CITY OF TAMPA
TRANSPORTATION DIVISION

CONTRACT PLANS

CITY OF TAMPA PROJECT NO. 0000005
CONTRACT NO. 12-D-00057
FINANCIAL PROJECT ID 437044-1-58-01
ARMENIA AVENUE AT BUSCH BOULEVARD

INDEX OF SIGNALIZATION PLANS

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T-5 TO T-6	SIGNALIZATION PLANS
T-7	CONCRETE STRAIN POLE SCHEDULE
T-8	SOIL BORINGS FOR SIGNAL POLES

SIGNAL SHOP DRAWINGS
TO BE SUBMITTED TO:

PHUC H. DUONG, P.E.
GANNETT FLEMING, INC.
9119 CORPORATE LAKE DR., SUITE 150
TAMPA, FL 33634

SIGNALIZATION PLANS PREPARED BY:

Gannett Fleming
9119 CORPORATE LAKE DR, SUITE 150
TAMPA, FL 33634
TEL: (813) 882-4366
Certificate of Authorization: No. 5564

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

KEY SHEET REVISIONS	
DATE	DESCRIPTION

SIGNALIZATION PLANS
ENGINEER OF RECORD: PHUC H. DUONG

P.E. NO.: 63835

FISCAL YEAR	SHEET NO.
21	T-1

CITY OF TAMPA PROJECT MANAGER: NINA MABILLEAU, E.I.

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PHUC H. DUONG
LICENSE
No 63835
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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Phuc H Duong
2020.08.03 18:02:28 -04'00'
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GANNETT FLEMING, INC.
9119 CORPORATE LAKES DR., SUITE 150
TAMPA, FL 33634
CERTIFICATE OF AUTHORIZATION 5564
PHUC H. DUONG, P.E., NO. 63835

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-1	KEY SHEET
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T-3	TABULATION OF QUANTITIES
T-4	GENERAL NOTES
T-5	SIGNALIZATION PLAN
T-6	SIGNALIZATION PLAN

VICKEN SERPEKIAN
LICENSE
No 82646
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY
Vicken Serpekian
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ELEMENT ENGINEERING GROUP
1713 E. 9TH AVENUE
TAMPA, FL 33605
CERTIFICATE OF AUTHORIZATION 26921
VICKEN SERPEKIAN, P.E., NO. 82646

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STRUCTURES PLANS

SHEET NO.	SHEET DESCRIPTION
T-2	SIGNATURE SHEET
T-7	CONCRETE STRAIN POLE SCHEDULE

BULENT HATIPOGLU
LICENSE
No 89157
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY
Bulent Hatipoglu
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MC SQUARED, INC.
5808-A BRECKENRIDGE PARKWAY
TAMPA, FLORIDA 33610
CERTIFICATE OF AUTHORIZATION 9191
BULENT HATIPOGLU, P.E., NO. 89157

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GEOTECHNICAL PLANS

SHEET NO.	SHEET DESCRIPTION
T-2	SIGNATURE SHEET
T-8	SOIL BORINGS FOR SIGNAL POLES

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			T-5																	
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
630-2-11	CONDUIT / F&I (OPEN TRENCH-UNDERGROUND) - 1-2" CONDUITS	LF	81														81		81	
630-2-11	CONDUIT / F&I (OPEN TRENCH-UNDERGROUND) - 2-2" CONDUITS	LF	255														255		255	
630-2-12	CONDUIT / F&I (DIRECTIONAL BORE) 4-2" CONDUITS	LF	215														215		215	
630-2-12	CONDUIT / F&I (DIRECTIONAL BORE) 5-2" CONDUITS	LF	120														120		120	
630-2-14	CONDUIT / F&I (ABOVE GROUND) 1-2" RISER (10' SECTION)	LF	20														20		20	
632-7-1	SINGLE CABLE / F&I	PI	1														1		1	
632-7-6	SIGNAL CABLE REMOVAL	PI	1														1		1	
633-8-1	MULTI-CONDUCTOR COMMUNICATIONS CABLE	LF	199														199		199	
634-4-153	SPAN WIRE ASSEMBLY / F&I (TWO POINT) (BOX SPAN)	PI	1														1		1	
634-5-1	FIBERGLASS INSULATOR	LF	48														48		48	
635-2-11	PULL & SPLICE BOX / F&I (13X24)	EA	12														12		12	
635-2-12	PULL & SPLICE BOX / F&I (24X36)	EA	2														2		2	
639-1-122	ELECTRICAL POWER SERVICE (UNDERGROUND- PURCHASED BY CONTRACTOR) / F&I	AS	1														1		1	
639-2-1	ELECTRICAL SERVICE WIRE / F&I	LF	35														35		35	
639-3-11	ELECTRICAL SERVICE DISCONNECT / F&I (POLE)	EA	1														1		1	
641-2-11	PRESTRESSED CONCRETE POLE / F&I (TYPE P-II PEDESTAL)	EA	1														1		1	
641-2-16	PRESTRESSED CONCRETE POLE / F&I (TYPE P-VI)	EA	4														4		4	
641-2-70	PRESTRESSED CONCRETE POLE REMOVAL -(SHALLOW)	EA	2														2		2	
646-1-11	ALUMINUM SIGNAL POLE / F&I (PEDESTAL)	EA	8														8		8	
646-1-60	ALUMINUM SIGNAL PEDESTAL REMOVAL	EA	8														8		8	
650-1-14	VEHICULAR TRAFFIC SIGNAL / F&I-ALUMINUM (3 SECTION, 1 WAY)	AS	8														8		8	
650-1-14	VEHICULAR TRAFFIC SIGNAL / F&I-ALUMINUM (3 SECTION, 1 WAY, ARROW)	AS	2														2		2	
650-1-16	VEHICULAR TRAFFIC SIGNAL / F&I-ALUMINUM (4 SECTION, 1 WAY, ARROW)	AS	2														2		2	
653-1-11	PEDESTRIAN SIGNAL / F&I LED COUNTDOWN (1 WAY)	AS	8														8		8	
660-3-11	VEHICLE DETECTION SYSTEM - MICROWAVE (CABINET EQUIPMENT) /F&I	EA	4														4		4	
660-3-12	VEHICLE DETECTION SYSTEM - MICROWAVE (ABOVE GROUND EQUIPMENT) /F&I	EA	4														4		4	
665-1-12	PEDESTRIAN DETECTOR / F&I (ACCESSIBLE)	EA	8														8		8	
670-5-112	TRAFFIC CONTROLLER ASSEMBLY / F&I (NEMA) (2 PREEMPTION PLAN)	AS	1														1		1	
670-5-600	TRAFFIC CONTROLLER ASSEMBLY REMOVAL	AS	1														1		1	
685-1-13	UPS -(LINE INTERACTIVE INCLUDE SEPARATE CABINET)/ F&I	EA	1														1		1	
700-5-50	INTERNALLY ILLUM. SIGN (RELOCATE)	EA	4														4		4	
700-11-391	ELECTRONIC DISPLAY SIGN / F&I (OVERHEAD) (BLANK-OUT) (UP TO 12 SQFT)	AS	1														1		1	

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Gannett Fleming
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TEL: 813-882-4366
Certificate of Authorization: No. 5564
Phuc H Duong, P.E. No. 63835

CITY OF TAMPA
TRANSPORTATION DIVISION

CONTRACT NO: 12-D-00057

ARMENIA AVENUE INTERSECTION PROJECT
AT SR 580/BUSCH BLVD.

TABULATION OF QUANTITIES

SHEET NO.
T-3

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

SIGNALIZATION

1. TRAFFIC SIGNAL OPERATIONS:
THE MAJOR STREET IS BUSCH BOULEVARD MOVEMENTS 2 AND 6.
THE MINOR STREET IS ARMENIA AVENUE MOVEMENTS 4 AND 8.

CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENT 2 (P2) AND 6 (P6).

FLASHING OPERATION IS RED ALONG BUSCH BOULEVARD
AND RED ALONG ARMENIA AVENUE.

2. SIGNAL TIMINGS SHALL BE FURNISHED BY THE CITY OF TAMPA.

3. ALL TRAFFIC SIGNAL HEADS MUST BE FDOT CERTIFIED, CAST ALUMINUM RED SECTION WITH POLYCARBONATE AMBER AND GREEN SECTIONS, WITH STAINLESS STEEL HARDWARE, GLASS LENSES, BACK PLATES AND TUNNEL VISORS. ALL SIGNAL INDICATIONS SHALL BE AN L.E.D. INDICATION. ALL LED SIGNAL HEADS SHALL MEET CITY SPECIFICATIONS.

4. CONTRACTOR TO CONTACT CITY OF TAMPA TRAFFIC SIGNAL SUPERINTENDENT FOR CABLE SPECIFICATIONS BEFORE ORDERING CABLE FOR THE PROJECT. 813-951-2915.

5. ALL PEDESTRIAN SIGNAL HEADS MUST BE FDOT CERTIFIED COUNT DOWN HEADS, WITH CAST ALUMINUM HOUSING, USING LED INTERNATIONAL SYMBOLS, MEETING CITY OF TAMPA SPECIFICATIONS AND ALL PUSH BUTTONS SHALL BE WIRED SEPARATELY USING LOW VOLTAGE BELDON WIRE PLACED IN SEPARATE LOW VOLTAGE CONDUIT OR LOW VOLTAGE PULL BOX. LATCHING PUSH BUTTON [CITY PROJECTS ONLY: INCIDENTAL EQUIPMENT FOR THIS UNIT AND COST WILL BE INCLUDED UNDER THIS PAY ITEM NUMBER] MUST INCLUDE VISUAL INDICATION OF ACTUATION AND SHALL REMAIN ILLUMINATED UNTIL THE PEDESTRIAN WALK INDICATION IS DISPLAYED. PUSH BUTTON SHALL HAVE A TACTILE ARROW. MUST HAVE AN EXACT COUNT OF LEFT, RIGHT OR UPWARD TACTILE ARROW BUTTONS AND ALL MUST BE ALIGNED WITH AND POINTING AT THE DESIGNATED PEDESTRIAN RAMP. BUTTON MUST BE MOUNTED SO SPEAKER IS FACING DOWN. INCIDENTAL EQUIPMENT AND COST FOR THIS UNIT SHALL BE INCLUDED IN PAY ITEM 665-1-12.

6. VERTICAL CLEARANCE ON TRAFFIC SIGNAL HEADS SHALL MEET FDOT STANDARDS, 17'-6" TO 19'-0".

7. CONTRACTOR SHALL CONTACT THE CITY TO REQUEST A GENERAL CONTRACTORS PACKAGE FOR SPECIFICS ON WIRING AND OTHER GENERAL INFORMATION.

8. THE CONTRACTOR SHALL NOTIFY THE CITY OF TAMPA TRAFFIC SIGNAL SUPERINTENDENT AT LEAST 24 HOURS IN ADVANCE OF ANY SIGNAL RELATED WORK. FAILURE TO PROVIDE THIS NOTICE MAY RESULT IN REJECTION OF ALL UNINSPECTED WORK.

9. THE CONTRACTOR SHALL NOTIFY TAMPA ELECTRIC COMPANY (CONTACT TECO FOR REQUIRED TIME FRAME) IN ADVANCE OF SETTING ANY POLE WHERE CONFLICT WITH AN OVERHEAD ELECTRICAL CONDUCTOR EXISTS AND IN ALL CASES WHERE JOINT USE POLES ARE CALLED FOR ON THE PLANS.

IN AREAS OF LIMITED OVERHEAD CLEARANCE CONTRACTOR IS TO USE A LOW PROFILE DRILL RIG.

10. CONTACT THE CITY OF TAMPA SIGNAL SHOP FOR THE TYPE AND MAKE OF METER RING CAN AND SERVICE DISCONNECT BREAKER BOX TO USE.

11. TRAFFIC SIGNAL CABLE PROVIDING POWER TO VEHICULAR SIGNAL HEADS SHALL NOT BE INSTALLED IN THE SAME CONDUIT CONTAINING DETECTOR CABLES.

12. THE VEHICULAR DETECTION SYSTEM SHALL UTILIZE WAVETRONIX SMART SENSOR MATRIX RADAR PRESENCE DETECTORS (RPD). CONTACT RICHARD ALLEN WITH WAVETRONIX 407-520-0708 FOR GUIDANCE REGARDING OPTIMUM UNIT MOUNTING LOCATIONS THROUGHOUT THE INTERSECTION.

13. DISCONNECT HANGARS OR ASTRO BRACKETS SHALL BE FDOT CERTIFIED AND MEET CITY OF TAMPA SPECIFICATIONS. DISCONNECT WIRING SHALL MEET CITY STANDARDS. CONTACT TRAFFIC SIGNAL SUPERINTENDENT FOR DISCONNECT WIRING STANDARDS AT 813-951-2915.

14. THE CONTRACTOR IS TO DE-WATER FOUNDATION EXCAVATION IF THE ELEVATION OF GROUND WATER IS HIGHER THAN THE ELEVATION OF THE FOUNDATION BASE.

15. ELECTRICAL SERVICE AUTHORIZATION AND SERVICE RELEASE MUST BE COORDINATED IN ADVANCE THROUGH THE TRAFFIC OPERATIONS CHIEF. CONTACT THE TRAFFIC SIGNAL SUPERINTENDENT FOR INSTRUCTIONS AT 813-951-2915. ALL TECO ELECTRICAL SERVICE FEES SHALL BE INCLUDED AS PART OF THE SIGNAL COST. NO ADDITIONAL COMPENSATION WILL BE PROVIDED.

SIGNALIZATION

16. WHEN A CONTRACTOR IS DOING SIGNAL WORK IN AN INTERSECTION WHERE A LANE IS CLOSED, THE PROJECT ENGINEER MAY REQUIRE AN OFF-DUTY LAW ENFORCEMENT OFFICER TO DIRECT TRAFFIC. THE HOURLY RATE OF PAY FOR AN OFF-DUTY LAW ENFORCEMENT OFFICER CAN BE OBTAINED FROM THE OFFICE OF THE LAW ENFORCEMENT OFFICER. THIS IS IN ADDITION TO PROPER MAINTENANCE OF TRAFFIC.

17. THE PROPOSED CONTROLLER SHALL BE COBALT AND SHALL BE COMPATIBLE WITH ECONOLITE CENTRACS CENTRAL CONTROL SOFTWARE .

SIGNAL PLANS SET

1. THE CONTRACTOR SHALL SUBMIT MARKED-UP AS-BUILT PLANS IN ELECTRONIC FORMAT TO THE ENGINEER FOR FINAL ACCEPTANCE.

2. THE HORIZONTAL DATUM IS ON THE NORTH AMERICAN DATUM OF 1983/2011 ADJUSTMENT. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

3. EXISTING DRAINAGE STRUCTURES WITHIN CONSTRUCTION LIMITS SHALL REMAIN UNLESS OTHERWISE NOTED.

4. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.

5. THE CONTRACTOR SHALL COORDINATE WITH TAMPA AIRPORT PIPELINE CORPORATION WHEN WORKING IN THE VICINITY OF THEIR LINE.

CONTROLLER

1. PAY ITEM 670-5-112 SHALL INCLUDE ALL COSTS ASSOCIATED WITH FURNISHING AND INSTALLING A FULLY LOADED TS2 TYPE-1, SIZE P-44 CONTROLLER CABINET ASSEMBLY WITH:

- AN EIGHT PHASE BACKPLANE
- MINIMUM SIXTEEN LOAD BAY POSITIONS
- NO PAINT OUTSIDE, WHITE PAINT INSIDE
- GPS CLOCK SYNC
- TWO QUAD OUTLETS
- ONE DUPLEX GFI
- WALL-MOUNT PATCH PANEL (12X SINGLE MODE WITH SC-CONNECTORS)
- ETHERNET EDGE SWITCH
- CONTROLLER WITH CENTRAL 51SOFTWARE LICENSE COMPATIBLE WITH THE CITY'S CENTRACS TRAFFIC CONTROL SYSTEM AND MMU.

THE CONTRACTOR SHALL NOTIFY THE CITY OF TAMPA SIGNAL SHOP AND FDOT DISTRICT SEVEN TRAFFIC OPERATIONS AT LEAST 48 HOURS IN ADVANCE OF TURNING ON A NEW OR MODIFIED CONTROLLER CABINET ASSEMBLY.

2. THE CONTROLLER DOOR SHALL OPEN AWAY FROM THE STREET.

3. THE TECHNICIAN SLAB SHALL BE A MAXIMUM OF 4" BELOW THE TOP OF THE CONCRETE PAD, THIS MUST INCLUDE ADDITIONAL COST OF LABOR, CONCRETE AND OTHER MATERIALS FOR CONTROLLER BASE, PAD AND STEPS AS ONE UNIT. CONSTRUCT CONCRETE BASE FOR THE TYPE 5 CABINET PER INDEX 17841 WITH THE FOLLOWING EXCEPTIONS:

A. THE REQUIRED BASE DIMENSIONS ARE 30"D X 48"W X 36"H.
B. CONDUITS AND PULL BOXES, IN ADDITION TO THOSE SHOWN IN THE PLANS, ARE NOT REQUIRED.
C. THE DESIGN REQUIRES 1' OF THE BASE BE ABOVE THE FINISHED GRADE AND 2' OF THE BASE BELOW THE FINISHED GRADE.
D. THE TOP OF CONTROLLER BASE FOUNDATION ELEVATION SHALL BE LEVEL WITH THE CROWN OF THE ROAD.

4. THE UPS ASSEMBLY SHALL BE MOUNTED ON SEPARATE GROUND MOUNT TYPE IV CABINET ADJACENT TO THE TRAFFIC CONTROLLER CABINET. CONCRETE BASE IS INCLUDED IN COST OF UPS ASSEMBLY. UPS CONTROLLER SHALL HAVE SNMP CAPABILITY, GEL-CORE BATTERIES, TRANSFER SWITCH AND GENERATOR PLUG.

CONDUIT

1. CONDUIT SHALL BE INSTALLED, BACKFILLED, AND RESTORED IN ACCORDANCE WITH APPLICABLE STANDARDS AND/OR AS INSTRUCTED BY THE GOVERNING/PERMITTING AGENCY. MINIMUM DEPTH OF CONDUIT SHALL BE 36".

2. TS-2 TYPE 1 CONTROLLER BASE SHALL CONTAIN A MIN. OF FOUR CONDUITS AND BE AN OPEN TYPE TO ALLOW FOR ADDING CONDUITS. UNUSED CONDUITS ARE TO BE CAPPED IN THE CABINET AND STUBBED INTO NEAREST SIGNAL PULLBOX.

3. ALL CONDUIT SHALL BE 2" PVC MIN., UNLESS OTHERWISE SPECIFIED.

4. THE TERMINATION ENDS OF ALL POLYVINYL CHLORIDE (PVC) PLASTIC CONDUIT ENTERING ALL PULLBOXES AND CABINET BASES SHALL BE FITTED WITH AN END BELL DUCT FITTING PRIOR TO ANY PULL-LINE OR CABLE INSTALLATION.

5. NEPT INC. MULE TAPE # 1250 P3 MF 11.75 FX 9.5 1250 LB AND A 14 GAUGE XHHW WIRE FOR TRACING OR APPROVED EQUAL SHALL BE INSTALLED IN ALL CONDUITS WHICH ARE TO RECEIVE CABLE AT A FUTURE TIME. AT LEAST THREE FEET OF PULL-LINE SHALL BE ACCESSIBLE AT EACH CONDUIT TERMINATION AND SECURED WITHIN THE PULLBOX OR PLACE OF TERMINATION.

6. DETECTABLE LOCATING TAPE SHALL BE PLACED OVER THE CENTERLINE OF ALL PVC PIPES AT ONE FOOT BELOW GRADE. PAYMENT FOR DETECTABLE TAPE IS INCLUDED IN THE PAY ITEM FOR CONDUIT.

7. IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR TRENCHING.

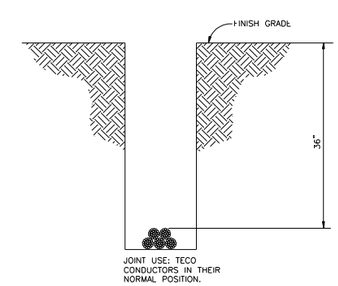
8. ALL CONDUIT WITH PULL-LINE INSTALLED SHALL BE SEALED AND CAPPED TO AVOID DEBRIS AND SOIL FROM ENTERING DURING CONSTRUCTION.

9. CONDUIT TRENCH UNDER PAVEMENT SHALL BE STABILIZED WITH 12" OF TYPE "C" STABILIZATION. PAYMENT SHALL BE INCLUDED IN PAY ITEM "CONDUIT (UNDER PAVEMENT)" AND NO OTHER ADDITIONAL COMPENSATION WILL BE PROVIDED.

10. PULLBOXES SHALL BE "CHRISTY FIBERLITE" AND SHALL BE OF A PRODUCT SERIES EQUIVALENT FOR PULLING COPPER OR FIBER OPTIC CABLE. GROUNDING FOR PULLBOXES SHALL BE INCLUDED IN THIS PAY ITEM.

11. ALL CONDUITS ARE TO HAVE BELL FITTINGS.

12. LENGTHS FOR CONDUITS DO NOT INCLUDE VERTICAL LENGTHS ALONG POLES.



TRENCHING DETAIL FOR CONDUIT
NOT TO SCALE

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REVISIONS			
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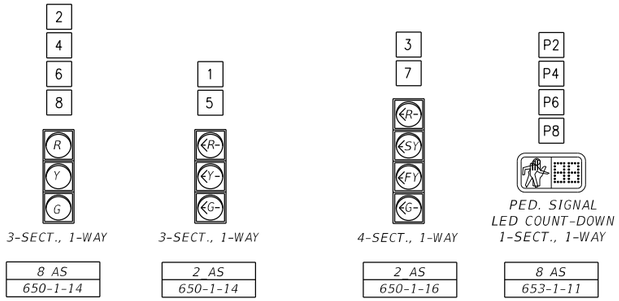
9119 CORPORATE LAKE DR, SUITE 150
TAMPA, FL 33634
TEL: 813-882-4366
Certificate of Authorization: No. 5564
Phuc H Duong, P.E. No. 63835

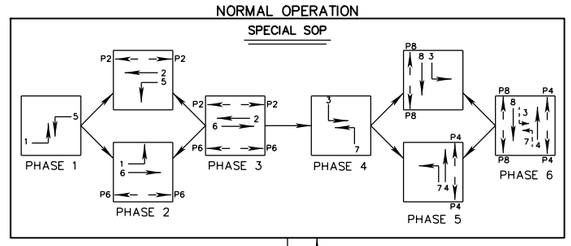
CITY OF TAMPA
TRANSPORTATION DIVISION
CONTRACT NO: 12-D-00057
ARMENIA AVENUE INTERSECTION PROJECT
AT SR 580/BUSCH BLVD.

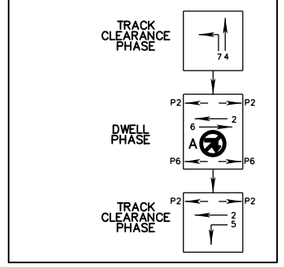
GENERAL NOTES

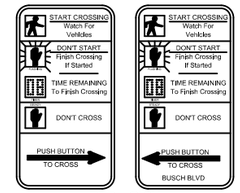
SHEET NO.
T-4



8 AS	2 AS	2 AS	8 AS
650-1-14	650-1-14	650-1-16	653-1-11



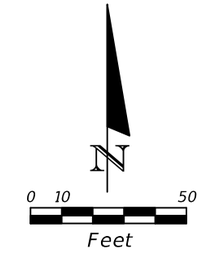




PED. SIGN
(R10-03i)
FOR ALL PED. SIGNALS

ELECTRONIC BLANKOUT SIGN (R03-01)

700-11-391	1 AS



REMOVAL ITEMS	QTY
632-7-6	1 PI
641-2-70	2 EA
646-1-60	8 EA
670-5-600	1 AS

CONTROLLER NOTES:

1. MAJOR STREET IS SR 580 (BUSCH BLVD), PHASE 3 (MOVEMENT 2 AND 6).
2. MINOR STREET IS N ARMENIA AVE, PHASE 6 (MOVEMENTS 4 AND 8).
3. SPECIAL OPERATION PLAN WITH THE FOLLOWING:
   - CONCURRENT PEDESTRIANS FOR MOVEMENTS 2 (P2), AND 6 (P6).
   - ACTUATED PEDESTRIANS FOR MOVEMENTS 4 (P4), AND 8 (P8).
4. REDIRECT EXISTING RAILROAD PRE-EMPTION CABLE FROM EXISTING TO NEW CABINET VIA OVERHEAD RUN.
5. THE CONTRACTOR SHALL INCLUDE THE NECESSARY MOUNTING HARDWARE FOR RELOCATION OF EXISTING SIGNS.

W. Busch BLVD 2100 2500 (B)

RELOCATE EXISTING STREET NAME SIGN

700-5-50	1 EA

W. Busch BLVD 2500 2100 (C)

RELOCATE EXISTING STREET NAME SIGN

700-5-50	1 EA

N. Armenia AVE 8900 9300 (D)

RELOCATE EXISTING STREET NAME SIGN

700-5-50	1 EA

N. Armenia AVE 9300 8900 (E)

RELOCATE EXISTING STREET NAME SIGN

700-5-50	1 EA

DETECTION ZONE

ZONE	NO. OF ZONE	DELAY TIME (SEC)
DZ-1	1	
DZ-3	1	
DZ-4	2	
DZ-5	1	
DZ-7	1	
DZ-8	2	

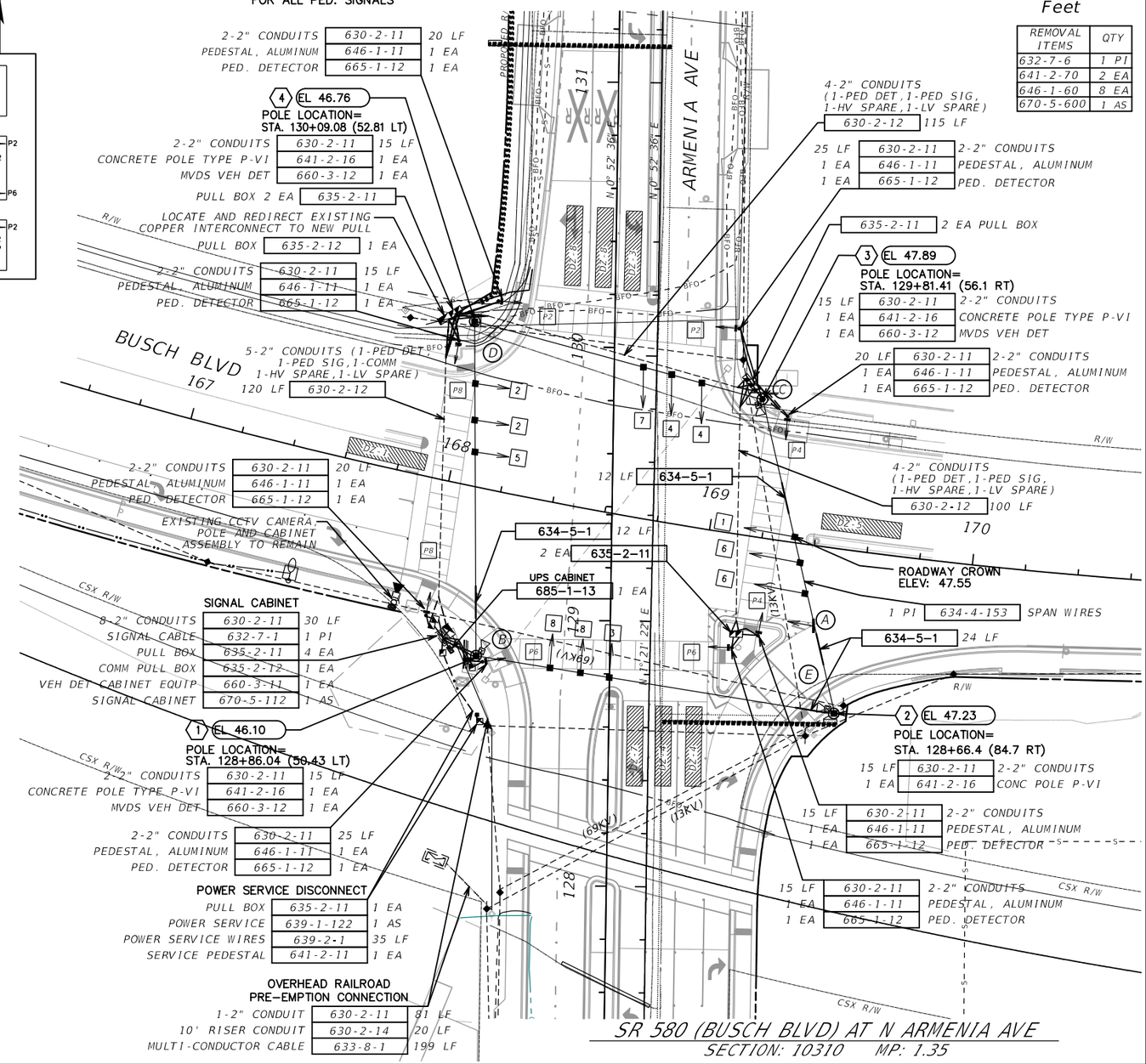
CONTROLLER TIMINGS

TIMING FUNCTION NO.	1	2	3	4	5	6	7	8
MOVEMENT NO.	1	2		4		6		8
MINIMUM GREEN								
EXTENSION								
MAXIMUM GREEN 1								
MAXIMUN GREEN 2								
YELLOW CLEARANCE		4.3		3.2	3.0	4.3		3.2
ALL RED		1.7		2.7	1.7	2		3.2
PED. WALK		7		7		7		7
PED. CLEARANCE		17		30		17		30
RECALL								

TIMING FUNCTION

TIMINGS TO BE PROVIDED BY CITY OF TAMPA

TIMINGS ARE INITIAL. CONTRACTOR TO COORDINATE WITH CITY OF TAMPA FOR ANY TIMING ADJUSTMENT REQUIRED.



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REVISIONS			
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Gannett Fleming
9119 CORPORATE LAKE DR, SUITE 150
TAMPA, FL 33634
TEL: 813-882-4366
Certificate of Authorization: No. 5564
Phuc H Duong, P.E. No. 63835

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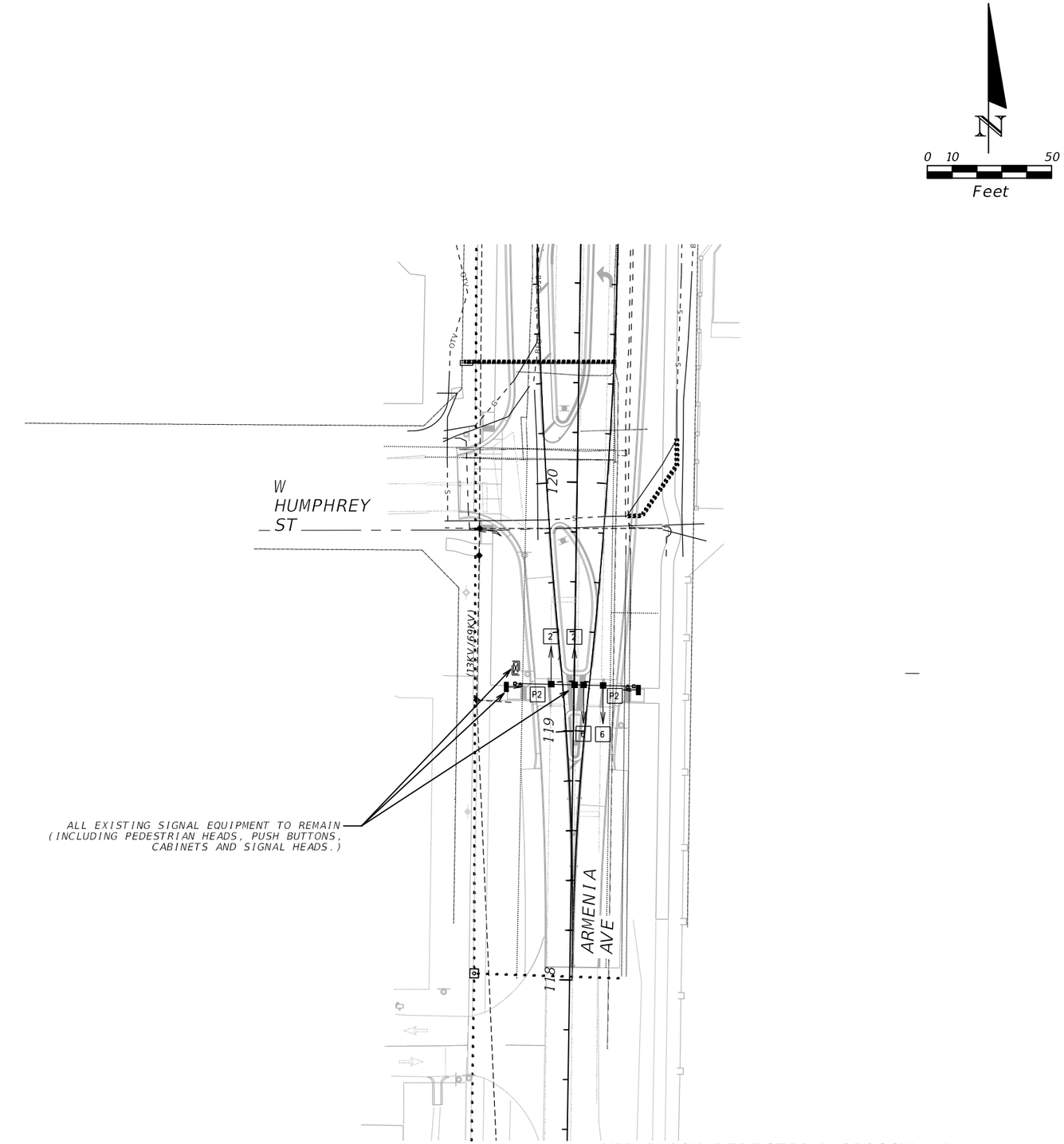
TRANSPORTATION DIVISION

CONTRACT NO: 12-D-00057

ARMENIA AVENUE INTERSECTION PROJECT
AT SR 580/BUSCH BLVD.

SIGNALIZATION PLAN

SHEET NO. T-5



MID-BLOCK PEDESTRIAN CROSSWALK
N ARMENIA AVE SOUTH OF W HUMPHREY ST

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

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Gannett Fleming
9119 CORPORATE LAKE DR, SUITE 150
TAMPA, FL 33634
TEL: 813-882-4366
Certificate of Authorization: No. 5564
Phuc H Duong, P.E. No. 63835

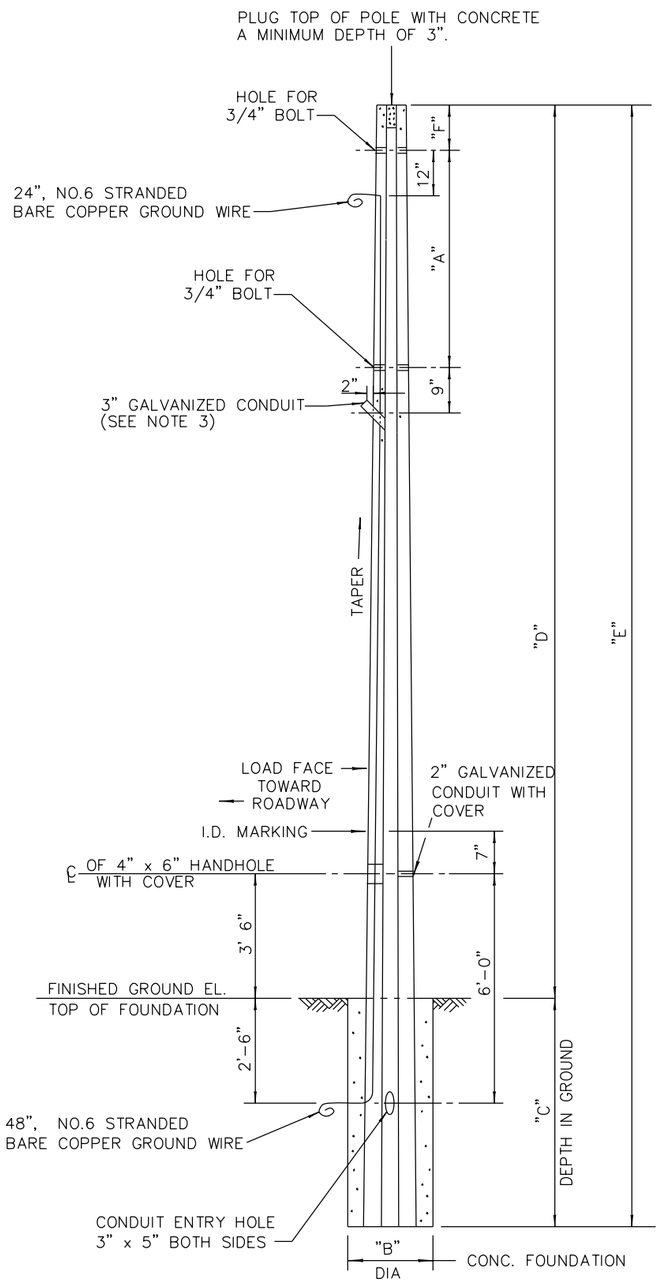
CITY OF TAMPA
TRANSPORTATION DIVISION

CONTRACT NO: 12-D-00057

ARMENIA AVENUE INTERSECTION PROJECT
AT SR 580/BUSCH BLVD.

SIGNALIZATION PLAN

SHEET NO.
T-6



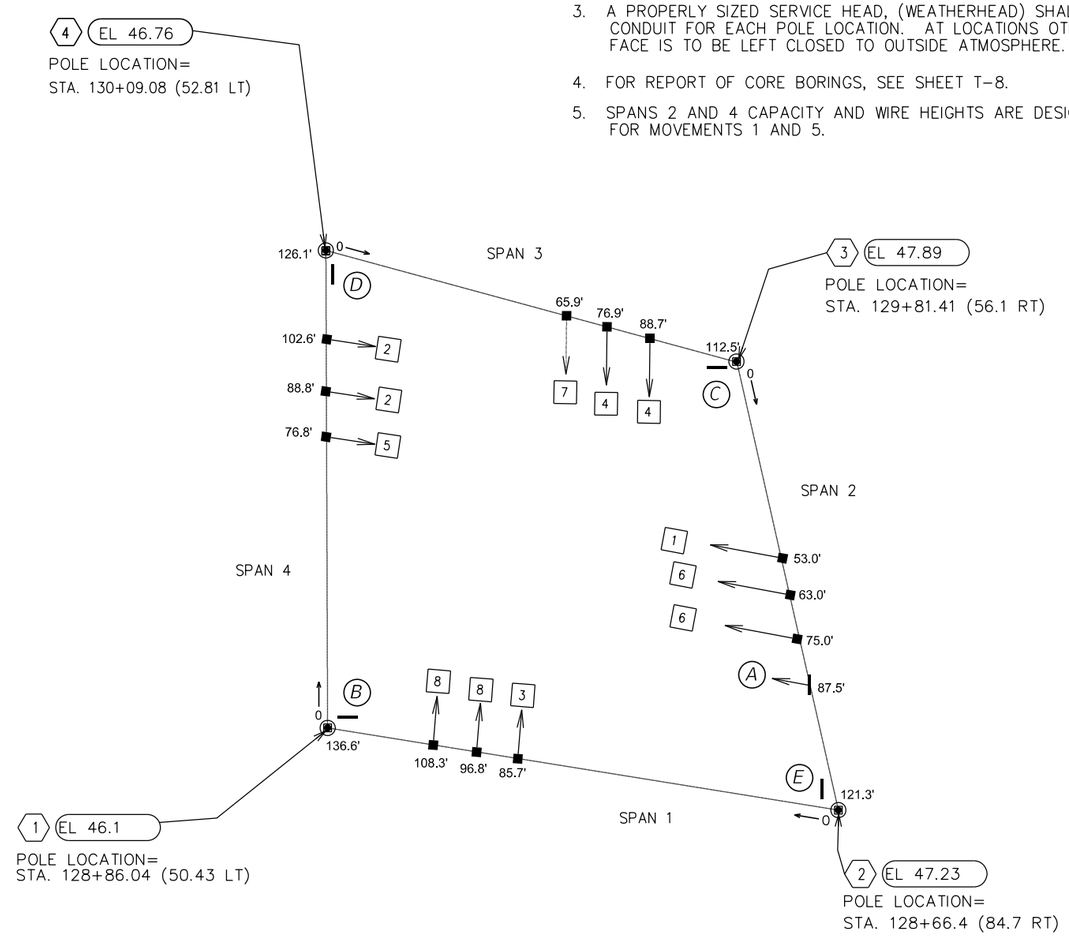
CONCRETE POLE ELEVATION

NTS

POLE SCHEDULE														
													FOUNDATION DESIGN ASUMPTIONS	
SHEET NUMBER	POLE NO.	POLE TYPE	FINISHED GROUND EL. AT POLE	PAVEMENT EL. UNDER CRITICAL HEAD	DIM. A (FT)	DIM. B (FT)	DIM. C (FT)	DIM. D (FT)	DIM. E (FT)	DIM. F (FT)	CATENARY WIRE DIA. (IN.)/GRADE	MESSENGER WIRE DIA. (IN.)/GRADE	EFFECTIVE SOIL UNIT WT.(PCF)	ANGLE OF INTERNAL FRICTION (DEG.)
T-5	1	P-VI	46.10	47.55	7.83	4.00	14.00	35.00	49.00	1.39	0.438"/UTIL.	0.438"/UTIL.	42.6	29
T-5	2	P-VI	47.23		7.83	4.00	15.00	35.00	50.00	2.52	0.438"/UTIL.	0.438"/UTIL.	42.6	29
T-5	3	P-VI	47.89		7.83	4.00	15.00	35.00	50.00	3.18	0.438"/UTIL.	0.438"/UTIL.	42.6	29
T-5	4	P-VI	46.76		7.83	4.00	14.00	35.00	49.00	2.05	0.438"/UTIL.	0.438"/UTIL.	42.6	29

NOTES:

1. FOR ADDITIONAL DETAILS NOT SHOWN ON THIS SHEET, REFER TO DESIGN STANDARD INDEX 641-010.
2. DESIGN WIND SPEED: 140 MPH.
3. A PROPERLY SIZED SERVICE HEAD, (WEATHERHEAD) SHALL BE INSTALLED AND FASTENED SECURELY ONTO CONDUIT FOR EACH POLE LOCATION. AT LOCATIONS OTHER THAN SERVICE ENTRANCE, THE SERVICE HEAD FACE IS TO BE LEFT CLOSED TO OUTSIDE ATMOSPHERE. SERVICE ENTRANCE INSTALLATION PER INDEX 634-001.
4. FOR REPORT OF CORE BORINGS, SEE SHEET T-8.
5. SPANS 2 AND 4 CAPACITY AND WIRE HEIGHTS ARE DESIGNED FOR FUTURE 4-SECTION HEAD CONFIGURATION FOR MOVEMENTS 1 AND 5.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

ELEMENT
ENGINEERING GROUP
1713 E. 9th AVENUE | TAMPA, FL 33605
P 813.386.2101 | TF 888.603.1942 | F 813.386.2106
EOR | VICKEN SERPEKIAN, PE 82646

CITY OF TAMPA
TRANSPORTATION DIVISION

CONTRACT NO: 12-D-00057

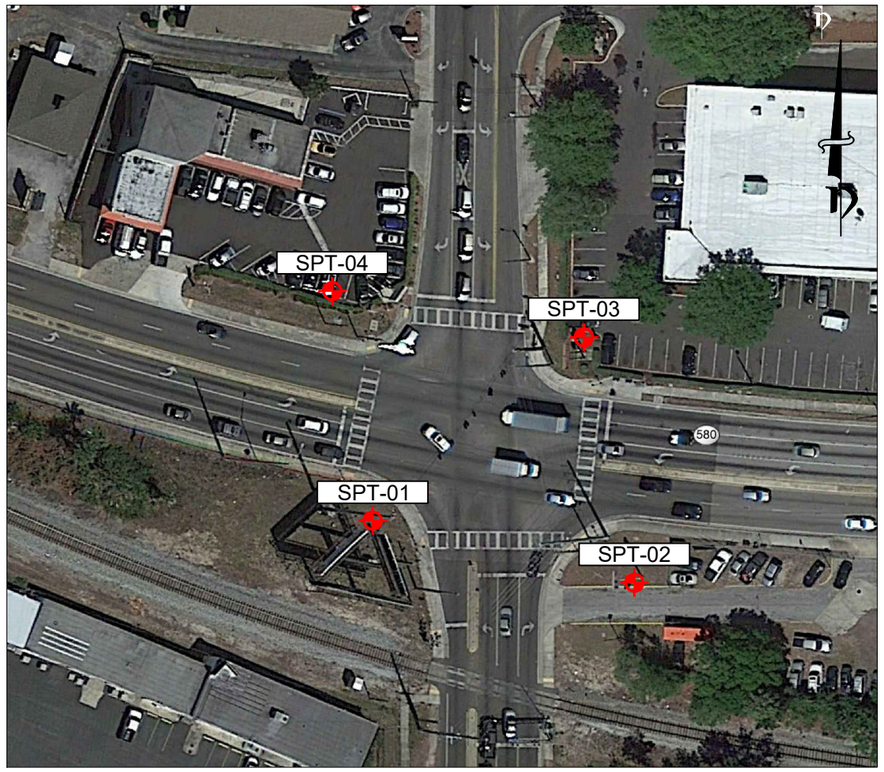
ARMENIA AVENUE INTERSECTION PROJECT
AT SR 580/BUSCH BLVD.

CONCRETE STRAIN POLE SCHEDULE

SHEET NO.
T-7

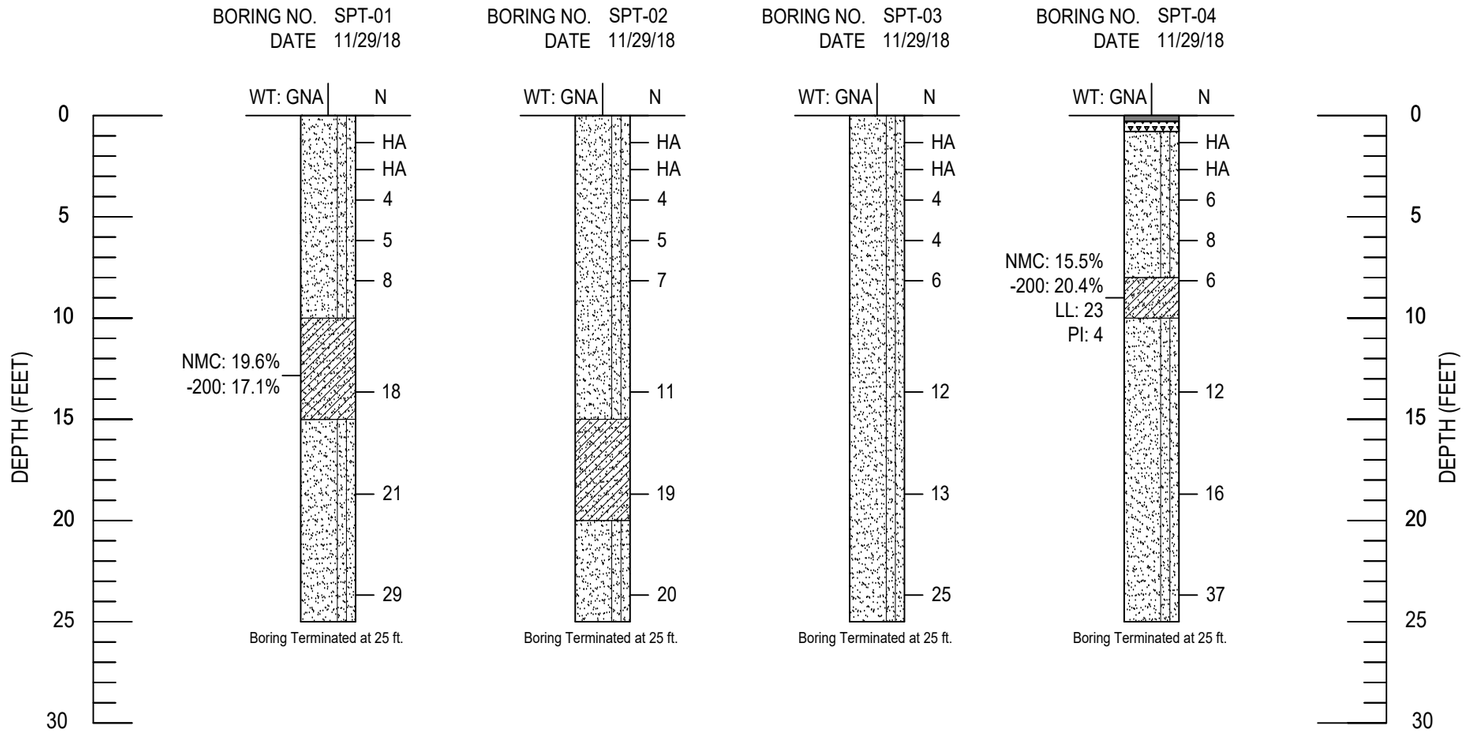
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

SPT-01, SPT-02
SPT-03, SPT-04



0′ 100′
Graphic Scale (Feet)

Source: Google Earth
Image Date: 3/15/18



LEGEND

- (SP, SP-SM) Poorly-graded fine SAND to fine SAND with silt
- (SC) Clayey Sand
- Asphalt
- Limerock Base

NOTES:

- WATER TABLE
- N SPT N-VALUE
- HA HAND AUGER BORING
- NMC NATURAL MOISTURE CONTENT (%)
- -200 FINES PASSING A NO. 200 SIEVE (%)
- GNA GROUNDWATER NOT APPARENT
- LL LIQUID LIMIT
- PI PLASTICITY INDEX

GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT)
VERY LOOSE	≤ 4
LOOSE	4-10
MEDIUM	10-30
DENSE	30-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	**SPT (BLOWS/FT)**
VERY SOFT	≤ 2
SOFT	2-4
FIRM	4-8
STIFF	8-15
VERY STIFF	15-30
HARD	30-50
VERY HARD	GREATER THAN 50

DATE	NAME	REVISION	APPROVED BY:

MC² GEOTECHNICAL • ENVIRONMENTAL MATERIALS TESTING

MC SQUARED, INC.
Geotechnical Consultants
5808-A Breckenridge Parkway
Tampa, FL 33610
Ph:813-623-3399 Fax:813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Bulent Hatipoglu, P.E.
FLORIDA LICENSE No. 89157

	NAME	DATE
DESIGNED BY:	TC	12/4/2018
DRAWN BY:	OM	12/4/2018
CHECKED BY:	JH	12/5/2018
SUPERVISED BY:	BH	

Report of Core Borings

N. Armenia Avenue at W. Busch Boulevard
Intersection Improvements
City of Tampa, Hillsborough County, FL

MC² PROJ. NO.: T071207.158

SHEET NO.: T-8