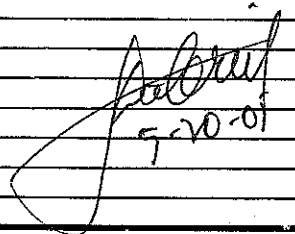


TABULATION OF QUANTITIES

BID ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			T-5		T-6		T-7		T-8		T-9		PLAN	FINAL	PLAN	FINAL					
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL									
630-1-11	CONDUIT (ABOVEGROUND, RIGID, GALVANIZED)	LF	100													100		100			
630-1-12	CONDUIT (UNDERGROUND) (2" PVC)	LF	200													200		200			
630-1-13	CONDUIT (UNDERPAVEMENT) (2" HDPE)	LF	140													140		140			
632-7-1	CABLE (SIGNAL)	PI	1													1		1			
632-7-1	CABLE (SIGNAL PRE-EMPTION)	PI	1													1		1			
634-4-122	SPAN WIRE ASSEMBLY (3 WIRE, DIAGONAL)	PI	1													1		1			
634-5-1	FIBERGLASS INSULATOR (F & I)	LF	20													20		20			
635-1-11	PULL BOX	EA	10													20		10			
635-1-13	MOUNTED JUNCTION BOX	EA	2													4		4			
639-1-23	ELECTRICAL POWER SERVICE (UNDERGROUND)	AS	1													1		1			
639-2-1	ELECTRICAL SERVICE WIRE	LF	600													600		600			
641-16-146	PRESTRESSED CONCRETE POLE (NS-VII-46)	EA	1													1		1			
641-16-148	PRESTRESSED CONCRETE POLE (NS-VII-48)	EA	1													1		1			
650-51-311	TRAFFIC SIGNAL (3 SECTION, 1WAY) (VERTICAL MT)	AS	6													6		6			
665-13	PRE EMPTION PUSH BUTTONS	EA	1													2		2			
670-5-III	TRAFFIC CONTROLLER ASSEMBLY (F & IXNEMAXONE PRE-EMPTION PLAN)	AS	1													1		1			
700-40-1	SINGLE POST SIGN (LESS THAN 12 SF)	AS	4													4		4			
700-46-21	SINGLE POST SIGN (RELOCATE)	AS	1													1		1			
700-48-1B	SIGN PANEL (F & IX) (5 SF OR LESS)	EA	2													2		2			


 5-20-01

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



GMB Engineers & Planners, Inc.
 3751 Maguire Boulevard, Suite #
 Orlando, FL 32803
 Phone: 407-898-5424 Fax: 407-898-5425

Dante A. Gabriel, P.E. # 37271

LAKE COUNTY, FL

SIGNALIZATION
TABULATION OF QUANTITIES

SHEET
NO.
T-2

GENERAL NOTES

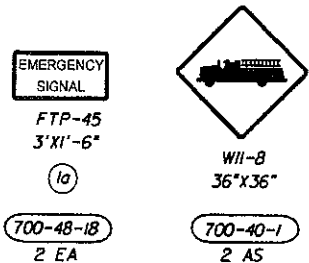
1. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING AND TRENCHING AND/OR WHERE POLE INSTALLATIONS ARE LOCATED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE SPECIFICATIONS. THE CONTRACTOR SHALL HAND DIG THE FIRST 4' AT EACH POLE LOCATION TO VERIFY NO UTILITY CONFLICT.
2. ALL CONDUIT EXCEPT ELECTRICAL POWER SERVICE CONDUIT SHALL BE 2 INCH MINIMUM UNLESS OTHERWISE SPECIFIED IN THE PLANS.
3. PULL BOXES SHALL BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER THEN PULL BOXES SHALL BE PLACED AT LEAST 10 FEET FROM THE EDGE OF PAVEMENT.
4. ALL MATERIALS AND HARDWARE SHALL BE FDOT APPROVED, AND PRE-APPROVED BY LAKE COUNTY TRAFFIC OPERATIONS.
5. THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION.
6. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY DEPARTMENT AND MAINTAINING AGENCY AT LEAST 48 HOURS IN ADVANCE OF POLE SETTING OPERATIONS WHERE A CONFLICT WITH OVERHEAD ELECTRICAL CONDUCTORS IS EXPECTED AND IN ALL CASES WHERE JOINT USE POLES ARE TO BE USED.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE PROPER AMOUNT OF RAKE WITH RESPECT TO LOADING TO BE USED ON POLES AT TIME OF INSTALLATION. THIS INFORMATION IS AVAILABLE FROM THE POLE MANUFACTURER.
8. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AT LEAST 48 HOURS IN ADVANCE OF ANY LANE CLOSURES ON HARTWOOD MARSH ROAD. NO LANE CLOSURES FROM 6:00 AM - 9:00 AM EASTBOUND AND 4:00 PM - 6:00 PM WESTBOUND, MAY BE ADJUSTED BY THE PROJECT ENGINEER IF NECESSARY TO MEET FIELD CONDITIONS. LANE CLOSURES REQUIRED FOR OVERHEAD SIGNAL WORK AND LOOP INSTALLATION SHALL FOLLOW THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (2004).
9. ALL CABLE SHALL BE PULLED IN THE CONDUIT WITH A CABLE GRIP DESIGNED TO PROVIDE A FIRM HOLD ON THE EXTERIOR COVERING OF THE CABLE. A WINCH WITH A SLIP CLUTCH SHALL BE USED TO INSURE THAT THE ALLOWABLE TENSION LIMIT IS NOT EXCEEDED. AN APPROVED LUBRICANT SHALL BE USED TO FACILITATE THE PULLING OF THE CABLE.
10. AS DIRECTED BY THE PROJECT ENGINEER, THE CONTRACTOR SHALL ADJUST CONDUIT VERTICALLY TO AVOID ANY POSSIBLE CONFLICTS WITH UNDERGROUND UTILITIES.
11. ALL PULL BOX COVERS SHALL BE FDOT APPROVED OF NON METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE.
12. THE LOCATION OF THE UTILITIES SHOWN IN THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATION SHALL BE DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE EXACT LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO DIGGING.
13. SIGNAL CABLE AND SPAN WIRE INSTALLATION SHALL BE A TWO POINT ATTACHMENT.
14. FOR MULTIPLE RUNS OF UNDER PAVEMENT CONDUIT, ONLY ONE RUN WILL BE PAID FOR AS UNDER PAVEMENT AND ADDITIONAL RUNS WILL BE PAID FOR AS UNDERGROUND.
15. TRAFFIC SIGNAL MAINTAINING AGENCY IS LAKE COUNTY TRAFFIC OPERATIONS DEPARTMENT LOCATED AT:
28127 CR 561
TAVARES, FL 32778
PHONE (352) 742-1766
16. SIGNAL HEADS SHALL BE WIRED DIRECTLY TO THE TERMINAL BLOCKS. JONES PLUGS ARE PROHIBITED.
17. THE CONTRACTOR SHALL VERIFY SIGNAL CABLE COLOR CODES WITH LAKE COUNTY BEFORE ORDERING.
18. THE TRAFFIC SIGNAL SHALL FLASH NO LESS THAN 7 DAYS AND NO MORE THAN 14 DAYS PRIOR TO THE TURN-ON INSPECTION. THE CONTRACTOR SHALL CONTACT THE PERMIT ENGINEER 48 HOURS PRIOR TO TURNING THE SIGNAL ON FLASH.
19. VEHICLE SIGNAL HEAD ASSEMBLIES SHALL BE BLACK, CAST ALUMINUM, WITH TUNNEL VISORS, AND LED'S FOR ALL INDICATIONS, UNLESS OTHERWISE NOTED.
20. A MANUAL PUSH BUTTON CORD SHALL BE FURNISHED IN ALL CONTROLLER CABINETS.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING THE ELECTRIC PERMIT AND TO COORDINATE APPLICATION FOR POWER, WITH LAKE COUNTY TRAFFIC OPERATIONS AT (352) 742-1766.
22. THE CONTRACTOR SHALL NOTIFY LAKE COUNTY TRAFFIC OPERATIONS (352) 742-1766 AT LEAST 24 HOURS IN ADVANCE IF INSTALLING SIGNAL POLES, GROUND RODS, UNDERGROUND CONDUIT, AND SEALING SIGNAL HEAD ASSEMBLIES SO THAT THESE OPERATIONS CAN BE OBSERVED.
23. THE CONTRACTOR SHALL FURNISH LAKE COUNTY TRAFFIC OPERATIONS WITH EMERGENCY CONTACTS AND PHONE NUMBERS, AND HAVE AN IMSA LEVEL 2 SIGNAL TECHNICIAN ON CALL WITHIN A TWO-HOUR MINIMUM RESPONSE TIME.
24. 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.

g. Gabriel
5-10-05

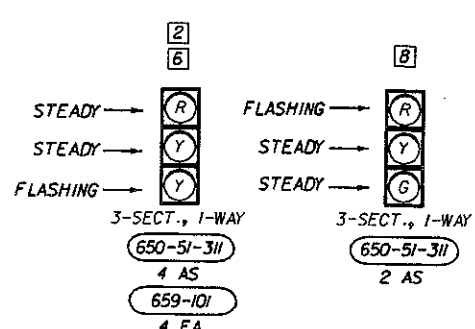
REVISIONS						 GMB Engineers & Planners, Inc. 3751 Maguire Boulevard, Suite # Orlando, FL 32803 Phone: 407-898-5424 Fax: 407-898-5425	LAKE COUNTY, FL	GENERAL NOTES	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				T-3

Dante A. Gabriel, P.E. # 37271

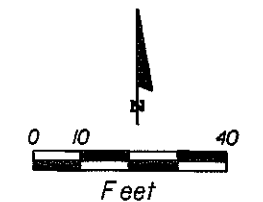
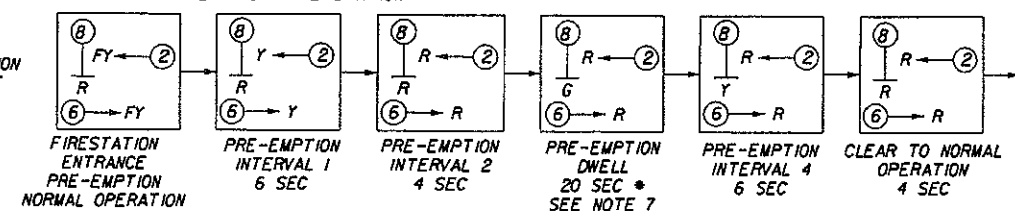
SIGNS



SIGNAL DISPLAY DETAILS



PRE-EMPTION PLAN FOR FIRE STATION

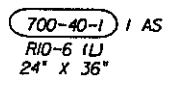
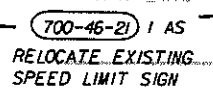
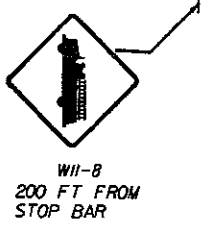
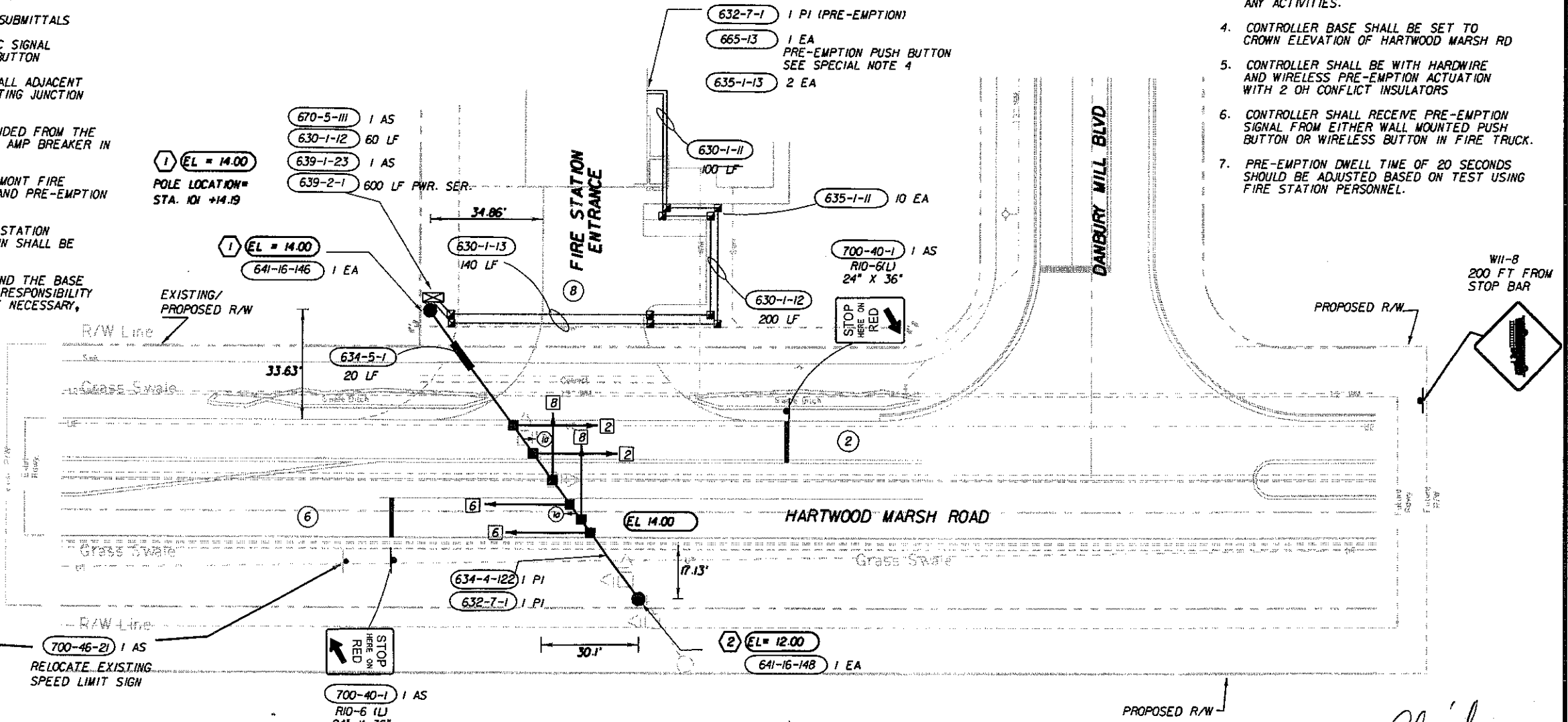


SPECIAL NOTES:

- CONTRACTOR SHALL COORDINATE CONDUIT AND PULL BOX RUNS TO FIRE STATION NO. 2 WITH THE CITY OF CLERMONT FIRE DEPARTMENT.
- CONTRACTOR TO INSTALL COMPLETE PUSH BUTTON ASSEMBLY FOR FIRE STATION ACTUATION OF EMERGENCY TRAFFIC SIGNAL UNDER (670-5-III) THIS WILL INCLUDE ALL WIRING, CABLING AND CONTROLS TO ACTUATE THE TRAFFIC SIGNAL. A SINGLE CONTACT CLOSURES (PUSH BUTTONS) IS REQUIRED FOR PRE-EMPTION.
- ALL MATERIAL TO FURNISH A COMPLETE SYSTEM ARE TO BE PROVIDED BY THE CONTRACTOR. COORDINATION WITH THE CITY OF CLERMONT FIRE DEPT. SHALL BE THROUGH _____ CONTRACTOR SHALL PROVIDE THE ENGINEER WITH LIST OF REQUIRED EQUIPMENT AND SHOP DRAWING SUBMITTALS
- (665-13) TO BE USED AS PUSH BUTTONS FOR TRAFFIC SIGNAL PRE-EMPTION. SIGNS SHALL INDICATE TRAFFIC SIGNAL BUTTON
- CONTRACTOR SHALL INSTALL PRE-EMPTION BUTTON ON WALL ADJACENT TO FIRE STATION GARAGE DOOR SWITCH USING THE EXISTING JUNCTION BOX.
- ELECTRICAL POWER TO THE CONTROLLER SHALL BE PROVIDED FROM THE ELECTRICAL CLOSET IN THE FIRE STATION. INSTALL A 10 AMP BREAKER IN THE EXISTING PANEL.
- CONTRACTOR SHALL COORDINATE WITH THE CITY OF CLERMONT FIRE DEPARTMENT FOR IDENTIFYING POWER SOURCE LOCATION AND PRE-EMPTION BUTTON INSTALLATION LOCATION.
- ONE CONDUIT RUN FROM THE CONTROLLER TO THE FIRE STATION SHALL BE USED FOR POWER AND THE OTHER CONDUIT RUN SHALL BE USED FOR INSTALLING THE PRE-EMPTION CABLE.
- ELEVATIONS ARE ESTIMATED BASED ON GPS READINGS, AND THE BASE ELEVATION OF 10' IS ASSUMED. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE ELEVATIONS AND ADJUST DIMENSION C, IF NECESSARY, ON THE POLE SCHEDULE SHOWN ON SHEET T-5.

GENERAL NOTES:

- MAINTAINING AGENCY IS CITY OF CLERMONT CONTACT _____, TRAFFIC ENGINEER
- MAJOR STREET IS HARTWOOD MARSH RD, MINOR STREET IS FIRE STATION ENTRANCE
- CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UTILITIES WITHIN CONSTRUCTION AREA PRIOR TO COMMENCING ANY ACTIVITIES.
- CONTROLLER BASE SHALL BE SET TO CROWN ELEVATION OF HARTWOOD MARSH RD
- CONTROLLER SHALL BE WITH HARDWIRE AND WIRELESS PRE-EMPTION ACTUATION WITH 2 OH CONFLICT INSULATORS
- CONTROLLER SHALL RECEIVE PRE-EMPTION SIGNAL FROM EITHER WALL MOUNTED PUSH BUTTON OR WIRELESS BUTTON IN FIRE TRUCK.
- PRE-EMPTION DWELL TIME OF 20 SECONDS SHOULD BE ADJUSTED BASED ON TEST USING FIRE STATION PERSONNEL.



Handwritten signature and date: Gabriel 5/20/07

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

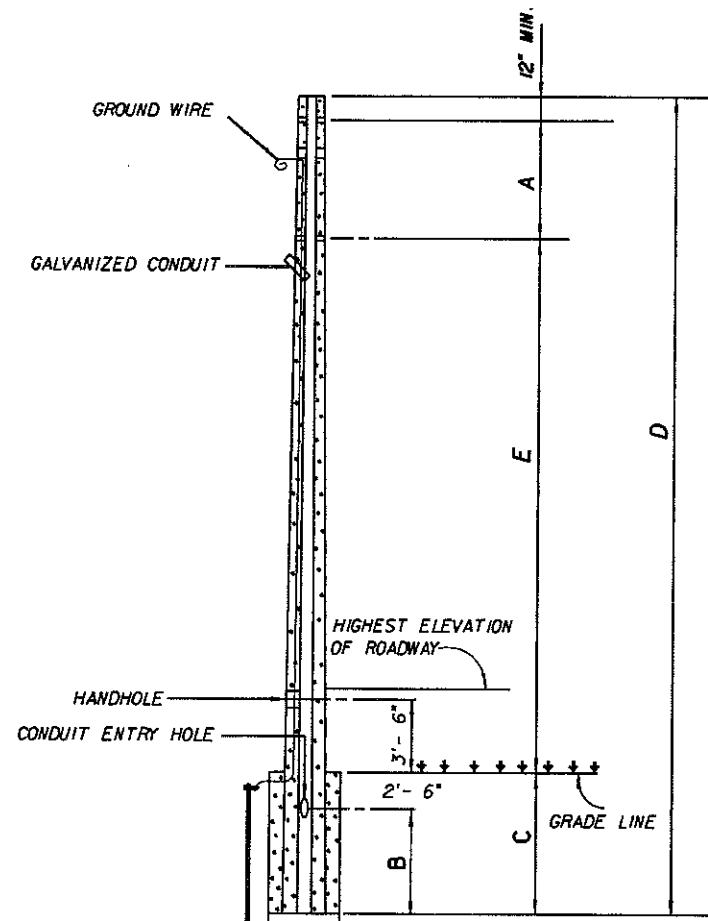
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Dante A. Gabriel, P.E. # 37271

LAKE COUNTY, FL

SIGNALIZATION PLAN
HARTWOOD MARSH RD & CLERMONT
FIRE STATION NO. 2 ENTRANCE

SHEET NO.
T-4



DETAIL OF PRESTRESSED CONCRETE
STRAIN POLES TYPE V, VI, & VII

POLE SCHEDULE

STATION	OFFSET	POLE NO.	TYPE	A	B	C	D	E	ITEM NO.	QUANTITY
101+14.19	45.58 LT	1	NS-VII	7.6	12.15	14.65	46'-0"	22'-9"	641-16-146	1
101+79.21	42.60 RT	2	NS-VII	7.6	12.15	14.65	48'-0"	24'-9"	641-16-148	1

Gabriel
5-20-05

REVISIONS						 GMB Engineers & Planners, Inc. 3751 Maguire Boulevard, Suite # Orlando, FL 32803 Phone: 407-898-5424 Fax: 407-898-5425	LAKE COUNTY, FL	CONCRETE POLE TABULATION AND DETAILS	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION				T-5