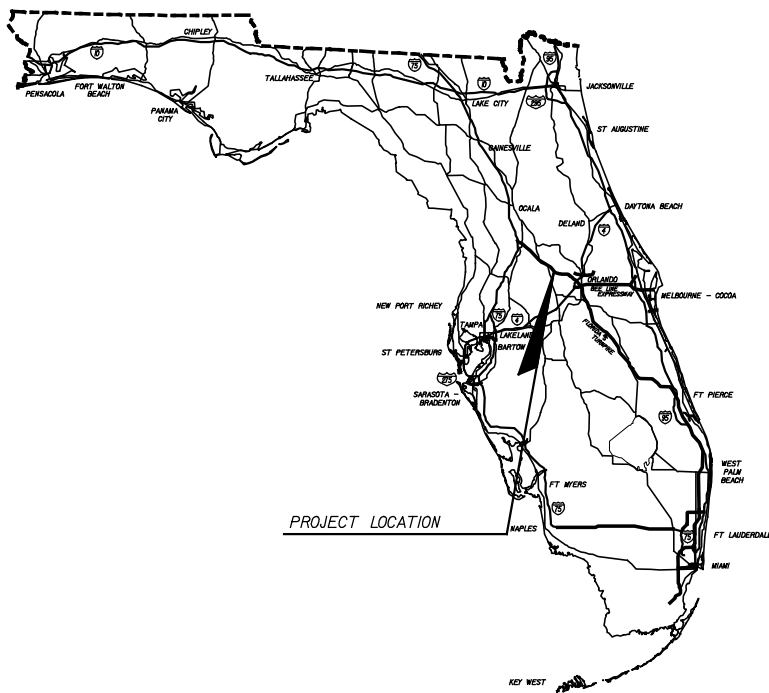


**LAKE COUNTY PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION**

**CONTRACT PLANS**

LAKE COUNTY  
HOOKS STREET AT  
SOUTH HANCOCK ROAD

SIGNALIZATION PLANS

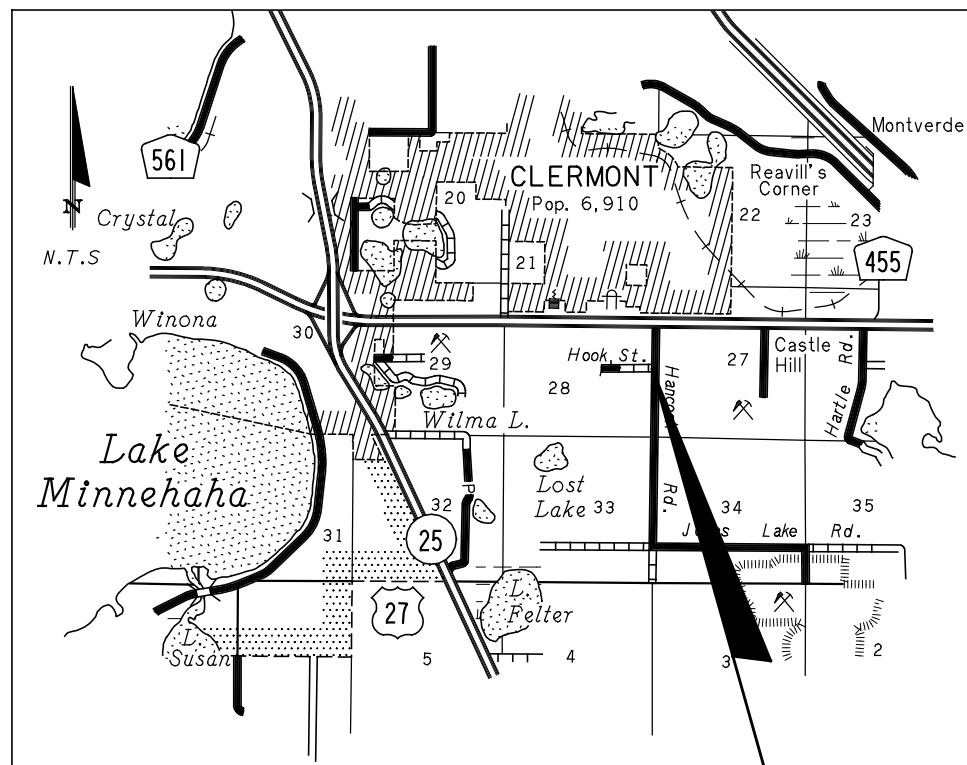


INDEX OF SIGNALIZATION PLANS

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3	GENERAL NOTES
T-4	SIGNALIZATION PLAN
T-5	SIGNING AND PAVEMENT MARKING PLAN
T-6	CONCRETE STRAIN POLE SCHEDULE
T-7	GUIDESIGN WORKSHEET
T-8	INTERCONNECT PLAN

COUNTY COMMISSIONERS

JENNIFER S. HILL, VICE CHAIR	DISTRICT ONE
ELAINE RENICK	DISTRICT TWO
DEBBIE STIVENDER	DISTRICT THREE
LINDA STEWART	DISTRICT FOUR
WELTON G. CADWELL, CHAIR	DISTRICT FIVE
CINDY HALL	COUNTY MANAGER



PROJECT LOCATION

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

PLANS PREPARED BY:

**HNTB**

HNTB CORPORATION  
300 PRIMERA BLVD., SUITE 200  
LAKE MARY, FL. 32746  
(407) 805-0355  
VENDOR NO.: F431623092009  
CERT. OF AUTH. NO.6500

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

SIGNALIZATION PLANS  
ENGINEER OF RECORD: MARC W. HUSTAD, P.E.

P.E. NO. 66761

KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

FISCAL YEAR	SHEET NO.
08	T-1

LAKE COUNTY PROJECT MANAGER: PHILIP MAGGIO

# TABULATION OF QUANTITIES

BID ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBER										TOTAL THIS SHEET	GRAND TOTAL
			T-4		T-5									
			ORIGINAL	FINAL	ORIGINAL	FINAL	ORIGINAL	FINAL	ORIGINAL	FINAL	ORIGINAL	FINAL		
101-1	MOBILIZATION	LS	1										1	1
522-1	SIDEWALK CONCRETE 4"	SY	1.4										1.4	1.4
630-1-12	CONDUIT, UNDERGROUND	LF	2148		139			867					3154	3154
630-1-14	CONDUIT, UNDERGROUND - JACKED	LF	341					236					577	577
632-7-1	SIGNAL CABLE	PI	1										1	1
633-121-1	CABLE FIBER OPTIC (24 SM)	LF	541					1118					1659	1659
634-4-112	SPAN WIRE ASSEMBLY	PI	1										1	1
635-1-11	PULL BOX	EA	20		2								22	22
635-1-15	FIBER OPTIC PULL BOX	EA	1					2					3	3
635-1-16	SPECIAL PULL BOX	EA	1					1					2	2
639-1-12	ELECTRICAL POWER SERVICE (OVERHEAD)	AS	1										1	1
639-2-1	ELECTRICAL SERVICE WIRE	LF	12										12	12
641-2-17	CONCRETE STRAIN POLE	EA	2										2	2
650-51-313	TRAFFIC SIGNAL, 3 SECTION, 1WAY (SPECIAL - LED)	AS	2										2	2
650-51-323	TRAFFIC SIGNAL, 3 SECTION, 2 WAY (SPECIAL - LED)	AS	1										1	1
650-51-513	TRAFFIC SIGNAL, 5 SECTION, 1WAY (SPECIAL - LED)	AS	4										4	4
653-191	PEDESTRIAN SIGNAL, 1 SECTION, 1WAY (COUNTDOWN - LED)	AS	2										2	2
653-192	PEDESTRIAN SIGNAL, 1 SECTION, 2 WAY (COUNTDOWN - LED)	AS	3										3	3
659-109	CONCRETE PEDESTAL (TYPE II)	EA	5										5	5
660-1-109	INDUCTIVE LOOP DETECTOR TYPE 9	EA	3										3	3
660-1-110	INDUCTIVE LOOP DETECTOR TYPE 10	EA	3										3	3
660-2-102	LOOP ASSEMBLY TYPE B	AS	4										4	4
660-2-106	LOOP ASSEMBLY TYPE F	AS	8										8	8
665-11	PEDESTRIAN DETECTOR	EA	8										8	8
670-5-110	ACTUATED SOLID STATE CONTROLLER ASSEMBLY	AS	1										1	1
685-128	SYSTEM AUXILIARIES, INTERFACE PANEL	EA	1					1					2	2
685-140	SYSTEM AUXILIARIES, FIBER OPTIC MODULATOR/DEMULATOR	EA	1					1					2	2
699-1-1	INTERNALLY ILLUMINATED STREET NAME SIGN (DOUBLE SIDED)	EA	4										4	4
700-20-1	SIGN SINGLE POST (<= 12SF)	AS												
	SI-1, W16-9P (36"X36", 24"X12")	AS			3								3	3
	SI-1, W16-7P (36"X36", 24"X12")	AS			3								3	3
	FTP-34-04 (24"X30")	AS			2								2	2
	R4-7, OMI-1 (24"X30", 18"X18")	AS			2								2	2
700-48-60	SIGN EXISTING REMOVE PANEL	EA			1								1	1
700-90-11	SIGN FLASHING BEACON	AS			2								2	2
706-3	RETRO RELECTIVE PAVEMENT MARKERS (WHITE/RED)	EA			10								10	10
	RETRO RELECTIVE PAVEMENT MARKERS (YELLOW/YELLOW)	EA			26								26	26
711-11-160	PAVEMENT MESSAGES	EA			5								5	5
711-11-170	DIRECTIONAL ARROW	EA			6								6	6
711-11-121	SOLID TRAFFIC STRIPE (6" WHITE)	LF			160								160	160
711-11-123	SOLID TRAFFIC STRIPE (12" WHITE)	LF			1050								1050	1050
711-11-125	SOLID TRAFFIC STRIPE (24" WHITE)	LF			260								260	260
711-11-221	SOLID TRAFFIC STRIPE (6" YELLOW)	LF			554								554	554
711-11-224	SOLID TRAFFIC STRIPE (18" YELLOW)	LF			150								150	150
711-17	REMOVE EXISTING PAVEMENT MARKINGS	SF			38								38	38

## PAY ITEM NOTES

1. 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 I7721, SHEET 2 OF 2.
2. WHEN JACKING CONDUIT UNDER PAVEMENT, THE CONTRACTOR MAY USE AN FDOT APPROVED GUIDED BORING SYSTEM AS AN ALTERNATE METHOD OF CONSTRUCTION. AN ACCEPTABLE METHOD IS THE DITCH WITCH JET-TRAC OR EQUIVALANET, PAID FOR UNDER PAY ITEM NUMBER 630-1-14.
3. PAY ITEM NO. 632-7-1 SHALL BE INSTALLED PER STANDARD INDEX I7727, AS APPLICABLE, AND AS STATED IN THE GENERAL NOTES.
4. 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 I7736, AS APPLICABLE, SHALL APPLY.
5. PAY ITEM NO. 639-2-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SIZING THE CONDUCTORS FOR THE POWER SERVICE.
6. PAY ITEM NO. 670-5-110 SHALL BE A TYPE V CABINET.
7. 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.
8. INTERNALLY ILLUMINATED STREET NAME SIGNS SHALL HAVE A SEPARATE CIRCUIT BREAKER IN THE MAIN CIRCUIT BREAKER PANEL CONTROLLED BY A SINGLE PHOTOCCELL ACCESSIBLE BY A LIFT TRUCK.
9. INTERNALLY ILLUMINATED STREET NAME SIGN SHALL BE DOUBLE SIDED AND ILLUMINATED BY LED.

### REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**HNTB**

HNTB CORPORATION  
300 PRIMERA BLVD,  
SUITE 200  
LAKE MARY, FL 32746  
(407) 805-0355  
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: MARC W. HUSTAD, P.E.  
FL. REGISTRATION NO. 66761

LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT		
ROAD NO.	COUNTY	PROJECT NO.
HOOKS ST AT S. HANCOCK RD	LAKE	99137.25, 43817.00

## TABULATION OF QUANTITIES

SHEET  
NO.

T-2

# 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, 2006), 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. 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 FDOT SPECIFICATIONS.
4. 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.
5. ALUMINUM HOUSINGS SHALL BE USED FOR ALL TRAFFIC SIGNAL HEADS. NO POLYCARBONATE HOUSING OR MOUNTING HARDWARE WILL BE PERMITTED. ALL LENSES SHALL BE GLASS. 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.
6. THE CONTRACTOR SHALL VERIFY WITH THE MAINTAINING AGENCY, COLOR CODES FOR THE SIGNAL CABLE CONDUCTORS PRIOR TO ORDERING.
7. 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.
8. PULL BOXES SHALL BE QUAZITE 1324 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 SHALL BE FDOT APPROVED.
9. 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 FDOT 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 FDOT FORMAT SERIES RESISTENCE 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 QUARDRAPOLE, CENTERED IN THE LANE AND EXTEND 5' IN FRONT OF 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 ISOLATED INTERSECTION SIGNAL TIMING CHART. ALL LOOP ASSEMBLIES SHALL BE SEALED WITH AN FDOT 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 RADIUS.
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.
25. 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.
26. 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	CONTACT PERSON
CITY OF CLERMONT - UTILITY SUP	352-394-7178	GENE LAINHART
CITY OF LEESBURG	352-728-9819	BOB BRUCK
BRIGHT HOUSE NETWORKS, LLC	386-445-8804 Ext: 1308	LARRY HENDERSON
FLORIDA CABLE, INC	352-759-2788	LARRY ENGLISH
PROGRESS ENERGY	800-700-8744	CUSTOMER SERVICE CENTER
BROADWING COMMUNICATIONS	512-742-6676	KEITH LINEBACK
LAKE APOPKA NATURAL GAS DISTRICT	407-656-2734	ALEX WOSGIEN
MCI TELECOMMUNICATIONS	972-729-6016	INVESTIGATIONS
BELLSOUTH- AT&T FL	407-539-0644	PAM COTE IDM
EMBARQ	407-814-5344	MIKE SHELL

27. 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.
28. THE CONTRACTOR SHALL ADHERE TO ALL LOCAL MAINTAINING AGENCY AND STATE REGULATIONS DURING ALL CONSTRUCTION OPERATIONS.
29. THE CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION AND LOOP CUTTING, NOTIFY DENIS DEITZ OR STEVE BOLLINGER 352-742-1766. 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.
30. THE MAINTAINING AGENCY SHALL BE LAKE COUNTY.
31. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE POWER COMPANY AND MAINTAINING AGENCY OF HIS 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 FDOT APPROVED LED'S FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED. PEDESTRIAN ASSEMBLIES SHALL BE FDOT APPROVED COUNT DOWN FULL HAND/PERSON LED.
33. THE CONTRACTOR SHALL HAND DIG THE FIRST 4.0' 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, KATHY WILSON, 352-742-1766.
35. ALL MAINTENANCE OF TRAFFIC SHALL CONFORM TO STANDARD INDEX 600 SERIES AND SHALL BE PAID FOR UNDER MOBILIZATION (101-I). 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 FDOT APPROVED AND PRE-APPROVED BY LAKE COUNTY TRAFFIC ENGINEERING.
37. ALL REMOVED EQUIPMENT SHALL BE DELIVERED TO LAKE COUNTY TRAFFIC OPERATIONS, 28127 C.R. 561, TAVARES, 352-742-1766, 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 FIVE 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 LAKE COUNTY NAZTEC REGIONAL TS2-1 WITH A TS2-2 CONTROLLER ETHERNET ENABLED FOR COUNTY'S CLOSED LOOP SYSTEM TO INCLUDE A GENERATOR SWITCH BOX PANEL.
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 IMSA LEVEL II CERTIFIED SIGNAL TECHNICIAN ON CALL WITHIN A TWO-HOUR MINIMUM RESPONSE.
45. ANY STRIPING/PAVEMENT MARKINGS DESTROYED BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

n:\99137.25\dgn 2007\GNWTS602.DGN SENTHIL MANIAN 8/30/2007 10:41:50 AM

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**HNTB**  
HNTB CORPORATION  
300 PRIMERA BLVD,  
SUITE 200  
LAKE MARY, FL 32746  
(407) 805-0355  
CERT. OF AUTH. NO. 6500  
ENGINEER OF RECORD: MARC W. HUSTAD, P.E.  
FL. REGISTRATION NO. 66761

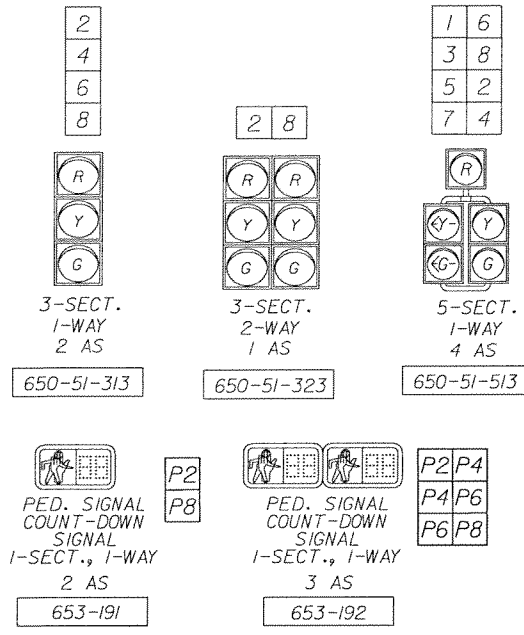
LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT		
ROAD NO.	COUNTY	PROJECT NO.
HOOKS ST AT S. HANCOCK RD	LAKE	99137.25, 43817.00

GENERAL NOTES

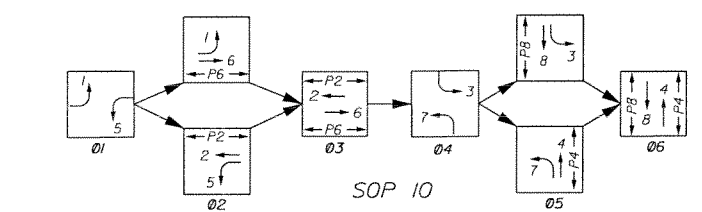
SHEET NO.

T-3

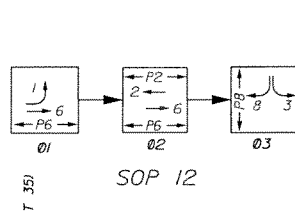
SIGNAL HEAD DETAILS



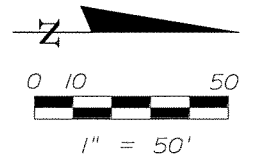
FUTURE SIGNAL OPERATING PLAN



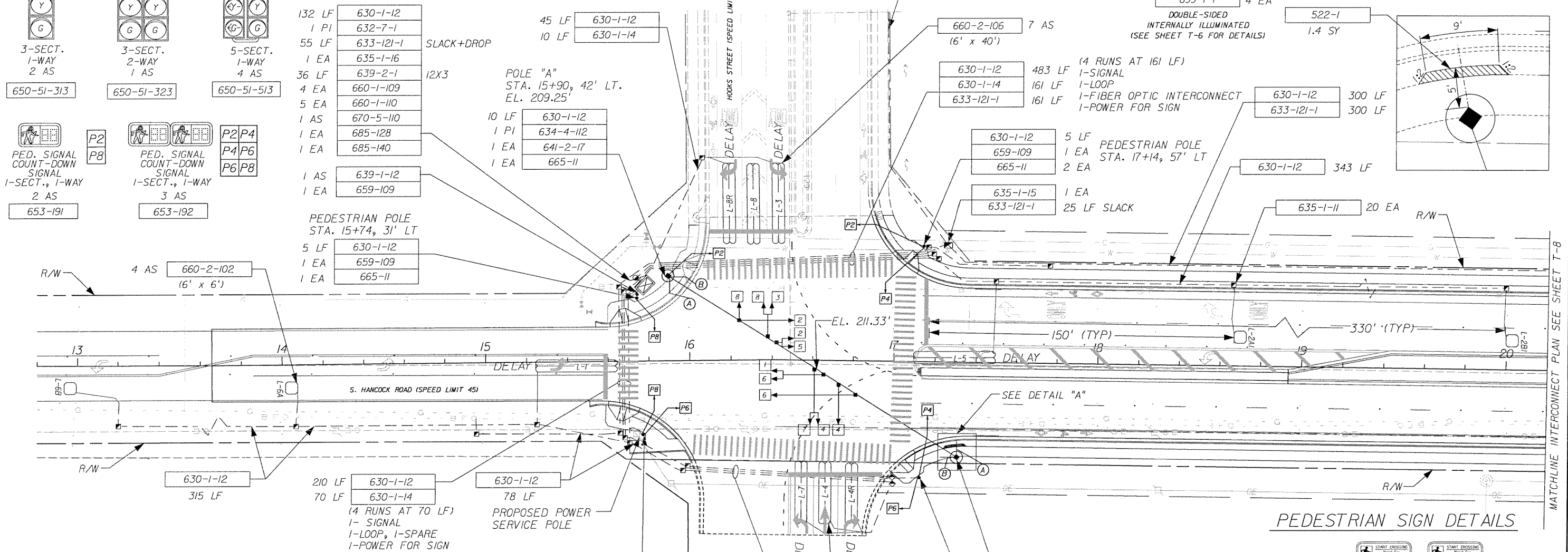
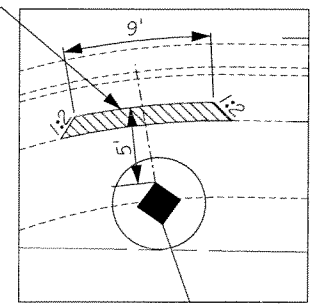
TEMPORARY SOP



COUNTY LOGO  
**Hooks St** (A)  
**HANCOCK RD** (B)



DETAIL "A"



SUGGESTED CONTROLLER TIMINGS

TIMING FUNCTIONS	1	2	3	4	5	6	7	8
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
INITIAL	5	15	5	7	7	15	7	6
EXTENSION	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
MAXIMUM GREEN I	20	45	30	45	25	45	25	30
MAXIMUM GREEN II	-	-	-	-	-	-	-	-
YELLOW CLEARANCE	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
RED CLEARANCE	-	1.5	-	1.0	-	1.5	-	1.0
PED. WALK	-	7	-	7	-	7	-	7
FDW	-	27	-	26	-	25	-	11
MIN. RECALL	-	MIN	-	-	-	MIN	-	-
DETECTOR FUNCTION	NL	LOCK	NL	NL	NL	LOCK	NL	NL

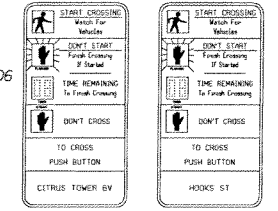
DETECTORS FOR LOOPS

LOOP	NO. OF LOOPS	NO. OF NEW DETS.	CHANNEL NO.	DELAY TIME (SEC)
L-1	1	1	1	5
L-5	1	1	2	5
L-4R	1	1	1	5
L-7	1	1	2	5
L-3	1	1	1	5
L-8R	1	1	2	5
L-4	1	1	1	-
L-8	1	1	2	-
L-2A	1	1	1	-
L-2B	1	1	2	-
L-6A	1	1	1	-
L-6B	1	1	2	-

FLASH DO NOT WALK CALCULATED BASED ON 4 FEET PER SECOND WALKING SPEED. LOOPS L-4, 4R, 5, 7, 8 SHALL BE DEACTIVATED UNTIL FUTURE BUILT OUT.

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

PEDESTRIAN SIGN DETAILS



- NOTES:
- THE MAJOR STREET IS S. HANCOCK ROAD AND THE MINOR STREET IS HOOKS STREET.
  - SPEED LIMIT ON S. HANCOCK ROAD IS 45 MPH.
  - DURING TRAFFIC SIGNAL FLASHING OPERATION, MOVEMENTS 2 AND 6 SHALL FLASH YELLOW WHILE MOVEMENTS 4 AND 8 SHALL FLASH RED.
  - PAY ITEM 632-7-1 INCLUDES CABLE TO THE SCHOOL ZONE SPEED LIMIT SIGNS.
  - PAY ITEM 665-11 INCLUDES PEDESTRIAN DETECTORS AND SIGNS R10-3e.

8/30/2007 11:32:30 AM

SENTHIL MANIAN

n:\99137.25\061 2007\PLANS\GOI.dgn

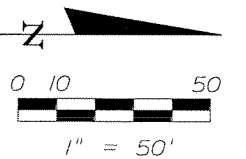
MATCHLINE INTERCONNECT PLAN SEE SHEET T-8

**HNTB**  
HNTB CORPORATION  
300 PRIMERA BLVD,  
SUITE 200  
LAKE MARY, FL 32746  
(407) 805-0355  
CERT. OF AUTH. NO. 6500  
ENGINEER OF RECORD: MARC W. HUSTAD, P.E.  
FL. REGISTRATION NO. 66761

LAKE COUNTY  
TRAFFIC ENGINEERING DEPARTMENT  
ROAD NO. COUNTY PROJECT NO.  
HOOKS ST AT S.HANCOCK RD LAKE 99137.25, 43817.00

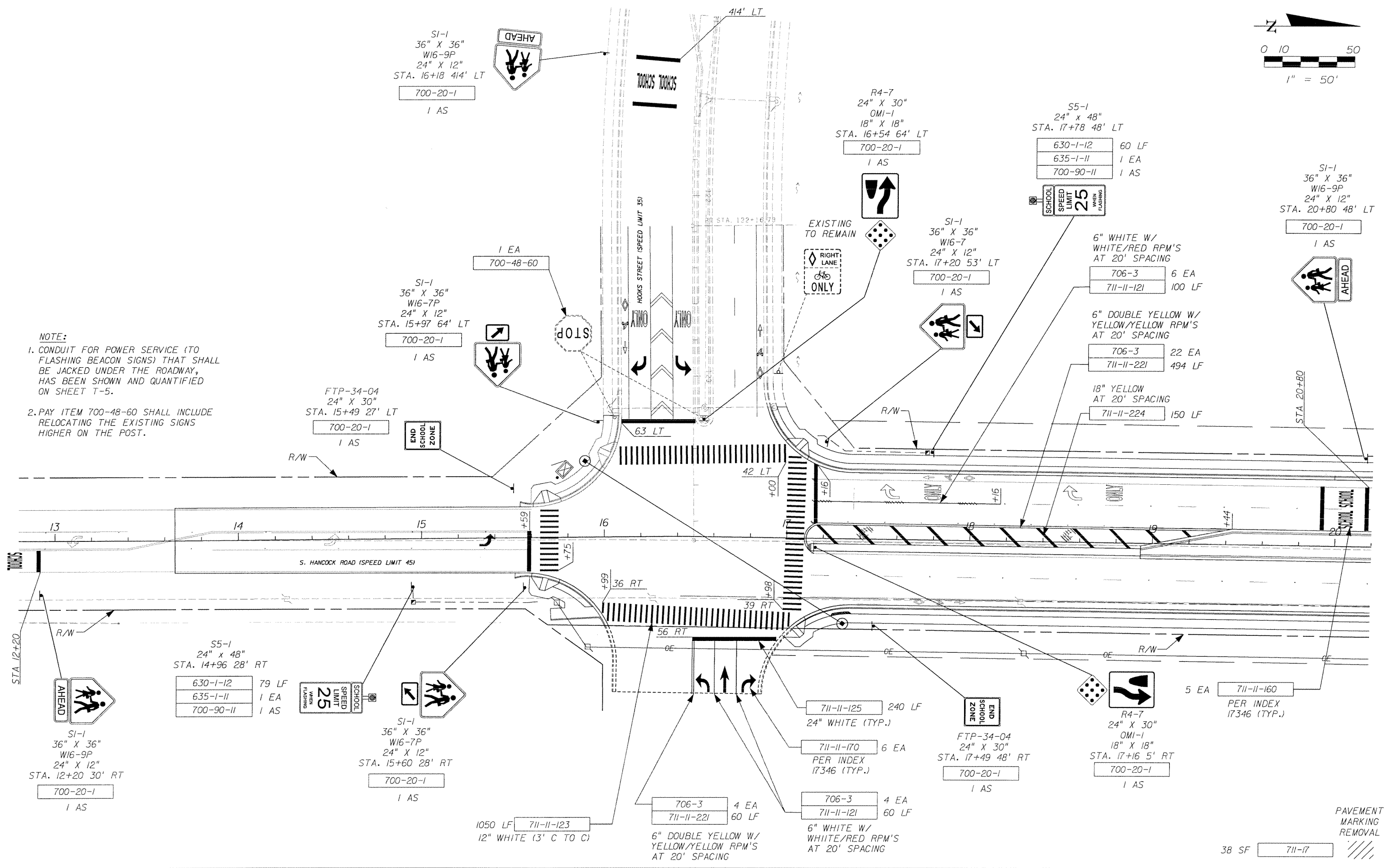
SIGNALIZATION PLAN

SHEET NO.  
T-4



**NOTE:**

1. CONDUIT FOR POWER SERVICE (TO FLASHING BEACON SIGNS) THAT SHALL BE JACKED UNDER THE ROADWAY, HAS BEEN SHOWN AND QUANTIFIED ON SHEET T-5.
2. PAY ITEM 700-48-60 SHALL INCLUDE RELOCATING THE EXISTING SIGNS HIGHER ON THE POST.



8/30/2007 11:33:02 AM  
 SENTHIL MANIAN  
 09/31.25.DGN 2007-PLANS.P01.dgn

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**HNTB**

HNTB CORPORATION  
300 PRIMERA BLVD,  
SUITE 200  
LAKE MARY, FL 32746  
(407) 805-0355  
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: MARC W. HUSTAD, P.E.  
FL. REGISTRATION NO. 66761

LAKE COUNTY  
TRAFFIC ENGINEERING DEPARTMENT

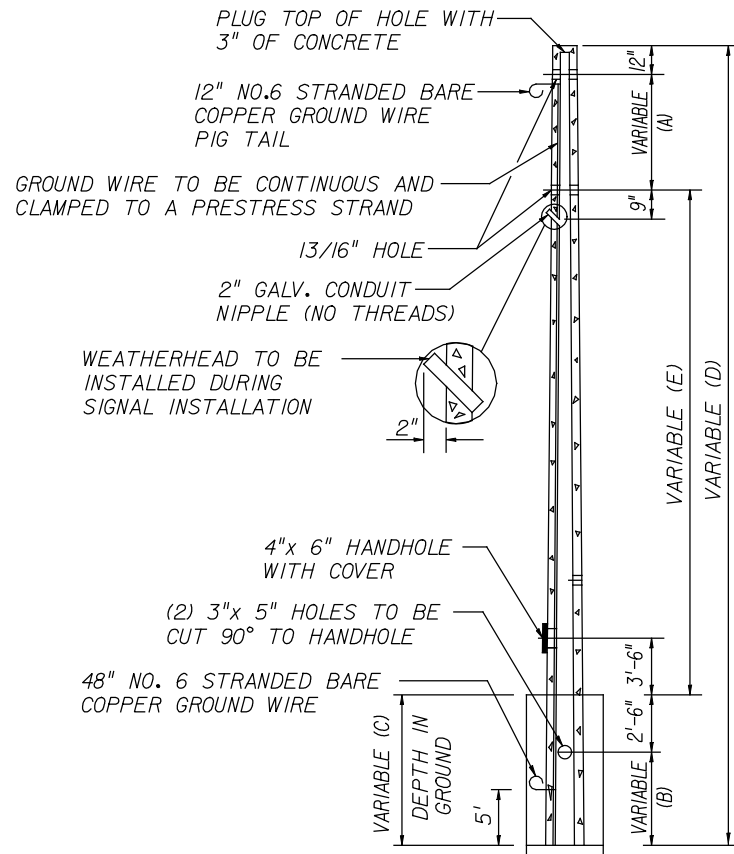
ROAD NO.	COUNTY	PROJECT NO.
HOOKS ST AT S.HANCOCK RD	LAKE	99137.25, 43817.00

SIGNING AND PAVEMENT MARKING PLAN

SHEET NO.

T-5

n:\99137.25\dgn 2007\pofescht.dgn SENTHIL MANIAN 8/30/2007 10:41:56 AM



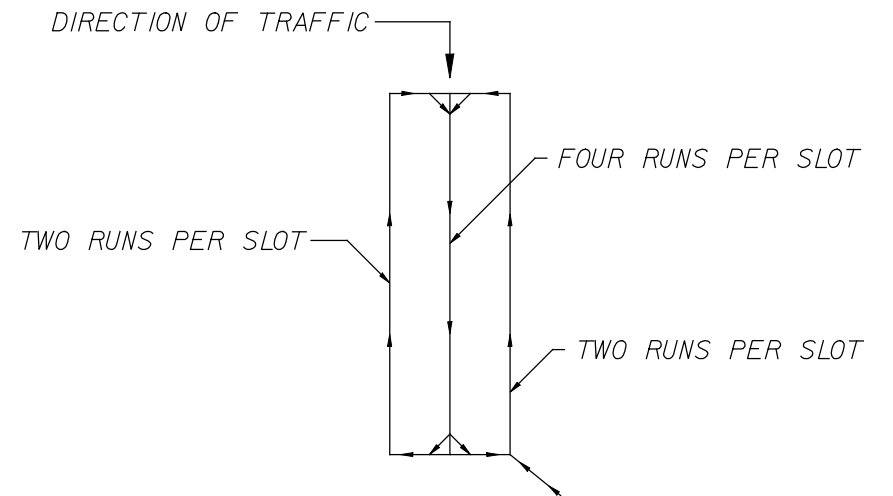
POLE SECTION

POLE SCHEDULE

POLE NO.	TYPE	A	B	C	D	E
A	NVII	12	9.9	12.4	50	24.6
B	NVII	12	9.6	12.1	46	20.9

SPAN WIRE CABLE NOTES

CATENARY WIRE CABLE = 3/8"  
 MESSENGER WIRE CABLE = 7/16"



LOOP WINDING DETAIL  
 (QUADRAPOLE PRESENCE LOOP)

NOTE: LOOP WIRE SHALL BE PLACED IN THE ABOVE MANNER TO AVOID CENTER SLOT CANCELLATION.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**HNTB**  
 HNTB CORPORATION  
 300 PRIMERA BLVD,  
 SUITE 200  
 LAKE MARY, FL 32746  
 (407) 805-0355  
 CERT. OF AUTH. NO. 6500  
 ENGINEER OF RECORD: MARC W. HUSTAD, P.E.  
 FL. REGISTRATION NO. 66761

LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT		
ROAD NO.	COUNTY	PROJECT NO.
HOOKS ST AT S. HANCOCK RD	LAKE	99137.25, 43817.00

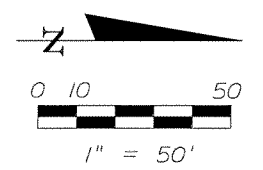
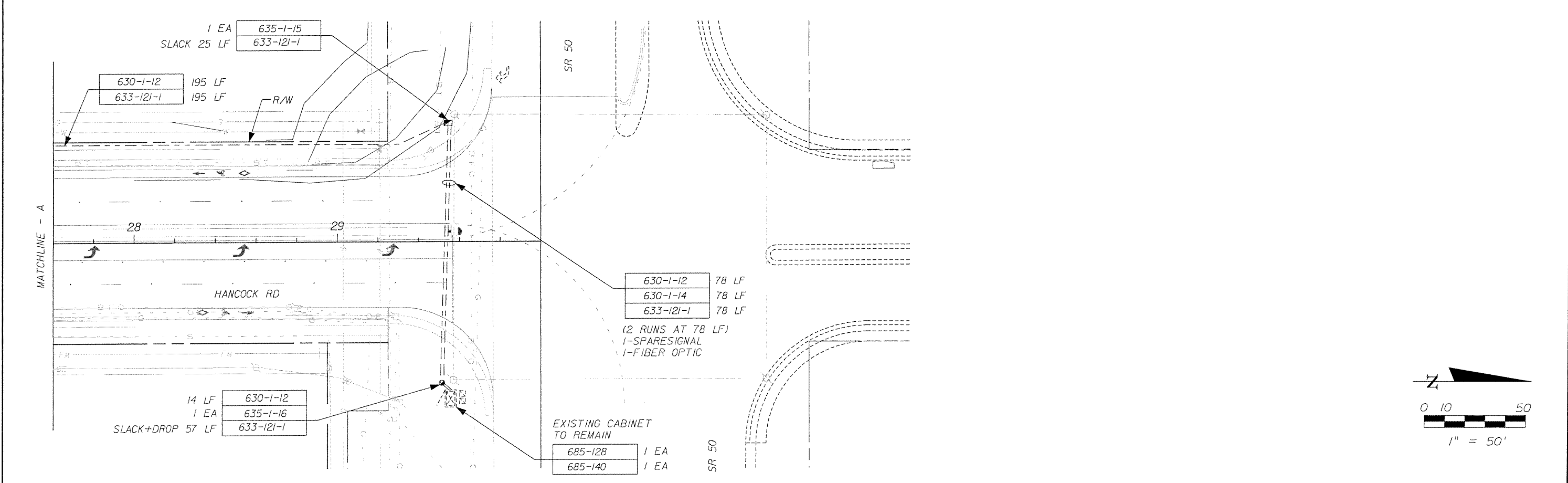
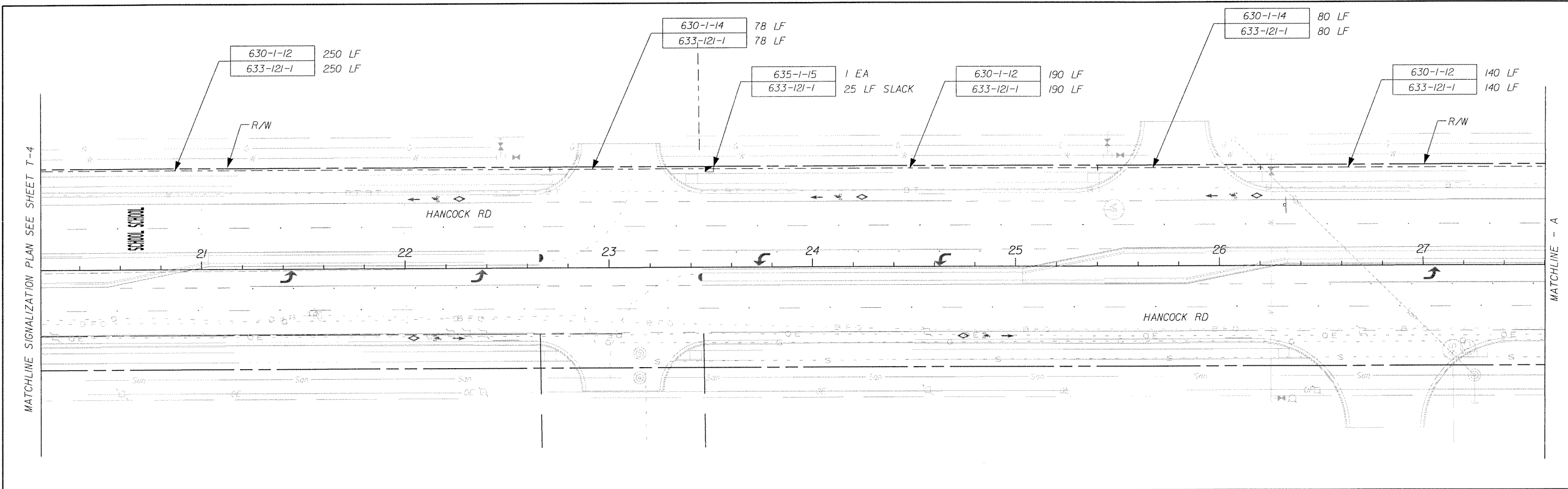
CONCRETE STRAIN POLE  
 SCHEDULE

SHEET NO.

T-6



n:\99137.25\DWG 2007\PLANS\G02.dgn 8/30/2007 11:32:48 AM SENTHIL MANIAN



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

**HNTB**  
 HNTB CORPORATION  
 300 PRIMERA BLVD,  
 SUITE 200  
 LAKE MARY, FL 32746  
 (407) 805-0355  
 CERT. OF AUTH. NO. 6500  
 ENGINEER OF RECORD: MARC W. HUSTAD, P.E.  
 FL. REGISTRATION NO. 66761

LAKE COUNTY TRAFFIC ENGINEERING DEPARTMENT		
ROAD NO.	COUNTY	PROJECT NO.
HOOKS ST AT S.HANCOCK RD	LAKE	99137.25, 43817.00

INTERCONNECT PLAN

SHEET NO.  
**T-8**