

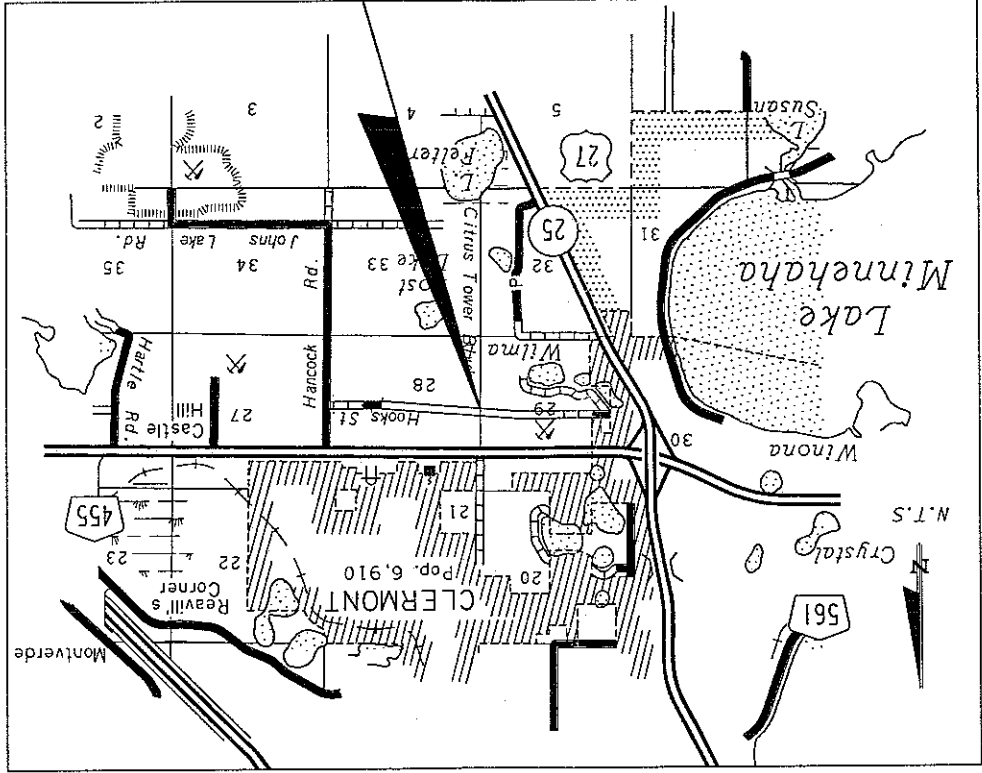
LAKE COUNTY PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION

CONTRACT PLANS

LAKE COUNTY  
HOOKS STREET AT  
CITRUS TOWER BLVD

SIGNALIZATION PLANS



PROJECT LOCATION

INDEX OF SIGNALIZATION PLANS

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T-6	INTERNALLY ILLUMINATED STREET NAME SIGN DETAIL

COUNTY COMMISSIONERS

DISTRICT ONE	JENNIFER HILL
DISTRICT TWO	ROBERT A. POOL, CHAIR
DISTRICT THREE	DEBBIE STIVENDER
DISTRICT FOUR	CATHERINE C. HANSON
DISTRICT FIVE	WELTON G. CADWELL, VICE CHAIR
COUNTY MANAGER	BILL HERON

GOVERNING STANDARDS AND SPECIFICATIONS:  
FLORIDA DEPARTMENT OF TRANSPORTATION,  
DESIGN STANDARDS DATED JANUARY 2004, AND  
STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE  
CONSTRUCTION DATED 2004.  
AS AMENDED BY CONTRACT DOCUMENTS.

REVISIONS

DATE	BY	DESCRIPTION
KEY SHEET REVISIONS		

P.E. NO.: 56984

DATE:

SIGNALIZATION PLANS  
ENGINEER OF RECORD: JAMES S. STROZ, JR., P.E.

2/2/06  
*James S. Stroz, Jr.*

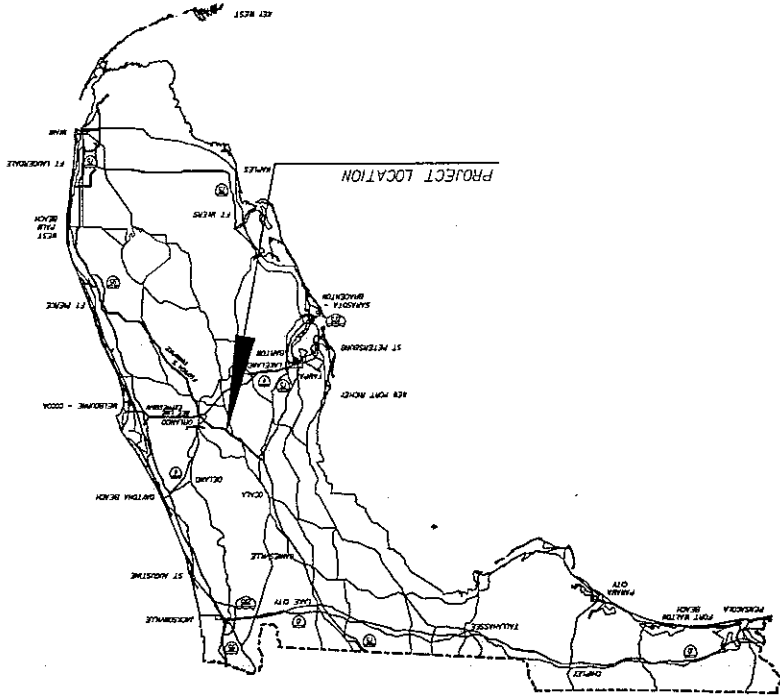
NOTE: THE SCALE OF THESE PLANS MAY HAVE  
CHANGED WITH REPRODUCTION.

TEI, ENGINEERS & PLANNERS  
300 PRIMERIA BOULEVARD, SUITE 200  
LAKE MARY, FL 32746  
(407) 805-0355  
VENDOR NO.: VF-593094436-001  
ENGINEERING BUSINESS NO. EB 6185

Engineers & Planners



PLANS PREPARED BY



PROJECT LOCATION

LAKE COUNTY PROJECT MANAGER: JUAN CHAN, P.E.

TABULATION OF QUANTITIES

BID ITEM NO.	DESCRIPTION	UNIT	T-4		ORIGINAL		FINAL		SHEET NUMBER	TOTAL THIS SHEET	GRAND TOTAL	REFERENCE SHEET
			ORIGINAL	FINAL	ORIGINAL	FINAL						
101-1	MOBILIZATION	LS	1						1	804		
630-1-12	CONDUIT, UNDERGROUND	LF	804						804			
630-1-14	CONDUIT, UNDERGROUND JACKED	LF	379						379			
632-7-1	SIGNAL CABLE	PI	1						1			
634-4-113	SPAN WIRE ASSEMBLY (BOX)	PI	1						1			
635-1-11	PULL BOX	EA	10						10			
635-1-16	PULL BOX (FIBER OPTICS)	EA	1						1			
639-1-12	ELECTRICAL POWER SERVICE (OVERHEAD)	AS	1						1			
639-2-1	ELECTRICAL SERVICE WIRE	LF	15						15			
641-16-46	CONCRETE STRAIN POLES (46 FOOT)	EA	2						2			
641-16-50	CONCRETE STRAIN POLES (50 FOOT)	EA	2						2			
650-51-311	TRAFFIC SIGNAL, 3 SECTION, 1WAY (LED)	AS	3						3			
650-51-511	TRAFFIC SIGNAL, 5 SECTION, 1WAY (LED)	AS	3						3			
653-181	PEDESTRIAN SIGNAL, 1 SECTION, 1WAY (LED)	AS	8						8			
659-101	BACK PLATES, 3 SECTION	EA	1						1			
659-118	BACK PLATES, 5 SECTION CLUSTER	EA	1						1			
660-1-109	INDUCTIVE LOOP DETECTOR TYPE 9	EA	2						2			
660-1-110	INDUCTIVE LOOP DETECTOR TYPE 10	EA	2						2			
660-2-102	LOOP ASSEMBLY TYPE B	AS	4						4			
660-2-106	LOOP ASSEMBLY TYPE F	AS	4						4			
665-11	PEDESTRIAN DETECTOR	EA	8						8			
670-5-110	ACTUATED SOLID STATE CONTROLLER ASSEMBLY	AS	1						1			
699-1-1	INTERNALLY ILLUMINATED STREET NAME SIGN (DOUBLE SIDED)	EA	4						4			
706-3	RETRO REFLECTIVE PAVEMENT MARKERS (COLORLESS/RED)	EA	6						6			
711-4	DIRECTIONAL ARROWS	EA	2						2			
711-35-61	SOLID TRAFFIC STRIPE (6" WHITE)	LF	100						100			
711-35-241	SOLID TRAFFIC STRIPE (24" WHITE)	LF	42						42			

PAY ITEM NOTES

- PAY ITEM NO. 630-1-12 SHALL BE INSTALLED PER SECTION 630, CONDUIT OF THE STANDARD SPECIFICATIONS. ALL CONDUITS SHALL ENTER PULL BOXES AS REQUIRED IN STANDARD INDEX (M2), SHEET 2 OF 2.
- WHEN JACKING CONDUIT UNDER PAVEMENT, THE CONTRACTOR MAY USE AN FOOT APPROVED GUIDED BORING SYSTEM AS AN ALTERNATE METHOD OF CONSTRUCTION. AN ACCEPTABLE METHOD IS THE DITCH WITH JET-TRAC, OR EQUIVALENT, PAID FOR UNDER PAY ITEM NUMBER 630-1-14.
- PAY ITEM NO. 632-7-1 SHALL BE INSTALLED PER STANDARD INDEX (M27), AS APPLICABLE, AND AS STATED IN THE GENERAL NOTES.
- PAY ITEM NO. 639-1-12 SHALL INCLUDE THE COST OF ALL LABOR, MATERIALS AND PERMITS REQUIRED TO FURNISH AND INSTALL THE ASSEMBLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL AGENCIES REQUIRED FOR APPROVAL OF THE COMPLETED INSTALLATION. STANDARD INDEX (M36), AS APPLICABLE, SHALL APPLY.
- PAY ITEM NO. 639-2-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE CONDUCTORS FOR THE POWER SERVICE.
- PAY ITEM NO. 670-5-110 SHALL BE A TYPE V CABINET.
- PAY ITEM NO. 699-1-1 SHALL INCLUDE CANTILEVER ARMS, BRACKETS AND ALL HARDWARE NECESSARY TO INSTALL STREET NAME SIGNS AND PROVIDE FOR A COMPLETE INSTALLATION.
- INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL HAVE A SEPARATE CIRCUIT BREAKER IN THE MAIN CIRCUIT BREAKER PANEL CONTROLLED BY A SINGLE PHOTOCELL ACCESSIBLE BY A LIFT TRUCK. IN ADDITION, THE SIGNS MUST BE COUNTY APPROVED WITH A LAKE COUNTY LOGO.
- INTERNALLY ILLUMINATED STREET NAME SIGN SHALL BE DOUBLE SIDED.

*Signature*  
2/2/06

TABULATION OF QUANTITIES


000216899 PROJECT NO.  
LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT  
LAKE COUNTY  
ROAD NO.  
HOOKS ST AT  
CITRUS TOWER BLVD  
LAKE  
000216899

**ET&P**  
Engineers & Planners  
300 PRIMA BLVD, SUITE 200, LAKE MARY, FL 32746  
ENGINEERING BUSINESS NO. E8685  
(407) 805-0355

REVISIONS	DATE	BY	DESCRIPTION

DATE	BY	DESCRIPTION

**Engineers & Planners**



300 PRIMA BLVD, SUITE 200, LAKE MARY, FL 32746  
 (407) 805-0355  
 CITRUS TOWER BLVD  
 HOOKS ST AT  
 LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT

ROAD NO.	COUNTY	PROJECT NO.

GENERAL NOTES SHEET

00021689

T-3

SHEET NO.

**SIGNALIZATION GENERAL NOTES**

1. THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS (JANUARY, 2004), AND ALL SUPPLEMENTS APPLICABLE THERETO.
2. ALL WORK SHALL CONFORM TO THE ABOVE STANDARD REQUIREMENTS, ANY LOCAL JURISDICTIONAL REQUIREMENTS THAT EXCEED THOSE LISTED ABOVE, AND ANY MANUFACTURER'S REQUIREMENTS THAT ARE NOT COVERED ABOVE.
3. THE MAINTAINING AGENCY SHALL BE LAKE COUNTY.
4. NO TEST BORINGS WERE MADE IN THE VICINITY OF PROPOSED CONDUIT RUNS OR DIRECTIONAL BORES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE JOB SITE CONDITIONS PRIOR TO THE SUBMISSION OF BID PROPOSALS PER SECTION 2-4 OF THE FOOT SPECIFICATIONS.
5. THESE PLANS REFLECT CONDITIONS KNOWN AT THE TIME OF PLAN DEVELOPMENT. IN THE EVENT THAT ACTUAL FIELD CONDITIONS PREVENT THE APPLICATION OF THESE PLANS AND/OR THE SPECIFICATIONS OR THE PROGRESSION OF THE WORK SPECIFIED IN THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN CHARGE IMMEDIATELY AND PRIOR TO ANY FURTHER PROSECUTION OF THE WORK.
6. ALUMINUM HOUSINGS SHALL BE USED FOR ALL TRAFFIC SIGNAL HEADS. NO POLYCARBONATE HOUSING OR MOUNTING HARDWARE WILL BE PERMITTED. TUNNEL VISORS SHALL BE FULL VISORS (NOT CUT-AWAY TYPE) AND PAYMENT FOR TUNNEL VISORS SHALL BE INCIDENTAL TO PAY ITEMS FOR TRAFFIC SIGNAL HEAD ASSEMBLIES. SIGNAL HOUSINGS SHALL BE BLACK IN COLOR. ALL SIGNAL HEADS ON THE EAST AND WEST APPROACHES SHALL HAVE BACK PLATES.
7. THE CONTRACTOR SHALL VERIFY WITH THE MAINTAINING AGENCY, COLOR CODES FOR THE SIGNAL CABLE CONDUCTORS PRIOR TO ORDERING.
8. ONE ADDITIONAL (SPARE) CONDUIT SHALL BE RUN FROM THE CONTROLLER CABINET BASE TO THE NEAREST PULL BOX FOR DETECTION EQUIPMENT WIRES AND SIGNAL CABLE RESPECTIVELY.
9. PULL BOXES SHALL BE QUARTZITE 124 OR EQUIVALENT AND SHALL BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, THE PULL BOXES SHALL BE PLACED A MINIMUM OF 10' FROM THE EDGE OF PAVEMENT, BUT NOT AT THE BOTTOM OF ANY DITCH OR RETENTION AREA. THE LIDS SHALL BE NON-METALLIC, TRAFFIC BEARING MATERIAL AND PRESSED COVER LOGO WITH "TRAFFIC SIGNAL". ALL PULL BOXES AND COVERS DURING NON-WORKING HOURS, THE CONTRACTOR SHALL NOT STORE ANY MATERIALS OR PARK ANY EQUIPMENT WITHIN 30' OF THE EDGE OF THE TRAVELWAY. IF THE ABOVE IS NOT POSSIBLE, THE CONTRACTOR SHALL REQUEST THE ENGINEER IN CHARGE TO APPOINT AN APPROVED STORAGE AREA AND SUCH AREA SHALL BE PROPERLY DELINEATED AND ADVANCE WARNING SHALL BE UTILIZED.
10. PER FOOT STANDARD SPECIFICATIONS, ALL FIELD WIRING SHALL BE CLEARLY IDENTIFIED WITH WEATHER PROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE. THE CONTRACTOR SHALL SUBMIT THE PROPOSED TAGGING SYSTEM WITH THE SUBMITTALS PACKAGE AS REQUIRED FOR PERMIT JOBS.
11. THE CONTROLLER BASE ELEVATION SHALL BE 4'-8" ABOVE THE GRADE.
12. THREE SPARE CONDUCTORS PER SIGNAL CABLE ARE REQUIRED. SPARES SHALL BE BOUND TOGETHER AND GROUNDED TO THE BUS GROUNDING FACILITY IN THE CONTROLLER CABINET.
13. ALL TRAFFIC SIGNAL HEAD ASSEMBLIES SHALL HAVE A MINIMUM LOW POINT OF CLEARANCE OF 17.5' AND A MAXIMUM HIGH POINT OF CLEARANCE OF 19' FROM THE BOTTOM OF THE ASSEMBLY TO THE ROADWAY.
14. AT THE TIME OF FINAL INSPECTION OF THE INSTALLATION, THE CONTRACTOR SHALL PROVIDE TWO SETS OF CONSTRUCTION AS-BUILT PLANS, THAT INCLUDE CONDUIT AND PULL BOX LOCATIONS, AND FOOT FORMAT SERIES RESISTANCE DATA FORMS FOR ALL GROUNDING ELECTRODES.
15. THE CONTRACTOR SHALL FURNISH ALL NECESSARY EQUIPMENT INCLUDING A BUCKET TRUCK FOR TESTING AND INSPECTION OF TRAFFIC SIGNALS.
16. UPON COMPLETION OF THE TRAFFIC SIGNAL INSTALLATION, THE TRAFFIC SIGNAL SHALL BE PLACED IN FLASHING OPERATION FOR A PERIOD OF 7-14 DAYS PRIOR TO COMMENCEMENT OF FULL STOP CONTROL OPERATION.
17. SIGNAL CABLE AND LOOP WIRES TO BE IN SEPARATE PULL BOXES.
18. THE CONTRACTOR SHALL STAKE ALL POLE LOCATIONS AND HAVE THEM APPROVED BY LAKE COUNTY TRAFFIC ENGINEERING.
19. AS DIRECTED BY THE PROJECT ENGINEER, THE CONTRACTOR SHALL ADJUST CONDUIT AND PULL BOXES HORIZONTALLY AND/OR VERTICALLY IN ORDER TO AVOID ANY POSSIBLE CONFLICTS WITH UNDERGROUND UTILITIES.
20. ALL CONDUIT SHALL BE 2-INCH MINIMUM UNLESS OTHERWISE SPECIFIED IN THE PLANS AND SHALL HAVE A LOCATE WIRE INSTALLED IN ALL FIBER OPTIC AND FUTURE USE CONDUITS.
21. TYPE "F" LOOPS SHALL BE 40' LONG BY 6' WIDE QUADRAPOLE, CENTERED IN THE LANE AND EXTEND 5' BEYOND THE STOP BAR UNLESS OTHERWISE SHOWN ON PLAN SHEET.
22. THE CONTRACTOR SHALL MAKE ALL LOOP ASSEMBLIES AND LOOP DETECTORS INSTALLED AS PART OF THE PROJECT FULLY OPERATIONAL IN ACCORDANCE WITH THEIR ASSOCIATED INTERSECTION SIGNAL TIMING CHART. ALL LOOP ASSEMBLIES SHALL BE SEALED WITH AN FOOT APPROVED LOOP SEALANT. ALL SAW CUTS SHALL BE SEALED IMMEDIATELY AFTER THE LOOP WIRES AND LEAD-IN WIRES HAVE BEEN PLACED IN THE SAW CUTS. LOOPS SHALL NOT BE INSTALLED IN SERIES.
23. NO LOOP HOME RUNS SHALL BE CUT IN THE RADIIUS.
24. ALL SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE LOCATED IN PULL BOXES AND SOLDERED AND TAPED WITH A WATERPROOF COATING APPLIED IN A MANNER APPROVED BY THE ENGINEER.

26. ALL TRAFFIC SIGNAL LOOP ASSEMBLY WIRES AND SHIELDED LEAD-IN CABLES SHALL BE ROUTED TO THE TRAFFIC SIGNAL CONTROLLER CABINET IN ONE CONTINUOUS RUN. THERE SHALL BE NO SPLICING ALLOWED EXCEPT IN INSTANCES WHERE LOOP WIRE IS SPLICED TO SHIELDED LEAD-IN CABLE. ALL SHIELDED LOOP LEAD-IN WIRES MUST BE GROUNDED TO THE CONTROLLER CABINET GROUND.

27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY LOCATION COORDINATION EFFORTS AS REQUIRED BY FLORIDA STATUTE REGARDING PROTECTION OF EXISTING UTILITIES. THE CONTRACTOR IS REMINDED THAT NOT ALL UTILITY PROVIDERS ARE SUBSCRIBERS TO THE SUNSHINE STATE ONE-CALL SYSTEM, AND IT SHALL BE INCUMBENT UPON THE CONTRACTOR TO MAKE EVERY EFFORT TO INSURE THAT ALL UTILITIES ARE LOCATED PRIOR TO CONSTRUCTION.

COMPANIES

PHONE NUMBERS	COMPANIES
(352) 331-9147 or (407) 273-5084	BELL SOUTH
(512) 633-1942	BROADBAND
(352) 394-4083	CITY OF CLEARWATER
(407) 938-6638	PROGRESS ENERGY OF FLORIDA
(407) 556-2734 EXT.108	LAKE APOPKA NATURAL GAS
(407) 841-4226	MCI WORLDWIDE
(352) 326-1754 OR (407) 814-5383	SPRINT TELEPHONE
(352) 266-1106	TIME WARNER CABLE OR
(386) 775-1300	(BRIGHT HOUSE)

28. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT AT LEAST 2 FULL BUSINESS DAYS IN ADVANCE OF POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND WHEN JOINT USE POLES ARE TO BE USED.

29. THE CONTRACTOR SHALL ADHERE TO ALL LOCAL MAINTAINING AGENCY AND STATE REGULATIONS DURING ALL CONSTRUCTION OPERATIONS.

30. THE CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS AT LEAST 2 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION AND LOOP CUTTING, NOTIFY DENIS DEITZ OR STEVE BOLLINGER 352-742-7666. 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.

31. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE POWER COMPANY AND MAINTAINING AGENCY OF THEIR PROPOSED DATE ON WHICH THE NEW ELECTRICAL SERVICE FOR THIS SIGNAL WILL BE COMPLETE IN ORDER THAT ARRANGEMENTS CAN BE MADE FOR ESTABLISHING AN ACCOUNT FOR THE LOCAL MAINTAINING AGENCY AND HOOK-UP DATE WITH THE LOCAL POWER COMPANY.

32. ALL SIGNAL HEADS SHALL USE FOOT APPROVED LED'S FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED. PEDESTRIAN ASSEMBLIES SHALL HAVE FULL HAND/PERSON LED'S.

33. THE CONTRACTOR SHALL HAND DIG THE FIRST 4' AT THE STRAIN POLE FOUNDATION LOCATIONS TO INSURE THERE ARE NO UTILITY CONFLICTS.

34. THE CONTRACTOR IS RESPONSIBLE FOR ALL STATE AND LOCAL PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING THE ELECTRIC PERMIT AND TO COORDINATE APPLICATION FOR POWER WITH LAKE COUNTY TRAFFIC OPERATIONS, PATTY FLETCHER, 352-742-1766.

35. ALL MAINTENANCE OF TRAFFIC SHALL CONFORM TO STANDARD INDEX 600 SERIES AND SHALL BE PAID FOR UNDER MOBILIZATION 10-11. THE COST FOR THE USE OF OFF-DUTY LAW ENFORCEMENT OFFICERS TO DIRECT TRAFFIC IN CASE OF LANE CLOSURES SHALL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID SEPARATELY.

36. ALL MATERIALS AND HARDWARE SHALL BE FOOT APPROVED AND PRE-APPROVED BY LAKE COUNTY TRAFFIC ENGINEERING.

37. ALL REMOVED EQUIPMENT SHALL BE DELIVERED TO LAKE COUNTY TRAFFIC OPERATIONS, 2022 C.R. 561, TAVARES, 352-742-7666, EXCEPT SIGNAL POLES, WHICH SHALL BE DISPOSED OF BY THE CONTRACTOR.

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

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

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

41. NO POWER SERVICE INSTALLATION WILL BE ALLOWED ON THE CABINET.

42. THE CONTROLLER ASSEMBLY SHALL BE A LAKE COUNTY NAZTEC REGIONAL TS2-TYPE 1, WITH A TS2-TYPE 2 CONTROLLER ETHERNET ENABLED FOR LAKE COUNTY CLOSED LOOP SYSTEM. A MANUAL PUSH BUTTON SHALL BE FURNISHED IN ALL CONTROLLER CABINETS. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION WHEN POSSIBLE.

43. 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.

44. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND TELEPHONE NUMBERS AND HAVE AN MSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO-HOUR MAXIMUM RESPONSE.

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

*2/3/06*

*[Signature]*

DATE	BY	DESCRIPTION

DATE	BY	DESCRIPTION

LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT PROJECT NO. 00021689

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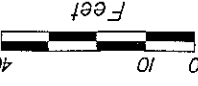
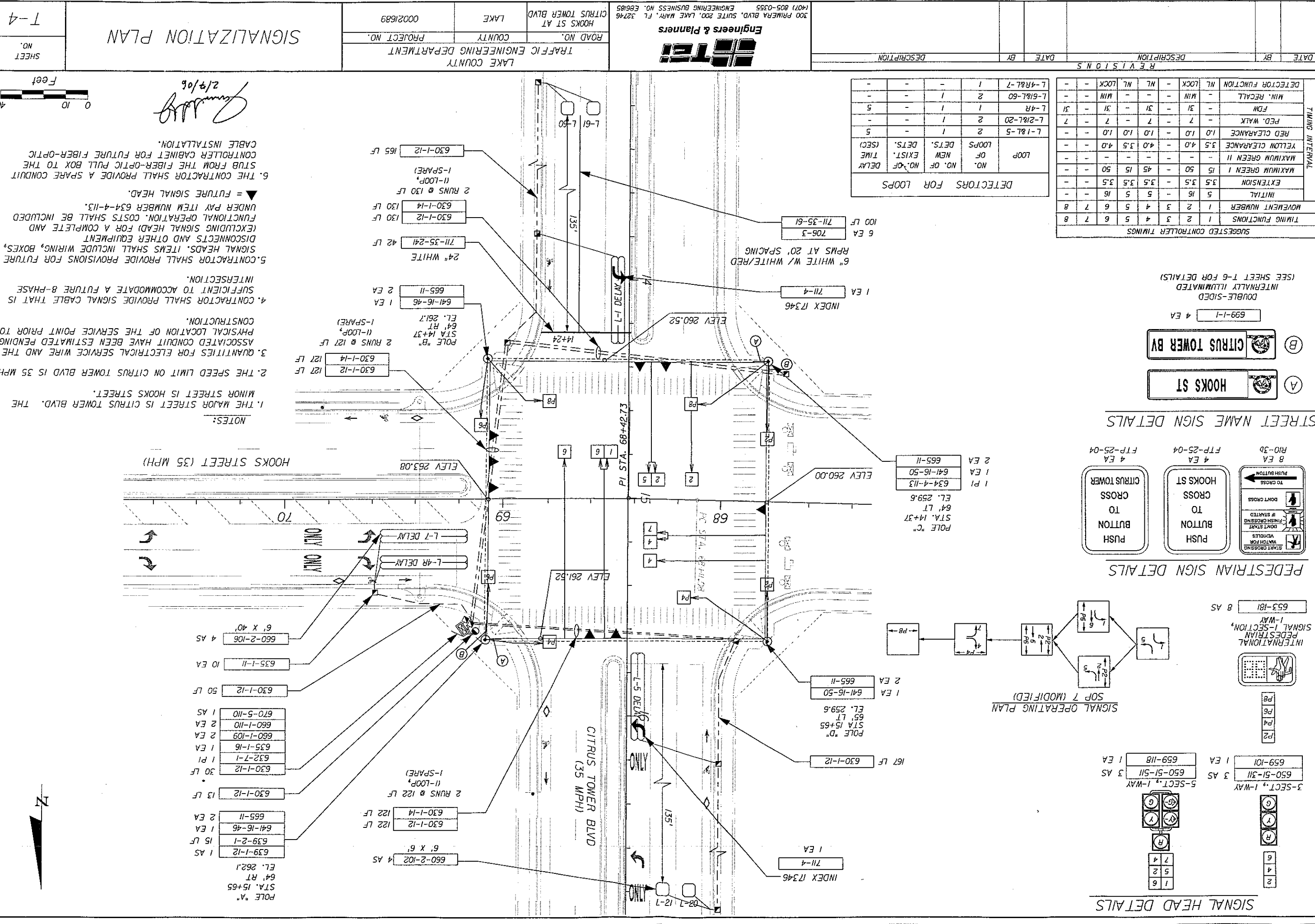
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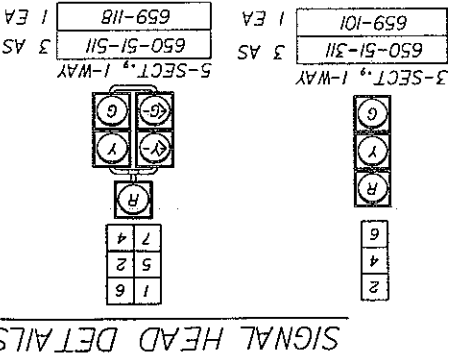
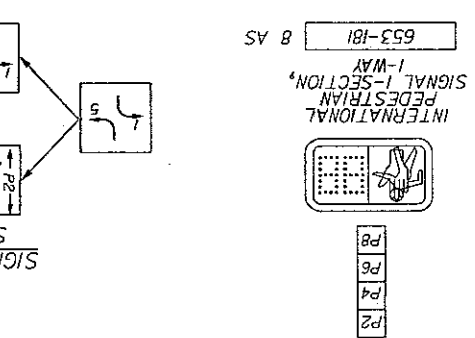
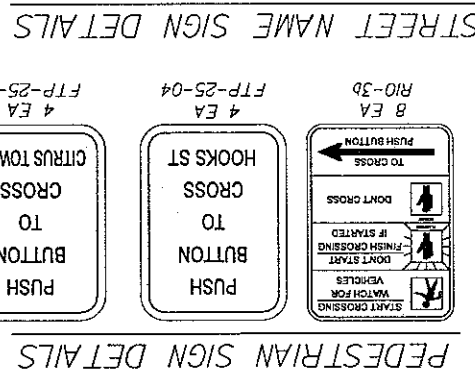
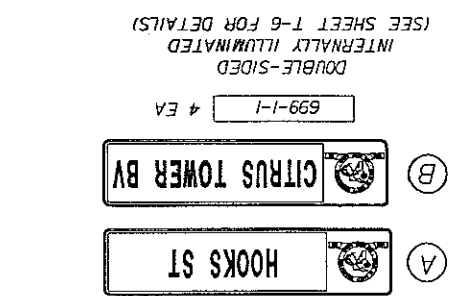


2/19/06  
*[Signature]*

- NOTES:
1. THE MAJOR STREET IS CITRUS TOWER BLVD. THE MINOR STREET IS HOOKS STREET.
  2. THE SPEED LIMIT ON CITRUS TOWER BLVD IS 35 MPH.
  3. QUANTITIES FOR ELECTRICAL SERVICE WIRE AND THE ASSOCIATED CONDUIT HAVE BEEN ESTIMATED PENDING PHYSICAL LOCATION OF THE SERVICE POINT PRIOR TO CONSTRUCTION.
  4. CONTRACTOR SHALL PROVIDE SIGNAL CABLE THAT IS SUFFICIENT TO ACCOMMODATE A FUTURE B-PHASE INTERSECTION.
  5. CONTRACTOR SHALL PROVIDE PROVISIONS FOR FUTURE SIGNAL HEADS. ITEMS SHALL INCLUDE WIRING, BOXES, DISCONNECTS AND OTHER EQUIPMENT (EXCLUDING SIGNAL HEAD) FOR A COMPLETE AND FUNCTIONAL OPERATION. COSTS SHALL BE INCLUDED UNDER PAY ITEM NUMBER 634-4-113.
  6. THE CONTRACTOR SHALL PROVIDE A SPARE CONDUIT TO THE STUB FROM THE FIBER-OPTIC PULL BOX TO THE CONTROLLER CABINET FOR FUTURE FIBER-OPTIC CABLE INSTALLATION.

NO.	NO. OF LOOPS	NO. OF DETS.	NO. OF DELAY
L-1-RL-5	2	1	5
L-2-RL-20	2	1	5
L-4R	1	1	5
L-6/RL-60	2	1	5
L-4RL-7	1	1	5

TIMING FUNCTIONS	1	2	3	4	5	6	7	8
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
INITIAL	5	16	5	16	5	16	5	16
EXTENSION	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
MAXIMUM GREEN I	15	50	45	15	50	45	15	50
MAXIMUM GREEN II	3.5	4.0	4.0	3.5	4.0	4.0	3.5	4.0
YELLOW CLEARANCE	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
RED CLEARANCE	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PED. WALK	7	7	7	7	7	7	7	7
FDN	31	31	31	31	31	31	31	31
MIN. RECALL	-	-	-	-	-	-	-	-
DETECTOR FUNCTION	NR	NR	NR	NR	NR	NR	NR	NR
LOCK	LOCK	LOCK	LOCK	LOCK	LOCK	LOCK	LOCK	LOCK



DATE	BY	DESCRIPTION

**Engineers & Planners**

300 PRIMA BLVD, SUITE 200, LAKE MARY, FL 32746  
 14071 B05-0355 ENGINEERING BUSINESS NO. E8685  
 CITRUS TOWER BLVD  
 HOOKS ST AT LAKE

LAKE COUNTY	TRAFFIC ENGINEERING DEPARTMENT
ROAD NO.	COUNTY
PROJECT NO.	00021689

SHEET NO.	T-5
CONCRETE STRAIN POLE SCHEDULE	

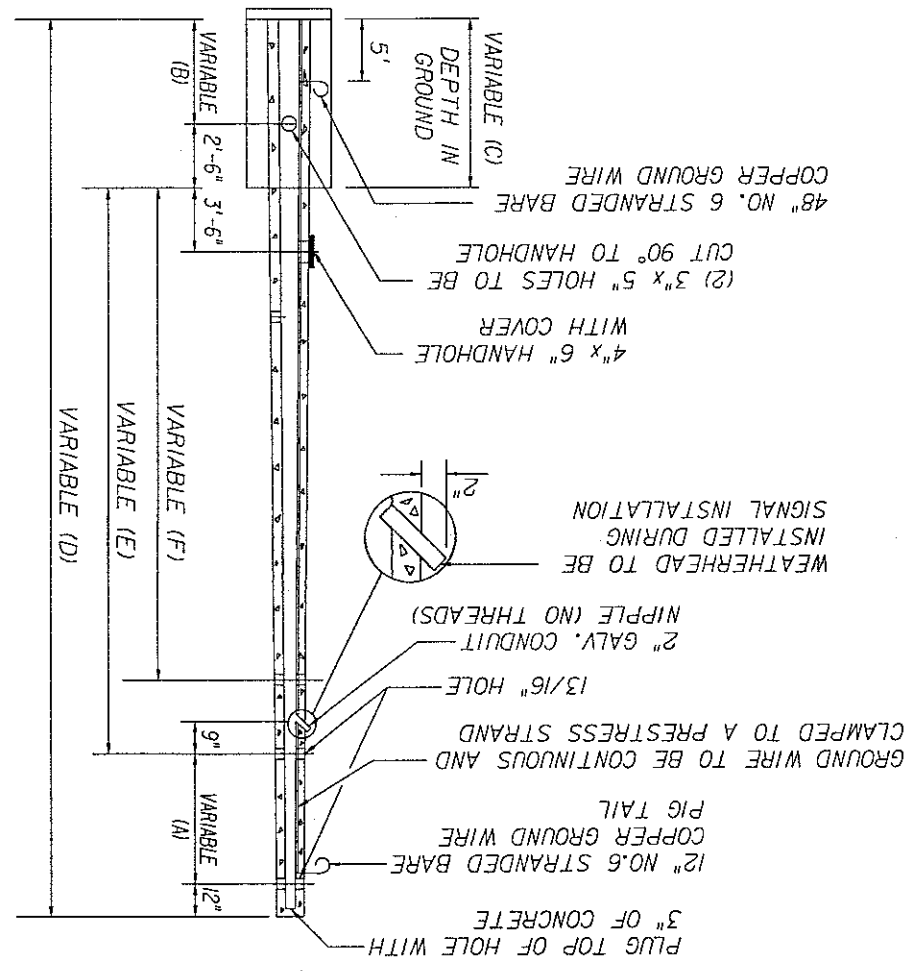
**SPAN WIRE CABLE NOTES**

CATENARY WIRE CABLE = 3/8"  
 MESSENGER WIRE CABLE = 1/16"

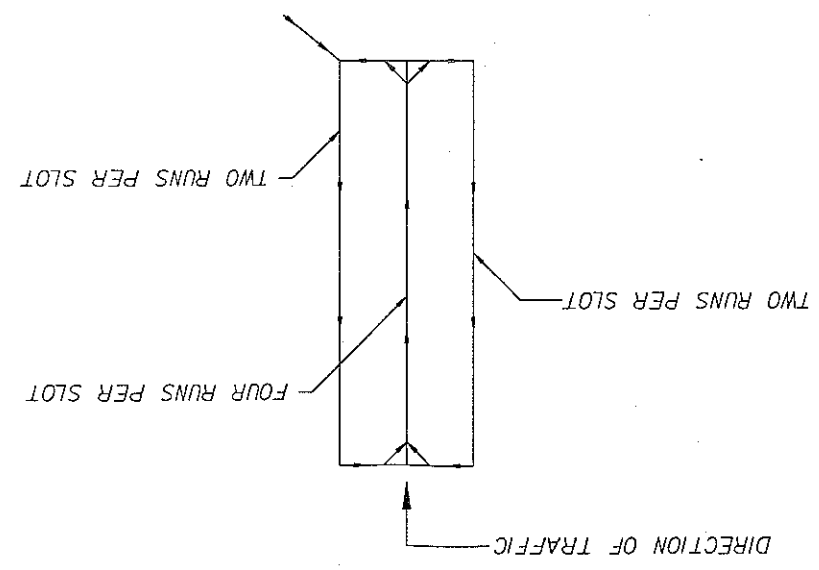
POLE NO.	TYPE	A	B	C	D	E	F
A	VII	8'	9.5'	12.0'	46.0'	25.0'	23.5'
B	VII	8'	9.1'	11.6'	46.0'	25.4'	22.6'
C	VII	10.8'	11.0'	13.5'	50.0'	24.7'	N/A
D	VII	9.5'	11.0'	13.5'	50.0'	26.0'	24.7'

POLE SCHEDULE

POLE SECTION



LOOP WINDING DETAIL (QUADRAPOLE PRESENCE LOOP)



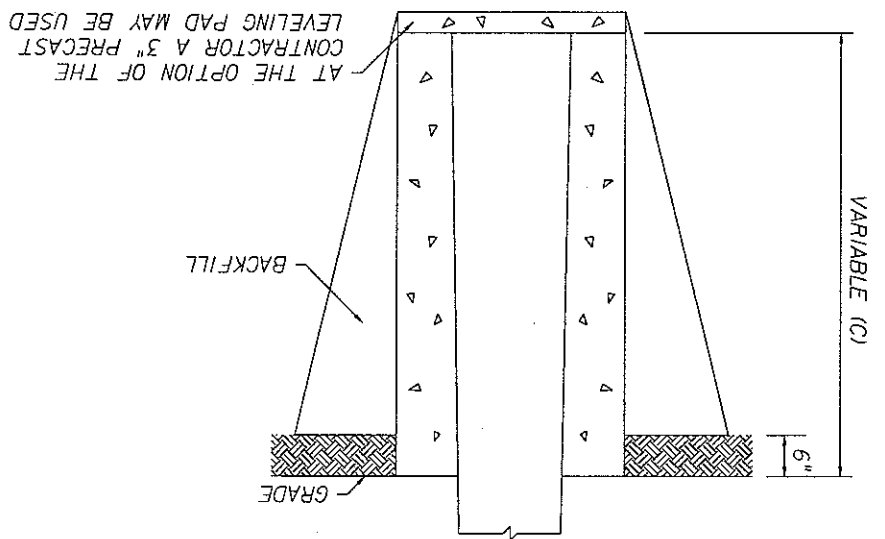
FOUNDATION NOTES

EXCAVATION & BACKFILL: EXCAVATION & BACKFILL FOR THE FOOTINGS SHALL BE IN ACCORDANCE WITH ARTICLES 125-4 AND 125-82 WITH THE EXCEPTION 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 CONTRACTOR'S OPTION BACKFILLING MAY BE DONE WITH POURED CONCRETE.

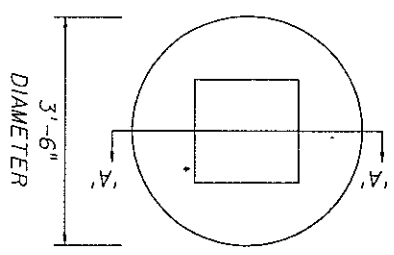
CONCRETE: FOOTING TO BE POURED WITH CLASS I CONCRETE. (SECTION 345)

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.

SECTION 'A' - 'A'



FOUNDATION PLAN



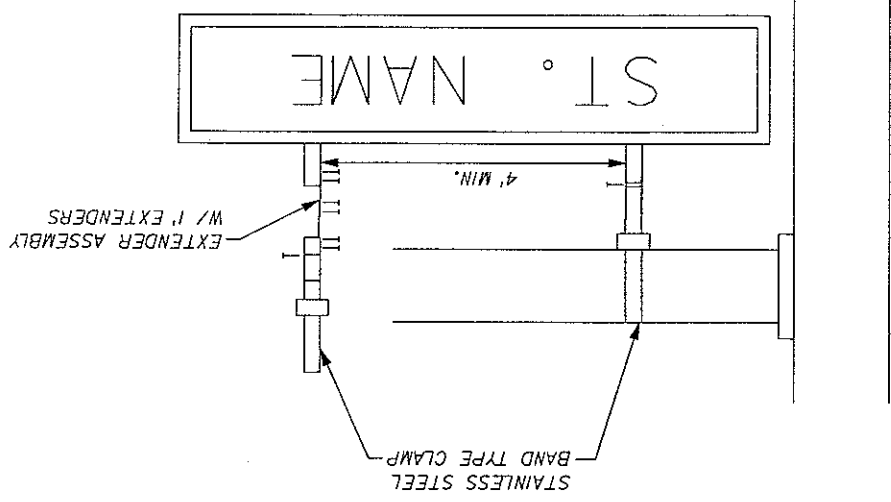
*Signature*  
2/2/06

INTERNALLY ILLUMINATED STREET NAME SIGN REQUIREMENTS

1. 1/8" INCH CLEAR LEXAN AS BACKING.
2. WHITE DIAMOND GRADE VIP SHEETING, 3M SERIES 3990 OR COMPARABLE.
3. GREEN ACRYLIC ELECTRIC CUTTABLE FILM.
4. COLORED LAKE COUNTY LOGO ON WHITE BACKGROUND DESIGNED TO ALLOW LIGHT AND COLORS TO SHOW THROUGH, 14.25 INCHES HIGH, 19.663 INCHES LONG.
5. LAKE COUNTY LOGO SHALL HAVE A 5-YEAR GUARANTEE.
6. LOGO SHALL BE 3M CONTROLTAC PLUS FILM (SERIES 160) PRINTED WITH TRANSLUCENT INKS ON A 3M ARIZONA SOLVENT-BASED INKJET PRINTER AND SHALL HAVE A 5-YEAR GUARANTEE ON INKS AND VINYL DURABILITY.
7. THE DESIRED LETTER SIZE SHALL BE 10" UPPER CASE AND 6" LOWER CASE, TYPE E MODIFIED. SHOULD A SUBJECT STREET NAME USING THIS SIZE AND SERIES NOT FIT ON THE DESIRED PANEL, ONE OF THE FOLLOWING ALTERNATIVES SHOULD BE USED (LISTED IN DECREASING ORDER OF DESIRABILITY).
  - A. 10" UPPER, SERIES D
  - B. 10" UPPER, SERIES C
  - C. 8" UPPER, SERIES D
  - D. 8" UPPER, SERIES C

9. AVOID ABBREVIATIONS, IF ABSOLUTELY NECESSARY USE THE FOLLOWING: BOULEVARD (BLVD), AVENUE (AVE), TERRACE (TERR), PLACE (PL), DRIVE (DR), ROAD (RD), LANE (LN). ABBREVIATIONS SHOULD BE USED BEFORE FONT AND TEXT SIZES ARE REDUCED.
10. "22/24" STYLE CONTAINER, 22 INCH VIEWABLE SIGN HEIGHT, 24 INCH CONTAINER HEIGHT.
11. PHOTO CELL SHALL BE INSTALLED IN THE SIGNAL CABINET WITH A 2 INCH PLEXIGLAS WINDOW
12. A "HANDS OFF PHOTO TEST SWITCH" SHALL BE INSTALLED.
13. THE INTERNALLY ILLUMINATED STREET SIGN SHALL BE INSTALLED ON A SEPARATE BREAKER.
14. SIGN BRACKET AND CLAMP-ON CANTILEVER ARM SHOULD BE INSTALLED 1 FOOT BELOW MESSENGER CABLE.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE MESSAGE WITH THE LOCAL MAINTAINING AGENCY BEFORE FABRICATING THE SIGNS. SHOP DRAWINGS WILL BE REQUIRED.

SIGN BRACKET ATTACHMENT DETAIL



TWO POINT CLAMP-ON CANTILEVER ARM SIGN MOUNTING ASSEMBLY DETAIL

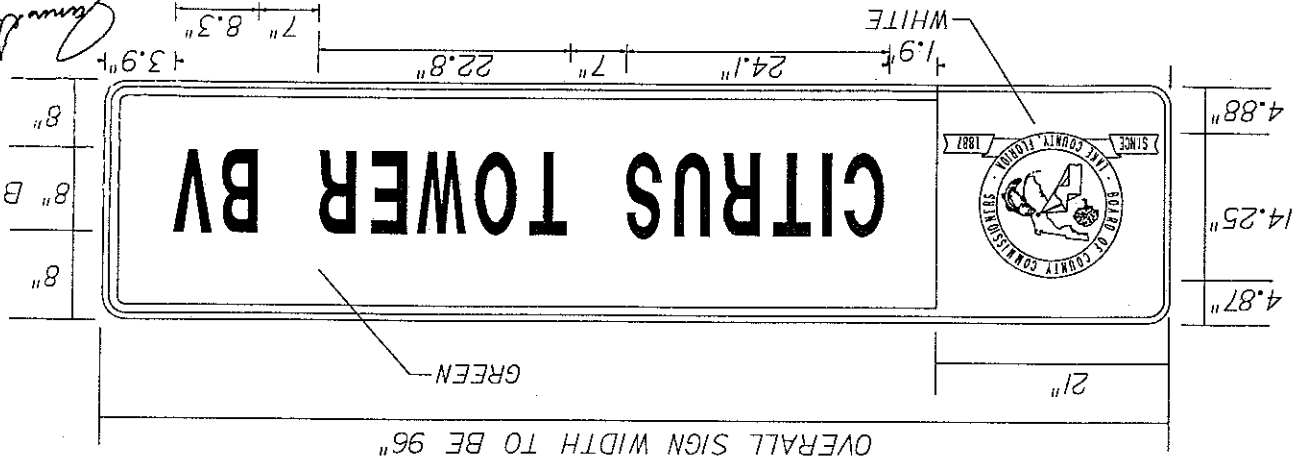
- A. 10" UPPER, SERIES D
- B. 10" UPPER, SERIES C
- C. 8" UPPER, SERIES D
- D. 8" UPPER, SERIES C

THE DESIRED LETTER SIZE SHALL BE 10" UPPER CASE AND 6" LOWER CASE, TYPE E MODIFIED. SHOULD A SUBJECT STREET NAME USING THIS SIZE AND SERIES NOT FIT ON THE DESIRED PANEL, ONE OF THE FOLLOWING ALTERNATIVES SHOULD BE USED (LISTED IN DECREASING ORDER OF DESIRABILITY).

OVERALL SIGN WIDTH TO BE 96"



OVERALL SIGN WIDTH TO BE 96"



REVISIONS		DATE	BY	DESCRIPTION



300 PRIMA BLVD., SUITE 200, LAKE MARY, FL 32746  
(407) 805-0355  
ENGINEERING BUSINESS NO. EB6185

ROAD NO. HOOKS ST AT  
LAKE COUNTY

CITRUS TOWER BLVD  
LAKE COUNTY

PROJECT NO. 00021689

TRAFFIC ENGINEERING DEPARTMENT

LAKE COUNTY

INTERNALLY ILLUMINATED  
STREET NAME SIGN DETAIL

T-6  
SHEET NO.

2/22/2006