

LAKE COUNTY
DEPARTMENT OF PUBLIC WORKS

CONTRACT PLANS

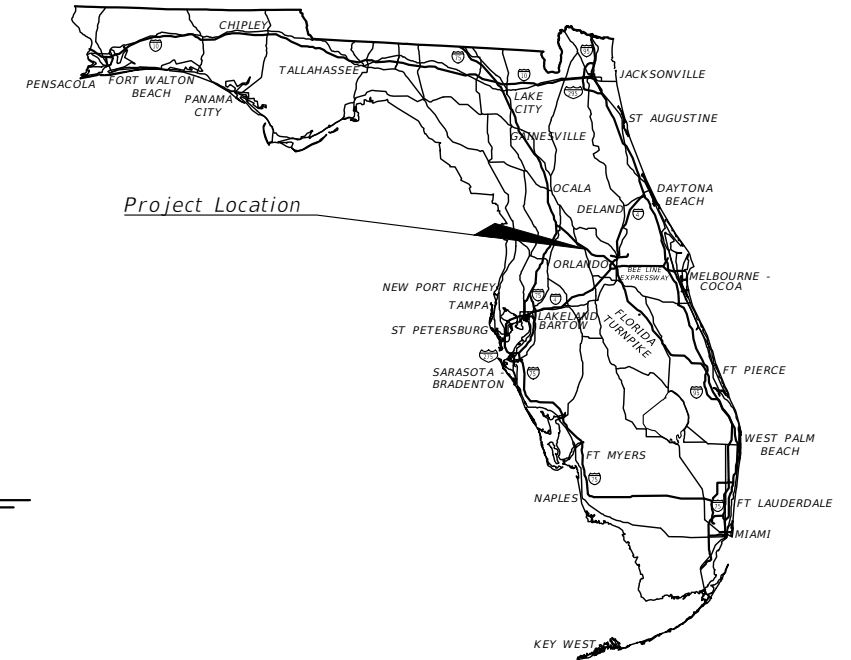
RSQ NO. 17-0003
FINANCIAL PROJECT ID 435541-2-54-01

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CITRUS GROVE ROAD
DESIGN PHASE III
FROM US 27 (SR 25) TO FOUNDERS RIDGE

SIGNALIZATION PLANS



SIGNALIZATION SHOP DRAWINGS TO BE SUBMITTED TO:

WILLIAM E. MOSS, P.E.
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814

PLANS PREPARED BY:
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
CERTIFICATE OF AUTHORIZATION NO. 2648

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

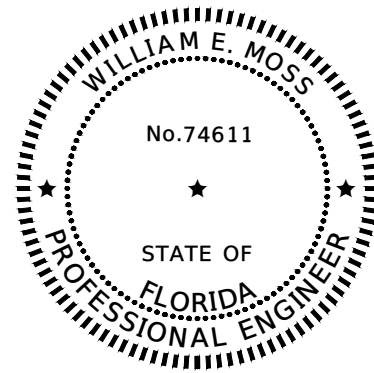
SIGNALIZATION PLANS
ENGINEER OF RECORD:
WILLIAM E. MOSS, P.E.
P.E. NO.: 74611

LAKE COUNTY DEPT. OF PUBLIC WORKS
PROJECT MANAGER:
ALAN KIRKLAND, P.E.

SHEET NO.

T-1

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ON THE DATE ADJACENT TO THE SEAL

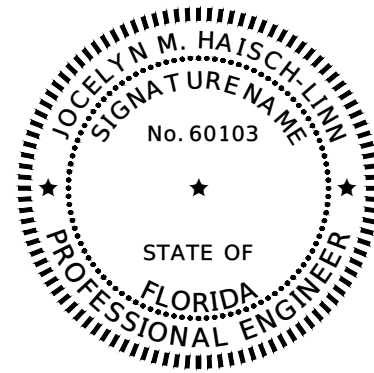
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DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
CERTIFICATE OF AUTHORIZATION: 2648
WILLIAM E. MOSS, P.E. NO. 74611

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SIGNALIZATION PLANS INDEX

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T-12	SPLICING DETAILS



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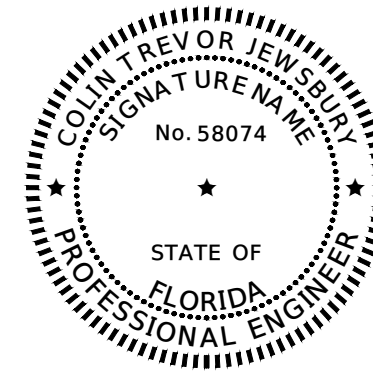
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DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
CERTIFICATE OF AUTHORIZATION: 2648
JOCELYN M. HAISCH-LINN, P.E. NO. 60103

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.003, F.A.C.

SIGNALIZATION PLAN INDEX

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-1A	SIGNATURE SHEET
T-13	STRAIN POLE SCHEDULE



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ON THE DATE ADJACENT TO THE SEAL

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ARDAMAN & ASSOCIATES, INC.
8008 S. ORANGE AVENUE
ORLANDO, FL 32809
CERTIFICATE OF AUTHORIZATION: 5950
COLIN TREVOR JEWSBURY, P.E. NO. 58074

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

SIGNALIZATION PLAN INDEX



<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-1A	SIGNATURE SHEET
T-14 to T-15	REPORT OF SPT BORINGS FOR SIGNAL STRUCTURES

REVISIONS	DATE	<p>DRMP ENGINEERS SURVEYORS PLANNERS SCIENTISTS DRMP, INC. 941 LAKE BALDWIN LANE ORLANDO, FLORIDA 32814 P 407.896.0594 F 407.896.4836 CERTIFICATE OF AUTHORIZATION NO. 2648</p>	<p>LAKE COUNTY FLORIDA</p>	<p>LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION</p>		<p>SIGNATURE SHEET</p>	<p>SHEET NO. T-1A</p>
				ROAD	RSO NO.		
				CITRUS GROVE ROAD	17-0003		
				WILLIAM E. MOSS, P.E. LICENSE NO. 74611			
				DATE:			

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			T-4		T-6		T-7		T-8		T-9																
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	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	295		585		360		330														1570				
630-2-12	CONDUIT, F&I, DIRECTIONAL BORE	LF	520		240		760		790		450												2760				
632-7-1	SIGNAL CABLE, F&I NEW/ RECONSTRUCTED INTERSECTION	PI	1																				1				
633-1-122	FIBER OPTIC CABLE, F&I, UNDERGROUND, 13-48	LF			110																		110				
633-1-123	FIBER OPTIC CABLE, F&I, UNDERGROUND, 49-96	LF			1205		1170		1220		550												4145				
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA			12																		12				
633-2-32	FO CONNECTION, INSTALL, TERMINATION	EA			72																		72				
633-3-11	FO CONN. HARDWARE, F&I, SPLICE ENCLOSURE	EA			1																		1				
633-3-12	FO CONN. HARDWARE, F&I, SPLICE TRAY	EA			2																		2				
633-3-16	FO CONN. HARDWARE, F&I, PATCH PANEL FIELD TERMINATED	EA			1																		1				
634-4-153	SPAN WIRE ASSEMBLY, F&I, TWO POINT, BOX OR DROP BOX	PI	1																				1				
635-2-11	PULL & SPLICE BOX, F&I, 13"x24"	EA	26																				26				
635-2-12	PULL & SPLICE BOX, F&I, 24"x36"	EA			3		1		2		1												7				
635-2-13	PULL & SPLICE BOX, F&I, 30"x60"	EA			1																		1				
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND PURCHASED BY CONTRACTOR	AS	1																				1				
639-2-1	ELECTRICAL SERVICE WIRE, F&I	LF	10																				10				
641-2-12	PRESTRESSED CONC. POLE, F&I, TYPE P-11 SERVICE POLE	EA	1																				1				
641-2-70	PRESTRESSED CONC. POLE, SHALLOW POLE REMOVAL, POLE 30' AND GREATER	EA	2																				2				
646-1-11	ALUMINUM SIGNAL POLE, F&I, PEDESTAL	EA	8																				8				
649-1-16	STEEL STRAIN POLE, F&I, TYPE PS-1X	EA	4																				4				
650-1-14	TRAFFIC SIGNAL, F&I ALUMINUM, 3 SEC-1 WAY	AS	22																				22				
650-1-16	TRAFFIC SIGNAL, F&I ALUMINUM, 4 SEC-1 WAY	AS	4																				4				
653-1-11	PED. SIGNAL, F&I LED COUNTDOWN, 1 WAY	AS	8																				8				
660-3-11	TRAFFIC VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, CABINET EQUIPMENT (WAVETRONIX)	EA	1																				1				
660-3-12	TRAFFIC VEHICLE DETECTION SYSTEM-MICROWAVE, F&I, ABOVE GROUND EQUIPMENT (WAVETRONIX)	EA	6																				6				
663-1-111	SIGNAL PRIORITY AND PREEMTION SYSTEM, F&I, OPTICAL, CABINET ELECTRONICS	EA	1																				1				
663-1-112	SIGNAL PRIORITY AND PREEMTION SYSTEM, F&I, OPTICAL, DETECTOR	EA	4																				4				
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	EA	8																				8				
670-5-111	TRAFFIC CONTROL ASSEMBLY, F&I, NEMA,1 PREEMPTION	AS	1																				1				
670-5-600	TRAFFIC CONTROL ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1																				1				
684-1-1	MANAGED FIELD ETHERNET SWITCH, F&I, W/ BYPASS CAPABLITIES	EA			1																		1				
685-1-13	UNINTERRUPTIBLE POWER SUPPLY, F&I, LINE INTERACTIVE WITH CABINET	EA	1																				1				
700-5-22	INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12-18 SF	EA	4																				4				

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REVISIONS	DATE	 <p>DRMP, INC. 941 LAKE BALDWIN LANE ORLANDO, FLORIDA 32814 P 407.896.0594 F 407.896.4836 CERTIFICATE OF AUTHORIZATION NO. 2648</p>	 <p>LAKE COUNTY FLORIDA</p>	LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION ROAD	RSO NO. 17-0003	WILLIAM E. MOSS, P.E. LICENSE NO. 74611 DATE:	<p align="center">TABULATION OF QUANTITIES</p>	SHEET NO. T-2
				CITRUS GROVE ROAD				

GENERAL NOTES

1. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH LAKE COUNTY TRAFFIC OPERATIONS, (352) 742-1766, PRIOR TO ANY CONSTRUCTION.
2. IT SHALL BE NOTED THAT NO TEST BORINGS BE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS PRIOR TO SUBMITTING BID PROPOSALS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING LAKE COUNTY TRAFFIC OPERATIONS, AT 352-742-1766, 48 HOURS IN ADVANCE OF ALL PHASES OF CONSTRUCTION INCLUDING AND NOT LIMITED TO INSTALLING SIGNAL POLES, LIGHT POLES, GROUND RODS, UNDERGROUND CONDUIT, SIGNAL HEAD ASSEMBLIES, AND LOOP INSTALLATION.
4. DURING CONSTRUCTION TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE FDOT TRAFFIC STANDARD PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS INCLUDING THE ELECTRIC PERMIT. THE APPLICATION FOR POWER SHOULD BE COORDINATED WITH THE CITY OF MINNEOLA.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE POWER COMPANY PROVIDING THE ELECTRICAL POWER, TO DETERMINE IF ANY ADDITIONAL FEES ARE REQUIRED TO CONNECT POWER. IF REQUIRED, THE FEE SHALL BE INCLUDED AS PART OF BID ITEM PAYMENT FOR ELECTRICAL SERVICE ASSEMBLY.
7. THE EXACT LOCATIONS OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR PRIOR TO BEGINNING OF CONSTRUCTION.
8. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND HAVE IT APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.
9. 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.
10. 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.
11. ALL MATERIALS AND HARDWARE SHALL BE F.D.O.T. APPROVED, AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS PRIOR TO POLE ORDERING.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY DETECTION DURING CONSTRUCTION. THE USE OF RECALL ON VEHICLE AND PEDESTRIAN MOVEMENTS IS PROHIBITED.
13. ANY STRIPING/PAVEMENT MARKINGS OR LANDSCAPING DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
14. THE COST FOR THE USE OF "TRAFFIC CONTROL OFFICER" IN THE EVENT OF LANE CLOSURES SHALL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.
15. 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 MAXIMUM TWO HOUR RESPONSE TIME.
16. ALL CONDUIT RUNS SHALL HAVE A LOCATE WIRE AND PULL STRING INSTALLED.
17. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS, TWO COMPLETE SETS OF AS-BUILT PLANS THAT INCLUDE CONDUIT AND PULL BOX LOCATIONS, AT FINAL INSPECTION.
18. OPTICOM PREEMPTION OR EQUIVALENT SHALL BE USED FOR EMERGENCY PREEMPTION.
19. A FIBER OPTIC VAULT AND CONDUIT INTO THE CONTROLLER ASSEMBLY SHALL BE INSTALLED.
20. ALL DAMAGED/DESTROYED CONDUIT AND LOOP LEAD-INS DURING CONSTRUCTION SHALL BE REPLACED BY CONTRACTOR.
21. THE FDOT SHALL BE INVITED TO BE PART OF THE FINAL WALK THROUGH AT FINALIZATION OF THE PROJECT.

PULL BOXES:

1. PULL BOX COVERS SHALL BE FDOT APPROVED NON METALLIC WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTICS" AS APPROPRIATE.
2. PULL BOXES SHALL BE LOCATED AWAY FROM EDGE OF PAVEMENT, OR BEHIND A CURB WHEN POSSIBLE, ATTEMPTING TO KEEP FROM THE BOTTOM OF A DITCH OR RETENTION AREA, AND WHERE LARGE VEHICLES PARK.
3. THE LOCATIONS OF THE PULL BOXES SHALL BE COORDINATED WITH LAKE COUNTY PRIOR TO INSTALLATION. THE LOCATION OF THE PULL BOXES SHALL BE OUTSIDE OF THE SIDEWALK AND TRAIL WHERE CONDITIONS ALLOW FOR THEIR INSTALLATION.

CABINET/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, TO INCLUDE A GENERATOR SWITCH BOX PANEL.
2. A UNINTERRRUPTABLE POWER SUPPLY (UPS) SHALL BE STAND ALONE WITHIN ITS OWN CABINET, INSTALLED ON A CONCRETE PAD ADJACENT TO THE CABINET BASE. THE UNINTERRRUPTABLE POWER SUPPLY SHALL BE ON THE FDOT APPROVED PRODUCTS LIST (APL).
3. THE CABINET CONCRETE BASE SHALL BE A MINIMUM OF 32"x 48" TO ACCOMMODATE TYPE 6 CABINETS.
4. GROUNDING FOR THE CONTROLLER ASSEMBLY SHALL MEASURE 25 OHMS. OR LESS.

5. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION WHEN POSSIBLE.
6. THE FIRST BUFFER (BLUE BUFFER) OF SINGLE MODE FIBER SHALL BE TERMINATED IN THE CABINET USING SC CONNECTORS.
7. THE MOUNTING OF THE ELECTRICAL SERVICE TO THE TRAFFIC SIGNAL CABINET SHALL BE PROHIBITED.
8. A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN ALL CONTROLLER CABINETS.
9. THE ETHERNET SWITCH SHALL HAVE BYPASS CAPABILITIES.

SIGNAL HEADS:



1. SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCKS. THE USE OF "JONES" PLUGS IS PROHIBITED.
2. DISCONNECTS SHALL OPEN FROM THE SIGNAL FACE. (not from the rear)
3. SIGNAL HEADS SHALL BE WIRED PER IMSA NEMA PHASING, PHASES 2 AND 6 ARE TYPICALLY ASSIGNED TO MAJOR-STREET WITH PHASE 2 BEING SOUTH OR WEST BOUND THROUGH MOVEMENTS. THE USUAL CONVENTION IS FOR THROUGH PHASES TO BE NUMBERED IN THE CLOCKWISE DIRECTION STARTING WITH PHASE 2, AND THE LEFT-TURN PHASES TO BE NUMBERED IN THE CLOCKWISE DIRECTION, WITH PHASE 1 BEING ACCOMPANYING LEFT-TURN TO PHASE 6
4. VEHICLE SIGNAL HEAD ASSEMBLIES SHALL BE BLACK, CAST ALUMINIUM, WITH TUNNEL VISORS, AND LED's FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED.
5. PEDESTRIAN SIGNAL ASSEMBLIES SHALL BE CAST ALUMINUM WITH FULL HAND/PERSON LED's WITH COUNT DOWN INDICATION.
6. ALL PEDESTRIAN SIGNAL HEADS SHALL HAVE LOUVERS AND BE COUNTDOWN LED SIGNALS WITH THE PROPER COUNTDOWN PEDESTRIAN SIGNAGE. ALL PEDESTRIAN SIGNALS NOT MOUNTED ON SIGNAL POLES OR MAST ARM POLES SHALL BE THE BREAKAWAY TYPE COMMONLY REFERRED TO AS A "T-BASE". THIS T-BASE WILL HAVE ALN ACCESS DOOR FOR WIRING AND MAINTENANCE.
7. SIGNAL CABLE SHALL BE ATTACHED TO MESSENGER WIRE USING PROPER SIZE SPIRAL WRAP.
8. FDOT OPTION OF PIVOTAL ADJUSTABLE HANGERS ASSEMBLY WITH FLAT EXTENSION BARS SHALL BE USED INSTEAD OF DROP PIPES FOR DUAL POINT ATTACHMENTS.

ILLUMINATED STREET SIGNS:

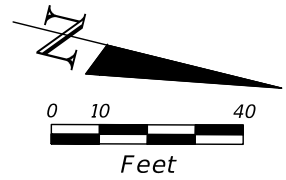
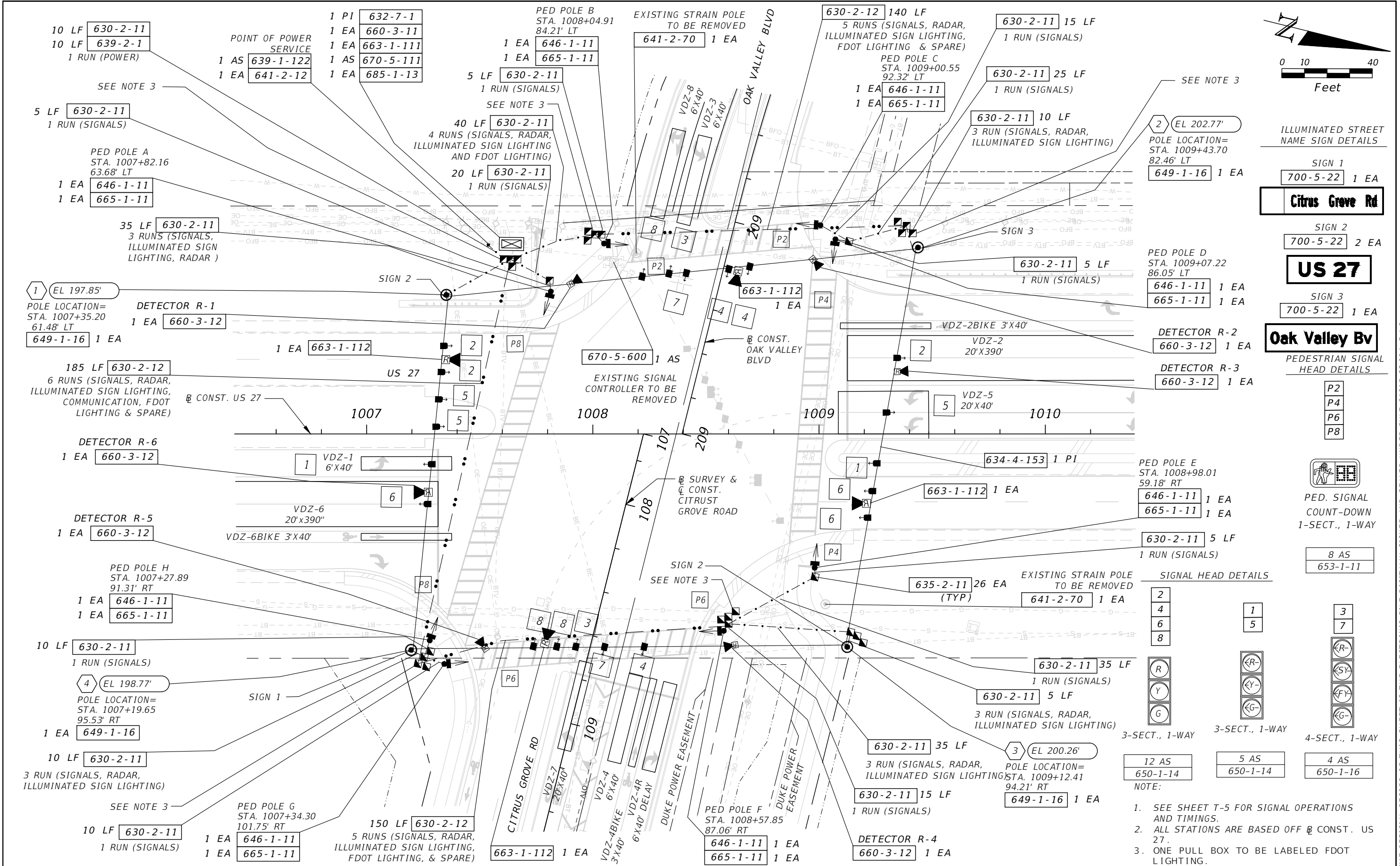
1. INTERNALLY ILLUMINATED STREET NAME SIGNS (LED), SHALL BE INSTALLED 1' BELOW THE MESSENGER CABLE WHERE POSSIBLE, POWERED BY A SEPARATE CIRCUIT BREAKER, AND BE DESIGNED AND INSTALLED IN ACCORDANCE WITH LAKE COUNTY PUBLIC WORKS INTERNALLY ILLUMINATED STREET NAME SIGN DETAIL. A PHOTOCELL SHALL BE INSTALLED NEAR THE ELECTRIC SERVICE WITHIN REACH OF A LIFT TRUCK. CARE TO BE GIVEN TO INSTALL WHERE STREET LIGHTING DOES NOT AFFECT OPERATION.

PAY ITEM NOTES:

1. 660-3-11: ONLY WAVETRONIX OR APPROVED EQUAL SHALL BE USED.

REVISIONS	DATE	 DRMP <small>ENGINEERS SURVEYORS PLANNERS SCIENTISTS</small> DRMP, INC. 941 LAKE BALDWIN LANE ORLANDO, FLORIDA 32814 P 407.896.0594 F 407.896.4836 CERTIFICATE OF AUTHORIZATION NO. 2648	 LAKE COUNTY FLORIDA	LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION		GENERAL NOTES	SHEET NO. T-3
				ROAD	RSO NO.		
				CITRUS GROVE ROAD	17-0003		
				WILLIAM E. MOSS, P.E. LICENSE NO. 74611 DATE:			

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ILLUMINATED STREET NAME SIGN DETAILS

SIGN 1
700-5-22 1 EA

Citrus Grove Rd

SIGN 2
700-5-22 2 EA

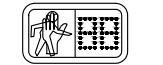
US 27

SIGN 3
700-5-22 1 EA

Oak Valley Bv

PEDESTRIAN SIGNAL HEAD DETAILS

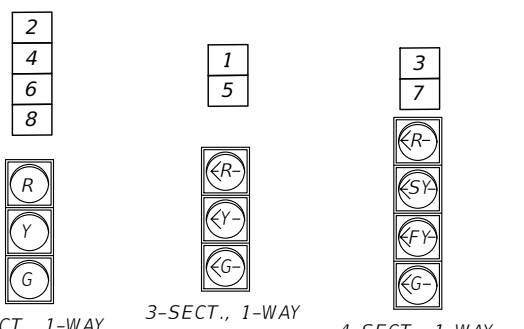
P2
P4
P6
P8



PED. SIGNAL COUNT-DOWN 1-SECT., 1-WAY

8 AS
653-1-11

SIGNAL HEAD DETAILS



3-SECT., 1-WAY: 12 AS 650-1-14
3-SECT., 1-WAY: 5 AS 650-1-14
4-SECT., 1-WAY: 4 AS 650-1-16

- NOTE:
- SEE SHEET T-5 FOR SIGNAL OPERATIONS AND TIMINGS.
 - ALL STATIONS ARE BASED OFF @ CONST. US 27.
 - ONE PULL BOX TO BE LABELED FDOT LIGHTING.

REVISIONS	DATE

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION

ROAD	R50 NO.
CITRUS GROVE ROAD	17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611

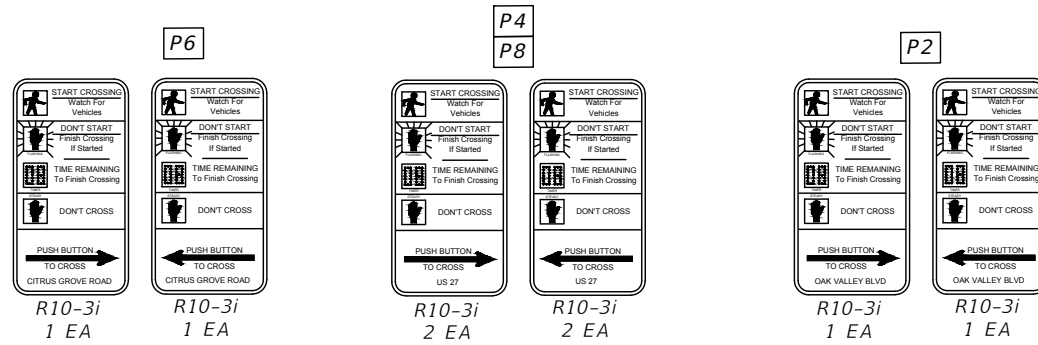
DATE:

SIGNALIZATION PLAN

SHEET NO. T-4

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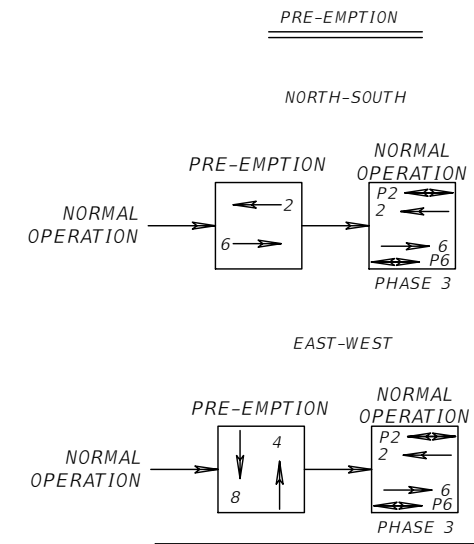
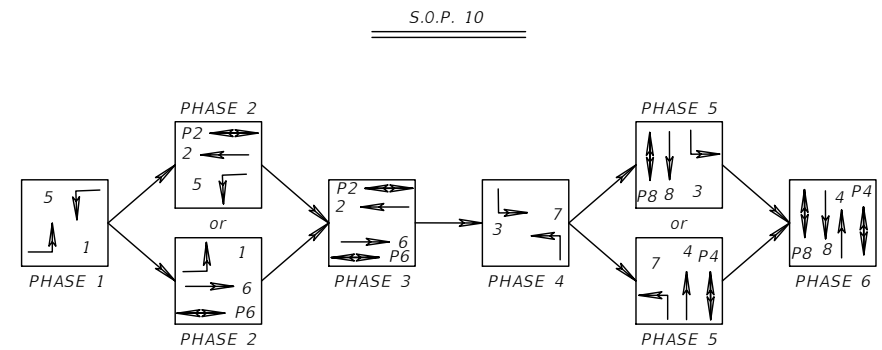
PEDESTRIAN SIGNAL
SIGN DETAIL



MICROWAVE DETECTOR CONNECTION CHART		
DETECTOR UNIT NO.	DETECTOR OPERATION	DELAY
R-1	VDZ-3	
	VDZ-8	
R-2	VDZ-2BIKE	5
	VDZ-5	
R-3	VDZ-2	
R-4	VDZ-4	
	VDZ-4R	5
	VDZ-4BIKE	
R-5	VDZ-1	
	VDZ-6BIKE	5
R-6	VDZ-6	

CONTROLLER TIMINGS								
TIMING FUNCTION								
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	13	26	13	26	13	28	13	28
EXTENSION	3		3.5	3	3		3	3.5
MAXIMUM GREEN 1	17	88	14	28	21	84	13	28
MAXIMUM GREEN 2								
YELLOW CLEARANCE	5.5	5.5	3.4	4.8	5.5	5.5	4.8	3.4
ALL RED	2.0	2.0	4.5	3.7	2.0	2.0	3.7	4.5
PEDESTRIAN WALK		7		7		7		7
PED. CLEARANCE		20		35		30		40
RECALL		MIN				MIN		

CONTROLLER OPERATIONS AND NOTES:
CONTROLLER NEMA, TS-2, TYPE 1 WITH ETHERNET, 8 PHASED SOLID STATE INITIALLY WIRED AS SOP 10 WITH FLASHER. SIZE 6 CABINET TO BE USED.
THE MAJOR STREET IS US 27 NEMA MOVEMENT 1,2,5, AND 6. THE MINOR STREET IS CITRUS GROVE RD / OAK VALLEY BLVD NEMA MOVEMENTS 3, 4, 7 AND 8. FLASHING OPERATION SHALL BE YELLOW FOR MOVEMENTS 2 AND 6 AND RED FOR MOVEMENTS 1, 3, 4, 5, 7 AND 8. THE SPEED LIMIT OR US 27 IS 55 MPH. THE SPEED LIMIT FOR CITRUS GROVE IS 45 MPH AND 25 FOR OAK VALLEY BLVD.

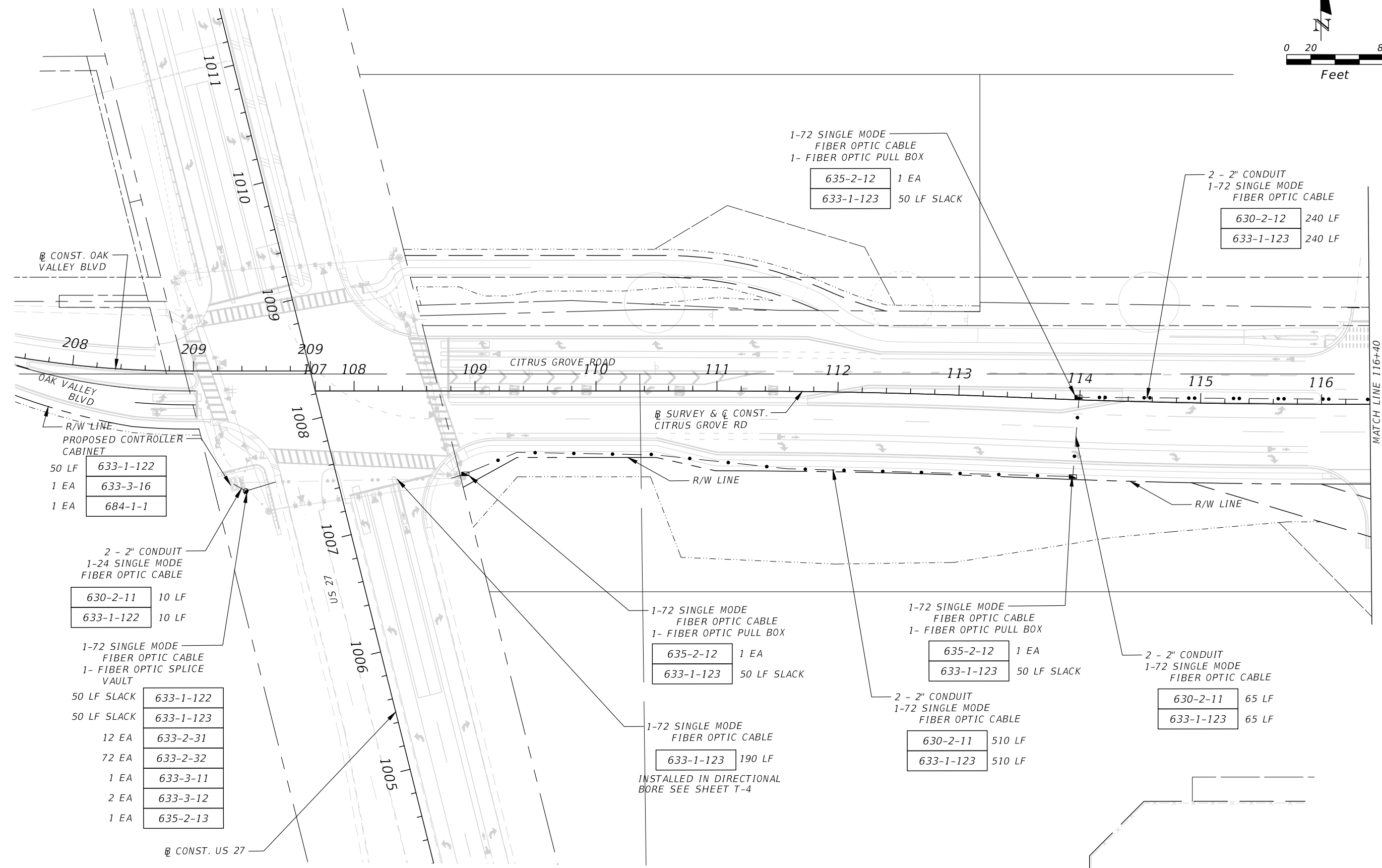
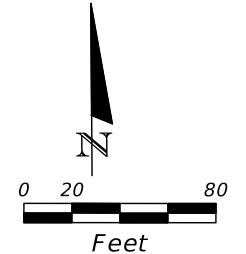


PRE-EMPTION TIMINGS	
MINIMUM GREEN BEFORE PRE-EMPTION	6
YELLOW CLEARANCE	4.8
ALL RED CLEARANCE	2.7
MINIMUM DWELL	6
YELLOW CLEARANCE	4.8
ALL RED CLEARANCE	2.7

SIGNAL OPERATIONS AND TIMINGS ARE FOR US 27 AT CITRUS GROVE ROAD / OAK VALLEY BLVD.

REVISIONS	DATE	<p>DRMP, INC. 941 LAKE BALDWIN LANE ORLANDO, FLORIDA 32814 P 407.896.0594 F 407.896.4836 CERTIFICATE OF AUTHORIZATION NO. 2648</p>	<p>LAKE COUNTY FLORIDA</p>	LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	ROAD	RSO NO.	WILLIAM E. MOSS, P.E. LICENSE NO. 74611 DATE:	SHEET NO. T-5
				CITRUS GROVE ROAD	17-0003			

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1-72 SINGLE MODE
FIBER OPTIC CABLE
1- FIBER OPTIC PULL BOX

635-2-12	1 EA
633-1-123	50 LF SLACK

2 - 2" CONDUIT
1-72 SINGLE MODE
FIBER OPTIC CABLE

630-2-12	240 LF
633-1-123	240 LF

50 LF 633-1-122
1 EA 633-3-16
1 EA 684-1-1

2 - 2" CONDUIT
1-24 SINGLE MODE
FIBER OPTIC CABLE

630-2-11	10 LF
633-1-122	10 LF

1-72 SINGLE MODE
FIBER OPTIC CABLE
1- FIBER OPTIC SPLICE
VAULT

50 LF SLACK	633-1-122
50 LF SLACK	633-1-123
12 EA	633-2-31
72 EA	633-2-32
1 EA	633-3-11
2 EA	633-3-12
1 EA	635-2-13

1-72 SINGLE MODE
FIBER OPTIC CABLE
1- FIBER OPTIC PULL BOX

635-2-12	1 EA
633-1-123	50 LF SLACK

1-72 SINGLE MODE
FIBER OPTIC CABLE
1- FIBER OPTIC PULL BOX

635-2-12	1 EA
633-1-123	50 LF SLACK

2 - 2" CONDUIT
1-72 SINGLE MODE
FIBER OPTIC CABLE

630-2-11	65 LF
633-1-123	65 LF

1-72 SINGLE MODE
FIBER OPTIC CABLE

633-1-123	190 LF
-----------	--------

INSTALLED IN DIRECTIONAL
BORE SEE SHEET T-4

2 - 2" CONDUIT
1-72 SINGLE MODE
FIBER OPTIC CABLE

630-2-11	510 LF
633-1-123	510 LF

REVISIONS	DATE

DRMP
ENGINEERS SURVEYORS PLANNERS SCIENTISTS
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FLORIDA 32814
P 407.896.0594 F 407.896.4836
CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
FLORIDA

LAKE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

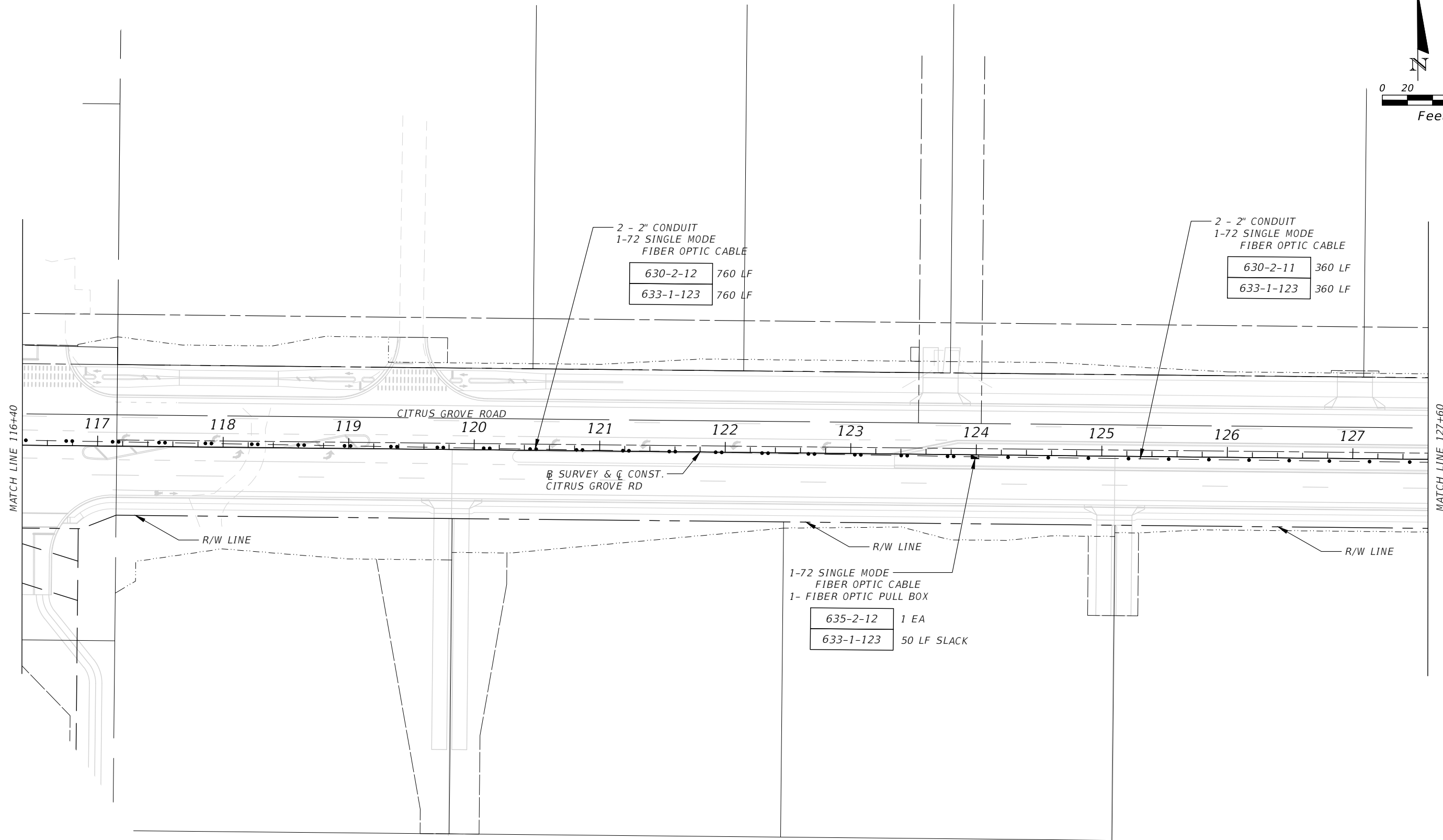
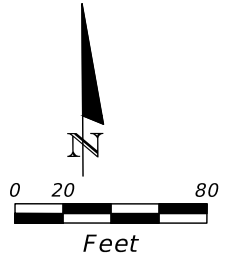
ROAD	RSO NO.
CITRUS GROVE ROAD	17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611
DATE: 1/28/2019 2:39:46 PM

INTERCONNECT PLAN

SHEET NO.
T-6

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS	DATE

DRMP
 ENGINEERS SURVEYORS PLANNERS SCIENTISTS
 DRMP, INC.
 941 LAKE BALDWIN LANE
 ORLANDO, FLORIDA 32814
 P 407.896.0594 F 407.896.4836
 CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
FLORIDA

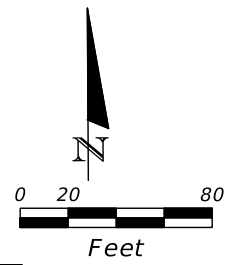
LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	
ROAD	RSO NO.
CITRUS GROVE ROAD	17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611
DATE:
1/28/2019 2:39:47 PM

INTERCONNECT PLAN

SHEET NO.
T-7

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



1-72 SINGLE MODE
FIBER OPTIC CABLE
1- FIBER OPTIC PULL BOX

635-2-12	1 EA
633-1-123	50 LF SLACK

1-72 SINGLE MODE
FIBER OPTIC CABLE
1- FIBER OPTIC PULL BOX

635-2-12	1 EA
633-1-123	50 LF SLACK

2 - 2" CONDUIT
1-72 SINGLE MODE
FIBER OPTIC CABLE

630-2-12	755 LF
633-1-123	755 LF

2 - 2" CONDUIT
1-72 SINGLE MODE
FIBER OPTIC CABLE

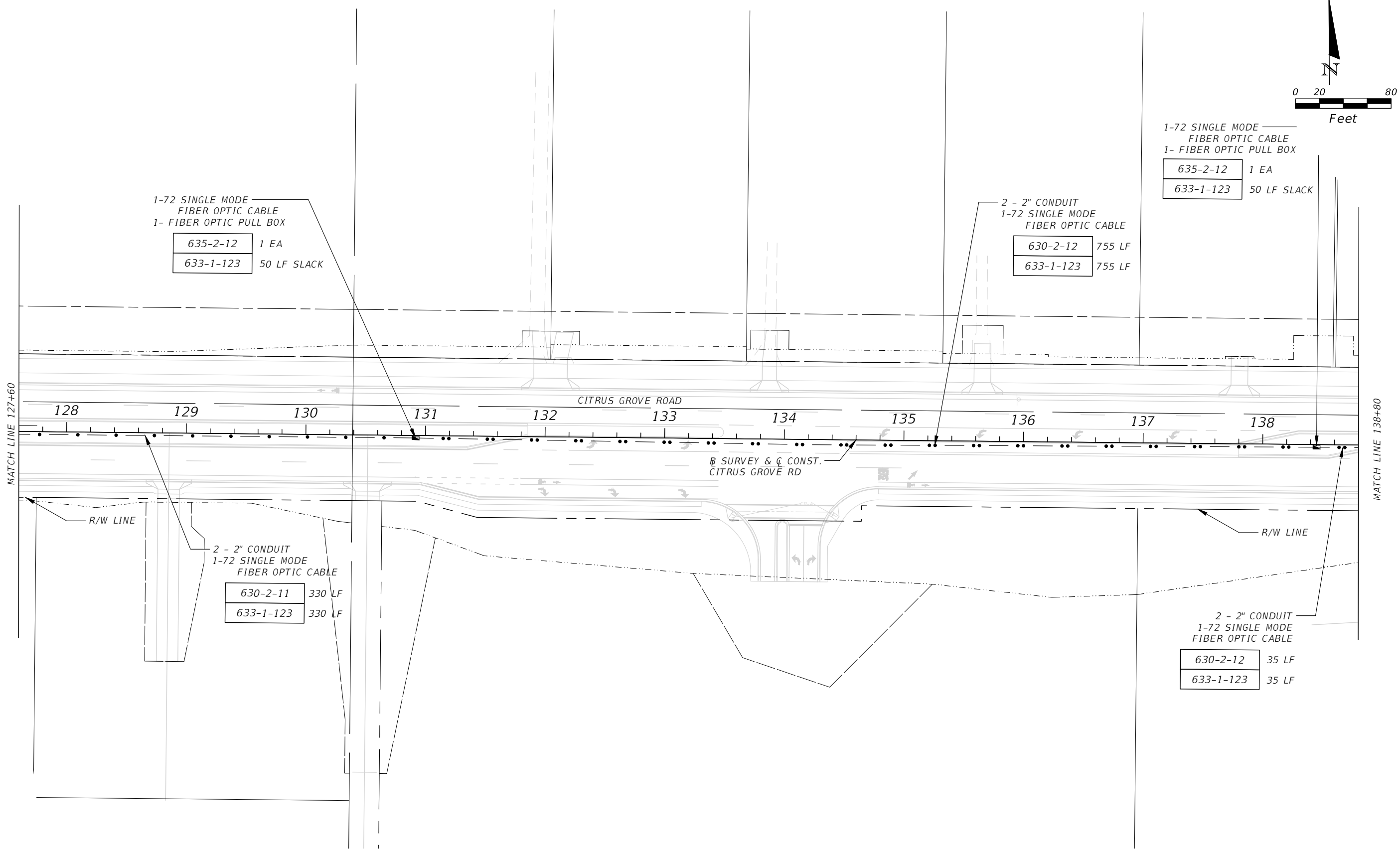
630-2-11	330 LF
633-1-123	330 LF

2 - 2" CONDUIT
1-72 SINGLE MODE
FIBER OPTIC CABLE

630-2-12	35 LF
633-1-123	35 LF

MATCH LINE 127+60

MATCH LINE 138+80



REVISIONS	DATE

DRMP
ENGINEERS SURVEYORS PLANNERS SCIENTISTS
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FLORIDA 32814
P 407.896.0594 F 407.896.4836
CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
FLORIDA

LAKE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

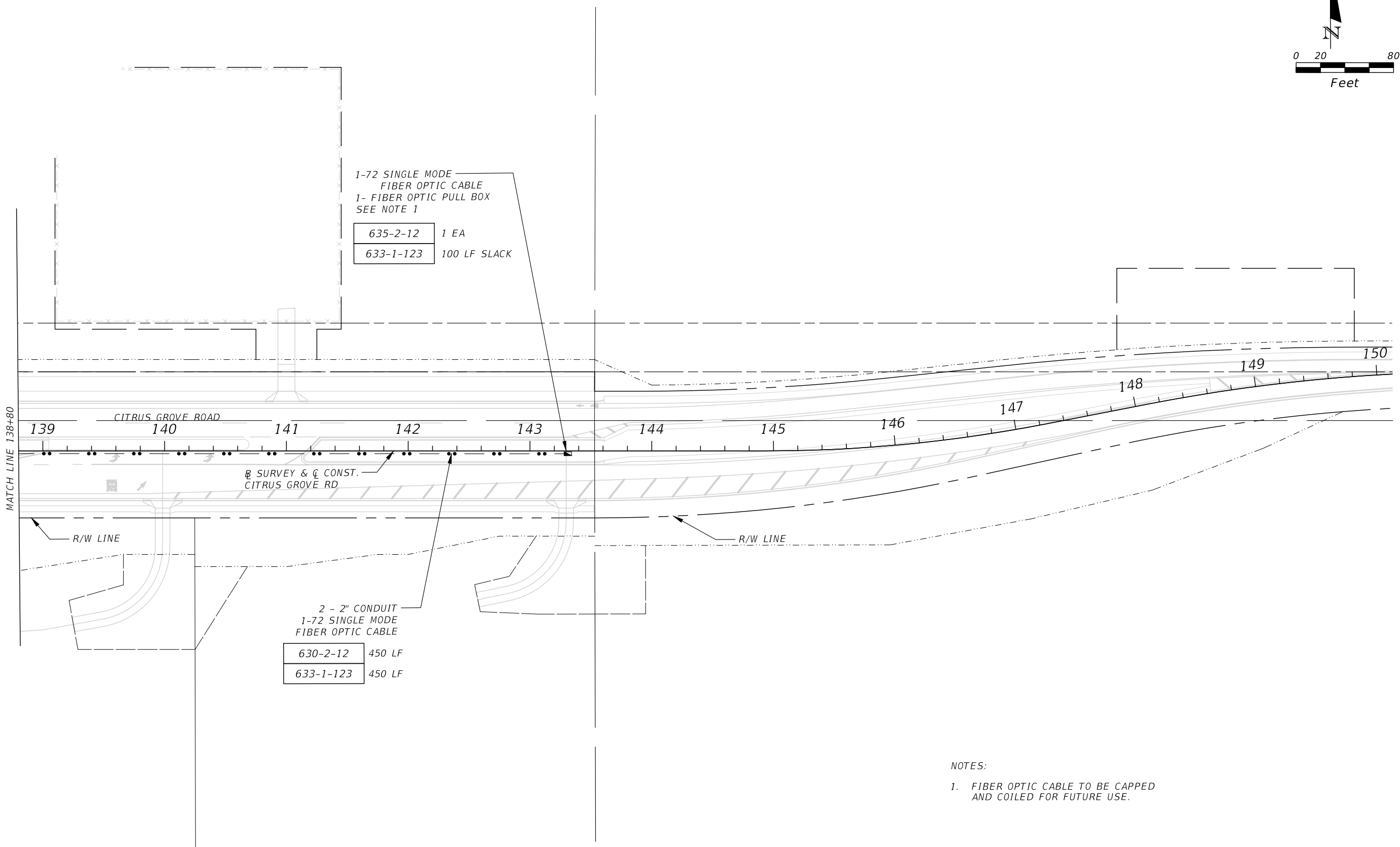
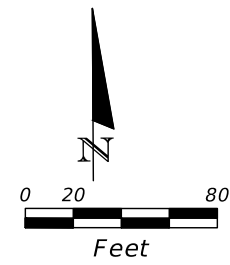
ROAD	RSO NO.
CITRUS GROVE ROAD	17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611
DATE:

INTERCONNECT PLAN

SHEET NO.
T-8

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



MATCH LINE 138+80

NOTES:
1. FIBER OPTIC CABLE TO BE CAPPED AND COILED FOR FUTURE USE.

REVISIONS	DATE

DRMP
ENGINEERS SURVEYORS PLANNERS SCIENTISTS
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FLORIDA 32814
P 407.896.0594 F 407.896.4836
CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
FLORIDA

LAKE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

ROAD	RSO NO.
CITRUS GROVE ROAD	17-0003

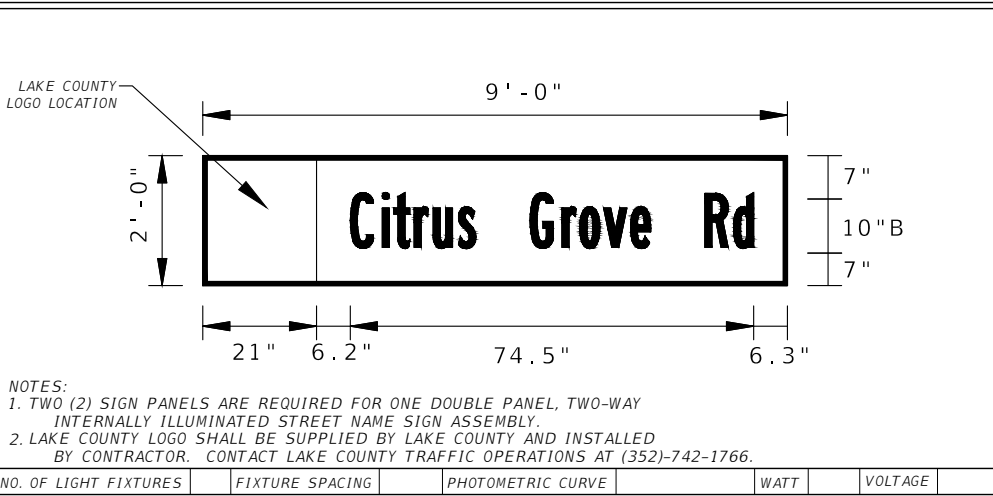
WILLIAM E. MOSS, P.E. LICENSE NO. 74611
DATE: 1/28/2019 2:39:49 PM

INTERCONNECT PLAN

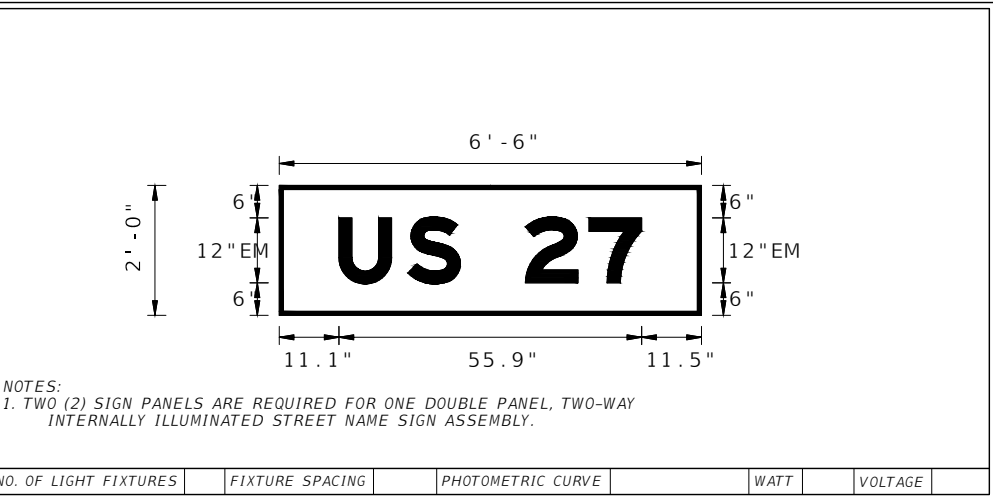
SHEET NO.
T-9

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SIGN NAME	SIGN 1	QTY	1	SIGN NO.		STATION(S)	
PANEL	BORDER					none	
WIDTH	9'-0"	WIDTH	0.75"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	White				
COLOR	Green						
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE		COLUMN SIZE		AVERAGE LENGTH	



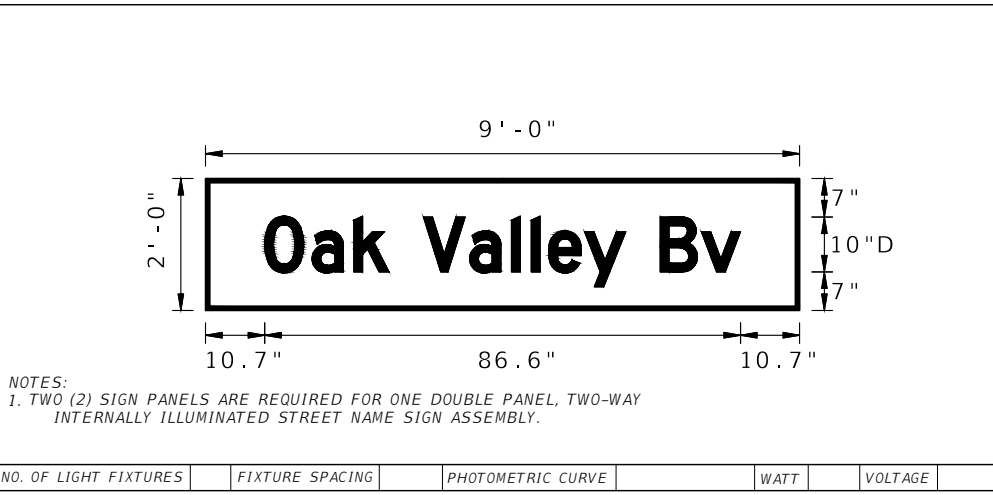
SIGN NAME	SIGN 2	QTY	2	SIGN NO.		STATION(S)	
PANEL	BORDER					none	
WIDTH	6'-6"	WIDTH	0.75"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	White				
COLOR	Green						
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE		COLUMN SIZE		AVERAGE LENGTH	



COPY	C	i	t	r	u	s	G	r	o	v	e	R	d	L				
SPACE	27.2	5.9	2.1	3.8	3.5	4.7	3.2	10	5.9	3.3	4.4	5	3.7	10	5.3	3.7	6.3	74.5
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SPACE																		
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COPY	U	S	2	7	L			
SPACE	11.1	12.7	9.7	12	11.8	9.7	11	55.9
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SPACE								
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SPACE								

SIGN NAME	SIGN 3	QTY	1	SIGN NO.		STATION(S)	
PANEL	BORDER					none	
WIDTH	9'-0"	WIDTH	0.75"				
HEIGHT	2'-0"	RADII	0"				
LEGEND	White	COLOR	White				
COLOR	Green						
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE		COLUMN SIZE		AVERAGE LENGTH	



SIGN NAME		QTY		SIGN NO.		STATION(S)	
PANEL	BORDER						
WIDTH		WIDTH					
HEIGHT		RADII					
LEGEND		COLOR					
COLOR							
SYMBOL(S)	ANGLE	X	Y	WID	HT		
SIGN NO.	NO. OF POSTS	EDGE OF LANE CLEARANCE		COLUMN SIZE		AVERAGE LENGTH	

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COPY	O	a	k	V	a	l	l	e	y	B	v	L				
SPACE	10.7	8.6	7.6	6.4	6.3	8.4	7.6	3.6	3.2	6.5	7.5	6.3	7.5	7.1	10.7	86.6
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REVISIONS	DATE

DRMP
ENGINEERS SURVEYORS PLANNERS SCIENTISTS
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FLORIDA 32814
P 407.896.0594 F 407.896.4836
CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
FLORIDA

LAKE COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

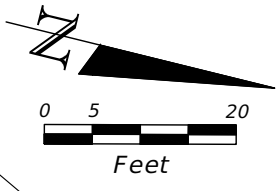
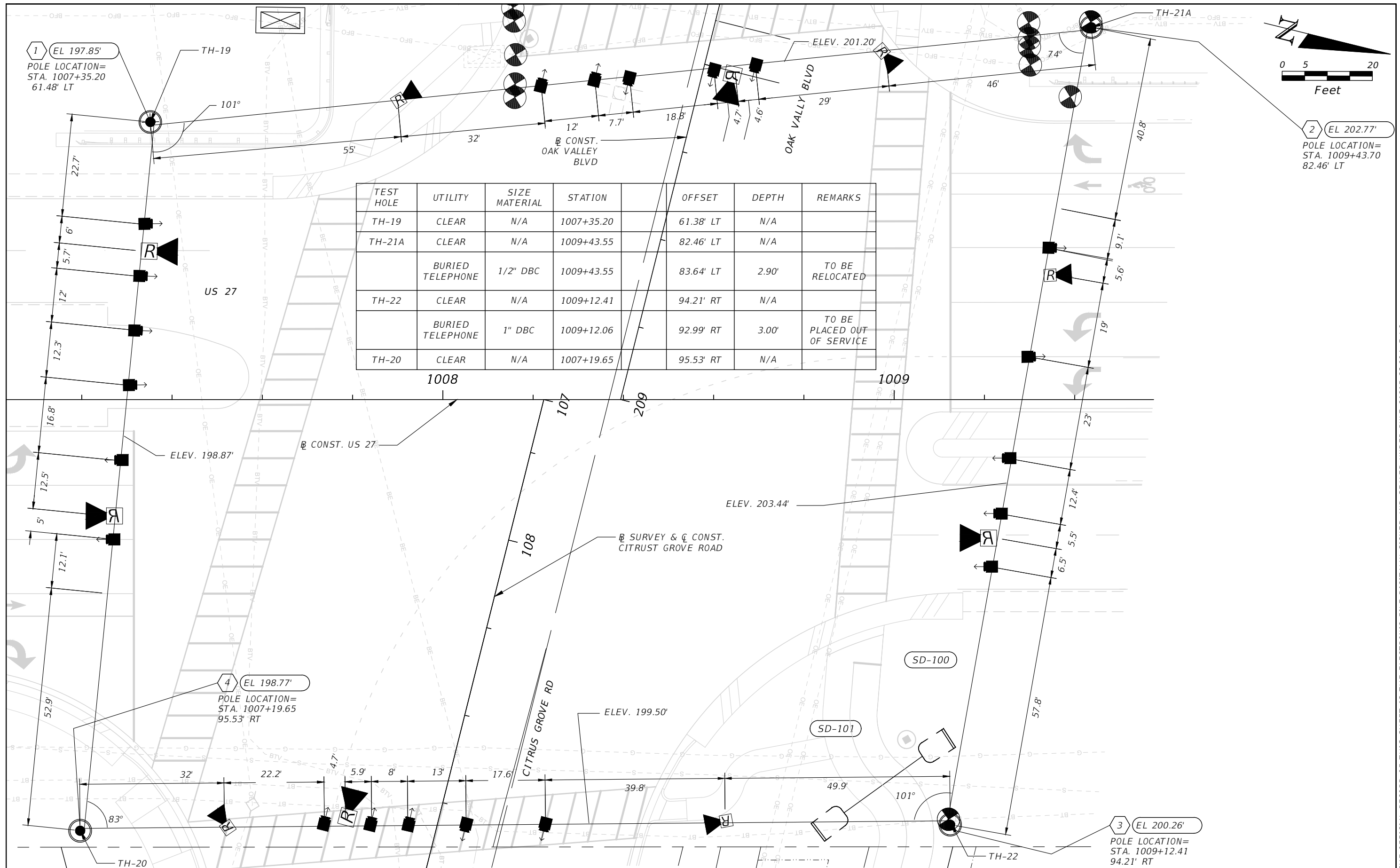
ROAD: CITRUS GROVE ROAD
RSO NO.: 17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611
DATE: 1/28/2019 2:39:59 PM

GUIDE SIGN WORKSHEET

SHEET NO. T-10

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



REVISIONS	DATE

DATE

DRMP
 ENGINEERS SURVEYORS PLANNERS SCIENTISTS
 DRMP, INC.
 941 LAKE BALDWIN LANE
 ORLANDO, FLORIDA 32814
 P 407.896.0594 F 407.896.4836
 CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
 FLORIDA

LAKE COUNTY
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION

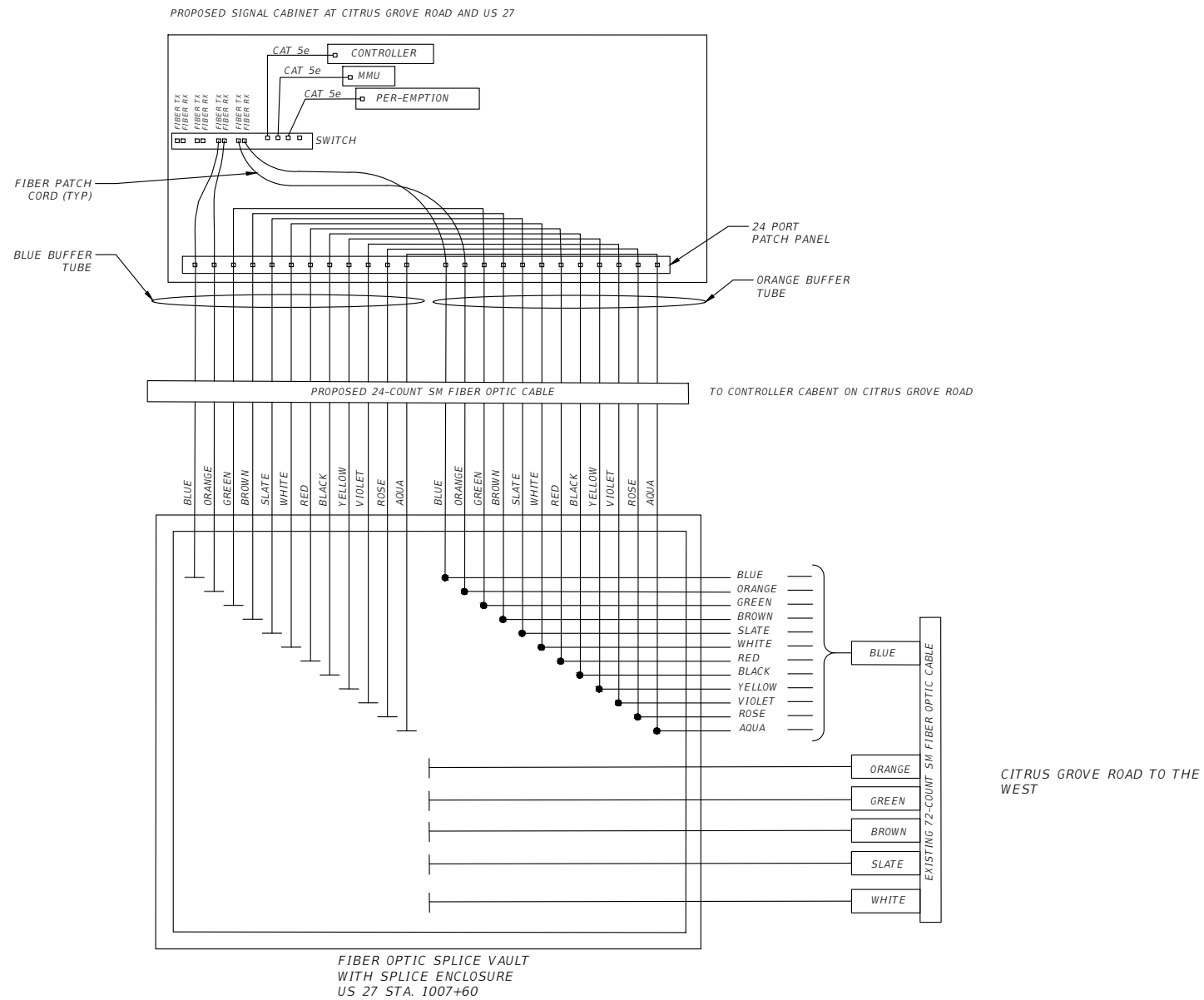
ROAD	RSO NO.
CITRUS GROVE ROAD	17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611
 DATE: 1/28/2019 2:40:42 PM

**SIGNAL HEAD AND UTILITY
 LOCATION PLAN**

SHEET NO.
T-11

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.



LEGEND:

	TERMINATED FIBER (PROPOSED)
	FUSION SPLICE (PROPOSED)
	CONNECTORIZED
	BUFFER TUBE

REVISIONS	DATE

DRMP
 ENGINEERS SURVEYORS PLANNERS SCIENTISTS
 DRMP, INC.
 941 LAKE BALDWIN LANE
 ORLANDO, FLORIDA 32814
 P 407.896.0594 F 407.896.4836
 CERTIFICATE OF AUTHORIZATION NO. 2648

LAKE COUNTY
 FLORIDA

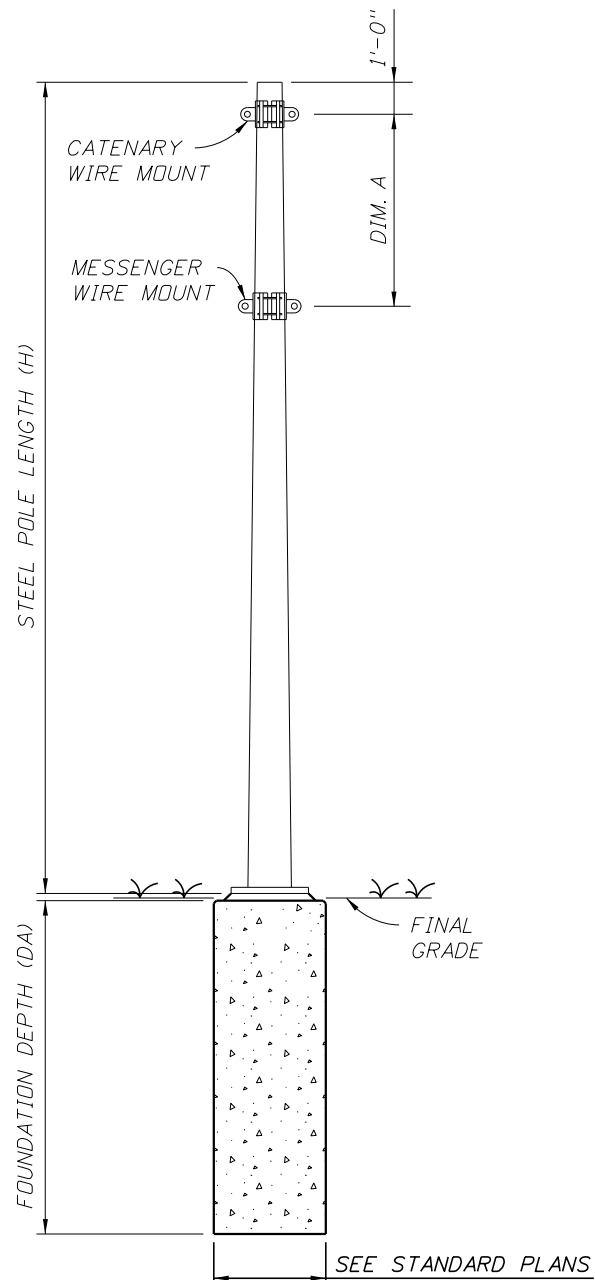
LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION	
ROAD	RSO NO.
CITRUS GROVE ROAD	17-0003

WILLIAM E. MOSS, P.E. LICENSE NO. 74611
DATE:

SPLICING DETAIL

SHEET NO.
T-12

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.





**STEEL STRAIN
POLE SECTION**

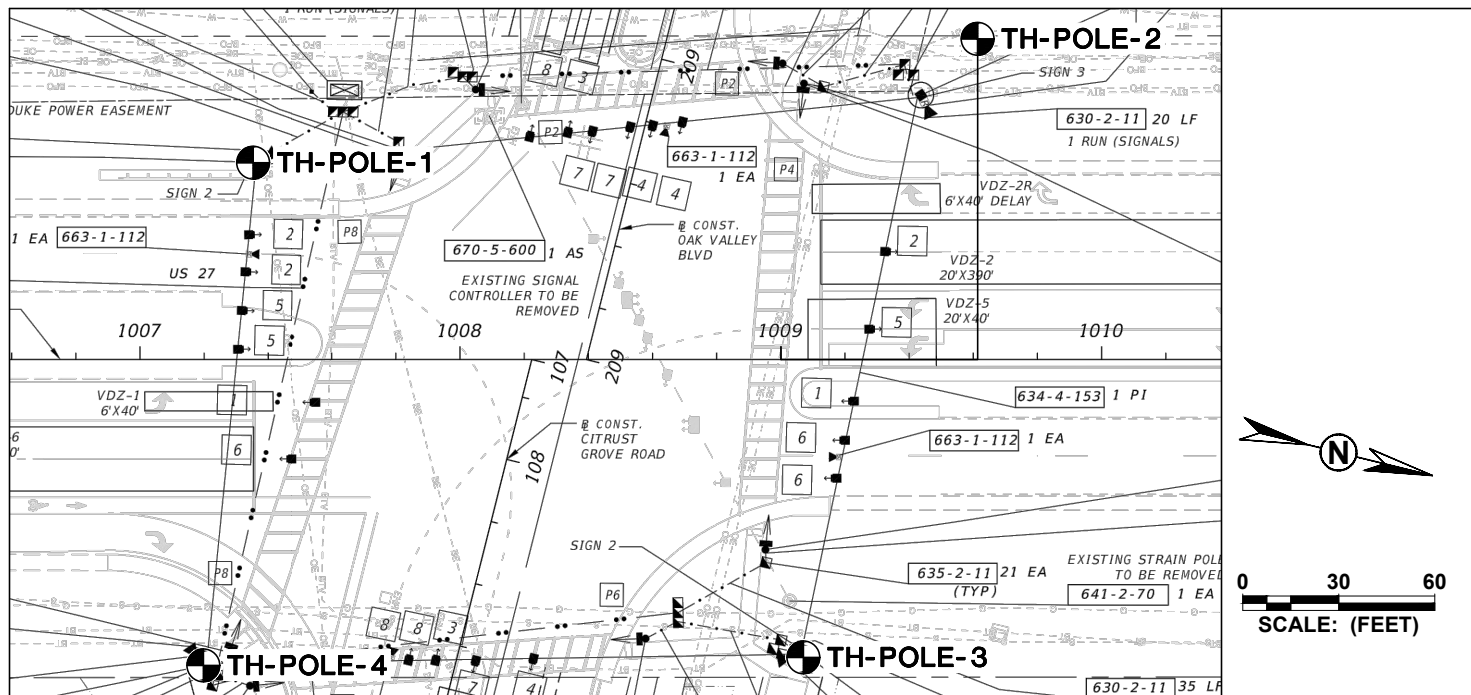
STEEL STRAIN POLE DIMENSIONS
TYPES PS-IV THROUGH PS-X
(SEE STANDARD PLANS 649-010 FOR
POLE AND FOUNDATION DETAILS)

STRAIN POLE SCHEDULE									
ID NO.	SHEET NO.	POLE LOCATION		FINAL GRADE ELEVATION	CROWN ELEVATION	POLE TYPE	POLE LENGTH (H)	ATTACHMENT POINT DIST. (A)	PAY ITEM NUMBER
		STATION	OFFSET						
1	T-4	1007+35.20	61.48' LT.	197.35	201.20	PS-IX	41'-9"	11'-6"	649-1-16
2	T-4	1009+43.70	82.46' LT.	202.27	203.44	PS-IX	36'-10"	11'-6"	649-1-16
3	T-4	1009+12.41	94.21' RT.	199.76	203.44	PS-IX	39'-4"	11'-6"	649-1-16
4	T-4	1007+19.65	95.53' RT.	198.27	199.50	PS-IX	40'-10"	11'-6"	649-1-16

NOTES:

1. THE METHOD OF SIGNAL CABLE ATTACHMENT SHALL BE TWO POINT.
2. POLES WITH ID. NO.'S 1, 2, 3, & 4 MESSENGER WIRE SHALL BE 7/16" DIAMETER UTILITY GRADE.
3. POLES WITH ID. NO.'S 1, 2, 3, & 4 CATENARY WIRE SHALL BE 7/16" DIAMETER UTILITY GRADE.
4. DESIGN BASED ON WIND SPEED OF 140 MPH.
5. SPAN WIRE ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARD PLANS 634-001.
6. SIGNALS SHALL BE INSTALLED TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 17'-6" AND A MAXIMUM VERTICAL CLEARANCE IN ACCORDANCE WITH THE FDOT STANDARD SPECIFICATIONS.
7. SHOP DRAWINGS ARE REQUIRED FOR CLAMP-ON CANTILEVER ARMS FOR ATTACHING SIGNS TO STRAIN POLES WHICH DO NOT MEET THE REQUIREMENTS OF STANDARD SPECIFICATION 700-3.2. SUBMIT CALCULATIONS AND SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED FLORIDA PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
8. POLES SHALL BE INSTALLED WITH A CONCRETE FOUNDATIONS PER THIS SHEET AND STANDARD PLANS 649-010. PAY ITEMS LISTED IN THE ABOVE TABLE SHALL INCLUDE ALL MATERIALS AND WORK NECESSARY TO INSTALL THE POLE AND FOUNDATION. THIS INCLUDES, BUT NOT LIMITED TO EXCAVATION, TEMPORARY CASING, DEWATERING, ETC.
9. SEE STANDARD PLANS 649-010 FOR ADDITIONAL DETAILS AND NOTES PERTAINING TO STEEL POLES.

REVISIONS	DATE	 DRMP <small>ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS</small> DRMP, INC. 941 LAKE BALDWIN LANE ORLANDO, FLORIDA 32814 P 407.896.0594 F 407.896.4836 CERTIFICATE OF AUTHORIZATION NO. 2648	 LAKE COUNTY FLORIDA	LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION		STRAIN POLE SCHEDULE	SHEET NO.
				ROAD	RSQ NO.		JOCelyn M. Haisch-Linn, P.E. LICENSE NO. 60103
			CITRUS GROVE ROAD	17-0003	DATE:		



LEGEND



- TH** STANDARD PENETRATION TEST (SPT) BORING LOCATION
- N** STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
- GNM** GROUNDWATER NOT MEASURED (i.e., NOT ENCOUNTERED IN THE TOP 10 FEET AND NOT MEASURED BELOW 10 FEET DUE TO THE MUDDY CONDITION OF THE BOREHOLE)
- SP,SP-SM** UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)
- SM,SC,CH** UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)

STANDARD PENETRATION TEST DATA:
 SPOON I.D.= 1.375"
 SPOON O.D.= 2.0"
 HAMMER DROP= 30"
 HAMMER WEIGHT= 140 lbs.
 HAMMER TYPE= AUTOMATIC

- NOTES:
- 1) UPON COMPLETION OF THE BORING, THE BOREHOLE WAS GROUTED WITH PORTLAND CEMENT GROUT.
 - 2) ALL SPT BORINGS WERE PERFORMED USING AN AUTOMATIC HAMMER. AUTOMATIC HAMMER N-VALUES MAY BE CONVERTED TO EQUIVALENT SAFETY HAMMER N-VALUES BY MULTIPLYING BY 1.24.
 - 3) ARTESIAN CONDITIONS WERE NOT NOTED BY THE DRILLERS DURING BOREHOLE DRILLING. HOWEVER, BASED ON REVIEW OF THE POTENTIOMETRIC MAPS OF THE AREA, IF THE CONTRACTOR SHOULD ENCOUNTERED ARTESIAN CONDITIONS DURING CONSTRUCTION, THE ESTIMATED ELEVATION OF THE ARTESIAN HEAD IS APPROXIMATELY +75 FEET NGVD. THE CONTRACTOR SHALL BE PREPARED TO HANDLE ARTESIAN WATER LEVELS UP TO +75 FEET NGVD.
 - 4) APPROXIMATE STATIONS AND OFFSETS ESTIMATED, REFERENCED RELATIVE TO THE CENTERLINE OF CONSTRUCTION FOR BL CONSTRUCTION US 27.
 - 5) THE BASE MAP FOR THE BORING LOCATION PLAN IS A SITE PLAN BY DRMP, INC.

ENGINEERING CLASSIFICATION

I COHESIONLESS SOILS

DESCRIPTION	BLOW COUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	>50

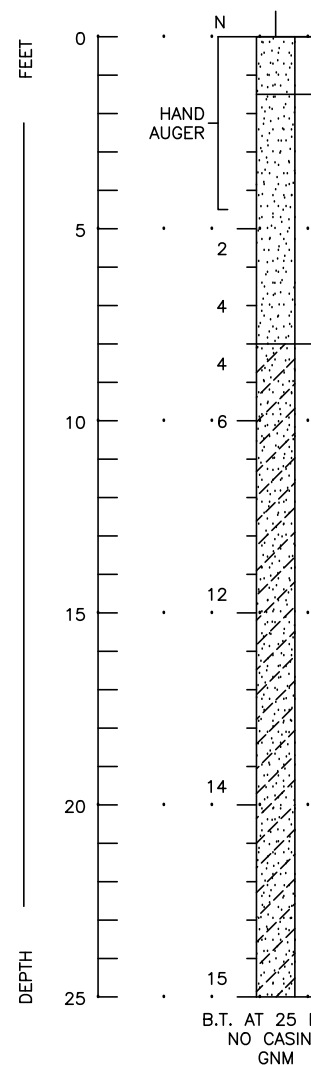
II COHESIVE SOILS

DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH, QU, TSF	BLOW COUNT "N"
VERY SOFT	<1/4	0 TO 2
SOFT	1/4 TO 1/2	2 TO 4
MEDIUM STIFF	1/2 TO 1	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	>4	>30

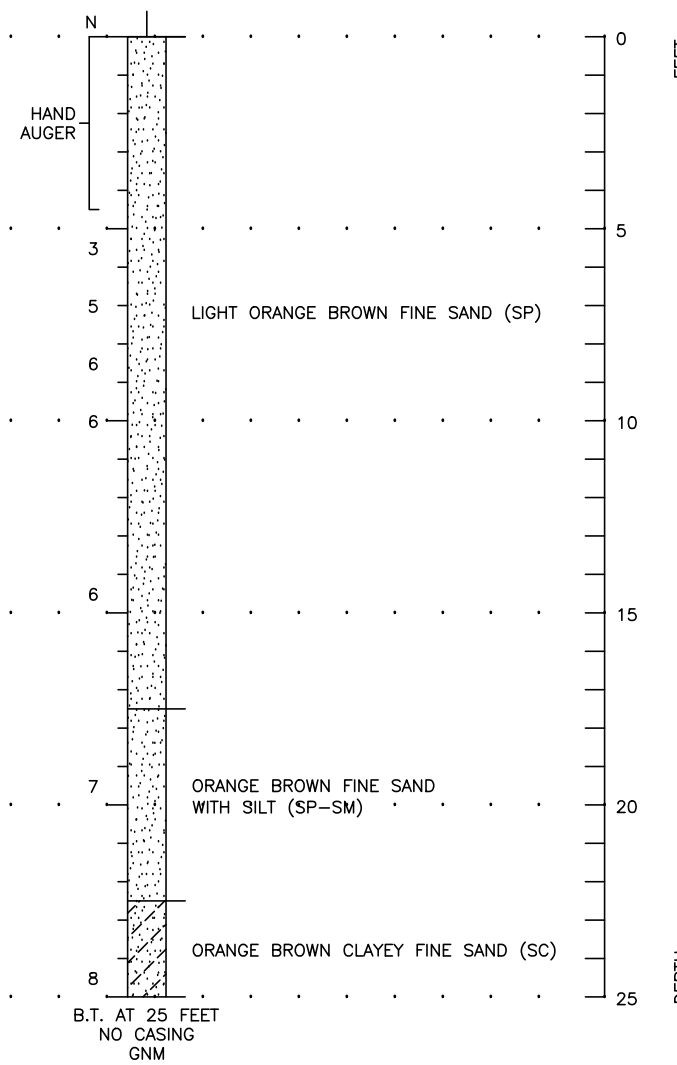
WHILE THIS BORING IS REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THIS RESPECTIVE LOCATION AND FOR THIS RESPECTIVE VERTICAL REACH, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOG AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOG IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATION ON THE PARTICULAR DATE DRILLED.

GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER SURFACE DATA IN THE BORING IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THIS LOCATION OR WITHIN THE VERTICAL REACHES OF THIS BORING IN THE FUTURE.

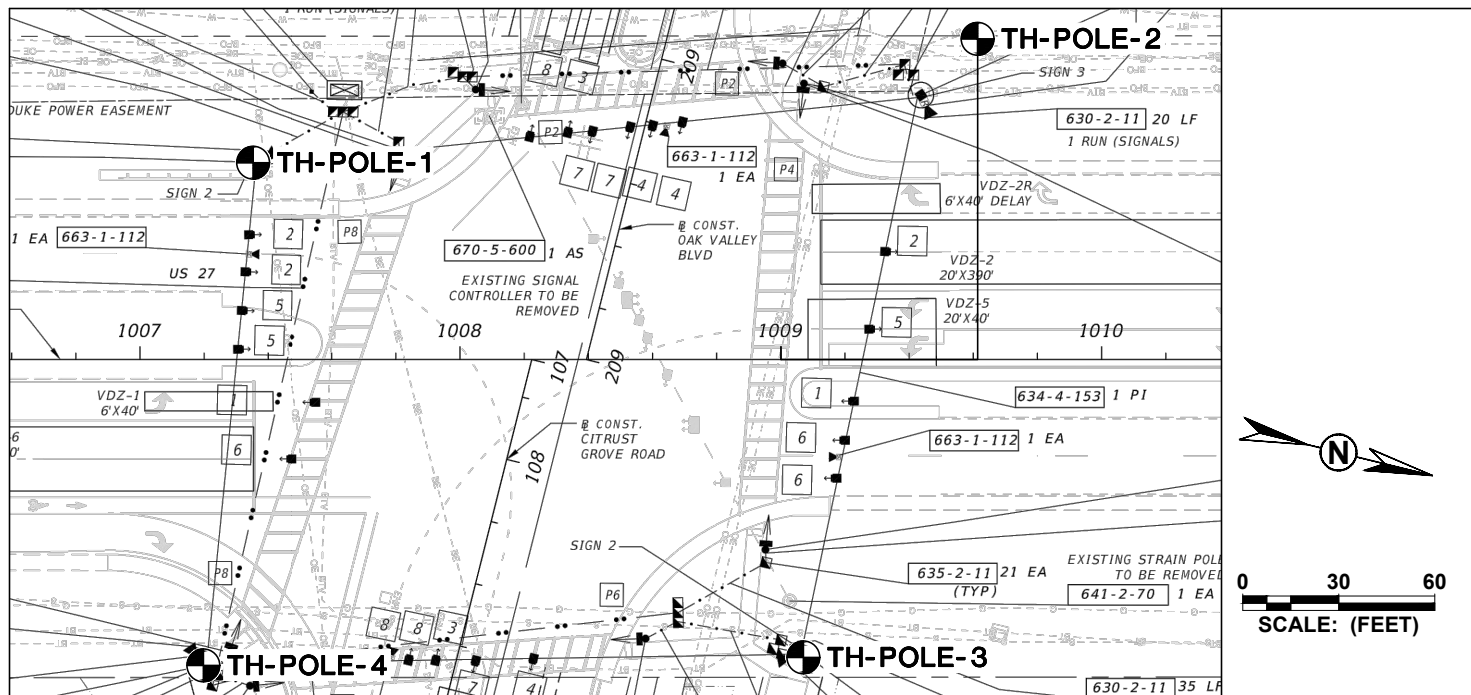
TH-POLE-1
 BORING: 07/02/18
 DATE: 1007+35
 STATION: 61L
 OFFSET:



TH-POLE-2
 BORING: 07/02/15
 DATE: 1009+61
 STATION: 100L
 OFFSET:



REVISIONS	DATE	 Ardaman & Associates, Inc. 8008 S. Orange Avenue Orlando, FL 32809 Certificate of Authorization No: 5950	 LAKE COUNTY FLORIDA	LAKE COUNTY DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION		REPORT OF SPT BORINGS FOR SIGNAL STRUCTURES	SHEET NO.
				ROAD	RSQ NO.		COLIN T. JEWBSURY, P.E. LICENSE NO. 58074 DATE:
				CITRUS GROVE ROAD	17-0003		



LEGEND



- TH** STANDARD PENETRATION TEST (SPT) BORING LOCATION
- N** STANDARD PENETRATION RESISTANCE IN BLOWS PER FOOT
- GNM** GROUNDWATER NOT MEASURED (i.e., NOT ENCOUNTERED IN THE TOP 10 FEET AND NOT MEASURED BELOW 10 FEET DUE TO THE MUDDY CONDITION OF THE BOREHOLE)
- SP,SP-SM**
SM,SC,CH UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-2487)

STANDARD PENETRATION TEST DATA:
 SPOON I.D.= 1.375"
 SPOON O.D.= 2.0"
 HAMMER DROP= 30"
 HAMMER WEIGHT= 140 lbs.
 HAMMER TYPE= AUTOMATIC

- NOTES: 1) UPON COMPLETION OF THE BORING, THE BOREHOLE WAS GROUTED WITH PORTLAND CEMENT GROUT.
 2) ALL SPT BORINGS WERE PERFORMED USING AN AUTOMATIC HAMMER. AUTOMATIC HAMMER N-VALUES MAY BE CONVERTED TO EQUIVALENT SAFETY HAMMER N-VALUES BY MULTIPLYING BY 1.24.
 3) ARTESIAN CONDITIONS WERE NOT NOTED BY THE DRILLERS DURING BOREHOLE DRILLING. HOWEVER, BASED ON REVIEW OF THE POTENTIOMETRIC MAPS OF THE AREA, IF THE CONTRACTOR SHOULD ENCOUNTERED ARTESIAN CONDITIONS DURING CONSTRUCTION, THE ESTIMATED ELEVATION OF THE ARTESIAN HEAD IS APPROXIMATELY +75 FEET NGVD. THE CONTRACTOR SHALL BE PREPARED TO HANDLE ARTESIAN WATER LEVELS UP TO +75 FEET NGVD.
 4) APPROXIMATE STATIONS AND OFFSETS ESTIMATED, REFERENCED RELATIVE TO THE CENTERLINE OF CONSTRUCTION FOR CL CONSTRUCTION NORTH HANCOCK ROAD.
 5) THE BASE MAP FOR THE BORING LOCATION PLAN IS A SITE PLAN BY DRMP, INC.

ENGINEERING CLASSIFICATION

I COHESIONLESS SOILS

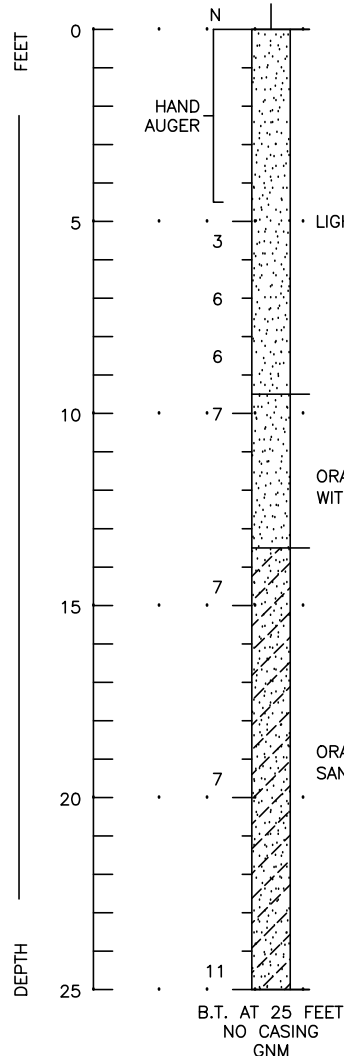
DESCRIPTION	BLOW COUNT "N"
VERY LOOSE	0 TO 4
LOOSE	4 TO 10
MEDIUM DENSE	10 TO 30
DENSE	30 TO 50
VERY DENSE	>50

II COHESIVE SOILS

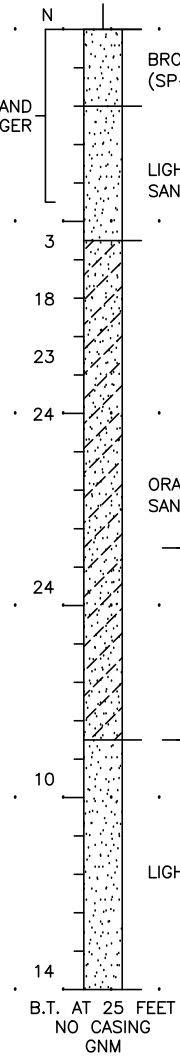
DESCRIPTION	UNCONFINED COMPRESSIVE STRENGTH, QU, TSF	BLOW COUNT "N"
VERY SOFT	<1/4	0 TO 2
SOFT	1/4 TO 1/2	2 TO 4
MEDIUM STIFF	1/2 TO 1	4 TO 8
STIFF	1 TO 2	8 TO 15
VERY STIFF	2 TO 4	15 TO 30
HARD	>4	>30

WHILE THIS BORING IS REPRESENTATIVE OF SUBSURFACE CONDITIONS AT THIS RESPECTIVE LOCATION AND FOR THIS RESPECTIVE VERTICAL REACH, LOCAL VARIATIONS CHARACTERISTIC OF THE SUBSURFACE MATERIALS OF THE REGION ARE ANTICIPATED AND MAY BE ENCOUNTERED. THE BORING LOG AND RELATED INFORMATION ARE BASED ON THE DRILLER'S LOGS AND VISUAL EXAMINATION OF SELECTED SAMPLES IN THE LABORATORY. THE DELINEATION BETWEEN SOIL TYPES SHOWN ON THE LOG IS APPROXIMATE AND THE DESCRIPTION REPRESENTS OUR INTERPRETATION OF SUBSURFACE CONDITIONS AT THE DESIGNATED BORING LOCATION ON THE PARTICULAR DATE DRILLED.
 GROUNDWATER ELEVATIONS SHOWN ON THE BORING LOGS REPRESENT GROUNDWATER SURFACES ENCOUNTERED ON THE DATES SHOWN. FLUCTUATIONS IN WATER TABLE LEVELS SHOULD BE ANTICIPATED THROUGHOUT THE YEAR. ABSENCE OF WATER SURFACE DATA IN THE BORING IMPLIES THAT NO GROUNDWATER DATA IS AVAILABLE, BUT DOES NOT NECESSARILY MEAN THAT GROUNDWATER WILL NOT BE ENCOUNTERED AT THIS LOCATION OR WITHIN THE VERTICAL REACHES OF THIS BORING IN THE FUTURE.

BORING: **TH-POLE-3**
 DATE: 07/02/18
 STATION: 1009+7
 OFFSET: 93R



BORING: **TH-POLE-4**
 DATE: 07/02/18
 STATION: 1007+20
 OFFSET: 96R



REVISIONS	DATE

Ardaman & Associates, Inc.
 8008 S. Orange Avenue
 Orlando, FL 32809
 Certificate of Authorization No: 5950



LAKE COUNTY
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING DIVISION
 ROAD: CITRUS GROVE ROAD
 RSO NO.: 17-0003

COLIN T. JEWSBURY, P.E. LICENSE NO. 58074
 DATE: 12/19/2018 5:27:40 PM

**REPORT OF SPT BORINGS
 FOR SIGNAL STRUCTURES**

SHEET NO. T-15

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.