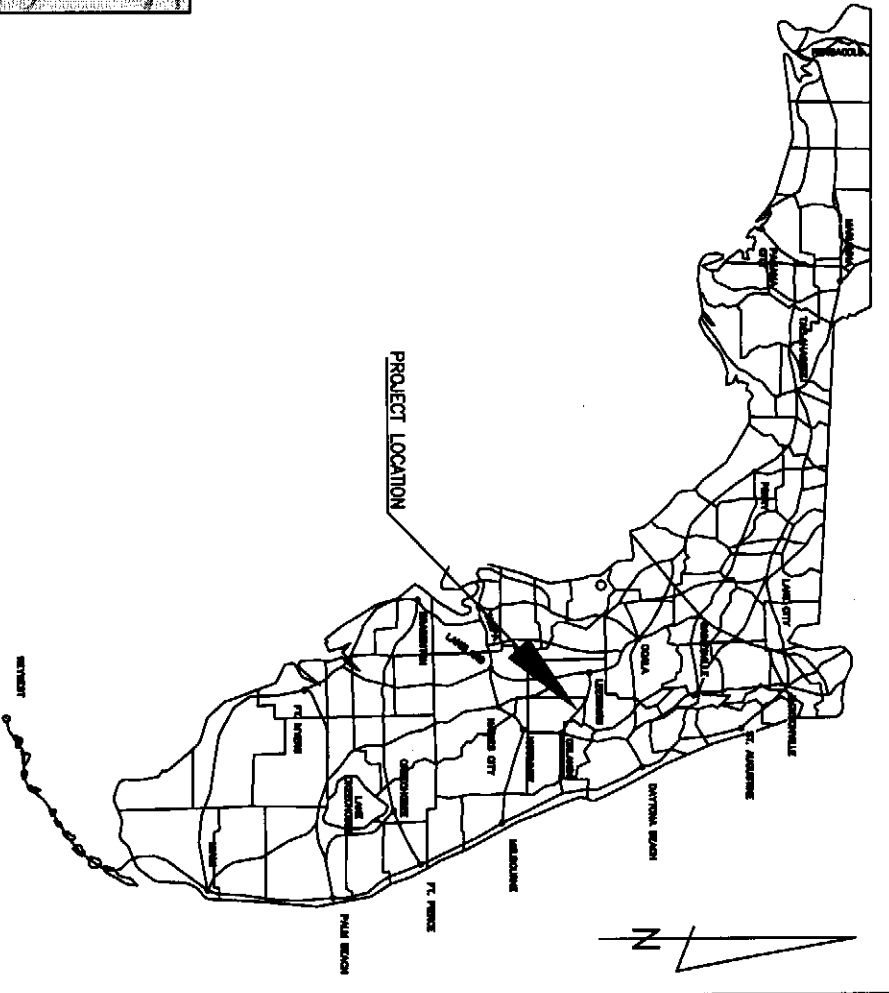
GOVERNING STANDARDS AND SPECIFICATIONS:  
 FLORIDA DEPARTMENT OF TRANSPORTATION,  
 DESIGN STANDARDS DATED 2006, AND  
 STANDARD SPECIFICATIONS FOR ROAD  
 AND BRIDGE CONSTRUCTION DATED 2007,  
 AS AMENDED BY CONTRACT DOCUMENTS.



PROJECT LOCATION

VICINITY MAP  
N.T.S.

DATE	BY	SIGNALIZATION PLAN SET DESCRIPTION



PROJECT LOCATION

**SIGNALIZATION SHOP DRAWINGS  
 TO BE SUBMITTED TO:**

FRED D. FERRELL, P.E.  
 TRAFFIC ENGINEERING DATA SOLUTIONS, INC.  
 615 N. CHARLES RICHARD BEALL BLVD., SUITE 103  
 DEBARY, FL 32713  
 PH: (386) 775-TEDS FAX: (386) 775-6364  
 E-Mail: ferrelleda@f-t.com

**PLANS PREPARED BY:**

*Traffic Engineering*  
*Data Solutions, Inc.*  
 Phone: (386) 775-TEDS 615 N. Charles Richard Beall Blvd, Suite 103  
 Fax: (386) 775-6364 Debary, FL 32713  
 ENGINEERING BUSINESS NO. 27392

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

SIGNALIZATION PLANS  
 ENGINEER OF RECORD: FRED D. FERRELL, P.E.  
 DATE: DECEMBER 28, 2007  
 P.E. NO.: 41902

**TABULATION OF QUANTITIES**

BID ITEM NUMBER	DESCRIPTION	UNIT	SHEET T-4		SHEET T-7		TOTAL THIS SHEET		GRAND TOTAL	
			ORIG	FINAL	ORIG	FINAL	ORIG	FINAL	ORIG	FINAL
101-1	MOBILIZATION	LS	1		0		1		1	
102-1	MAINTENANCE OF TRAFFIC	LS	1		0		1		1	
110-4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	0		16		16		16	
180-72	SUBBASE STABILIZED	SY	0		20		20		20	
210-2	LMEROCK, NEW MATERIAL	CY	0		1		1		1	
337-7-20	ASPY CONC. FRIC COURSE, INC BIT, FC 12.5	TN	0		1		1		1	
520-1-10	CONC. CURB & GUTTER, TYPE F	LF	0		20		20		20	
522-1	SIDEWALK CONCRETE, 4" THICK	SY	0		5		5		5	
522-2	SIDEWALK CONCRETE, 6" THICK	SY	0		20		20		20	
555-1-1	CONDUIT - DIRECTIONAL BORE (LESS THAN 6')	LF	425		0		425		425	
630-1-11	CONDUIT - SIGNALS, FURNISH & INSTALL, ABOVEGROUND	LF	20		0		20		20	
630-1-12	CONDUIT - SIGNALS, FURNISH & INSTALL, UNDERGROUND	LF	770		0		770		770	
630-1-13	CONDUIT - SIGNALS, FURNISH & INSTALL, UNDER EXISTING	LF	100		0		100		100	
632-7-1	CABLE (SIGNAL)	PI	1		0		1		1	
634-4-112	SPAN WIRE ASSEMBLY (TWO-WIRE, DIAGONAL)	PI	1		0		1		1	
634-5-1	SIGNALS - FIBERGLASS INSULATOR	LF	25		0		25		25	
635-1-11	PULL BOX	EA	15		0		15		15	
639-1-13	SIGNALS, ELECTRICAL POWER SERVICE, OVERHEAD	EA	1		0		1		1	
639-2-1	ELECTRICAL SERVICE WIRE	LF	150		0		150		150	
639-3-11	ELECTRICAL SERVICE DISCONNECT (POLE MOUNTED)	EA	1		0		1		1	
641-17-148	PREST CONC POLE, F&I - WITH FOUNDATION, TYPE N-VIII, 48'	EA	2		0		2		2	
650-51-313	TRAFFIC SIGNAL, F&I, 3 SECTIONS, 1 WAY, SPECIAL	EA	6		0		6		6	
650-51-513	TRAFFIC SIGNAL, F&I, 5 SECTION, 1 WAY, SPECIAL	EA	2		0		2		2	
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNTDOWN, 1 DIRECTION	EA	2		0		2		2	
653-192	PEDESTRIAN SIGNAL, F&I, LED-COUNTDOWN, 2 DIRECTION	EA	1		0		1		1	
659-107	SIGNAL HEAD AUXILIARIES, F&I, ALUMINUM PEDESTAL	EA	2		0		2		2	
659-109	SIGNAL HEAD AUXILIARIES, F&I, CONC PEDESTAL, TYPE II	EA	1		0		1		1	
660-1-109	INDUCTIVE LOOP DETECTOR (TYPE 9, 2 CH, SS, RM)	EA	4		0		4		4	
660-1-110	INDUCTIVE LOOP DETECTOR (TYPE 10, 2 CH, SS, RM, TD)	EA	4		0		4		4	
660-2-102	LOOP ASSEMBLY (TYPE B) (6'x6')	AS	8		0		8		8	
660-2-106	LOOP ASSEMBLY (TYPE F MOD) (6'x40')	AS	5		0		5		5	
663-74-11	VEHICLE DETECTOR ASSEM, F&I, OPTICAL TYPE	AS	1		0		1		1	
665-11	PEDESTRIAN DETECTOR, F&I, DETECTOR STATION, POLE OR	EA	3		0		3		3	
670-5-111	TRAFFIC CONTROLLER ASSEMBLY	AS	1		0		1		1	
699-1-1	INTERVAL ILLUM SIGN, ST NAME	EA	4		0		4		4	
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	AS	0		2		2		2	
700-20-60	SINGLE POST SIGN, REMOVE	AS	0		2		2		2	
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS [BI DIR Y (14)] [BI DIR W/R (35)]	EA	0		36		36		36	
711-11-121	THERMOPLASTIC, STANDARD, WHITE, SOLID, 6"	LF	0		910		910		910	
711-11-123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12"	LF	0		500		500		500	
711-11-125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24"	LF	0		161		161		161	
711-11-170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	0		8		8		8	
711-11-221	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 6"	LF	0		320		320		320	
711-17	THERMOPLASTIC, REMOVE	SF	0		100		100		100	

DATE	BR	REVISIONS	DESCRIPTION
Engineer of Record: Fred Farrell, P.E. PE No. 41902 Date: December 28, 2007			
Traffic Engineering Data Solutions, Inc. Phone 386.773.7285 Fax 386.773.6584 615 N. Charles Richard Beall Blvd, Suite 103 Delray, FL 33473			
STATE OF FLORIDA		DEPARTMENT OF TRANSPORTATION	
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
50	LAKE		
TABULATION OF QUANTITIES			SHEET NO. T-2

**GENERAL NOTES:**

1. THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OR THE PROGRESSION OF ANY WORK SPECIFIED IN THESE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY AND PRIOR TO ANY FURTHER WORK ACTIVITY.
2. IT SHALL BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MR. LOGAN LAND (FOOT PERMIT MANAGER) AT 352-315-3000, MR. RAY MARLIN (FOOT TRAFFIC OPERATIONS) AT 352-945-5388 AND MR. STEVE BOLLINGER (LAKE COUNTY TRAFFIC OPERATIONS/MAINTAINING AGENCY) AT 352-242-0766 AT LEAST TWO (2) BUSINESS DAYS PRIOR TO BEGINNING ANY WORK IN THE RIGHT OF WAY. LAKE CLOSURES AND AGAIN FOR LOOP INSTALLATION. ADDITIONALLY, MR. LAND SHALL BE NOTIFIED TWO (2) BUSINESS DAYS BEFORE ANY DIRECTIONAL SIGNS AND MR. BOLLINGER SHALL BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF INSTALLING SIGNAL POLES, GROUND RODS, UNDERGROUND CONDUIT AND THE SEALING OF SIGNAL HEADS. SHOULD HE WISH TO OBSERVE THESE ACTIVITIES.
4. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND PHONE NUMBERS AND HAVE AN IJSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO (2) HOUR MAXIMUM RESPONSE TIME.
5. A RECONSTRUCTION MEETING SHALL BE SCHEDULED WITH FOOT AND LAKE COUNTY TRAFFIC OPERATIONS PRIOR TO ANY CONSTRUCTION.
6. ALL MATERIALS AND HARDWARE SHALL BE FOOT APPROVED AND MEET THE REQUIREMENTS OF LAKE COUNTY TRAFFIC OPERATIONS.
7. ALL WORK WITHIN THE RIGHT OF WAY SHALL BE IN CONFORMANCE WITH FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND FOOT STANDARD INDICES, CURRENT EDITIONS.
8. ANY ITEMS NOT SPECIFICALLY ADDRESSED IN THESE PLANS, REFER TO FOOT STANDARD SPECIFICATIONS AND STANDARD INDICES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS, INCLUDING THE ELECTRIC PERMIT, ALONG WITH COORDINATION OF APPLICATION FOR POWER WITH LAKE COUNTY OPERATIONS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY PROVIDING ELECTRICAL POWER TO DETERMINE IF ANY ADDITIONAL FEES ARE REQUIRED TO CONNECT POWER, AND FOR CONNECTION OF POWER. IF REQUIRED, THE FEE SHALL BE INCLUDED AS PART OF BID ITEM PAYMENT FOR ELECTRICAL SERVICE ASSEMBLY.
11. THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FOOT STANDARD SPECIFICATION 105-5.00. THE CONTRACTOR SHALL COORDINATE THE FINAL ACCEPTANCE INSPECTION IN ACCORDANCE WITH FOOT STANDARD SPECIFICATION 61-2.2 WITH THE FOOT PERMIT MANAGER AT LEAST TEN (10) BUSINESS DAYS IN ADVANCE. THE MAINTAINING AGENCY AND MR. RAY MARLIN SHALL ALSO BE CONTACTED TEN (10) BUSINESS DAYS BEFORE THE INSPECTION IS TO BE PERFORMED SO THEY MAY BE PRESENT.
12. THE CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF CONSTRUCTION "AS-BUILTS" - ONE (1) TO FOOT, ONE (1) FOR CABINET, ONE (1) TO MAINTAINING AGENCY AND ONE (1) TO ENGINEER OF RECORD.
13. ENGINEER CERTIFICATION (IF REQUIRED) MUST BE RECEIVED WITHIN 30 DAYS OF COMPLETION OF THE PROJECT.
14. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH FOOT DESIGN STANDARD INDICES, 600 SERIES, CURRENT EDITION.
15. NO LAKE CLOSURES ARE ALLOWED ALONG STATE ROAD 50 FROM 600 AM - 700 PM.
16. THE COST FOR THE USE OF TRAFFIC CONTROL OFFICERS IN THE EVENT OF LAKE CLOSURES SHALL BE 2. INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.
17. UTILITY LOCATIONS SHOWN ON PLANS ARE BASED ON BEST INFORMATION AVAILABLE AT THE TIME OF PLANS PREPARATION AND SHALL BE USED FOR GENERAL INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING ANY WORK.
18. THE CONTRACTOR SHALL HAND DIG THE FIRST 48 INCHES OF THE HOLE FOR THE STRAIN POLE(S) FOUNDATION AND 24 INCHES OF THE HOLE FOR EACH PEDESTAL LOCATION TO VERIFY THERE ARE NO UTILITY CONFLICTS. SHOULD THERE BE OTHER UTILITIES THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER WHO WILL RESOLVE THE CONFLICT AND ADJUSTMENT, IF REQUIRED.

**GENERAL NOTES:**

19. THE CONTRACTOR SHALL HAND DIG THE FIRST 48 INCHES OF THE HOLE FOR THE STRAIN POLE(S) FOUNDATION AND 24 INCHES OF THE HOLE FOR EACH PEDESTAL LOCATION TO VERIFY THERE ARE NO UTILITY CONFLICTS. SHOULD THERE BE OTHER UTILITIES THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER WHO WILL RESOLVE THE CONFLICT AND ADJUSTMENT, IF REQUIRED.
20. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT(S) AT LEAST 48 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND/OR WHEN JOINT USE POLES ARE TO BE USED.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE PROPER AMOUNT OF RAKE WITH RESPECT TO LOADING TO BE USED ON POLES AT THE TIME OF INSTALLATION.
22. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR SIGNAL CABLE AND INTERCONNECT WITH LAKE COUNTY TRAFFIC OPERATIONS BEFORE ORDERING MATERIAL.
23. SIGNAL CABLE SHALL BE ATTACHED TO MESSENGER WIRE USING PROPER SIZE SPIRAL WRAP.
24. SEPARATE CONDUIT AND PULL BOXES SHALL BE PROVIDED FOR LOOP WIRE, SIGNAL CABLE AND ELECTRICAL SERVICE WIRE.
25. THE CONTRACTOR SHALL CONTACT THE POWER COMPANY (PROGRESS ENERGY) AT LEAST 48 HOURS PRIOR TO INSTALLING SIGNAL CABLE. THE POWER COMPANY AND/OR ELECTRIC DEPARTMENT PERSONNEL SHALL BE ON-SITE WHEN FEEDING THE CABLE IN BETWEEN THE EXISTING ELECTRICAL WIRE.
26. THE CONTRACTOR SHALL NOTIFY SUNSHINE ONE CALL AT 1-800-432-4770 AT LEAST 48 HOURS IN ADVANCE OF ANY EXCAVATION OR ANY WORK WHICH WOULD OTHERWISE INTERFERE WITH ANY ABOVE GROUND OR BELOW GROUND UTILITIES. IN ADDITION, THE CONTRACTOR SHALL DIRECTLY NOTIFY ALL UTILITIES WHICH ARE NOT SUNSHINE ONE CALL MEMBERS, BUT MAY HAVE EXISTING FACILITIES WITHIN THE VICINITY OF THE PROJECT. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING A CURRENT LOCATE TICKET THROUGHOUT THE DURATION OF THE WORK.
27. PRIOR TO STARTING ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY ALL UTILITIES WHICH MAY BE AFFECTED BY THE WORK. THE FOLLOWING IS A PARTIAL LISTING:
 

<b>UTILITY AGENCY OWNER:</b>	<b>CONTACT:</b>	<b>PHONE:</b>
CITY OF GROVELAND	LARRY WALKER	(352) 423-0227
LAKE APOPKA NATURAL GAS DISTRICT	RICK GUILLET	(407) 465-5117
PROGRESS ENERGY	SUE FRESER	(407) 646-8364
LANE NETWORK SERVICES, INC.	TIM COLE	(407) 941-9235
BRIGHT HOUSE NETWORKS, LLC	CHRISTOPHER B. LOVE	(407) 844-5271
LAKE COUNTY PUBLIC WORKS	JOHN WOSIAK	(386) 775-4444 EXT 7879
LAKE COUNTY SIGNAL DEPARTMENT	JUAN CHAN	(352) 253-4952
SUNSHINE ONE-CALL	STEVE BOLLINGER	(352) 742-7766
		(800) 432-4770

**STRIPING:**

1. ANY STRIPING / PAVEMENT MARKINGS DESTROYED BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

**PEDS:**

1. 2006 FOOT STANDARD INDEX 17794, 2/2 CALLS FOR FTT-25-04 AND RD-3E (MODIFIED) WITHOUT ARROW.
2. THE CONTRACTOR SHALL INSURE THAT A 4'x4' FLAT LANDING AREA (S22-1) IS ADJACENT TO ALL PEDESTRIAN BUTTONS FOR PEDESTRIAN ACCESS.
3. THREE (3) SPARE CONDUCTORS SHALL BE RUN TO THE SIGNAL HEAD FURTHEST FROM CONTROLLER.
4. ALL PEDESTRIAN SIGNALS SHALL BE 1/2 LED, COUNTDOWN TYPE.

**LOOPS / PULL BOXES:**

1. EACH LOOP SHALL BE TREATED AS AN INDIVIDUAL LOOP WITH SEPARATE LOOP LEAD-INS, FROM SPLICE POINT TO CABINET TERMINAL.
2. THE "P" LOOPS SHALL BE 40' LONG BY 6' WIDE, CENTERED UPON LAKE AND EXTENDING 5' BEYOND THE STOP BAR.
3. LOOP HOME RUNS SHALL NOT BE CUT INTO THE RADUS.
4. PULL BOXES AND COVERS SHALL BE FOOT APPROVED OF NONMETALLIC CONSTRUCTION WITH RECESSED COVER LOGO STAMPED TRAFFIC SIGNAL.
5. PULL BOXES SHALL BE LOCATED TEN (10) FEET FROM EDGE OF PAVEMENT OR BEHIND CURB WHEN POSSIBLE, ATTEMPTING TO KEEP FROM BOTTOM OF A DITCH OR RETENTION AREA.

**TIMINGS / CONTROLLER:**

1. DELAY TIMES SHALL BE SET AT FIVE (5) SECONDS.
2. A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN THE CONTROLLER CABINET.
3. THE MOUNTING OF ELECTRICAL SERVICE TO THE TRAFFIC SIGNAL CABINET SHALL BE PROHIBITED.
4. THE CONTROLLER ASSEMBLY SHALL BE A LAKE COUNTY MAZTEC REGIONAL TS2-1, WITH A TS2-2 CONTROLLER ETHERNET ENABLED FOR COUNTY CLOSED LOOP SYSTEM, AND SHALL INCLUDE A GENERATOR SWITCH BOX PANEL.
5. A CONCRETE GENERATOR PAD, 3'x3'x4', SHALL BE INSTALLED AND PAID FOR AS PART OF PAY ITEM NO. 670-5-111.
6. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION WHEN POSSIBLE.
7. GROUNDING FOR THE CONTROLLER ASSEMBLY SHALL MEASURE 25 OHMS OR LESS.

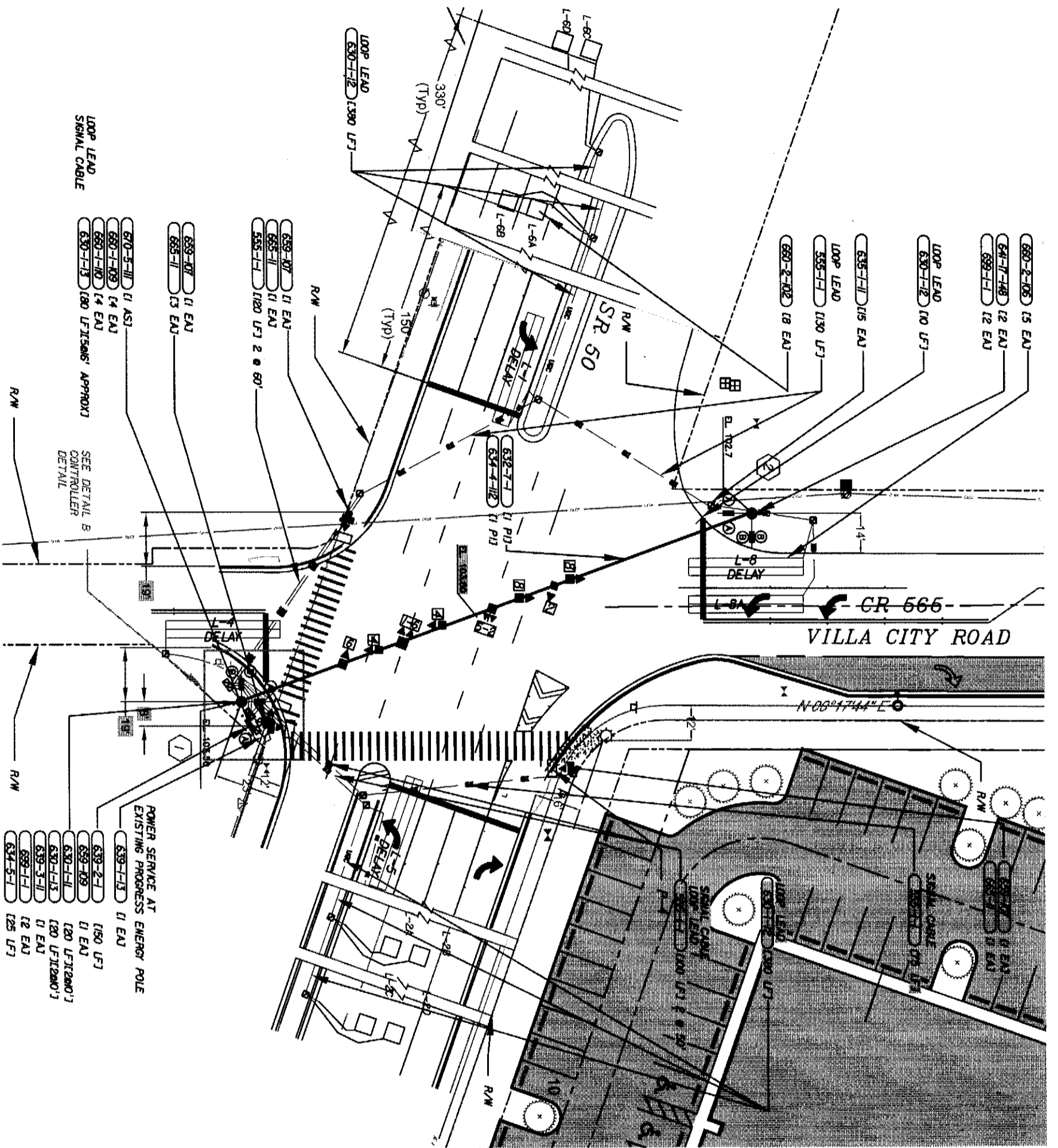
**VEHICLE DETECTOR ASSEMBLIES:**

1. THE OPTICAL TYPE VEHICLE DETECTOR ASSEMBLIES SHALL BE 3M OPTIDOM OR EQUIVALENT. PAY ITEM 663-74-11 SHALL INCLUDE ALL MATERIALS NECESSARY TO ENABLE THE VEHICLE DETECTOR TO BE OPERATIONAL.

**CONSTRUCTION SCHEDULE:**

1. THE CONTRACTOR SHALL NOTIFY FOOT PERMIT MANAGER TWO (2) BUSINESS DAYS PRIOR TO TURNING TRAFFIC SIGNAL ON FLASH.
2. AT THE TIME OF ACTIVATION, THE NEW SIGNAL SHALL BE PLACED IN FLASH MODE, WITH MOVEMENTS TWO (2) AND SIX (6) FLASHING YELLOW AND ALL OTHERS FLASHING RED.
3. TRAFFIC SIGNAL SHALL FLASH NO LESS THAN SEVEN (7) DAYS AND NO MORE THAN FOURTEEN (14) DAYS PRIOR TO TURN-ON INSPECTION.
4. AT THE TIME OF ACTIVATION, PORTABLE VARIABLE MESSAGE SIGNS (VMS) SHALL BE PLACED ON EACH APPROACH (750 FEET IN ADVANCE OF INTERSECTION) OF INTERSECTION AND SHALL FLASH CAUTION CAUTION CAUTION / NEW TRAFFIC SIGNAL. SIGNS SHALL REMAIN IN PLACE DURING FLASH AND 14 DAYS AFTER FULL ACTIVATION OF TRAFFIC SIGNAL.

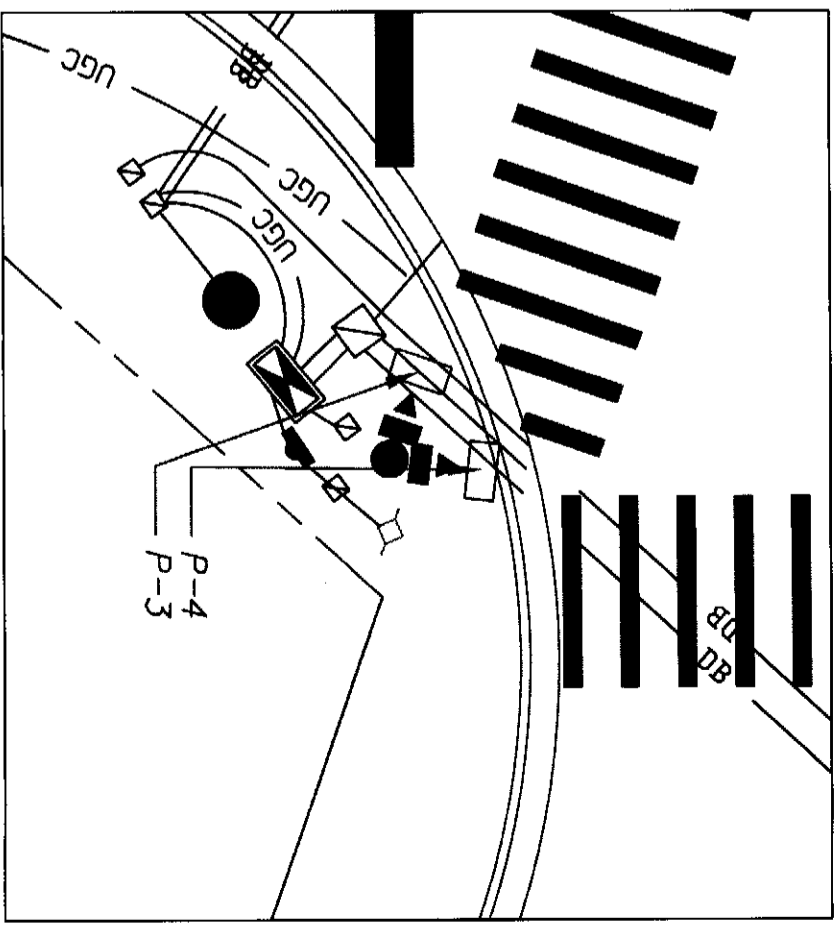
<b>DATE</b>	<b>BY</b>	<b>DESCRIPTION</b>	
REVISIONS			
			Engineer of Record: Fred Farnell, P.E. PE No. 41902 Date: December 28, 2007
		<b>Traffic Engineering</b> <b>Data Solutions, Inc.</b> 615 N. Charles Richard Beall Blvd, Suite 103 Deltona, FL 32713 Phone 386.775.7835 Fax 386.775.6364	
		<b>STATE OF FLORIDA</b> <b>DEPARTMENT OF TRANSPORTATION</b>	
		ROAD NO. 50	COUNTY LAKE
		<b>GENERAL NOTES</b>	
			SHEET NO. T-3



- 680-2-105 I5 EAU
- 64-7-148 I2 EAU
- 689-1-1 I2 EAU
- LOOP LEAD 630-1-12 I10 LF1
- 635-1-1 I15 EAU
- LOOP LEAD 635-1-1 I130 LF1
- 680-2-102 I8 EAU
- 659-107 I1 EAU
- 665-1 I3 EAU
- 670-5-111 I1 AS1
- 680-1-109 I4 EAU
- 680-1-110 I4 EAU
- 630-1-13 I80 LF1(S&S) APPROX
- 659-107 I1 EAU
- 665-1 I1 EAU
- 555-1-1 I180 LF1 2 @ 60'
- 632-7-1 I1 P11
- 634-4-112 I1 P11
- 639-2-1 I150 LF1
- 689-109 I1 EAU
- 630-1-11 I20 LF1(200')
- 630-1-13 I20 LF1(200')
- 639-3-1 I1 EAU
- 689-1-1 I2 EAU
- 634-5-1 I25 LF1

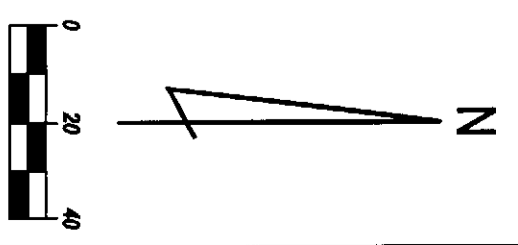
SEE DETAIL B  
CONTROLLER  
DETAIL

POWER SERVICE AT  
EXISTING PROGRESS ENERGY POLE



DETAIL B  
SCALE = 1:10'

NOTE: HANDICAP RAMPS PER INDEX 304



REVISIONS		DATE		BY		DESCRIPTION	

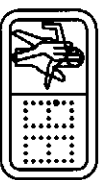
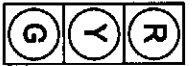
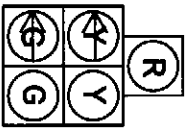
  

Engineer of Record: Ford Ferrell, P.E. PE No. 41902 Date: December 28, 2007		<i>Traffic Engineering</i> <b>Data Solutions, Inc.</b> Phone 386.773.7225 615 N. Charles Richard Deal Blvd, Suite 103 Deltona, FL 32713 Fax 386.773.6364	
DEPARTMENT OF TRANSPORTATION ROAD NO. 50		COUNTY LAKE FINANCIAL PROJECT ID	
<b>SR 50 AT CR 565 (VILLA CITY ROAD)</b> <b>SIGNAL PLANS</b>		SHEET NO. T-4	

SIGNAL HEAD DETAILS

1-6, 2-5

2, 4  
6, 8



P4, P6

5-SECT, 1-WAY  
12" LED  
650-SI-513 I2 EAJ

3-SECT, 1-WAY  
12" LED  
650-SI-313 I6 EAJ

1-SECT 1-WAY  
1-SECT 2-WAY  
INTERNATIONAL  
PEDESTRIAN SIGNAL  
653-191 I2 EAJ  
653-192 I1 EAJ

SIGN DETAIL

SEE SHEET T-7 FOR SIGN DETAIL  
(SIGNS A AND B ARE DUAL SIDED, LED ILLUMINATED)

Detector Configuration Chart

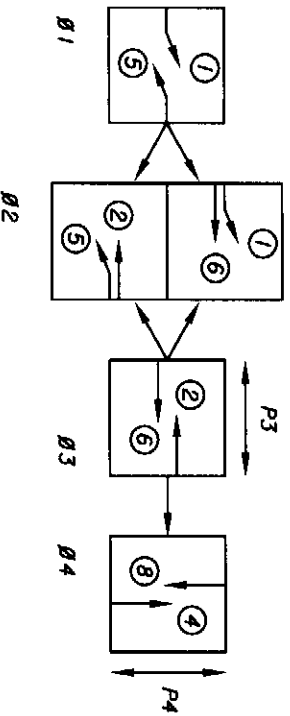
MOVEMENT	LOOP I.D.	LOOP TYPE	DETECTOR I.D.	DETECTOR TYPE	CHANNEL NUMBER	SECONDS OF DELAY
1	L-1	FIMOD	11		1	5
2	L-2A & 2B	B	12		9	-
4	L-4	FIMOD	14		10	5
5	L-5	FIMOD	15		10	5
6	L-6A & 6B	B	16		9	-
	L-6C & 6D	B				-
8	L-8	FIMOD	18		10	5
	L-8A	FIMOD				2

Controller Operations

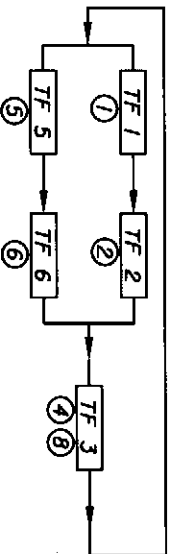
INITIAL TIMING CHART

Phase (TF)	MIN. GREEN INIT.	MAX. GREEN EXT.	YELLOW CLEAR	ALL RED	WALK	F-D.W.	RECALL	DET. FUNCT.
1	5	3	11	4.0	2.8			NL
2	15	3	50	4.0	2.5	7.0	15.0	L
4	10	3	15	30	4.0	2.7	28.0	NL
5	5	3	15	25	4.0	2.8		NL
6	15	3	50	30	4.0	2.5		L

PHASE MOVEMENT DIAGRAM



RING DIAGRAM

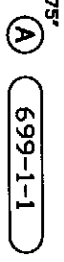
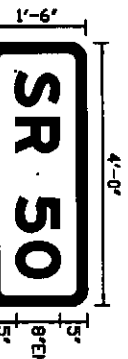


NOTES:

- Fully Actuated Controller. Use SOP 7.
- 2+6 Shall Flash Yellow; All Other Shall Flash Red
- Controller Shall Be Wired And Contain All Lead Switches For Future 8 Phase Operation.

LEGEND:

- TYPE 'A' (MOD) LOOP 6'X40'
- TYPE 'B' LOOP 6'X6'
- CONDUIT (UNDERGROUND)
- CONDUIT (DIRECTIONAL BORE)
- MOVEMENT NUMBER
- CONCRETE STRAIN POLE
- CONTROLLER CABINET
- POLE NUMBER
- 3-SECTION HEAD
- 5-SECTION HEAD
- OPTICOM EMERGENCY PRE-EMPTION DETECTOR
- INTERNALLY ILLUMINATED STREET NAME SIGN
- PULL BOX
- FIBER OPTIC PULL BOX



BORDER  
R=3'  
TH=1.75"

(A) (B) 699-1-1

DATE	BY	DESCRIPTION

REVISIONS

Engineer of Record:  
Fred Farrell, P.E.  
PE No. 41902  
Date: December 28, 2007

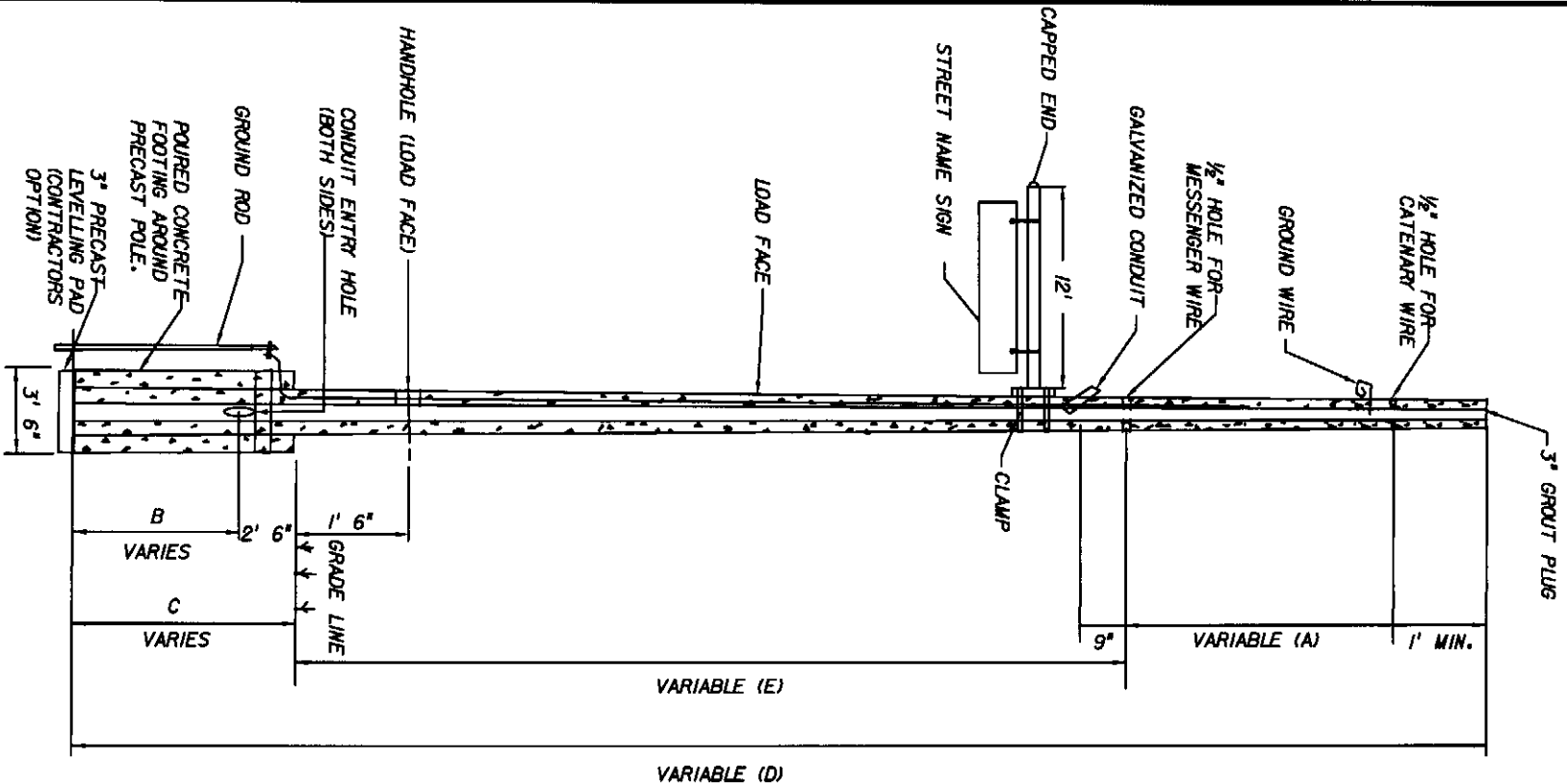
Traffic Engineering  
Data Solutions, Inc.  
Phone 386.775.7EDS  
Fax 386.775.6364

615 N. Charles Richard Deal Blvd, Suite 103  
DeBary, FL 32713

STATE OF FLORIDA	
DEPARTMENT OF TRANSPORTATION	
ROAD NO.	COUNTY
50	LAKE
FINANCIAL PROJECT ID	

SIGNALIZATION DETAILS

SHEET NO. T-5

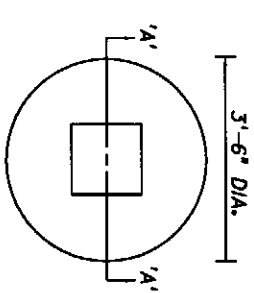


**DETAIL OF PRESTRESSED CONCRETE POLE**

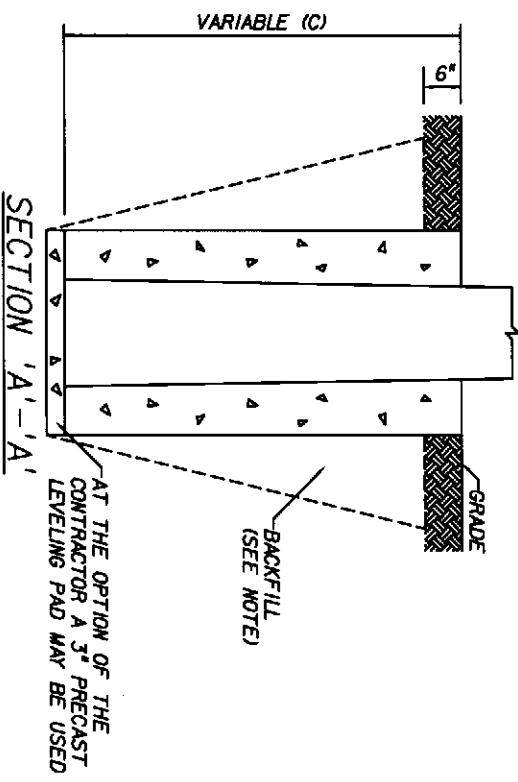
**POLE SCHEDULE**  
( DIMENSIONS ARE SHOWN IN FEET )

ITEM NO.	POLE NO.	POLE TYPE	QUANTITY	A	B	C	D	E
64I-T-148	1	N-VII	1	11.5'	9.5'	13.0'	48.0'	22.5'
64I-T-148	2	N-VII	1	11.5'	9.5'	13.0'	48.0'	22.5'

MESSENGER WIRE DIAMETER: 7/16" UTILITY GRADE  
 CATENARY WIRE DIAMETER: 3/8" UTILITY GRADE  
 CATENARY WIRE SHALL BE INSTALLED WITH MINIMUM VERTICAL SEPARATION OF 1.0' FROM MESSENGER WIRE.



**FOUNDATION PLAN**



**FOUNDATION NOTES:**

- EXCAVATION & BACKFILL: EXCAVATION AND BACKFILL FOR THE FOOTINGS SHALL BE IN ACCORDANCE WITH ARTICLES 125-4 AND 125-8.2 WITH THE EXCEPTION OF THE BACKFILL, IN LIEU OF THE REQUIREMENTS FOR OBTAINING THE SPECIFIED DENSITY, MAY BE HAND TAMPED IN FOUR INCH MAXIMUM LAYERS OR MACHINE TAMPED IN SIX INCH MAXIMUM LAYERS. THE MATERIAL SHOULD BE NEITHER DRY NOR SATURATED. AT THE OPTION CONTRACTORS BACKFILLING MAY BE DONE WITH POURED CONCRETE.
- CONCRETE: FOOTING TO BE POURED WITH CLASS I CONCRETE (SECTION 345).
- FORMS: FORMS SHALL BE IN ACCORDANCE WITH ARTICLE 700-8.3. (IF THE FOOTING IS POURED IN A OVERSIZED HOLE, THE CONCRETE IN THE TOP SIX INCHES SHALL BE PLACED IN A FORM. ALL EXPOSED SURFACES SHALL BE TROWELED TO A SMOOTH FINISH.

**NOTES:**

- FOOTING CONSTRUCTION SHALL COMPLY WITH FDOT SPECIFICATION SECTION 64I - CONCRETE STRAIN POLES.
- DESIGN WIND SPEED = 110 MPH (1994 SPEC). (EQUAL TO 81 MPH 2001 SPEC.)
- THE METHOD OF ATTACHMENT IS TWO-POINT FOR THE CONCRETE STRAIN POLE OVERHEAD ASSEMBLY.
- CONCRETE STRAIN POLES SHALL BE CLASS VII SPECIAL CONCRETE,  $f'_c = 6,000$  psi.
- DESIGN OF THE CONCRETE STRAIN POLE SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS.
- FOR ALL OTHER DETAILS AND REQUIREMENTS ON CONCRETE STRAIN POLES, REFER TO FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2007.

**REVISIONS**

DATE	BY	DESCRIPTION

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 Fred Farrell, P.E.  
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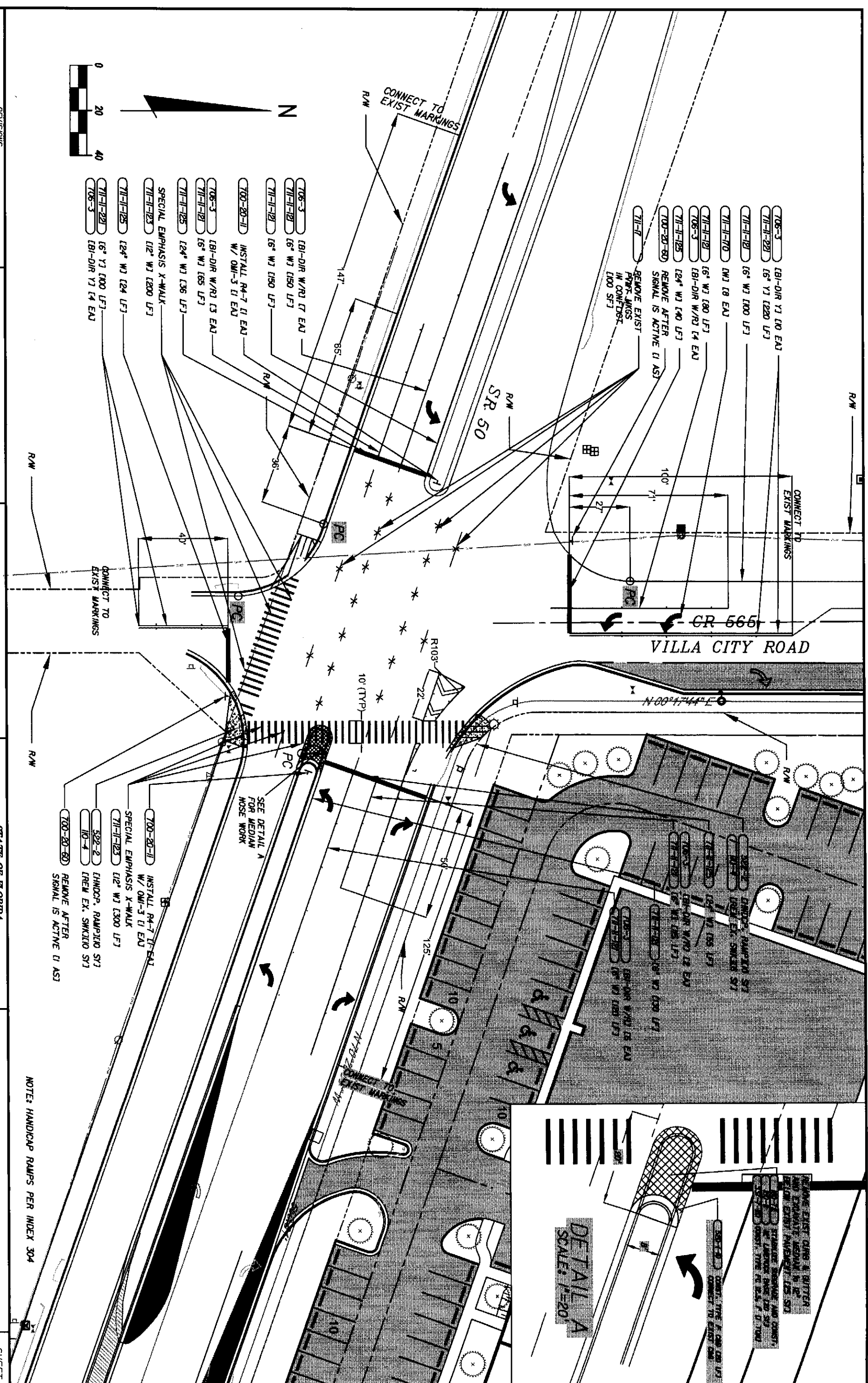
**Traffic Engineering**  
**Data Solutions, Inc.**  
 615 N. Charles Richard Beall Blvd, Suite 103  
 Debary, FL 32713  
 Phone 386.773.7825  
 Fax 386.773.6364

**STATE OF FLORIDA**  
**DEPARTMENT OF TRANSPORTATION**

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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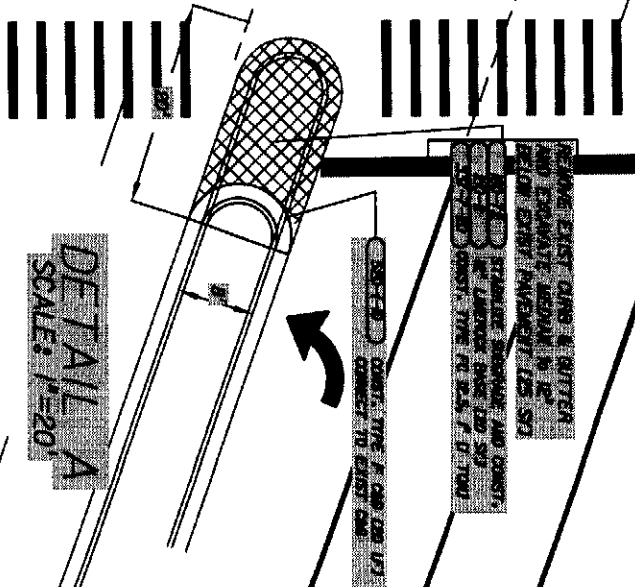
**CONCRETE POLE**  
**DETAILS**

SHEET NO. **T-6**



- 706-3 (B1-DIR W/R) (7 EAU)
- 711-11-121 (6' W) (150 LF)
- 711-11-122 (6' W) (150 LF)
- 700-20-11 (INSTALL RA-7 (1 EAU W/ OMI-3 (1 EAU)
- 706-3 (B1-DIR W/R) (3 EAU)
- 711-11-123 (24' W) (36 LF)
- SPECIAL EMPHASIS X-WALK
- 711-11-123 (12' W) (200 LF)
- 711-11-125 (24' W) (24 LF)
- 711-11-221 (6' W) (300 LF)
- 706-3 (B1-DIR W/R) (4 EAU)

- 700-20-11 (INSTALL RA-7 (1 EAU W/ OMI-3 (1 EAU)
- SPECIAL EMPHASIS X-WALK
- 711-11-123 (12' W) (300 LF)
- 522-2 (HANDCP. RAMPED S1) (REW EX. SWKIDIO S1)
- 10-4
- 700-20-80 (REMOVE AFTER SIGNAL IS ACTIVE (1 AS1)



DATE	BY	DESCRIPTION

Engineer of Record: Fred Farrell, P.E. PE No. 41902 Date: December 28, 2007		Traffic Engineering Data Solutions, Inc. Phone 386.773.7825 Fax 386.773.6344 615 N. Charles Richard Deal Blvd., Suite 103 Deltona, FL 32715	
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	STATE OF FLORIDA
50	LAKE		DEPARTMENT OF TRANSPORTATION

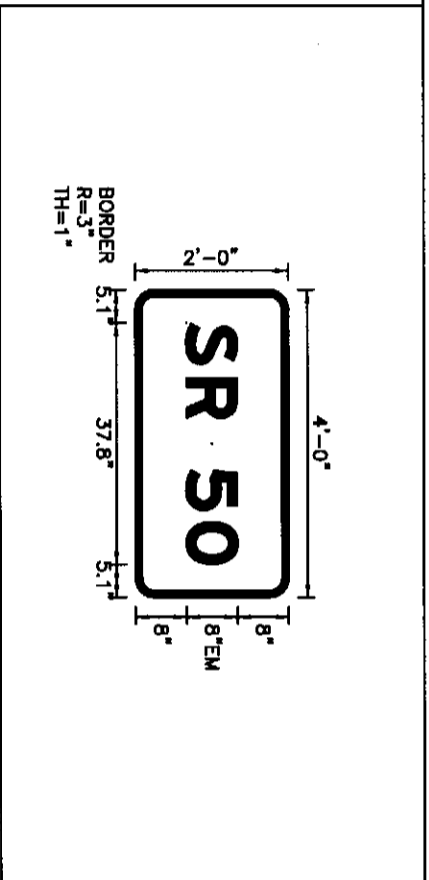
  

SHEET NO.	
T-7	

NOTE: HANDICAP RAMPS PER INDEX 304

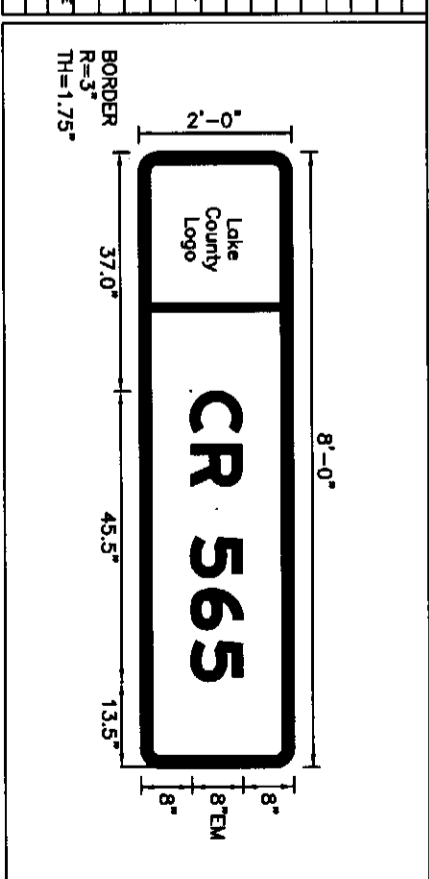
**SIGNING, STRIPPING AND ROADWORK**

SIGN NUMBER	A	STATION(S)
QUANTITY	2	1 none
WIDTH	4'-0"	2
HEIGHT	2'-0"	3
BORDER WIDTH	1"	4
BORDER RADIUS	3"	5
PANEL COLOR	Green	
LEGEND	White	
BORDER	White	
SYMBOL(S)	ANGLE X Y WID HT	



COPY	S	R	5	0	L
SPACE	5.1	13.6	20	28	36.2
COPY					
SPACE					
COPY					
SPACE					
COPY					
SPACE					
COPY					
SPACE					
COPY					
SPACE					

SIGN NUMBER	B	STATION(S)
QUANTITY	2	1 none
WIDTH	8'-0"	2
HEIGHT	2'-0"	3
BORDER WIDTH	1.75"	4
BORDER RADIUS	3"	5
PANEL COLOR	Green	
LEGEND	White	
BORDER	White	
SYMBOL(S)	ANGLE X Y WID HT	



COPY	C	R	5	6	5	L
SPACE	37.0	45.2	51.7	59.7	67.9	76.0
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						
COPY						
SPACE						

DATE	BY	REVISIONS	DESCRIPTION

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**GUIDESIGN WORKSHEET**