

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

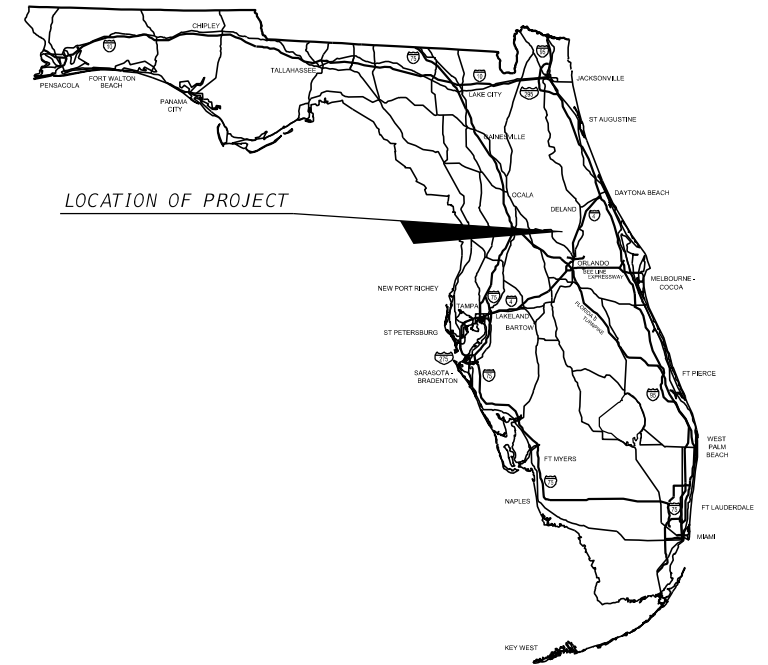
CONTRACT PLANS

FINANCIAL PROJECT ID 238275-3-52-01
(FEDERAL FUNDS)

LAKE COUNTY (11130)

STATE ROAD NO. 46

SIGNALIZATION PLANS



INDEX OF SIGNALIZATION PLANS

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**SIGNALIZATION PLANS
ENGINEER OF RECORD:**
AMBAR J. DIAZ-LOZANO, P.E.
VANASSE HANGEN BRUSTLIN, INC.
225 EAST ROBINSON STREET, SUITE 300
ORLANDO, FL 32801
CONTRACT NO. C9B09
VENDOR NO. 59-3556348
CERTIFICATE OF AUTHORIZATION 3932

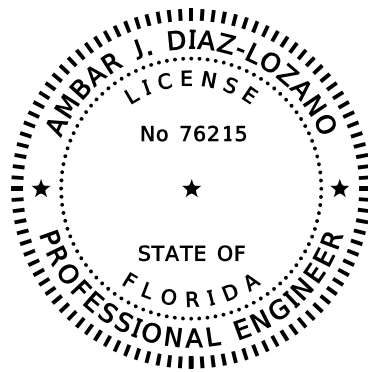
FDOT PROJECT MANAGER:
CATALINA CHACON, PE

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

| KEY SHEET REVISIONS | |
|----------------------------|--------------------|
| DATE | DESCRIPTION |
| | |

| CONSTRUCTION CONTRACT NO. | FISCAL YEAR | SHEET NO. |
|--------------------------------------|------------------------|----------------------|
| T5589 | 17 | T-1 |

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



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

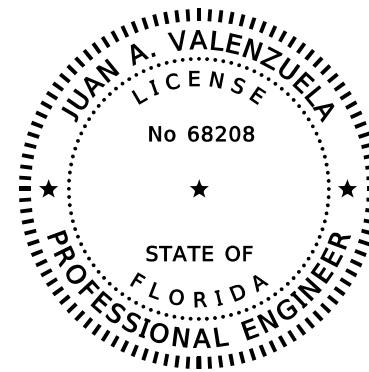
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VANASSE HANGEN BRUSTLIN, INC.
 TRANSPORTATION, LAND DEVELOPMENT,
 ENVIRONMENTAL SERVICES
 225 E. ROBINSON ST., SUITE 300
 LANDMARK CENTER TWO
 ORLANDO, FL 32801
 CERTIFICATE OF AUTHORIZATION # 3932
 AMBAR J. DIAZ-LOZANO, P.E. NO. 76215

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

SIGNALIZATION PLANS

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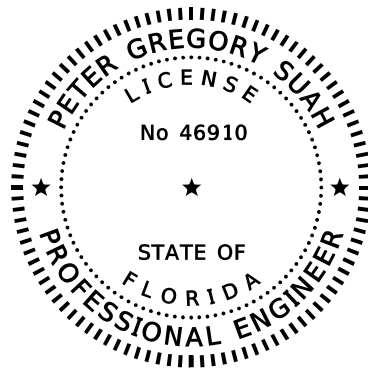
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FBT - FLORIDA BRIDGE AND TRANSPORTATION, INC.
 633 DARTMOUTH ST.
 ORLANDO, FL 32804
 CERTIFICATE OF AUTHORIZATION # 26379
 JUAN A. VALENZUELA, P.E. NO. 68208

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

SIGNALIZATION PLANS

| SHEET NO. | SHEET DESCRIPTION |
|-----------|----------------------------|
| T-2 | SIGNATORY SHEET |
| T-6 | STRAIN POLE SCHEDULE SHEET |



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ANTILLIAN ENGINEERING ASSOCIATES, INC.
 3331 BARTLETT BOULEVARD
 ORLANDO, FLORIDA 32811
 CERTIFICATE OF AUTHORIZATION EB6685
 PETER GREGORY SUAH, P.E. NO. 46910

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

SIGNALIZATION PLANS

| SHEET NO. | SHEET DESCRIPTION |
|-----------|-----------------------------------|
| T-2 | SIGNATURE SHEET |
| T-9 | REPORT OF SPT BORINGS FOR SIGNALS |

| REVISIONS | | | | KATHRYN L. LEE, P.E. P.E. LICENSE NUMBER 62420 VANASSE HANGEN & BRUSTLIN, INC. 225 E. ROBINSON ST., SUITE 300 ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION No. 3932 | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | SIGNATURE SHEET | SHEET NO. |
|-----------|-------------|------|-------------|--|--|--------|----------------------|-----------------|-----------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | | 46 | LAKE | 238275-3-52-01 | | |

TABULATION OF QUANTITIES

| PAY ITEM NO. | DESCRIPTION | UNIT | SHEET NUMBERS | | | | | | | | | | | | | | TOTAL THIS SHEET | | GRAND TOTAL | |
|--------------|---|------|---------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|--|--|------------------|-------|-------------|-------|
| | | | T-4 | | T-7 | | | | | | | | | | | | 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 | 148 | | 43 | | | | | | | | | | | | 191 | | 191 | |
| 630-2-12 | CONDUIT, F&I, DIRECTIONAL BORE | LF | 428 | | 55 | | | | | | | | | | | | 483 | | 483 | |
| 632-7-1 | CABLE (NEW OR RECONSTRUCTED INTERSECTION- F&I) | PI | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 634-4-153 | SPAN WIRE ASSEMBLY, F&I, 2-POINT, BOX | PI | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 635-2-11 | PULL & SPLICE BOX, F&I, 13"x24" STANDARD SIZE | EA | 8 | | 2 | | | | | | | | | | | | 10 | | 10 | |
| 639-1-121 | ELECTRICAL POWER SERVICE (F&I) (UNDEGROUND) (PURCH. BY CONTRACTOR FROM POWER CO.) | AS | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 639-1-610 | ELECTRICAL POWER SERVICE, REMOVE OVERHEAD | AS | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 639-2-1 | ELECTRICAL SERVICE WIRE (F&I) | LF | 200 | | | | | | | | | | | | | | 200 | | 200 | |
| 641-2-12 | PRESTRESSED CONCRETE POLES, F&I, TYPE P-II SERVICE POLE | EA | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 641-2-18 | PRESTRESSED CONCRETE POLES, F&I, TYPE P-VIII | EA | 4 | | | | | | | | | | | | | | 4 | | 4 | |
| 641-2-70 | PRESTRESSED CONCRETE POLE (INDEX 17725) (SHALLOW REMOVAL POLES 30' AND GREATER) | EA | 2 | | | | | | | | | | | | | | 2 | | 2 | |
| 646-1-11 | ALLUMINUM SIGNAL POLE, F&I, PEDESTAL | EA | 5 | | | | | | | | | | | | | | 5 | | 5 | |
| 650-1-14 | VEHICULAR TRAFFIC SIGNAL (F&I- ALUMINUM) (3-SECTION, 1 WAY) | AS | 10 | | | | | | | | | | | | | | 10 | | 10 | |
| 650-1-16 | VEHICULAR TRAFFIC SIGNAL (F&I- ALUMINUM) (4-SECTION, 1 WAY) | AS | 4 | | | | | | | | | | | | | | 4 | | 4 | |
| 653-1-11 | PEDESTRIAN SIGNAL, (F&I LED-COUNTDOWN) (1-WAY) | AS | 8 | | | | | | | | | | | | | | 8 | | 8 | |
| 660-4-12 | VEHICLE DETECTOR SYSTEM- VIDEO, F&I, ABOVE GROUND | EA | 4 | | | | | | | | | | | | | | 4 | | 4 | |
| 660-4-51 | VEHICLE DETECTOR SYSTEM- VIDEO, MODIFY, CABINET EQUIPMENT | EA | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 663-1-110 | SIGNAL PRIORITY AND PREEMPTION SYSTEM, F&I, OPTICAL | EA | 2 | | | | | | | | | | | | | | 2 | | 2 | |
| 665-1-11 | PEDESTRIAN DETECTOR, F&I, STANDARD | EA | 8 | | | | | | | | | | | | | | 8 | | 8 | |
| 670-5-111 | TRAFFIC CONTROLLER ASSEMBLY (F&I) (NEMA) (ONE PREEMPTION PLAN) | AS | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 670-5-600 | TRAFFIC CONTROLLER ASSEMBLY (REMOVE CONTROLLER CABINET) | AS | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 671-2-40 | TRAFFIC CONTROLLER ASSEMBLY (MODIFY) | EA | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 695-1-1 | TMS VEHICLE AXLE SENSOR, NON-WEIGHT APPLICATIONS (F&I) | EA | | | 6 | | | | | | | | | | | | 6 | | 6 | |
| 695-6-12 | TMS INDUCTIVE LOOP ASSEMBLY, F&I, 2 LOOPS | AS | | | 6 | | | | | | | | | | | | 6 | | 6 | |
| 695-7-162 | TMS CABINET (F&I) (TYPE III) (PEDESTAL) (TWO PANE BACK) | EA | | | 1 | | | | | | | | | | | | 1 | | 1 | |
| 695-7-600 | TRAFFIC MONITORING SITE CABINET, REMOVE EXISTING CABINET | EA | | | 1 | | | | | | | | | | | | 1 | | 1 | |
| 700-5-22 | INTERNALLY ILLUMINATED SIGN, F&I, OVERHEAD MOUNT, 12-18 SF | EA | 1 | | | | | | | | | | | | | | 1 | | 1 | |
| 700-5-50 | INTERNALLY ILLUMINATED SIGN, RELOCATE | EA | 3 | | | | | | | | | | | | | | 3 | | 3 | |

| | | | | | | | | | |
|-----------|-------------|------|-------------|--|--|--------|----------------------|-------------------------------------|-----------|
| REVISIONS | | | | AMBAR J. DIAZ-LOZANO, P.E. P.E. LICENSE NUMBER 76215 VANASSE HANGEN BRUSTLIN, INC. 225 E. ROBINSON STREET, SUITE 300 LANDMARK CENTER TWO ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION 3932 | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | TABULATION OF QUANTITIES | SHEET NO. |
| DATE | DESCRIPTION | DATE | DESCRIPTION | | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | T-3 |
| | | | | | 46 | LAKE | 238275-3-52-01 | | |

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GENERAL

1. UNLESS OTHERWISE NOTED ALL REMOVED EQUIPMENT SHALL BE TURNED OVER TO LAKE COUNTY AT OPERATIONS, 28127 C.R. 561, TAVARES, 352-742-1766, EXCEPT SIGNAL POLES, WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR.

2. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING, DIRECTIONAL BORING, OR TRENCHING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE SPECIFICATIONS.

3. THE CONTRACTOR SHALL HAND DIG THE FIRST 4' AT EACH POLE LOCATION AND THE FIRST 2' AT EACH PEDESTAL LOCATION TO VERIFY NO UTILITY CONFLICTS.

4. THE CONTRACTOR SHALL VERIFY COLOR CODES FOR SIGNAL CABLE WITH LAKE COUNTY BEFORE ORDERING.

5. THE CONTRACTOR IS REQUIRED TO INSPECT THE INSTALLATION OF THE TRAFFIC SIGNALS IN ACCORDANCE WITH FDOT SPECIFICATION 105-8.10. 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 AND TRAFFIC SIGNAL QUALITY ASSURANCE MANAGER AT (386) 943-5318 SHOULD ALSO BE CONTACTED TEN DAYS BEFORE THE INSPECTION IS TO BE PERFORMED SO THEY MAY BE PRESENT.

6. THE CONTRACTOR SHALL MAINTAIN THE EXISTING TRAFFIC SIGNALS DURING THIS PROJECT.

7. THE CONTRACTOR HAS THE OPTION TO USE DIRECTIONAL BORE AS THE CONDUIT INSTALLATION METHOD FOR PAY ITEM 630-2-12.

8. FOR MISCELLANEOUS STRUCTURES THAT HAVE BEEN COMPLETED AND SCHEDULED FOR ACCEPTANCE, THE CONTRACTOR, SHALL CONTACT DISTRICT FIVE STRUCTURES MAINTENANCE OFFICE AT (386)-740-3463 ONE MONTH PRIOR TO COMPLETION OF PROJECT TO SCHEDULE AN INSPECTION OF STRUCTURES INCLUDING: CABLE SIGNS, CANTILEVER SIGNS, TRUSS SIGNS, HIGH MAST LIGHT POLES, ITS AND DMS.

9. IN THE EVENT PERMANENT VEHICLE DETECTION IS DISRUPTED, PROVIDE AN ALTERNATIVE MEANS OF DETECTION TO ALL LANES APPROACHING THE INTERSECTION, SEPARATING EACH MOVEMENT WHICH PREVIOUSLY HAD DETECTION. THE TYPE OF DETECTOR SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. EQUIPMENT SHALL ONLY DETECT THE INTENDED MOVEMENT PAID FOR UNDER PAY ITEM 660-4-12.

PED FEATURES:

1. THREE (3) SPARE CONDUCTORS ARE TO BE RUN TO THE FURTHEST PEDESTRIAN SIGNAL HEAD.

2. ALL PEDESTRIAN SIGNALS SHALL BE 16" LED, COUNTDOWN TYPE.

3. CONTRACTOR TO ENSURE THAT A 4-FOOT X 4-FOOT FLAT LANDING AREA IS ADJACENT TO ALL DETECTORS FOR PEDESTRIAN ACCESS.

SIGNAL CABLE, LOOPS, CONDUIT, & PULL BOXES

1. DELAY TIMES FOR VDZ MARKED "DELAY" SHALL BE SET TO 5 SECONDS. ALL OTHERS SHALL BE SET TO ZERO.

2. PULL BOXES AND COVERS SHALL BE NON- METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE.

3. CONDUIT UNDER RECONSTRUCTION OF DRIVEWAYS SHALL BE PLACED PRIOR TO PLACING PAVEMENT AND SHALL BE PAID AS UNDERGROUND CONDUIT.

PAY ITEM NOTES

1. PAY ITEM NO. 665-1-11 INCLUDES FTP-68B-06.

2. PAY ITEM NUMBER 700-5-22 SHALL INCLUDE A MASTER PHOTOCCELL MOUNTED NEAR THE ELECTRIC SERVICE WITHIN REACH OF A LIFT TRUCK. PHOTOCCELL SHALL BE INSTALLED WHERE STREETLIGHTS DO NOT AFFECT OPERATION.

3. PAY ITEM NO. 635-2-11 SHALL INCLUDE REMOVAL AND RESTORATION OF CONCRETE SIDEWALK NECESSARY TO INSTALL THE PULL BOXES.

LAKE COUNTY GENERAL NOTES:

1. A PRE- CONSTRUCTION MEETING SHALL BE SCHEDULED WITH LAKE COUNTY TRAFFIC OPERATIONS, (352) 742-1766, PRIOR TO ANY CONSTRUCTION.

2. 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, GROUND RODS, UNDERGROUND CONDUIT, SIGNAL HEAD ASSEMBLIES, AND LOOP INSTALLATION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS INCLUDING THE ELECTRIC PERMIT. THE APPLICATION FOR POWER SHOULD BE COORDINATED WITH LAKE COUNTY TRAFFIC OPERATIONS.

4. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND HAVE IT APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.

5. 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.

6. 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.

7. ALL MATERIALS AND HARDWARE SHALL BE F.D.O.T. APPROVED, AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TEMPORARY DETECTION DURING CONSTRUCTION. THE USE OF RECALL ON VEHICLE AND PEDESTRIAN MOVEMENTS IS PROHIBITED.

9. THE MAINTENANCE OF EXISTING SIGNALS, UNTIL REMOVED, SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR. NOTE: CARE SHALL BE TAKEN NOT TO DAMAGE THE EQUIPMENT IN THE REMOVAL PROCESS.

10. 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 MAXIMUM RESPONSE TIME.

11. 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.

PULL BOXES:

1. PULL BOX COVERS SHALL BE FDOT APPROVED NON METALLIC WITH RECESSED COVER LOGO "TRAFFIC SIGNAL".

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. MULTIPLE CONDUITS IN THE SAME RUN SHALL BE PAID FOR AS DIRECTIONAL BORED OR JACK AND BORED FOR THE FIRST CONDUIT ONLY, ALL OTHERS WILL BE PAID FOR AS UNDERGROUND. ALL FIBER OR FUTURE USE CONDUIT SHALL HAVE A LOCATE WIRE INSTALLED.

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. TYPE 6 CABINET.

2. A GENERATOR PAD, 3'X3'X4" CONCRETE SHALL BE INSTALLED WITH 5/8" EYEBOLT INSTALLED IN THE PAD ADJACENT TO THE CABINET BASE.

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. THE INSIDE LANE DISCONNECT SHALL BE WIRED FOR FUTURE 5 SECTION HEADS.

9. A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN ALL CONTROLLER CABINETS.

SIGNAL/PEDESTRIAN HEADS:

1. SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCKS. THE USE OF "JONES" PLUGS IS PROHIBITED.

2. VEHICLE SIGNAL HEAD ASSEMBLIES SHALL BE BLACK, CAST ALUMINUM, WITH TUNNEL VISORS, AND LED'S FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED.

3. PEDESTRIAN SIGNAL ASSEMBLIES SHALL BE CAST ALUMINUM WITH FULL HAND/PERSON LED'S WITH COUNT DOWN INDICATION.

4. 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 SHALL BE THE BREAKAWAY TYPE COMMONLY REFERRED TO AS A "T-BASE". THIS T-BASE WILL HAVE AN ACCESS DOOR FOR WIRING AND MAINTENANCE.

5. SIGNAL CABLE SHALL BE ATTACHED TO MESSENGER WIRE USING PROPER SIZE SPIRAL WRAP.

6. 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 WESTBOUND 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.

7. FDOT OPTION OF PIVOTAL ASJUSTABLE HANGERS ASSEMBLY WITH FLAT EXTENSION BARS SHALL BE USED INSTEAD OF DROP PIPES FOR DUAL POINT ATTACHMENTS.

8. DISCONNECTS SHALL OPEN FROM THE SIGNAL FACE, NOT FROM THE REAR.

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 PHOTOCCELL 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.

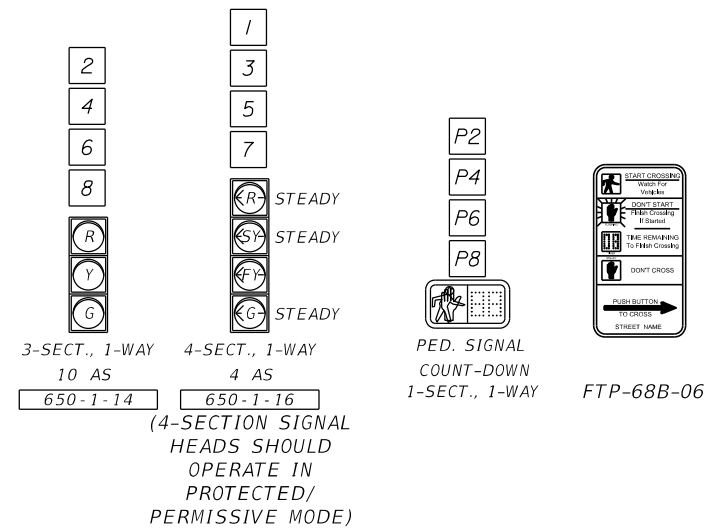
2. LAKE COUNTY LOGO WILL BE SUPPLIED BY LAKE COUNTY AND INSTALLED BY CONTRACTOR AS PART OF 700-5-22.

| REVISIONS | | | | AMBAR J. DIAZ-LOZANO, P.E. P.E. LICENSE NUMBER 76215 VANASSE HANGEN BRUSTLIN, INC. 225 E. ROBINSON STREET, SUITE 300 LANDMARK CENTER TWO ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION 3932 | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | SHEET NO. T-4 |
|-----------|-------------|------|----------|--|--|----------------------|--|-------------------------|
| DATE | DESCRIPTION | DATE | ROAD NO. | | COUNTY | FINANCIAL PROJECT ID | | |
| | | | 46 | | LAKE | 238275-3-52-01 | | |

GENERAL NOTES

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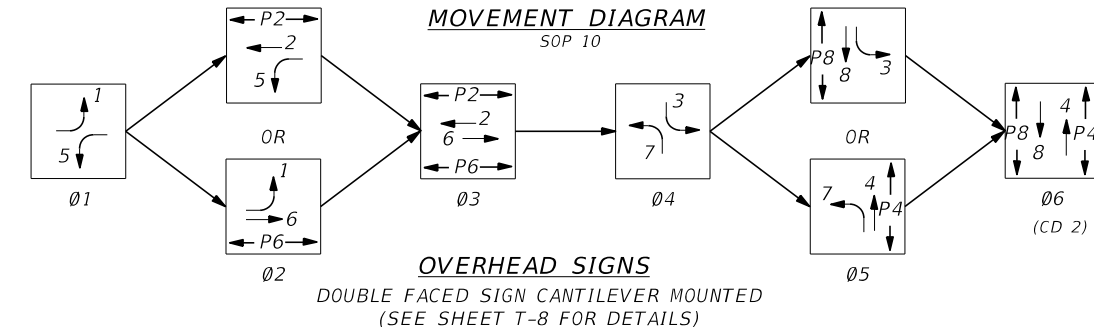
TRAFFIC SIGNAL DETAIL PEDESTRIAN SIGNAL DETAIL



CONTROLLER TIMINGS

| TIMING FUNCTION | MOVEMENT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|
| MINIMUM GREEN | | 5 | 15 | 5 | 5 | 5 | 15 | 5 | 5 |
| EXTENSION | | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| MAXIMUM GREEN 1 | | 20 | 50 | 20 | 48 | 20 | 50 | 20 | 49 |
| MAXIMUM GREEN 2 | | - | - | - | - | - | - | - | - |
| YELLOW CLEARANCE | | 4.8 | 4.9 | 4.8 | 5.1 | 4.9 | 4.8 | 5.1 | 4.8 |
| ALL RED | | 2.4 | 2.0 | 2.0 | 2.0 | 2.6 | 2.0 | 2.0 | 2.0 |
| PEDESTRIAN WALK | | - | 28 | - | 34 | - | 28 | - | 35 |
| PED. CLEARANCE | | - | 7 | - | 7 | - | 7 | - | 7 |
| RECALL | | - | MIN | - | - | - | MIN | - | - |

- NOTES:**
- VIDEO DETECTION ZONES PLACEMENT IS BASED ON A POSTED SPEED LIMIT OF 45 MPH.
 - DURING FLASH OPERATIONS, MOVEMENTS 2 & 6 SHALL FLASH YELLOW, ALL OTHERS SHALL FLASH RED.
 - MAJOR STREET IS SR 46, MOVEMENTS 2 AND 6, AND MINOR STREET IS ROUND LAKE RD., MOVEMENTS 4 AND 8.
 - PROPOSED CONTROLLER, METER, POWER SERVICE AND PULL BOXES ADJACENT TO THE CONTROLLER SHALL BE INSTALLED DURING SIGNAL TEMPORARY TRAFFIC CONTROL PLAN (TTCP) PHASE 1.
 - PAY ITEM 671-2-40 INCLUDES MODIFYING THE CONTROLLER PHASING AND TIMINGS FROM THE TTCP PHASING AND TIMINGS TO THE FINAL CONFIGURATION.



REMOVAL PAY ITEMS

| | |
|-----------|------|
| 639-1-610 | 1 AS |
| 641-2-70 | 2 EA |
| 670-5-600 | 1 AS |

| | |
|-------------|----------|
| 1 EA | 641-2-18 |
| 1 AS | 653-1-11 |
| (CD 3) 1 EA | 660-4-12 |
| 1 EA | 665-1-11 |

POLE LOCATION= STA. 141+90.37 71.6' LT.

| | |
|------|----------|
| 1 EA | 646-1-11 |
| 1 AS | 653-1-11 |
| 1 EA | 665-1-11 |

| | |
|------|-----------|
| 1 PI | 634-4-153 |
| 1 EA | 663-1-110 |

| | |
|------|----------|
| 1 EA | 646-1-11 |
| 1 AS | 653-1-11 |
| 1 EA | 665-1-11 |

| | |
|-------------|----------|
| 1 EA | 641-2-18 |
| (CD 2) 1 EA | 660-4-12 |

| | |
|------|----------|
| 1 EA | 646-1-11 |
| 1 AS | 653-1-11 |
| 1 EA | 665-1-11 |

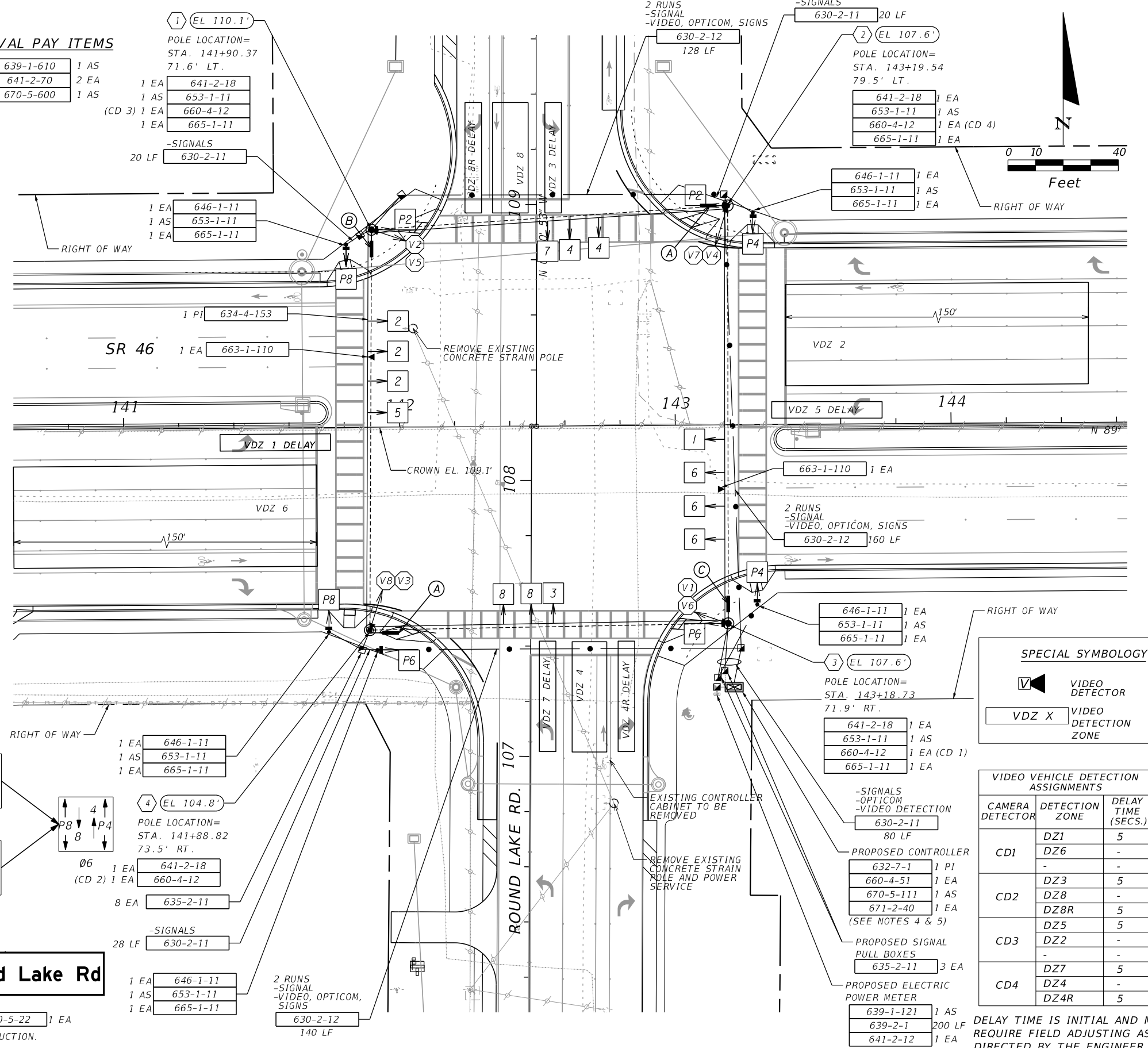
POLE LOCATION= STA. 141+88.82 73.5' RT.

| | |
|-------------|----------|
| 1 EA | 641-2-18 |
| (CD 2) 1 EA | 660-4-12 |

| | |
|------|----------|
| 8 EA | 635-2-11 |
|------|----------|

| | |
|------|----------|
| 1 EA | 646-1-11 |
| 1 AS | 653-1-11 |
| 1 EA | 665-1-11 |

| | |
|-------|----------|
| 28 LF | 630-2-11 |
|-------|----------|



SPECIAL SYMBOLOGY

| | |
|-------|----------------------|
| V | VIDEO DETECTOR |
| VDZ X | VIDEO DETECTION ZONE |

VIDEO VEHICLE DETECTION ASSIGNMENTS

| CAMERA DETECTOR | DETECTION ZONE | DELAY TIME (SECS.) |
|-----------------|----------------|--------------------|
| CD1 | DZ1 | 5 |
| | DZ6 | - |
| CD2 | DZ3 | 5 |
| | DZ8 | - |
| | DZ8R | 5 |
| CD3 | DZ5 | 5 |
| | DZ2 | - |
| CD4 | DZ7 | 5 |
| | DZ4 | - |
| | DZ4R | 5 |

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY THE ENGINEER.

REVISIONS

| DATE | DESCRIPTION | DATE | DESCRIPTION |
|------|-------------|------|-------------|
| | | | |

AMBAR J. DIAZ-LOZANO, P.E.
 P.E. LICENSE NUMBER 76215
 VANASSE HANGEN BRUSTLIN, INC.
 225 E. ROBINSON STREET, SUITE 300
 LANDMARK CENTER TWO
 ORLANDO, FL 32801
 CERTIFICATE OF AUTHORIZATION 3932

STATE OF FLORIDA
 DEPARTMENT OF TRANSPORTATION

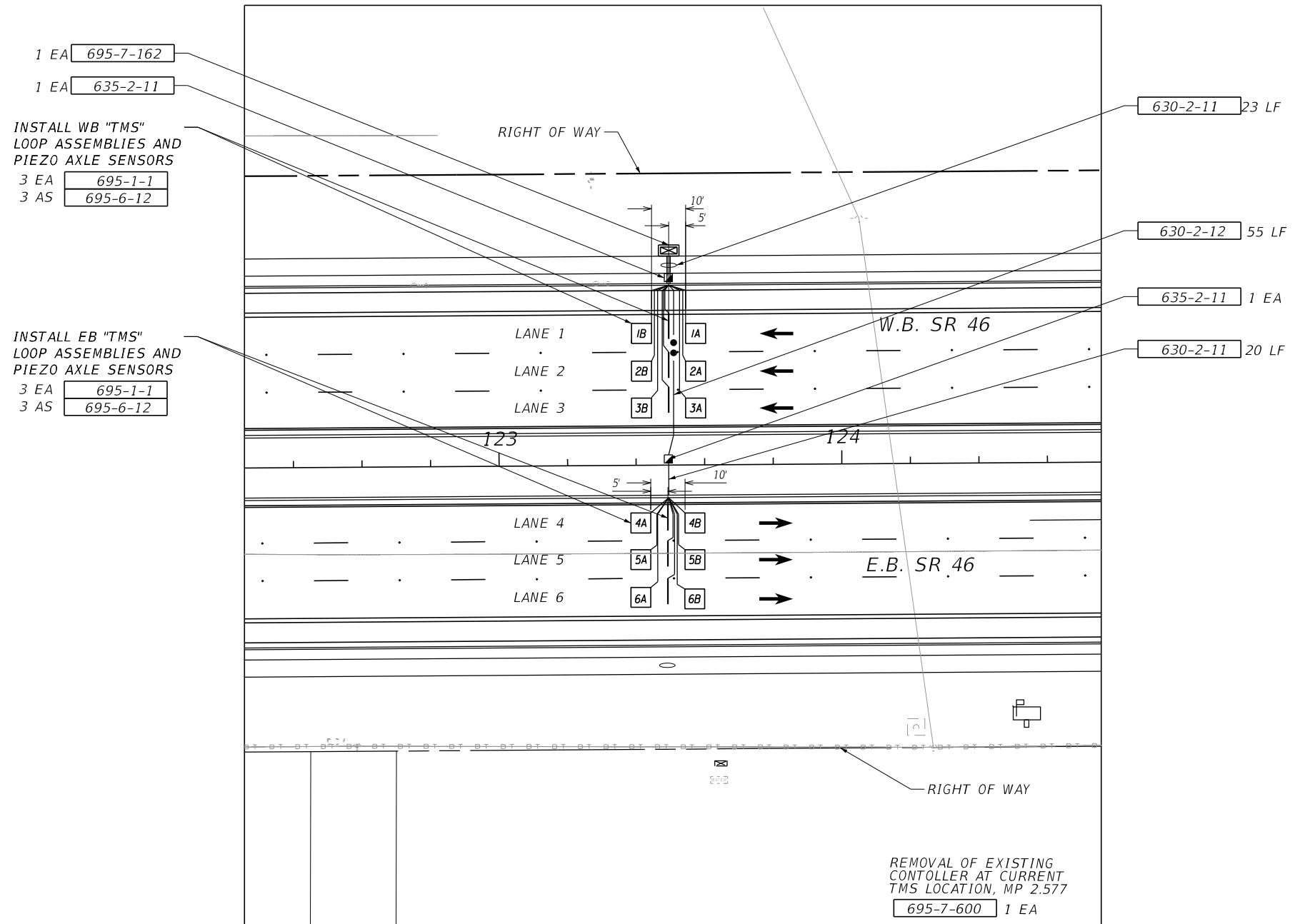
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
|----------|--------|----------------------|
| 46 | LAKE | 238275-3-52-01 |

SIGNALIZATION PLAN

SHEET NO. T-5

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

TMS 110501, MP 2.349



INSTALL WB "TMS"
LOOP ASSEMBLIES AND
PIEZO AXLE SENSORS

- 1 EA 695-7-162
- 1 EA 635-2-11
- 3 EA 695-1-1
- 3 AS 695-6-12

INSTALL EB "TMS"
LOOP ASSEMBLIES AND
PIEZO AXLE SENSORS

- 3 EA 695-1-1
- 3 AS 695-6-12

REMOVAL OF EXISTING
CONTROLLER AT CURRENT
TMS LOCATION, MP 2.577
695-7-600 1 EA

Standard Notes for Traffic Monitoring Sites

Contractor Shall:

(1) Notify the District Traffic Operations Office at least ten (10) working days prior to beginning any work. Contact the District Data Collection Manager at (386) 943-5380 to confirm location. The District Traffic Operations Office must approve any change to the proposed count station location.

(2) Furnish and install a pedestal-mounted Type III Traffic count cabinet, fabricated and installed per Roadway and Traffic Design Standards 17841 and 17900. And the following:

- A pull box is to be placed approximately 4 feet from the pavement edge.
- The cabinets shall be wired with the "J" and "P" Amphenol Classification and ADR-2000 wiring harness regardless if the cabinet is new or existing.
- Whenever there are more than 4 lanes total, each direction is to be wired to a separate "J" harness with the lanes counted from the outside lane, as lane 1. (East bound lanes 1, 2, 3 and west bound lanes 1, 2, 3.)
- Ensure there is enough room in the cabinet for an additional backplane if widening or adding piezos.

(3) Furnish and install piezoelectric axle sensors and speed classification loop assemblies per Roadway and Traffic Design Standards 17721 and 17900.

(4) All loop wires are NOT TO BE SPLICED, run straight to the pull boxes, and extend them through 2-inch conduits to the cabinet. Piezo leads shall not be spliced. Run the piezo axle sensor leads through a separate 2-inch conduit to the cabinet.

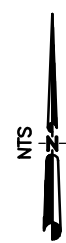
(5) Pull boxes and covers shall be FDOT approved of cast iron or steel construction with recessed cover logo "Traffic Signals". A 1' concrete apron shall surround the pull box regardless of new or existing.

(6) All loops and piezos are to be installed in the friction course.

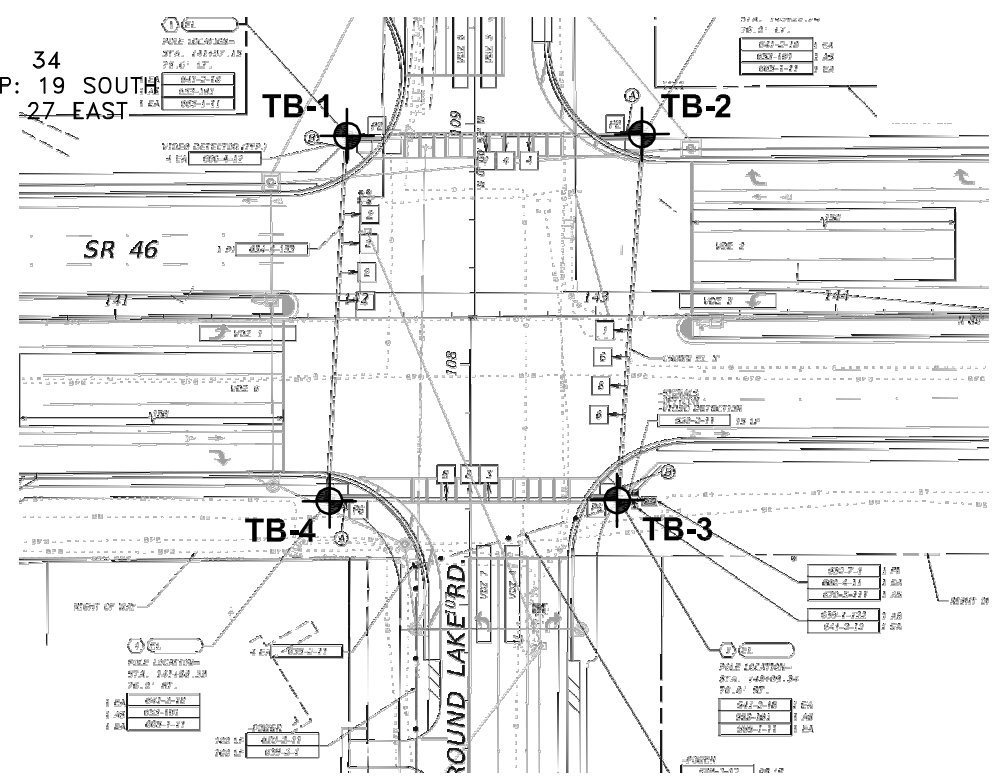
(7) Immediately after completion of installation, contact the District Data Collection Manager @ 386-943-5380 prior to final acceptance.

| REVISIONS | | | | AMBAR J. DIAZ-LOZANO, P.E. P.E. LICENSE NUMBER 76215 VANASSE HANGEN BRUSTLIN, INC. 225 E. ROBINSON STREET, SUITE 300 LANDMARK CENTER TWO ORLANDO, FL 32801 CERTIFICATE OF AUTHORIZATION 3932 | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | TRAFFIC MONITORING SITE DETAILS | SHEET NO. T-7 |
|-----------|-------------|------|-------------|--|--|--------|----------------------|------------------------------------|-------------------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | | 46 | LAKE | 238275-3-52-01 | | |

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



SECTION: 34
TOWNSHIP: 19 SOUTH
RANGE: 27 EAST



LEGEND

- SAND
- SILTY SAND
- STANDARD PENETRATION TEST (SPT) BORING LOCATION
- CHANGE IN SOIL STRATA
- N** SPT N-VALUE IN BLOWS PER FOOT (ASTM D 1586)
- HA** BORING ADVANCED BY HAND AUGER TO AVOID CONFLICT WITH UTILITIES
- (SP)** UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL BASED ON VISUAL EXAMINATION AND LABORATORY TESTING
- (03-13-13) GNE** GROUNDWATER LEVEL NOT ENCOUNTERED DURING DRILLING
- 200** PERCENT PASSING U.S. STANDARD NO. 200 SIEVE

NOTES

1. PLAN VIEW IS PRELIMINARY FOR SHOWING BORING LOCATIONS ONLY AND MAY NOT BE INDICATIVE OF FINAL PLAN.
2. PLAN FURNISHED BY LOCHRANE.
3. BORINGS WERE DRILLED BY B. VANHOOSE ON 03/07/14 AND 03/12/14 USING A BR2500 RIG. SPT WAS CONDUCTED WITH A MANUAL HAMMER.

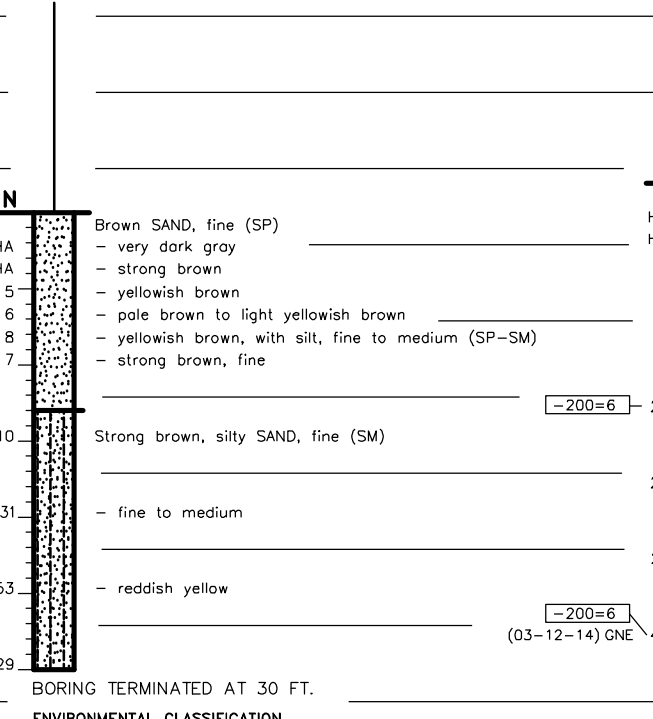
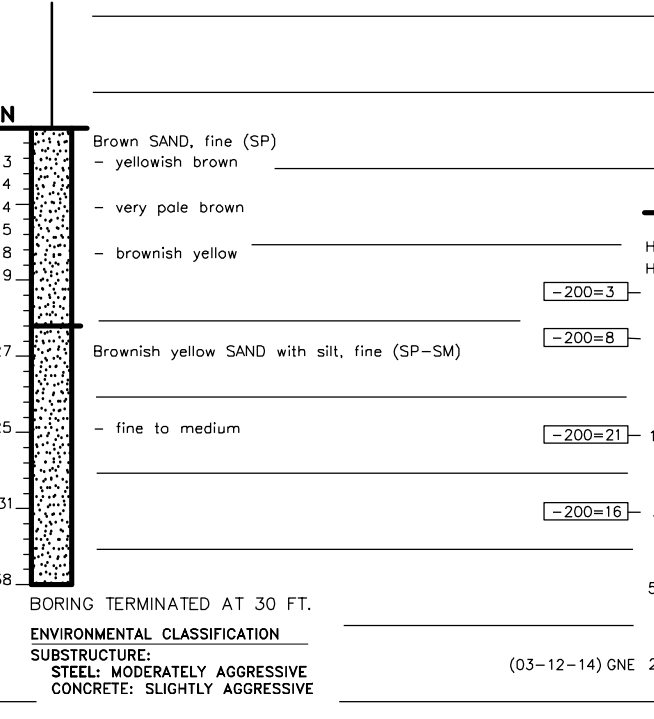
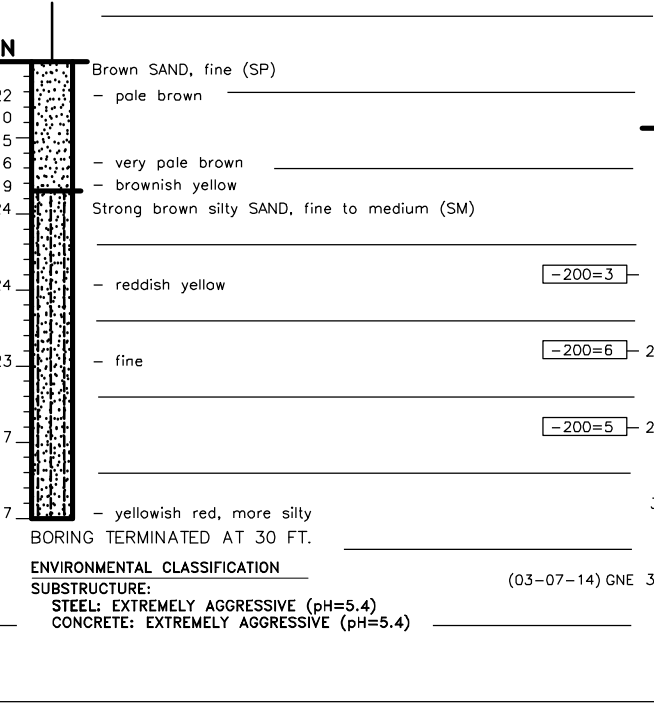
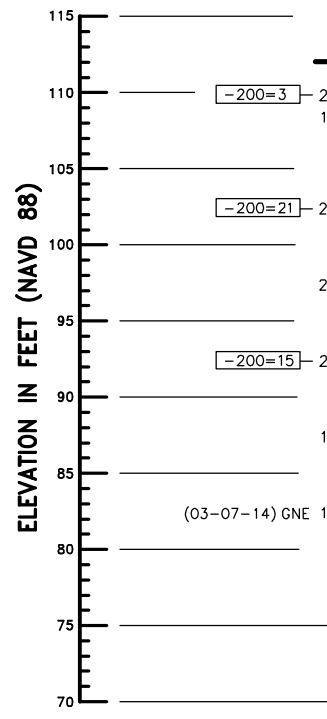
| SOIL CONSISTENCY (BASED ON EMPIRICAL CORRELATION WITH SPT N-VALUE) | |
|---|--------------------------|
| GRANULAR SOILS | |
| VERY LOOSE | - LESS THAN 4 BLOWS/FT. |
| LOOSE | - 4 TO 10 BLOWS/FT. |
| MEDIUM DENSE | - 10 TO 30 BLOWS/FT. |
| DENSE | - 30 TO 50 BLOWS/FT. |
| VERY DENSE | - MORE THAN 50 BLOWS/FT. |
| FINE-GRAINED SOILS | |
| VERY SOFT | - LESS THAN 2 BLOWS/FT. |
| SOFT | - 2 TO 4 BLOWS/FT. |
| FIRM | - 4 TO 8 BLOWS/FT. |
| STIFF | - 8 TO 15 BLOWS/FT. |
| VERY STIFF | - 15 TO 30 BLOWS/FT. |
| HARD | - MORE THAN 30 BLOWS/FT. |

TB-1
STATION: 141+97.15
OFFSET: 76' LT
LATITUDE: N28.80085°
LONGITUDE: W81.59290°
ELEVATION: 112.05
DATE: 03-07-14

TB-2
STATION: 143+20.74
OFFSET: 76' RT
LATITUDE: N28.80084°
LONGITUDE: W81.59264°
ELEVATION: 107.69
DATE: 03-07-14

TB-3
STATION: 143+09.34
OFFSET: 76' RT
LATITUDE: N28.80058°
LONGITUDE: W81.59265°
ELEVATION: 102.11
DATE: 03-12-14

TB-4
STATION: 141+88.39
OFFSET: 76' RT
LATITUDE: N28.80058°
LONGITUDE: W81.59291°
ELEVATION: 104.03
DATE: 03-12-14



ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE:
STEEL: EXTREMELY AGGRESSIVE (pH=5.4)
CONCRETE: EXTREMELY AGGRESSIVE (pH=5.4)

ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE:
STEEL: MODERATELY AGGRESSIVE
CONCRETE: SLIGHTLY AGGRESSIVE

ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE:
STEEL: SLIGHTLY AGGRESSIVE
CONCRETE: SLIGHTLY AGGRESSIVE

ENVIRONMENTAL CLASSIFICATION
SUBSTRUCTURE:
STEEL: SLIGHTLY AGGRESSIVE
CONCRETE: SLIGHTLY AGGRESSIVE

| REVISIONS | | | | | | PETER G. SUAH, P.E. P.E. LICENSE NO. 46910 ANTILIAN ENGINEERING ASSOCIATES, INC. 3331 BARTLETT BOULEVARD ORLANDO, FLORIDA 32811 CERTIFICATE OF AUTHORIZATION EB6685 | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | REPORT OF SPT BORINGS FOR SIGNALS | SHEET NO. T-9 |
|-----------|----|-------------|------|----|-------------|--|--|----------------|----------------------|--|----------------------|
| DATE | BY | DESCRIPTION | DATE | BY | DESCRIPTION | | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | | | SR 46 | LAKE | 238275-3-52-01 | | | |

POLE 1

LOCHRANE

201 South Bumby Avenue, Orlando, Florida 32803 (407) 896-3317

Consulting Engineers • Surveyors
Orlando • Gainesville

SUBSURFACE UTILITY REPORT

LEI JOB No.: 1206910 UTILITY CREW: DORMINY, CAMPBELL, MAULDIN MAST ARM No.: MA1
CAICE DATABASE: 2753D POINT NAME: IMA1

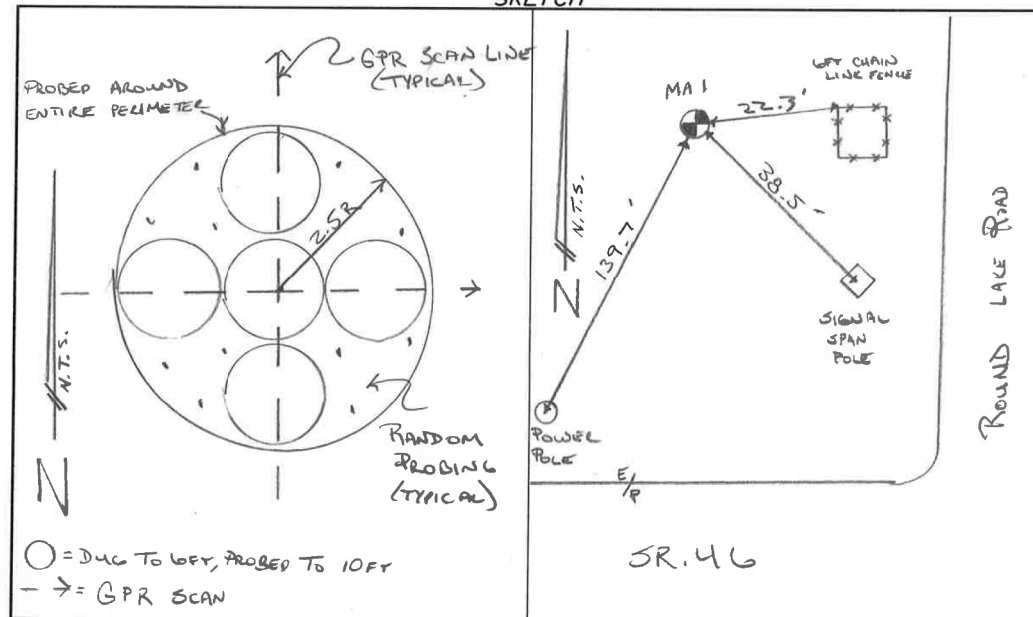
PROJECT INFORMATION

| | |
|---|-----------------|
| PROJECT NAME: SR 46 FROM VISTA VIEW TO E. OF ROUND LAKE ROAD | ENGLISH PROJECT |
| FINANCIAL PROJECT ID: 238275-3 STATE PROJECT No.: 11130 W.P.I. No.: N/A | N/A |
| CITY/COUNTY: Lake County CLIENT WORK ORDER No.: N/A | DATE: 2-19-15 |
| GENERAL LOCATION: NORTHWEST CORNER OF SR 46 & ROUND LAKE RD | |

TEST HOLE INFORMATION

| | |
|--|---|
| UTILITY OWNER: N/A | SUNSHINE ONE-CALL No.: 044507143 |
| SIZE, TYPE AND MATERIAL OF UTILITY: NO UTILITIES DETECTED BY THE METHODS AND DEVICES DESCRIBED BELOW | DESIGNATED BY: LOCHRANE TEST HOLE MARKED BY: LATH & HUB |
| NOTES: *- DUG TO 6FT, PROBED TO 10FT IN PATTERN SHOWN BELOW *- RANDOM PROBING TO 10FT (+/- 0.3' INTERVAL) IN SPACES BETWEEN HOLES *- USED METAL DETECTOR IN AREA - NO METALLIC OBJECTS FOUND THAT ARE DETECTABLE W/ THIS DEVICE | SURFACE TYPE: GRASS BIRT GROUND: N/A PAVEMENT: N/A |
| | DEPTH TO TOP: N/A DEPTH TO BOTTOM: N/A ELEV. AT GRADE: 111.9 ELEV. AT TOP: N/A ELEV. AT BOTTOM: N/A |

SKETCH



POLE 2

LOCHRANE

201 South Bumby Avenue, Orlando, Florida 32803 (407) 896-3317

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SUBSURFACE UTILITY REPORT

LEI JOB No.: 1206910 UTILITY CREW: DORMINY, CAMPBELL, MAULDIN MAST ARM No.: MA2
CAICE DATABASE: 2753D POINT NAME: IMA2

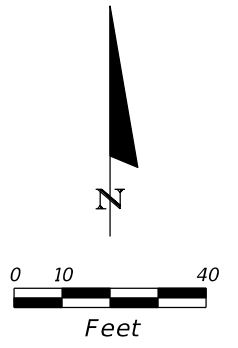
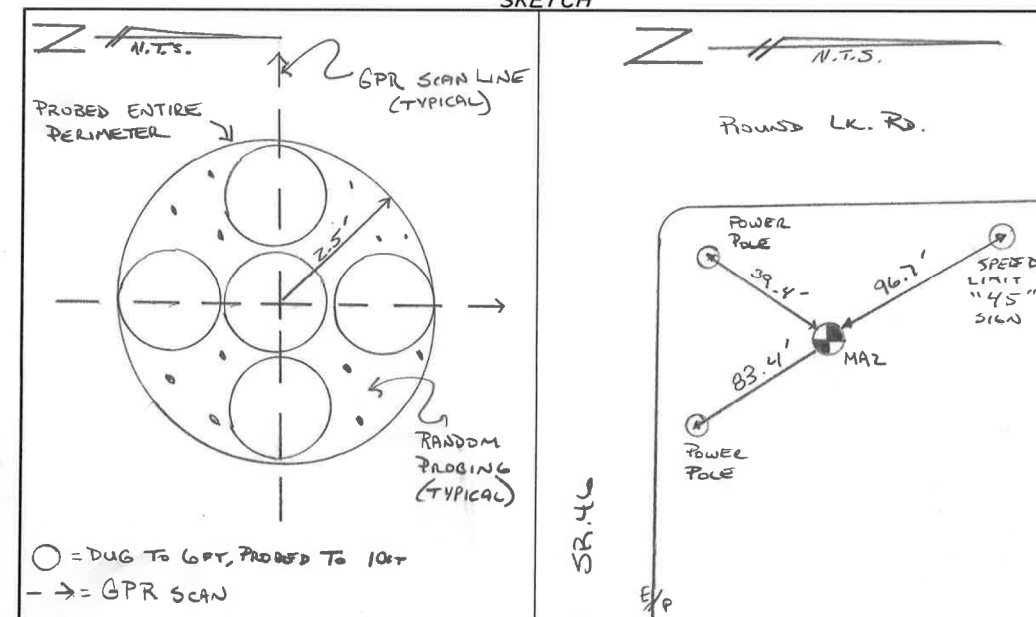
PROJECT INFORMATION

| | |
|---|-----------------|
| PROJECT NAME: SR 46 FROM VISTA VIEW TO E. OF ROUND LAKE ROAD | ENGLISH PROJECT |
| FINANCIAL PROJECT ID: 238275-3 STATE PROJECT No.: 11130 W.P.I. No.: N/A | N/A |
| CITY/COUNTY: Lake County CLIENT WORK ORDER No.: N/A | DATE: 2-19-15 |
| GENERAL LOCATION: NORTHEAST CORNER OF SR 46 & ROUND LAKE ROAD | |

TEST HOLE INFORMATION

| | |
|--|---|
| UTILITY OWNER: N/A | SUNSHINE ONE-CALL No.: 044507143 |
| SIZE, TYPE AND MATERIAL OF UTILITY: NO UTILITIES DETECTED BY THE METHODS AND DEVICES DESCRIBED BELOW | DESIGNATED BY: LOCHRANE TEST HOLE MARKED BY: LATH & HUB |
| NOTES: *- DUG TO 6FT, PROBED TO 10FT IN PATTERN SHOWN BELOW *- RANDOM PROBING TO 10FT (+/- 0.3' INTERVAL) IN SPACES BETWEEN HOLES *- USED METAL DETECTOR IN AREA - NO METALLIC OBJECTS FOUND THAT ARE DETECTABLE W/ THIS DEVICE | SURFACE TYPE: GRASS BIRT GROUND: N/A PAVEMENT: N/A |
| | DEPTH TO TOP: N/A DEPTH TO BOTTOM: N/A ELEV. AT GRADE: 107.9 ELEV. AT TOP: N/A ELEV. AT BOTTOM: N/A |

SKETCH



| REVISIONS | | | |
|-----------|-------------|------|-------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION |
| | | | |

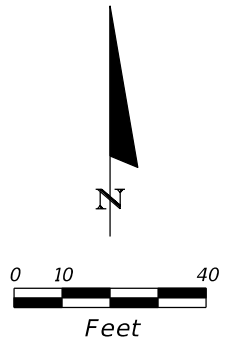
| | | |
|--|--------|----------------------|
| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| 46 | LAKE | 238275-3-52-01 |

| | |
|----------------------------------|--|
| SIGNAL UTILITY CONFLICT SHEET | |
| T-10 | |

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.

POLE 3



LOCHRANE
201 South Bumby Avenue, Orlando, Florida 32803 (407) 896-3317

Consulting Engineers • Surveyors
Orlando • Gainesville

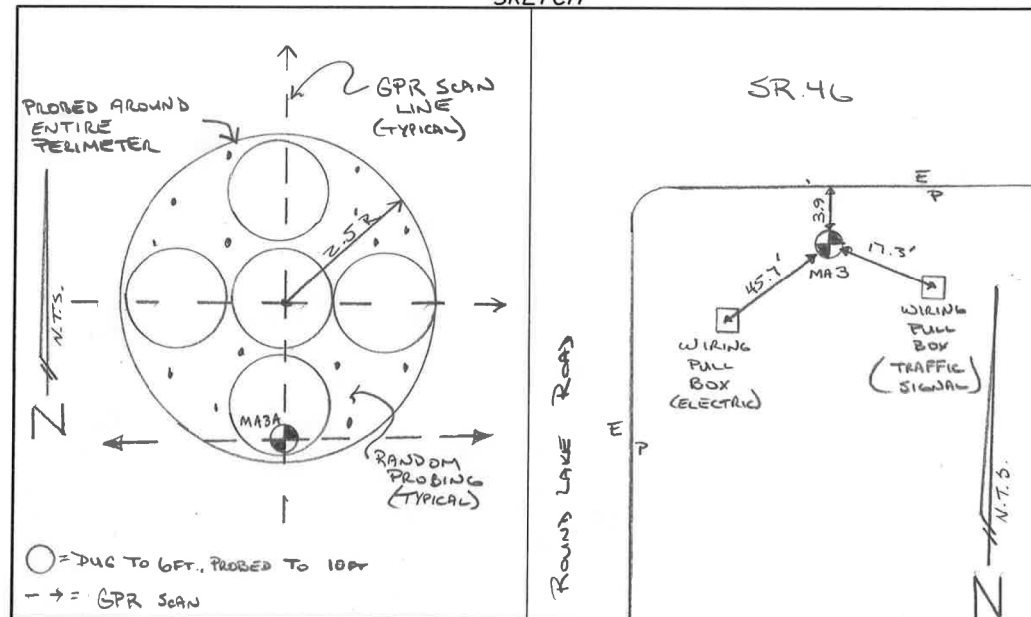
SUBSURFACE UTILITY REPORT

LEI JOB No.: 1206910 UTILITY CREW: DOMINY, CAMPBELL MAST ARM No.: MA3
CAICE DATABASE: 2753D POINT NAME: FMA3

| PROJECT INFORMATION | | | |
|---|----------------------------|-----------------|--|
| PROJECT NAME: SR 46 FROM VISTA VIEW TO E. OF ROUND LAKE ROAD | ENGLISH PROJECT | | |
| FINANCIAL PROJECT ID: 238275-3 | STATE PROJECT No.: 11130 | W.P.J. No.: N/A | |
| CITY/COUNTY: Lake County | CLIENT WORK ORDER No.: N/A | DATE: 2-20-15 | |
| GENERAL LOCATION: SOUTH EAST CORNER OF SR 46 & ROUND LAKE ROAD | | | |

| TEST HOLE INFORMATION | | | |
|---|-------------------------------------|---|----------------------|
| UTILITY OWNER: N/A | SUNSHINE ONE-CALL No.: 044507143 | | |
| SIZE, TYPE AND MATERIAL OF UTILITY: SEE MAST ARM SHEET MA3A FOR ADDITIONAL DATA | DESIGNATED BY: LOCHRANE | TEST HOLE MARKED BY: PK N.C. & DISC (NOTED) | |
| NOTES: * DUG TO 6FT, PROBED TO 10FT IN PATTERN SHOWN BELOW * RANDOM PROBING TO 10' (4% 0.3' INTERVAL) IN SPACES BETWEEN HOLES * USED METAL DETECTOR IN AREA - NO METALLIC OBJECTS FOUND THAT ARE DETECTABLE W/ THIS DEVICE | SURFACE TYPE: GROUND: GRASS/DIRT | DEPTH TO TOP: N/A | DEPTH TO BOTTOM: N/A |
| | PAVEMENT: ASPHALT | ELEV. AT GRADE: 102.2 | ELEV. AT TOP: N/A |
| | | ELEV. AT BOTTOM: N/A | |
| | | | |

SKETCH



LOCHRANE
201 South Bumby Avenue, Orlando, Florida 32803 (407) 896-3317

Consulting Engineers • Surveyors
Orlando • Gainesville

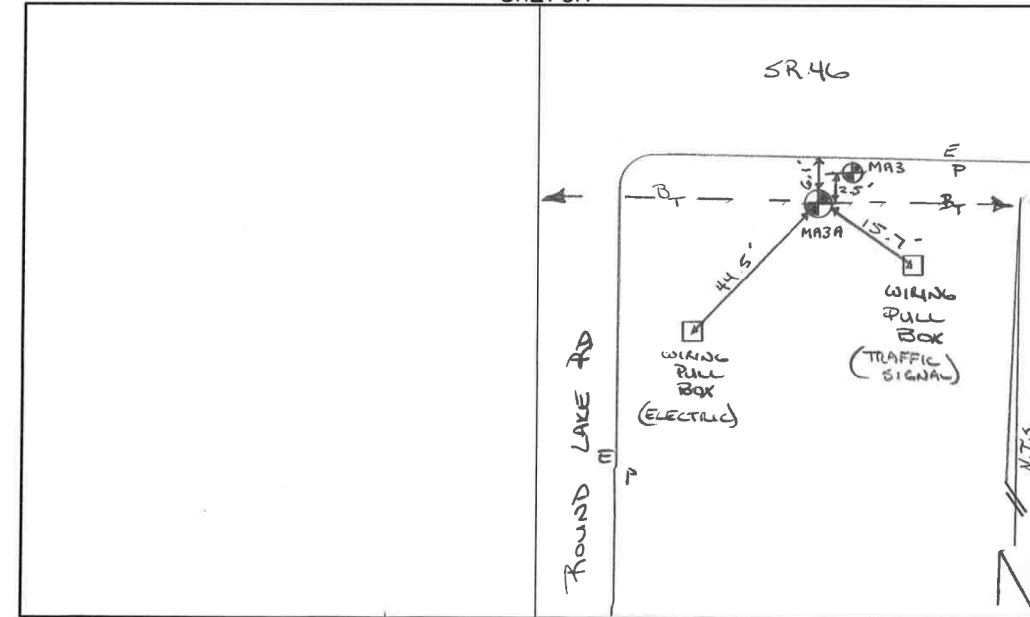
SUBSURFACE UTILITY REPORT

LEI JOB No.: 1206910 UTILITY CREW: DOMINY, CAMPBELL MAST ARM No.: MA3A
CAICE DATABASE: 2753D POINT NAME: FMA3

| PROJECT INFORMATION | | | |
|---|----------------------------|-----------------|--|
| PROJECT NAME: SR 46 FROM VISTA VIEW TO E. OF ROUND LAKE ROAD | ENGLISH PROJECT | | |
| FINANCIAL PROJECT ID: 238275-3 | STATE PROJECT No.: 11130 | W.P.J. No.: N/A | |
| CITY/COUNTY: Lake County | CLIENT WORK ORDER No.: N/A | DATE: 2-20-15 | |
| GENERAL LOCATION: SOUTH EAST CORNER OF SR 46 & ROUND LAKE RD | | | |

| TEST HOLE INFORMATION | | | |
|--|-------------------------------------|---------------------------------|----------------------|
| UTILITY OWNER: CENTURY LINK | SUNSHINE ONE-CALL No.: 044507143 | | |
| SIZE, TYPE AND MATERIAL OF UTILITY: 6-IN PVC (BT) | DESIGNATED BY: LOCHRANE | TEST HOLE MARKED BY: LATH & HUB | |
| NOTES: * SEE SHEET MA3 FOR ADDITIONAL INFORMATION * 6-IN P.V.C. PIPE IS MOST LIKELY THE SLEEVE FOR A 4-IN BT CABLE | SURFACE TYPE: GROUND: GRASS/DIRT | DEPTH TO TOP: 2.70 FTD | DEPTH TO BOTTOM: N/A |
| | PAVEMENT: N/A | ELEV. AT GRADE: 102.1 | ELEV. AT TOP: 99.4 |
| | | ELEV. AT BOTTOM: N/A | |
| | | | |

SKETCH



| REVISIONS | | | | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | SIGNAL UTILITY CONFLICT SHEET | SHEET NO. T-11 |
|-----------|-------------|------|-------------|--|--------|----------------------|----------------------------------|--------------------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | 46 | LAKE | 238275-3-52-01 | | |

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

POLE 4

LOCHRANE

201 South Bumby Avenue, Orlando, Florida 32803 (407) 896-3377

Consulting Engineers • Surveyors
Orlando • Gainesville

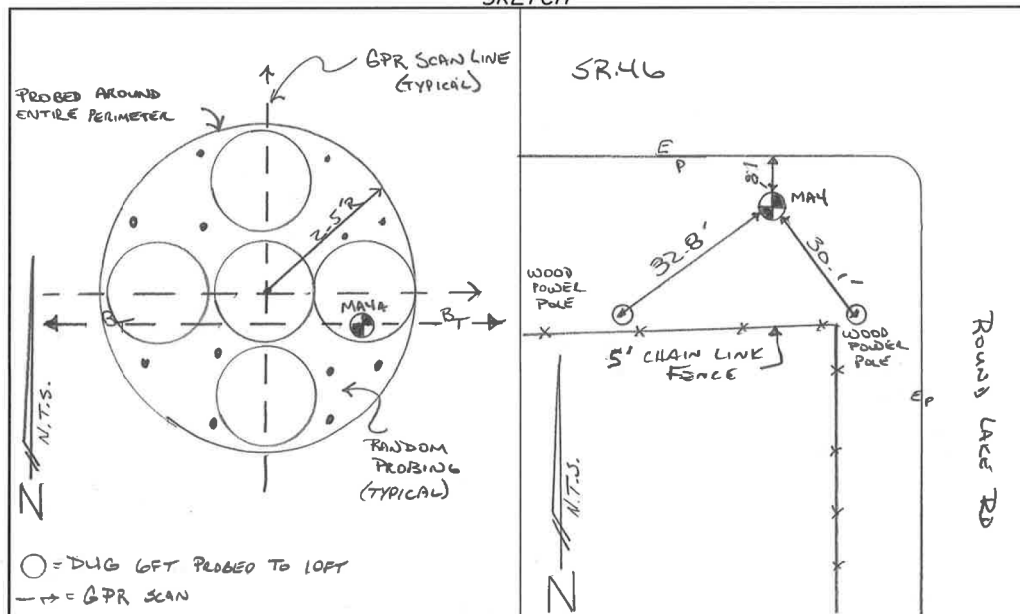
SUBSURFACE UTILITY REPORT

LEI JOB No.: 12069.10 UTILITY CREW: DOMINY, CAMPBELL, STINE MAST ARM No.: MA4
CAICE DATABASE: 2753D POINT NAME: FMA5

| PROJECT INFORMATION | | |
|---|---------------------------|----------------|
| PROJECT NAME: SR 46 FROM VISTA VIEW TO E. OF ROUND LAKE ROAD | ENGLISH PROJECT | |
| FINANCIAL PROJECT ID: 238275-3 | STATE PROJECT No: 11130 | W.P.I. No: N/A |
| CITY/COUNTY: Lake County | CLIENT WORK ORDER No: N/A | DATE: 2-23-15 |
| GENERAL LOCATION: SOUTHWEST CORNER OF SR46 & ROUND LAKE RD | | |

| TEST HOLE INFORMATION | | |
|---|------------------------------------|----------------------|
| UTILITY OWNER: N/A | SUNSHINE ONE-CALL No: 044507143 | |
| SIZE, TYPE AND MATERIAL OF UTILITY: SEE MAST ARM SHEET MA4 FOR ADDITIONAL DATA | DESIGNATED BY: LOCHRANE | |
| NOTES: * - DUG TO LEFT PROBED TO 10FT IN PATTERN SHOWN BELOW * - RANDOM PROBING TO 10FT (+/- 0.3' INTERVAL) IN SPACES BETWEEN HOLES * - USED METAL DETECTOR IN AREA - NO METALLIC OBJECTS FOUND THAT ARE DETECTABLE W/ THIS DEVICE | TEST HOLE MARKED BY: LATH & HUB | |
| SURFACE TYPE: GROUND: GRASS/DIRT | DEPTH TO TOP: N/A | DEPTH TO BOTTOM: N/A |
| PAVEMENT: ASPHALT | ELEV. AT GRADE: 104.0 | ELEV. AT TOP: N/A |
| | ELEV. AT BOTTOM: N/A | ELEV. AT BOTTOM: N/A |

SKETCH



LOCHRANE

201 South Bumby Avenue, Orlando, Florida 32803 (407) 896-3377

Consulting Engineers • Surveyors
Orlando • Gainesville

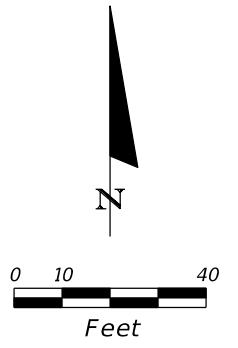
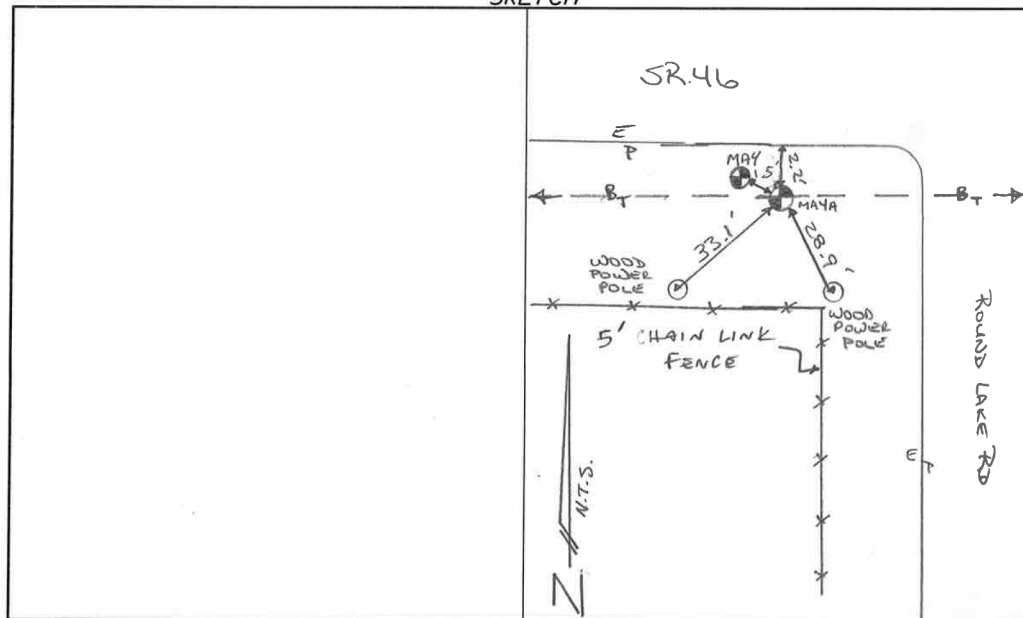
SUBSURFACE UTILITY REPORT

LEI JOB No.: 12069.10 UTILITY CREW: DOMINY, CAMPBELL, STINE MAST ARM No.: MA4
CAICE DATABASE: 2753D POINT NAME: FMA6

| PROJECT INFORMATION | | |
|--|---------------------------|----------------|
| PROJECT NAME: SR 46 FROM VISTA VIEW TO E. OF ROUND LAKE ROAD | ENGLISH PROJECT | |
| FINANCIAL PROJECT ID: 238275-3 | STATE PROJECT No: 11130 | W.P.I. No: N/A |
| CITY/COUNTY: Lake County | CLIENT WORK ORDER No: N/A | DATE: 2-23-15 |
| GENERAL LOCATION: SOUTH WEST CORNER OF SR46 & ROUND LAKE RD | | |

| TEST HOLE INFORMATION | | |
|--|------------------------------------|----------------------|
| UTILITY OWNER: CENTURY LINK | SUNSHINE ONE-CALL No: 044507143 | |
| SIZE, TYPE AND MATERIAL OF UTILITY: 4-IN BT (DIRECT BURIED) | DESIGNATED BY: LOCHRANE | |
| NOTES: SEE SHEET MA4 FOR ADDITIONAL INFORMATION | TEST HOLE MARKED BY: LATH & HUB | |
| SURFACE TYPE: GROUND: GRASS/DIRT | DEPTH TO TOP: 3.27 FLO | DEPTH TO BOTTOM: N/A |
| PAVEMENT: N/A | ELEV. AT GRADE: 104.1 | ELEV. AT TOP: 100.8 |
| | ELEV. AT BOTTOM: N/A | ELEV. AT BOTTOM: N/A |

SKETCH



| REVISIONS | | | | STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION | | | SIGNAL UTILITY CONFLICT SHEET | SHEET NO. T-12 |
|-----------|-------------|------|-------------|--|--------|----------------------|----------------------------------|--------------------------|
| DATE | DESCRIPTION | DATE | DESCRIPTION | ROAD NO. | COUNTY | FINANCIAL PROJECT ID | | |
| | | | | 46 | LAKE | 238275-3-52-01 | | |

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