

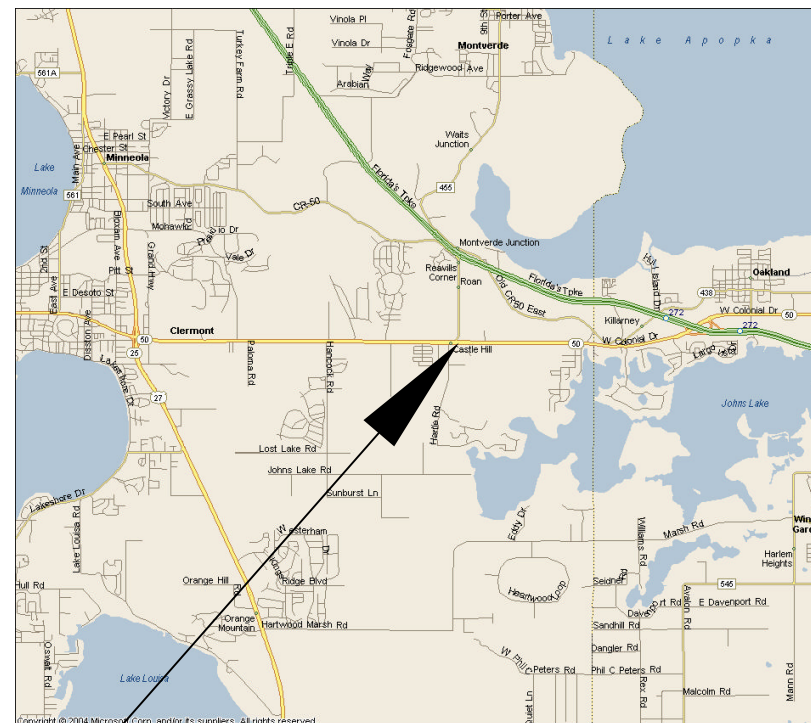
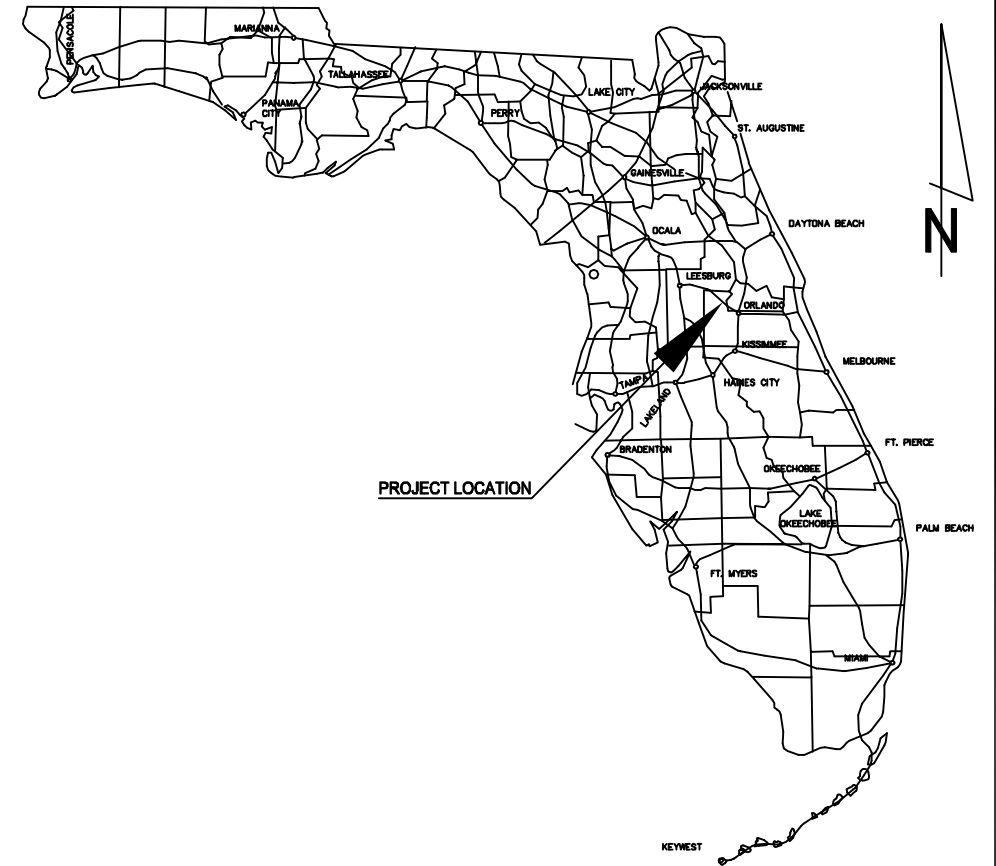
# CITY OF CLERMONT LAKE COUNTY, FLORIDA

SR 50 AT CR 455/HARTLE ROAD  
SECTION 11070, M.P. 17.139  
PERMIT NO. 05K592-0023

## SIGNALIZATION PLANS

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PROJECT LOCATION

VICINITY MAP  
N.T.S.

PLANS PREPARED BY:

**Lassiter Transportation Group, Inc.**  
*Engineering and Planning*

123 LIVE OAK AVENUE  
DAYTONA BEACH, FL 32114  
PH: 386.257.2571 FAX: 386.257.6996  
E-MAIL: ltg@lassitertransportation.com

ENGINEERING BUSINESS NO. 9227

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

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.

SIGNALIZATION PLAN REVISIONS		
DATE	BY	DESCRIPTION
2-14-07	DMD	T-2, T-4, T-6 ADDED 2ND SOUTHBOUND LEFT TURN LANE AND REVISED HEADS, PHASING, AND POLES TO ACCOMMODATE. REVISED QUANTITIES.

SIGNALIZATION PLANS  
ENGINEER OF RECORD:

FRED D. FERRELL, P.E.

DATE:

P.E. NO.: 41902

SHEET  
NO.

T-1

**TABULATION OF QUANTITIES**

BID ITEM NUMBER	DESCRIPTION	UNIT	SHEET T-4										TOTAL THIS SHEET		GRAND TOTAL	
			ORIG	FINAL	ORIG	FINAL	ORIG	FINAL	ORIG	FINAL	ORIG	FINAL	ORIG	FINAL	ORIG	FINAL
555-1-2	CONDUIT (UNDERGROUND - DIRECTIONAL BORE)	LF	366										366		366	
630-1-11	CONDUIT (ABOVEGROUND)	LF	30										30		30	
630-1-12	CONDUIT (UNDERGROUND)	LF	1636										1636		1636	
632-7-1	CABLE (SIGNAL)	PI	1										1		1	
634-4-113	SPAN WIRE ASSEMBLY (TWO-WIRE, BOX)	PI	1										1		1	
634-5-1	FIBERGLASS INSULATOR	LF	18										18		18	
635-1-11	PULL BOX	EA	10										10		10	
635-1-15	FIBER OPTIC PULL BOX	EA	1										1		1	
639-1-12	ELECTRIC POWER SERVICE (OVERHEAD) (PURCHASED BY CONTRACTOR)	AS	1										1		1	
639-2-1	ELECTRICAL SERVICE WIRE	LF	25										25		25	
641-16-148	PRESTRESSED CONCRETE POLES (TYPE N-VII, 48-FT.)	EA	2										2		2	
641-16-152	PRESTRESSED CONCRETE POLES (TYPE N-VII, 52-FT.)	EA	2										2		2	
650-51-311	TRAFFIC SIGNAL, 12" STANDARD (3 SECTION - 1 WAY)	AS	14										14		14	
659-101	SIGNAL HEAD AUXILIARIES (BACK PLATES, 3 SECTION)	EA	6										6		6	
660-1-109	INDUCTIVE LOOP DETECTOR (TYPE 9, 2 CH, SS, RM)	EA	6										6		6	
660-1-110	INDUCTIVE LOOP DETECTOR (TYPE 10, 2 CH, SS, RM, TD)	EA	2										2		2	
660-2-102	LOOP ASSEMBLY (TYPE B) (6'x6')	AS	8										8		8	
660-2-106	LOOP ASSEMBLY (TYPE F) (6'x40')	AS	10										10		10	
663-74-11	VEHICLE DETECTOR ASSEMBLIES (OPTICAL TYPE)	EA	4										4		4	
670-5-111	ACTUATED SOLID STATE CONTROLLER ASSEMBLY (NEMA) (ONE PREEMPTION PLAN)	AS	1										1		1	
686-101	CCTV CAMERA ASSEMBLY	EA	1										1		1	
699-1	INTERNALLY ILLUMINATED SIGN (F&I)	EA	8										8		8	
690-10	REMOVE TRAFFIC SIGNAL HEAD ASSEMBLY	EA	6										6		6	
690-33-1	POLE REMOVAL (DEEP)	LF	24										24		24	
690-50	REMOVE CONTROLLER ASSEMBLY	EA	1										1		1	
690-80	REMOVE SPAN WIRE ASSEMBLY	EA	1										1		1	
690-90	REMOVE CABLING AND CONDUIT	PI	1										1		1	

\* INTERNALLY ILLUMINATED SIGN TO BE RELOCATED

DATE		BY		REVISIONS		DESIGN BY: DMD		 <p align="center"><b>Lassiter Transportation Group, Inc.</b> Engineering and Planning FRED D. FERRELL, P.E. (#41902) 123 LIVE OAK AVENUE DAYTONA BEACH, FLORIDA 32114 PH: 386.257.2571 FAX: 386.257.6996 ENGINEERING BUSINESS NO. 9227</p>	<p align="center"><b>SR 50 AT CR 455 / HARTLE ROAD LAKE COUNTY, FLORIDA</b></p>	<p align="center"><b>TABULATION OF QUANTITIES</b></p>	SHEET NO.
2-14-07	DMD	ADDED 2ND SOUTHBOUND LEFT TURN LANE AND REVISED HEADS, PHASING, AND POLES TO ACCOMMODATE. REVISED QUANTITIES.		DRAWN BY: GCD	REVIEWED BY: FDF	APPROVED BY: FDF	T-2				
				JOB NUMBER: 3219.05							
				FILE NAME: Tabqsg01							

**GENERAL:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING RAY MARLIN (FDOT) AT (386) 943-5318 AND STEVE BOLLINGER LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT) AT (352) 742-1766 INFORMED OF ALL PHASES OF CONSTRUCTION WITH AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION, AND AGAIN FOR LOOP INSTALLATION.
2. THE CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS AT LEAST 24 HOURS IN ADVANCE OF INSTALLING SIGNAL POLES, GROUND RODS, UNDERGROUND CONDUIT, AND SEALING SIGNAL HEAD ASSEMBLIES SO THAT THESE OPERATIONS CAN BE OBSERVED.
3. ALL MATERIALS AND HARDWARE SHALL BE F.D.O.T. APPROVED, AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.
4. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND HAVE POLE LOCATIONS APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.
5. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR SIGNAL CABLE AND INTERCONNECT WITH LAKE COUNTY TRAFFIC OPERATIONS.
6. IT SHALL BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED; IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
7. CONTRACTOR SHALL PROVIDE 3 SETS OF CONSTRUCTION "AS-BUILTS"- ONE TO FDOT, ONE FOR THE CABINET, AND ONE FOR LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT.
8. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH INDEX 600 OF FDOT'S DESIGN STANDARDS 2004 EDITION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS INCLUDING THE ELECTRIC PERMIT, AND TO COORDINATE APPLICATION FOR POWER, WITH LAKE COUNTY TRAFFIC OPERATIONS AT (352) 742-1766.
10. REFER TO THE "INTERNALLY ILLUMINATED STREET NAME SIGN DETAIL FOR LAKE COUNTY PUBLIC WORKS" AND THE "LAKE COUNTY SUPPLEMENT SPECIFICATIONS FOR INTERNALLY ILLUMINATED SIGNS" FOR THE DESIGN AND INSTALLATION OF THE STREET NAME SIGN, MAST ARM, AND MAST ARM CONNECTION TO CONCRETE STRAIN POLE.
11. INTERNALLY ILLUMINATED SIGNS SHALL HAVE SEPARATE CIRCUIT BREAKERS.
12. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND WHEN JOINT USE POLES ARE TO BE USED.
13. 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.
14. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND PHONE NUMBERS AND HAVE AN IMSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO HOUR MINIMUM RESPONSE TIME.
15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK.
16. SIGNAL CABLE SHALL BE ATTACHED TO MESSENGER WIRE USING PROPER SIZE SPIRAL WRAP.
17. THE COST FOR THE USE OF OFF-DUTY LAW ENFORCEMENT OFFICERS IN THE EVENT OF LANE CLOSURES SHALL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.
18. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH LAKE COUNTY TRAFFIC OPERATIONS, (352) 742-1766, PRIOR TO ANY CONSTRUCTION.
19. CONTRACTOR SHALL RESTORE LANDSCAPING WHICH HAS BEEN DISTURBED BY HIS ACTIVITIES TO COMPLY WITH THE LAKE COUNTY REQUIREMENTS.
20. FDOT OFFICE NEEDS A 48 HOUR NOTICE PRIOR TO WORK WITHIN THE R/W OR LANE CLOSURE. CONTRACTOR TO NOTIFY THE LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT AND THE FDOT 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

**GENERAL:**

21. ENGINEER CERTIFICATION (IF REQUIRED) MUST BE RECEIVED WITHIN 30 DAYS OF COMPLETION OF THE PROJECT.
22. ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE IN CONFORMANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND DESIGN STANDARDS, 2004 EDITIONS.
23. THE CONTRACTOR SHALL HAND-DIG THE FIRST 48 INCHES OF THE HOLE FOR THE STRAIN POLE FOUNDATION. SHOULD THERE BE OTHER UTILITIES, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER WHO WILL RESOLVE THE CONFLICT AND ADJUSTMENT IF REQUIRED.
24. ANY ITEM NOT SPECIFICALLY ADDRESSED IN THESE PLANS, USE F.D.O.T. SPECIFICATIONS.
25. CONTRACTOR SHALL CONTACT PROGRESS ENERGY FOR POWER SOURCE LOCATION.
26. CONTRACTOR SHALL CONTACT PROGRESS ENERGY AT LEAST 48 HOURS PRIOR TO INSTALLING THE SIGNAL CABLE. THE ELECTRIC DEPARTMENT PERSONNEL SHALL BE ON SITE WHEN FEEDING THE SIGNAL CABLE IN BETWEEN THE EXISTING ELECTRICAL WIRE.
27. SEPARATE CONDUIT AND PULL BOXES SHALL BE PROVIDED FOR LOOP WIRE, SIGNAL CABLE, AND ELECTRICAL SERVICE WIRE.
28. PER FDOT'S LANE CLOSURE RESTRICTION DATA MANUAL, DATED MAY 5, 2004, THERE SHALL BE NO LANE CLOSURES ON SR 50 EASTBOUND BETWEEN 5 A.M. AND 8 P.M. AND NO LANE CLOSURES ON SR 50 WESTBOUND BETWEEN 6 A.M. AND 10 P.M.
29. UNLESS OTHERWISE NOTED, ALL REMOVED EQUIPMENT SHALL BE TURNED OVER TO THE LAKE COUNTY SIGNAL DEPARTMENT (352.742.1766), EXCEPT POLES, WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY HIM.
30. 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 (MAINTAINING AGENCY) LAKE COUNTY SIGNAL DEPARTMENT AT (352) 742-1766 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.
31. THE CONTRACTOR SHALL NOTIFY "CALL SUNSHINE" 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 "CALL SUNSHINE" MEMBERS, BUT WHICH 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.
32. THE FOLLOWING UTILITY CONTACT INFORMATION IS PROVIDED:
33. THE CONTRACTOR SHALL FURNISH AND, INSTALL AND MAINTAIN TEMPORARY VEHICLE DETECTION IF LOOPS ARE TO BE DESTROYED DURING CONSTRUCTION.
34. THE MAINTENANCE OF EXISTING SIGNALS, UNTIL REMOVED, SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR.
35. A FIBER OPTIC PULL BOX AND CONDUIT INTO THE CONTROLLER ASSEMBLY SHALL BE INSTALLED.
36. A GENERATOR PAD, 3' X 3' X 4" CONCRETE WITH 2 EYEBOLTS SHALL BE INSTALLED. PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN 670-5-111.
37. GROUNDING FOR THE CONTROLLER ASSEMBLY SHALL MEASURE 25 OHMS OR LESS.

**UTILITY OWNER:**

CITY OF CLERMONT  
LAKE APOPKA NATURAL GAS DISTRICT  
PROGRESS ENERGY  
MCI NETWORK SERVICES, INC.  
SPRINT  
BRIGHT HOUSE NETWORKS, LLC  
LAKE COUNTY PUBLIC WORKS  
LAKE COUNTY SIGNAL DEPARTMENT  
SUNSHINE ONE-CALL

**CONTACT PERSON** **PHONE**

TAMARA RICHARDSON (352) 241-0178  
RICK GULLETT (407) 466-5117  
SUE FREYSER (407) 646-8364  
TIM COLE (407) 841-4226  
CHRISTOPHER B. LOVE (407) 814-5271  
JOHN WOSLKI (386) 775-444 X-7879  
JUAN CHAN (352) 253-4952  
STEVE BOLLINGER (352) 742-1766  
(800) 432-4770

**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. F TYPE LOOPS SHALL BE 40' LONG BY 6' WIDE AND EXTEND 5' BEYOND THE STOP BAR.
3. EXISTING LOOPS DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION TO BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4. PULL BOXES AND COVERS SHALL BE FDOT APPROVED OF NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL".
5. LOOP HOME RUNS SHALL NOT BE CUT INTO THE RADIUS.
6. ANY STRIPING/PAVEMENT MARKINGS DESTROYED BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
7. PULL BOXES SHALL BE LOCATED 10 FEET FROM EDGE OF PAVEMENT OR BEHIND A CURB WHEN POSSIBLE, ATTEMPTING TO KEEP FROM THE BOTTOM OF A DITCH OR RETENTION AREA.

**TIMINGS / CONTROLLER:**

1. DELAY TIMES SHALL BE SET TO 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" NAZTEC REGIONAL TS2-1, WITH A TS2-2 CONTROLLER ETHERNET ENABLED FOR COUNTY CLOSED LOOP SYSTEM AND A 3M OPTICOM PRIORITY CONTROL SYSTEM OR EQUIVALENT. THE CONTROLLER ASSEMBLY SHALL INCLUDE A GENERATOR TRANSFER SWITCH.
5. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION WHEN POSSIBLE.

**SIGNAL HEADS:**

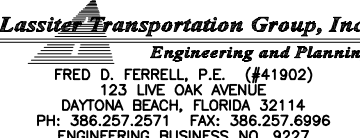
1. SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCKS. THE USE OF "JONES" PLUGS SHALL BE PROHIBITED.
2. VEHICLE SIGNAL HEAD ASSEMBLIES SHALL BE BLACK, CAST ALUMINUM, WITH TUNNEL VISORS, AND LED'S FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED.

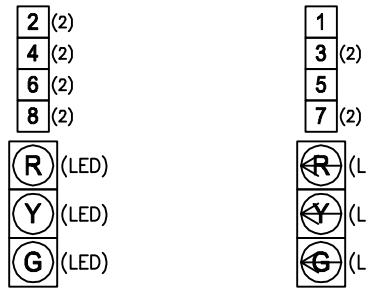
**VEHICLE DETECTOR ASSEMBLIES:**

1. THE OPTICAL TYPE VEHICLE DETECTOR ASSEMBLIES (663-41-11) SHALL BE 3M OPTICOM OR EQUIVALENT. PAY ITEM 663-74-11 SHALL INCLUDE ALL MATERIALS NECESSARY TO ENABLE THE VEHICLE DETECTOR TO BE OPERATIONAL.

**PAY ITEM NOTES:**

699-1 PAY ITEM REFERS TO LED INTERNALLY ILLUMINATED STREET NAME SIGNS.

REVISIONS		DESIGN BY:	DMD	 <p><b>Lassiter Transportation Group, Inc.</b> Engineering and Planning FRED D. FERRELL, P.E. (#41902) 123 LIVE OAK AVENUE DAYTONA BEACH, FLORIDA 32114 PH: 386.257.2571 FAX: 386.257.6996 ENGINEERING BUSINESS NO. 9227</p>	<p><b>SR 50 AT CR 455 / HARTLE ROAD</b> <b>LAKE COUNTY, FLORIDA</b></p>	<p><b>GENREAL NOTES</b></p>	<p><b>SHEET NO.</b></p>			
DATE	BY	DESCRIPTION	DRAWN BY:					GCD		
			REVIEWED BY:				FDI			
			APPROVED BY:				FDI			
			JOB NUMBER:				3219.05			<p><b>T-3</b></p>
			FILE NAME:	Gnntsg01						



3 SECTION, 1 WAY  
 650-51-311 8 AS  
 659-101 4 EA

3 SECTION, 1 WAY  
 650-51-311 6 AS  
 659-101 2 EA

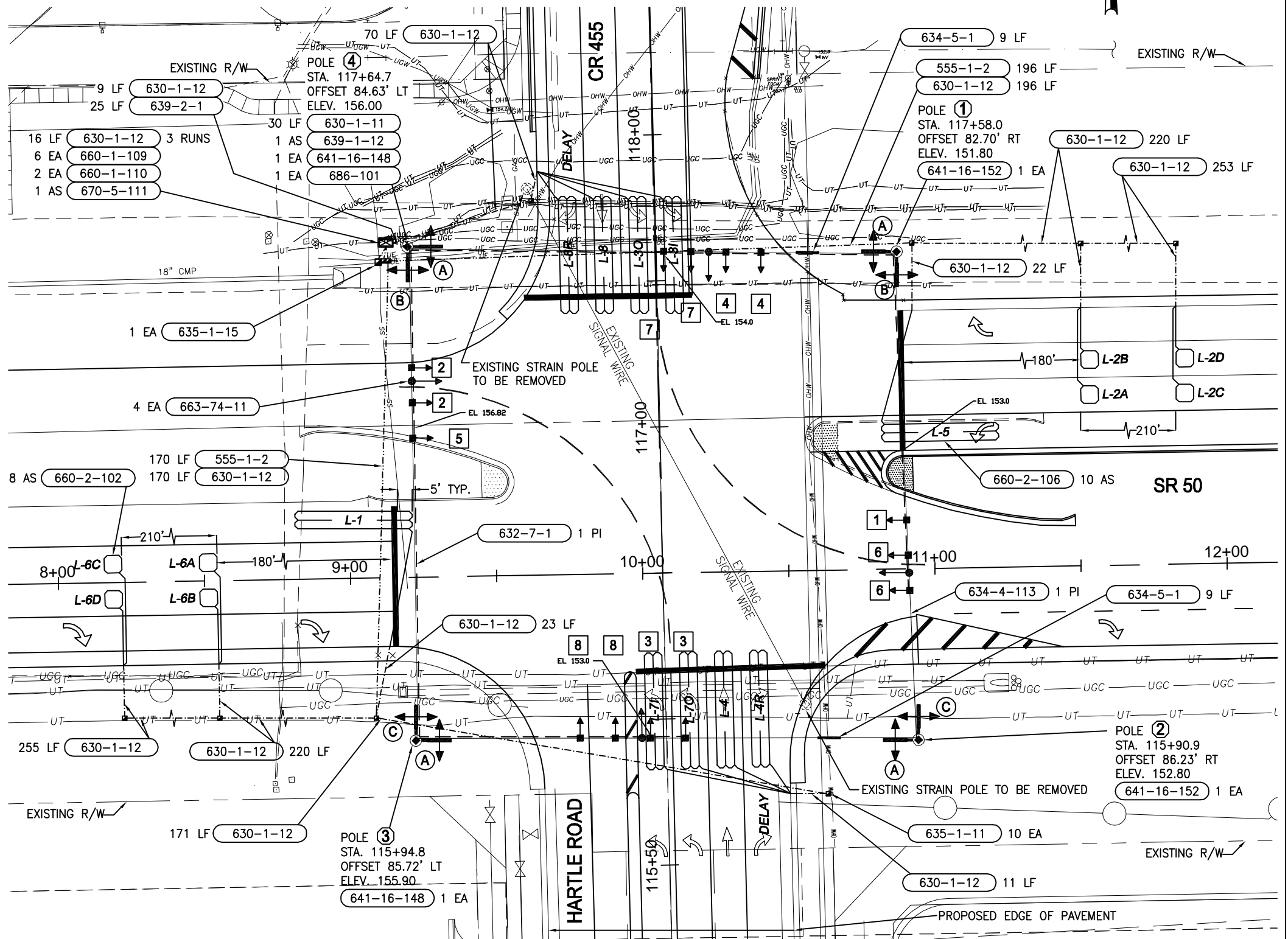
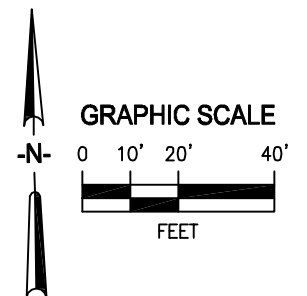
- REMOVALS**
- 690-10 6 EA
  - 690-33-1 24 LF
  - 690-50 1 EA
  - 690-80 1 EA
  - 690-90 1 PI

**DETECTOR CONFIGURATION CHART**

MOVEMENT	LOOP I.D.	LOOP TYPE	DETECTOR I.D.	DETECTOR TYPE	CHANNEL NUMBER	SECONDS OF DELAY
1	L-1	F(MOD)	L1	9	1	-
2	L-2A & 2B	B	L2	9	1	-
	L-2C & 2D	B			2	-
3	L-3I & 3O	F(MOD)	L3	9	1	-
4	L-4	F(MOD)	L4	10	1	0
	L-4R	F(MOD)			2	5
5	L-5	F(MOD)	L5	9	1	-
6	L-6A & 6B	B	L6	9	1	-
	L-6C & 6D	B			2	-
7	L-7I & 7O	F(MOD)	L7	9	1	-
8	L-8	F(MOD)	L8	10	1	0
	L-8R	F(MOD)			2	5

**CONTROLLER TIMINGS**

MOVEMENT	MIN. GREEN		MAX. GREEN		YELLOW CLEAR	ALL RED	WALK	F.D.W.	RECALL	MEMORY
	INIT.	EXT.	I	II						
1	6	3.0	25	45	4.0	1.0	-	-	-	NL
2	17	3.0	50	45	5.0	2.0	-	-	MIN	L
3	6	3.0	25	45	4.0	1.0	-	-	-	NL
4	8	3.0	35	45	4.5	1.0	-	-	-	NL
5	6	3.0	25	45	4.0	1.0	-	-	-	NL
6	17	3.0	50	45	5.0	2.0	-	-	MIN	L
7	6	3.0	25	45	4.0	1.0	-	-	-	NL
8	8	3.0	35	45	4.5	1.0	-	-	-	NL



REVISIONS		DESIGN BY:	DMD
DATE	BY	DESCRIPTION	
2-14-07	DMD	ADDED 2ND SOUTHBOUND LEFT TURN LANE AND REVISED HEADS, PHASING, AND POLES TO ACCOMMODATE. REVISED QUANTITIES.	GCD

DESIGNED BY:	DMD
DRAWN BY:	GCD
REVIEWED BY:	FDG
APPROVED BY:	FDG
JOB NUMBER:	3219.05
FILE NAME:	Plansg01

**Lassiter Transportation Group, Inc.**  
 Engineering and Planning  
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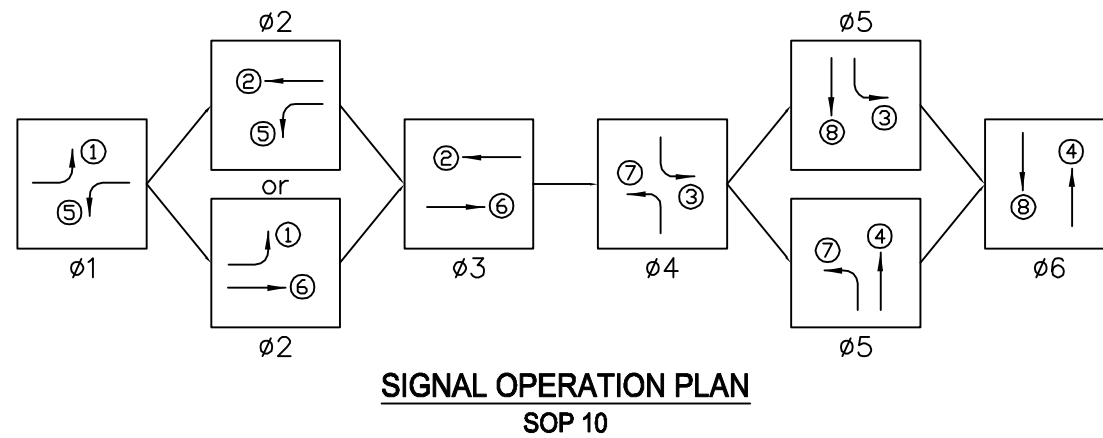
**SR 50 AT CR 455 / HARTLE ROAD**  
**LAKE COUNTY, FLORIDA**

**SIGNALIZATION PLAN**

**SHEET NO.**  
**T-4**

**CONTROLLER OPERATIONS:**

1. THE MAJOR STREET IS SR 50 (MOVEMENTS 1, 2, 5, AND 6).
2. THE MINOR STREET IS CR 455/HARTLE ROAD (MOVEMENTS 3, 4, 7, AND 8).
3. FLASHING OPERATION IS YELLOW FOR MOVEMENTS 2 AND 6 ALONG SR 50 AND RED FOR MOVEMENTS 4 AND 8 ALONG CR455/HARTLE ROAD.
4. THE CONTROLLER CABINET SHALL BE FULLY WIRED AND FURNISHED WITH ALL EQUIPMENT NECESSARY TO RUN THE CONTROLLER AS SOP 10 WITH PEDESTRIAN MOVEMENTS.



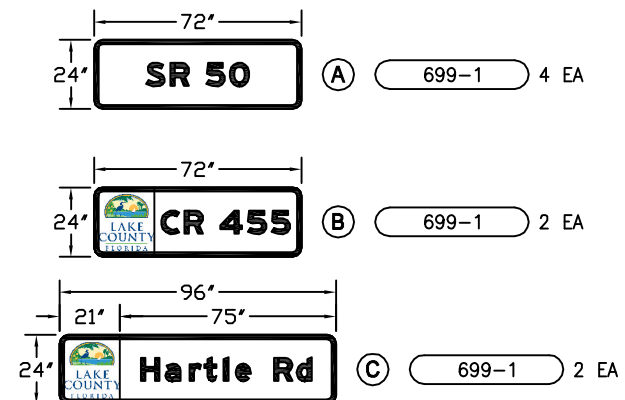
**SIGNAL OPERATION PLAN**  
SOP 10

**LEGEND:**

- L-1 TYPE "F" LOOP 6'X40'
- L-6A TYPE "B" LOOP 6'X6'
- CONDUIT (UNDERGROUND)
- MOVEMENT NUMBER
- CONCRETE STRAIN POLE (PROPOSED)
- CONCRETE STRAIN POLE (EXISTING)
- POLE NUMBER
- 3-SECTION HEAD
- PROPOSED INTERNALLY ILLUMINATED SIGN
- PULL BOX
- FIBER OPTIC PULL BOX
- CONTROLLER CABINET

**SIGN DETAIL**

SEE SHEET T-7 FOR SIGN DETAIL  
(EACH SIGN IS DUAL SIDED AND LED ILLUMINATED)

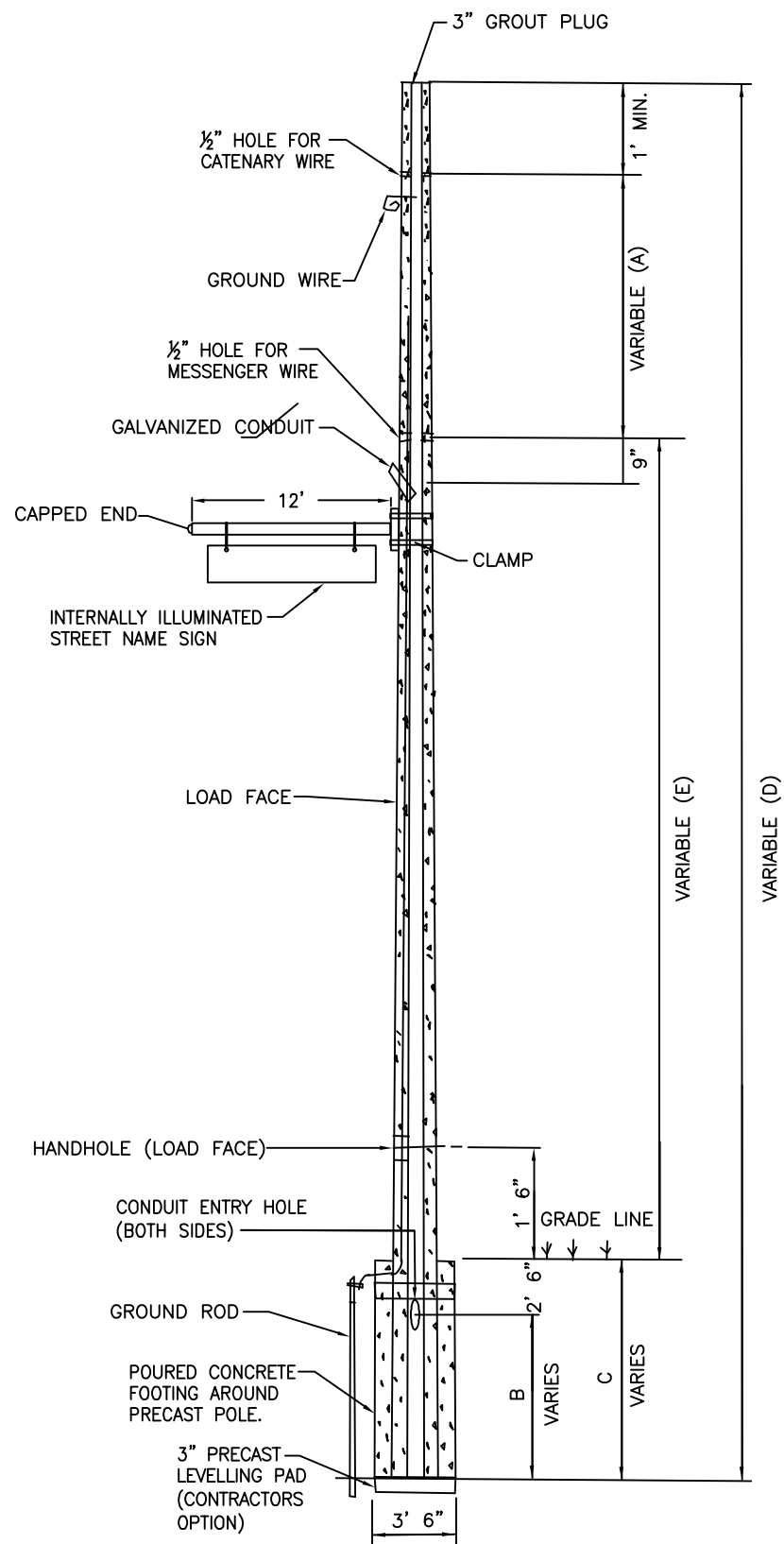


REVISIONS		DESIGN BY:	DMD	 <b>Lassiter Transportation Group, Inc.</b> <i>Engineering and Planning</i> FRED D. FERRELL, P.E. (#41902) 123 LIVE OAK AVENUE DAYTONA BEACH, FLORIDA 32114 PH: 386.257.2571 FAX: 386.257.6996 ENGINEERING BUSINESS NO. 9227	SR 50 AT CR 455 / HARTLE ROAD	SIGNALIZATION DETAILS	SHEET NO.	
DATE	BY	DESCRIPTION	DRAWN BY:		GCD		LAKE COUNTY, FLORIDA	T-5
			REVIEWED BY:		FDF			
			APPROVED BY:		FDF			
			JOB NUMBER:		3219.05			
			FILE NAME:		Sigdet01			

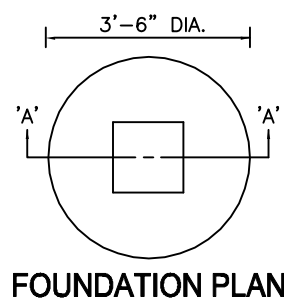
**POLE SCHEDULE**  
( DIMENSIONS ARE SHOWN IN FEET )

ITEM NO.	POLE NO.	POLE TYPE	QUANTITY	A	B	C	D	E
641-16-152	1	N-VII	1	11.5	9.5	12.0	52.0	27.5
641-16-152	2	N-VII	1	11.5	8.5	13.0	52.0	26.5
641-16-148	3	N-VII	1	11.5	9.6	12.10	48.0	23.4
641-16-148	4	N-VII	1	11.5	9.7	12.20	48.0	23.3

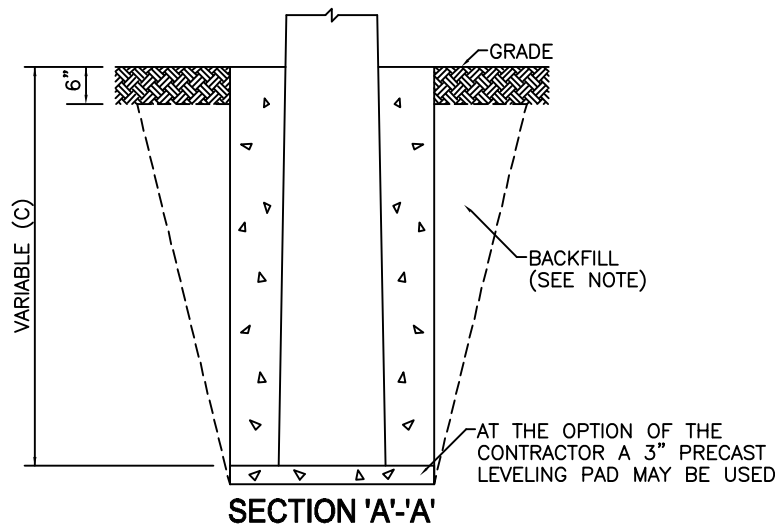
CATENARY WIRE DIAMETER: 3/8" UTILITY GRADE CATENARY WIRE WITH A MAXIMUM SAG OF 6.5% MINIMUM 6.0%  
MESSENGER WIRE DIAMETER: 7/16" UTILITY GRADE MESSENGER WIRE  
CATENARY AND MESSENGER WIRES SHOULD BE INSTALLED WITH A MINIMUM VERTICAL SEPARATION OF 1.0'



**DETAIL OF PRESTRESSED CONCRETE POLE**



**FOUNDATION PLAN**



**SECTION 'A'-A'**

**NOTES:**

- FOOTING CONSTRUCTION SHALL COMPLY WITH FDOT SPECIFICATION SECTION 641 - PRESTRESSED CONCRETE POLES.
- DESIGN WIND SPEED = 80 MPH.
- THE METHOD OF ATTACHMENT IS TWO-POINT FOR THE CONCRETE STRAIN POLE OVERHEAD ASSEMBLY.
- CONCRETE STRAIN POLES SHALL BE CLASS V 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.
- POLE DESIGN BASED ON THE COMBINATION OF PROPOSED AND FUTURE LOADINGS.

**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 CONTRACTORS OPTION 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 AN 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.

REVISIONS			DESIGN BY:
DATE	BY	DESCRIPTION	DMD
2-14-07	DMD	ADDED 2ND SOUTHBOUND LEFT TURN LANE AND REVISED HEADS, PHASING, AND POLES TO ACCOMMODATE. REVISED QUANTITIES.	GCD
			REVIEWED BY: FDF
			APPROVED BY: FDF
			JOB NUMBER: 3219.05
			FILE NAME: Dsgnsg01

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**SR 50 AT CR 455 / HARTLE ROAD  
LAKE COUNTY, FLORIDA**

**POLE SCHEDULE & DETAIL**

**SHEET NO.  
T-6**

