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**[MailTo:ContractAdministration@TampaGov.net](mailto:ContractAdministration@TampaGov.net)**

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City of Tampa  
Contract Administration Department  
306 E. Jackson St. #280A4N  
Tampa, FL 33602  
(813)274-8456

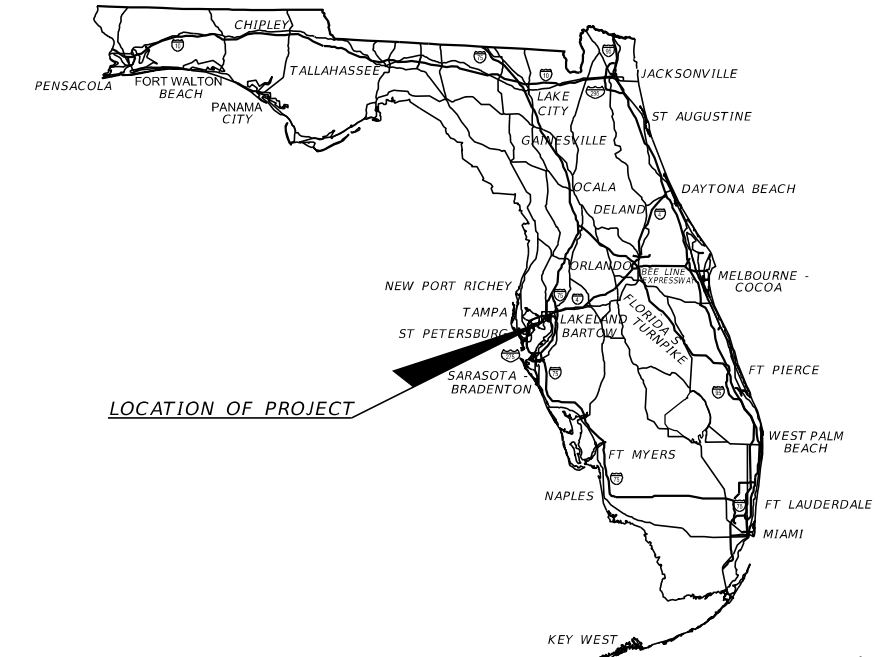
*CITY OF TAMPA*  
*DEPARTMENT OF TRANSPORTATION*

*CONTRACT PLANS*

CITY OF TAMPA PROJECT ID 1000260  
 FINANICAL PROJECT ID: 432717-1-58-01  
 (FEDERAL FUNDS)

WILLOW AVENUE FROM SWANN AVENUE TO MAIN STREET  
 BIKE LANE/SIDEWALK PROJECT

*SIGNALIZATION PLANS*



*INDEX OF SIGNALIZATION PLANS*

<i>SHEET NO.</i>	<i>SHEET DESCRIPTION</i>
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T-2	TABULATION OF QUANTITIES
T-3	GENERAL NOTES
T-4 to T-7	SIGNAL PLAN

*SIGNALIZATION PLANS*  
*ENGINEER OF RECORD:*

FELICIA A. PANNELL, P.E. NO.: 66348  
 SAM SCHWARTZ ENGINEERING, D.P.C., PA  
 2709 N. ROCKY POINT DR., SUITE 104  
 TAMPA, FL 33607  
 (813) 289-7771  
 CONTRACT NO.: 13-05-1893  
 VENDOR NO.: 46-1885050  
 CERTIFICATE OF AUTHORIZATION NO.: 30268

*GEC PROJECT MANGER:*

CHRIS MEARES, P.E.

*CITY OF TAMPA*  
*PROJECT MANAGER:*

NINA S. MABILLEAU, E.I.

**FINAL PLANS SUBMITTAL - 03/10/17**

<i>FISCAL YEAR</i>	<i>SHEET NO.</i>
17	T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS																				TOTAL THIS SHEET		GRAND TOTAL		REF. SHEET
			T - 4		T - 5		T - 6		T - 7																		
			PLAN	FINAL	PLAN	FINAL	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	LF	4				57		79														140		140		
630 2 12	CONDUIT, F&I, DIRECTIONAL BORE	LF			4		203		151														358		358		
632 7 2	SIGNAL CABLE - REPAIR/REPLACE/OTHER F&I	LF					266		366														632		632		
635 2 11	PULL BOX, F&I, 13x24	EA					4		9														13		13		
639-2-1	ELECTRICAL SIGNAL CABLE, F&I	LF							20														20		20		
646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA					6		3														9		9		
646 1 60	ALUMINUM SIGNALS POLE, REMOVE	EA					2																2		2		
650 1 14	TRAFFIC SIGNAL, F&I, ALUMINUM, 3-SECTION/1-WAY	AS	3																				3		3		
650 1 60	TRAFFIC SIGNAL, REMOVE	AS	1																				1		1		
650 1 70	TRAFFIC SIGNAL, RELOCATE	AS			2																		2		2		
653-1-11	PEDESTRIAN SIGNAL, F&I, LED COUNTDOWN, 1-WAY	AS					6		2														8		8		
653-1-12	PEDESTRIAN SIGNAL, F&I, LED COUNTDOWN, 2-WAY	AS					1																1		1		
653-1-40	PEDESTRIAN SIGNAL, RELOCATE	AS							1														1		1		
653-1-60	PEDESTRIAN SIGNAL, REMOVE	AS							2														2		2		
660 2 101	LOOP ASSEMBLY-F&I, TYPE A	AS			1				2														3		3		
660 2 106	LOOP ASSEMBLY-F&I, TYPE F	AS			1																		1		1		
660 3 11	VEHICULAR DETECTION SYSTEM, MICROWAVE, F&I, CABINET SYSTEM	EA	1																				1		1		
660 3 12	VEHICULAR DETECTION SYSTEM, MICROWAVE, F&I, ABOVE GROUND EQUIPMENT	EA	1																				1		1		
665 1 11	PEDESTRIAN DETECTOR, F&I, STANDARD	EA					7		2														9		9		
665 1 40	PEDESTRIAN DETECTOR, RELOCATE	EA					1		1														2		2		
665 1 60	PEDESTRIAN DETECTOR, REMOVE	EA					2		2														4		4		
670 5 110	TRAFFIC CONTROLLER - ASSEMBLY, F&I, NEMA	AS	1																				1		1		
670 5 400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS					1																1		1		
670 5 500	TRAFFIC CONTROLLER ASSEMBLY, RELOCATE	AS							1														1		1		
670 5 600	TRAFFIC CONTROLLER - ASSEMBLY, REMOVE	AS	1																				1		1		
700 3 201	SIGN PANEL, F&I, OVERHEAD MOUNT, UP TO 12 SF	EA	2																				2		2		
700 3 501	SIGN PANEL, RELOCATE, UP TO 12 SF	EA	1																				1		1		

REVISIONS				FELICIA A. PANNELL, P.E. P.E. LICENSE NUMBER 66348 SAM SCHWARTZ ENGINEERING 2709 N. ROCKY POINT DR., SUITE 104 TAMPA, FL 33607 CERTIFICATE OF AUTHORIZATION 30268	CITY OF TAMPA TRANSPORTATION DEPARTMENT		TABULATION OF QUANTITIES	SHEET NO. T-2
DATE	DESCRIPTION	DATE	DESCRIPTION		FINANCIAL PROJECT ID	CITY PROJECT ID		
					432717-1-58-01	1000260		

GENERAL NOTES

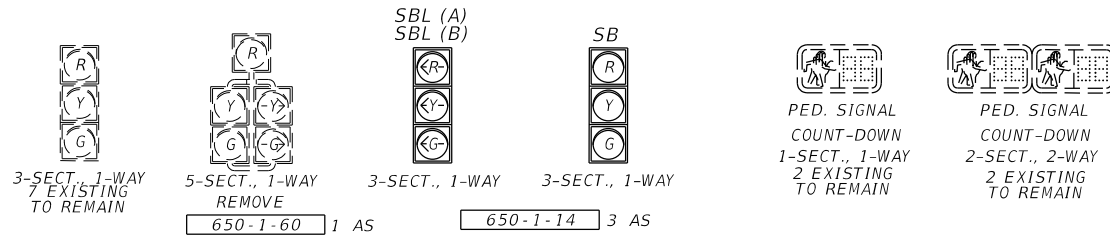
1. NO AS BUILTS ARE AVAILABLE AT ANY OF THE SIGNALIZED INTERSECTIONS SHOWN IN THE SIGNALIZATION PLANS.
2. ONE WEEK PRIOR TO THE START OF THE TRAFFIC SIGNAL INSTALLATION, THE SIGNAL CONTRACTOR SHALL CONTACT:  
 A) MR. SCOTT KEITH, TRAFFIC SIGNAL SUPERVISOR  
 CITY OF TAMPA  
 3802 E. 26TH AVENUE  
 TAMPA, FLORIDA 33605  
 PHONE: (813)622-1974  
 EMAIL: scott.keith@tampagov.net
3. PRIOR TO ALL TRAFFIC SIGNAL CHANGES (I.E., MAINTENANCE OF TRAFFIC CHANGES, NEW SIGNAL INSTALLATIONS, DIFFERENT PAVEMENT CONFIGURATIONS, ETC.), CONTACT F.D.O.T. DISTRICT SEVEN TRAFFIC OPERATIONS, AT (813) 975-6232, AT LEAST 48 HOURS IN ADVANCE FOR IMPLEMENTATION OF APPROPRIATE SIGNAL TIMINGS.
4. THE CONTRACTOR SHALL CONTACT THE LOCAL POWER COMPANY FOR THEIR ASSISTANCE IN PERFORMING ALL NECESSARY WORK UNDER POWER LINES. SUCH WORK SHALL INCLUDE, BUT NOT BE LIMITED TO THE INSTALLATION OF SPAN WIRE, SIGNAL CABLE, FIBERGLASS INSULATORS, AND / OR SIGNAL POLES.
5. AT THE SIGNALIZED INTERSECTION OF W. PLATT STREET AND N. WILLOW AVENUE, THE CITY OF TAMPA INSTALLED A NEW OVERHEAD SPAN WIRE AND SIGNAL CABLE PRIOR TO THE CONSTRUCTION OF THIS PROJECT. FOUR HANGERS WERE INSTALLED TO ACCOMMODATE THE PHASING PROPOSED FOR THIS PROJECT.
6. ANY TRAFFIC SIGNAL EQUIPMENT RELOCATION WILL BE PERFORMED BY CITY FORCES, CONTACT VIK BHITE (813) 274-8066 WHEN THE INITIAL PAVEMENT MARKINGS ARE COMPLETE.
7. DAMAGED LOOPS & FEEDERS WILL BE REPLACED AS PART OF THIS PROJECT. BEFORE THE LOOPS ARE CUT, NOTIFY TRAFFIC OPERATIONS ED ABBOT AT (813) 622-1967, (813) 274-1974 OR (813) 274-1969 SO THAT HE CAN ORGANIZE REPLACEMENT.
8. CONTRACTOR SHALL REQUEST GENERAL INFORMATION PACKAGE FROM SIGNAL SHOP. NO DAISY CHAINING OF PEDESTRIAN CABLE. CONTACT JAMES COOK TO VERIFY STREET NAME SIGNS. CONTACT JIMMY FOUNTAIN FOR ADVICE TO MOUNT RADAR.

PAY ITEM FOOTNOTES:

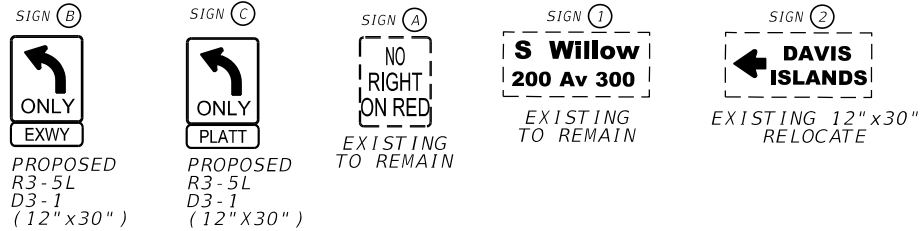
1. 630-2-11 & 630-2-12:  
 ALL CONDUIT RUNS SHOWN ON THE PLANS ARE SCHEMATIC AND FIELD ADJUSTMENTS MAY BE NECESSARY. WITH THE EXCEPTION OF ELECTRICAL POWER SERVICE DUCTS, AND JACK AND BORE SLEEVES, ALL UNDERGROUND AND UNDER PAVEMENT CONDUITS SHALL BE SCHEDULE 40 PVC WITH A MINIMUM SIZE OF TWO INCHES, UNLESS OTHERWISE SPECIFIED IN THE PLANS.
2. 646-1-11:  
 ALL ALUMINUM SIGNAL PEDESTAL POLES SHALL BE MOUNTED ON TRANSFORMER BASES AND SHALL BE GROUNDED AT THE TRANSFORMER BASE.
3. 660-2-101 & 660-2-106:  
 THE CONTRACTOR SHALL NOTIFY THE CITY OF TAMPA SIGNAL SHOP AT LEAST 48 HOURS IN ADVANCE OF LOOP CUTTING.
4. 670-5-110:  
 THE CONTRACTOR SHALL NOTIFY THE CITY OF TAMPA SIGNAL SHOP AND F.D.O.T. DISTRICT SEVEN TRAFFIC OPERATIONS (VIA EMAIL) AT LEAST 48 HOURS IN ADVANCE OF TURNING ON A NEW OR MODIFIED CONTROLLER CABINET ASSEMBLY. CABINET DOOR SHOULD OPEN AWAY FROM TRAFFIC. THE TECHNICIAN SERVICE SLAB SHALL BE A MAXIMUM OF 4" BELOW THE TOP OF THE CONCRETE PAD. THE CABINET SHALL INCLUDE AN EIGHT PHASE BACKPLANE WITH A MINIMUM OF 16 POSITIONS ON THE LOAD BAY AND SHALL INCLUDE ADDITIONAL COST OF LABOR, CONCRETE, AND OTHER MATERIALS FOR CONTROLLER BASE, PAD, AND STEPS, AS ONE UNIT. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF TAMPA SIGNAL SHOP FOR ACCEPTABLE CHOICES OF TRAFFIC CONTROLLER AND CONTROLLER CABINET.
5. 670-5-400:  
 ADD ADDITIONAL PEDESTRIAN DETECTORS IN CABINET.  
  
 MODIFY EXISTING CONTROLLER AND PERFORM ANY CABINET AND FIELD WIRING NECESSARY TO REPLACE PEDESTRIAN SIGNALS PER PLAN.  
  
 CORE-DRILL EXISTING CONTROLLER CABINET BASE AND INSTALL NEW CONDUITS IF SPARE CONDUIT STUB-OUTS CANNOT BE USED. INSTALL NEW CONDUITS INTO THE EXISTING FOUNDATION AS REQUIRED IN PLANS. WHEN ADDITIONAL CONDUITS ARE REQUIRED, THE CONDUIT SHALL BE A MINIMUM OF 2" DIAMETER. LOCATE NEW CONDUITS SO THEY WILL NOT OBSTRUCT THE MAINTENANCE OF EQUIPMENT IN THE CABINET OR THE ANCHORING OF THE CABINET FLANGE TO THE CONCRETE FOUNDATION.  
  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING INTERNAL CABINET AND EQUIPMENT FROM DUST AND DEBRIS CAUSED BY CORE DRILLING.

REVISIONS				FELICIA A. PANNELL, P.E. P.E. LICENSE NUMBER 66348 SAM SCHWARTZ ENGINEERING 2709 N. ROCKY POINT DR., SUITE 104 TAMPA, FL 33607 CERTIFICATE OF AUTHORIZATION 30268	CITY OF TAMPA TRANSPORTATION DEPARTMENT		GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		FINANCIAL PROJECT ID	CITY PROJECT ID		
						432717-1-58-01		1000260

**SIGNAL HEAD DETAILS:**

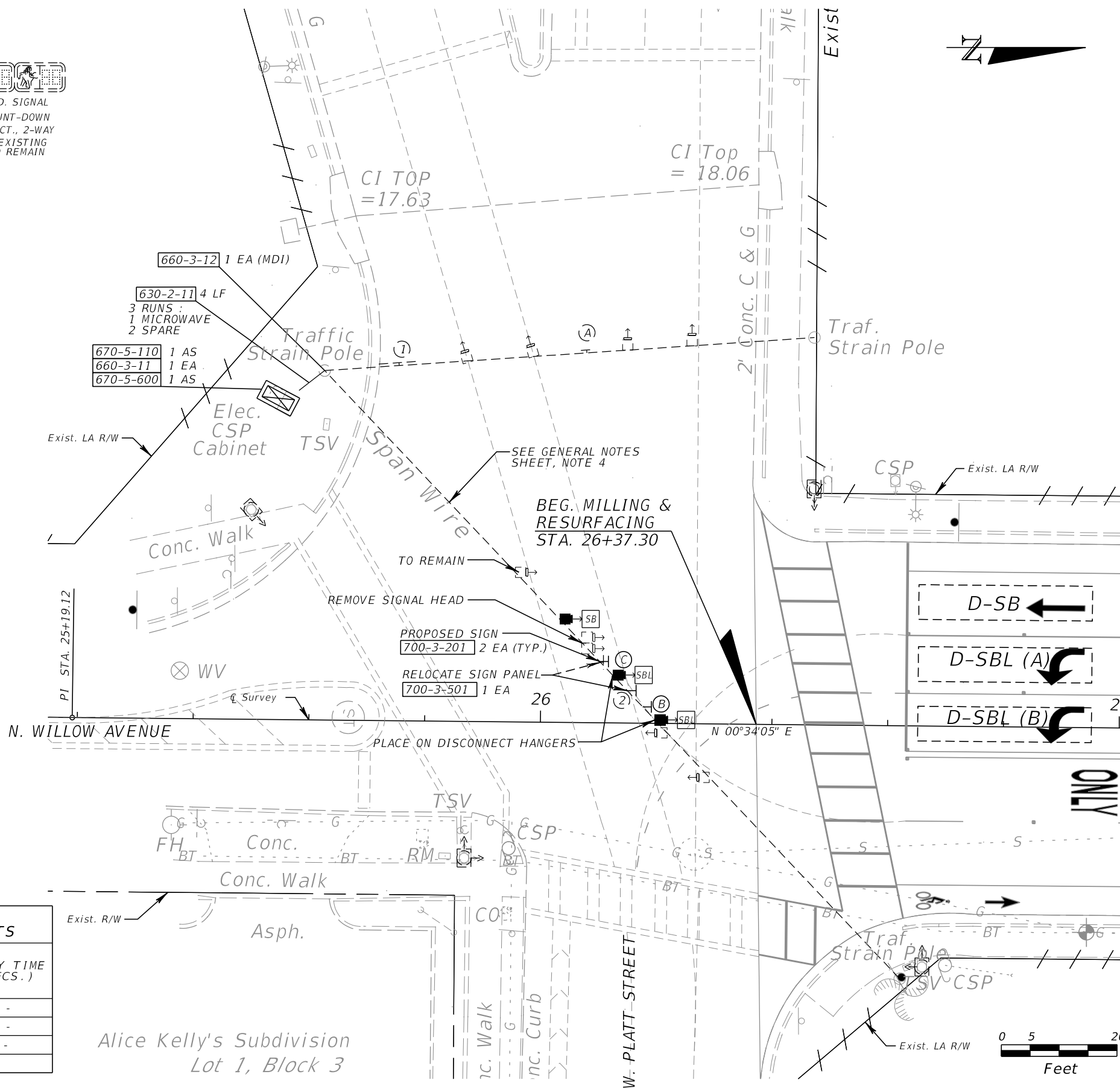


**SPAN WIRE SIGNS**



**CONTROLLER OPERATIONS:**

1. THE MAJOR STREET IS W. PLATT STREET, (MOVEMENT EB & EB RAMP); MINOR STREET IS N. WILLOW AVENUE (MOVEMENTS N/S)
2. THE PROPOSED SOP WILL BE DETERMINED BY THE CITY OF TAMPA PRIOR TO CONSTRUCTION.
3. THE CONTROLLER SHALL BE MODEL ASC/3-2100 AND THE CONTROLLER CABINET SHALL BE MODEL TS2, TYPE 1.
4. EACH PHASE/MOVEMENT SHALL BE WIRED FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPERATE PHASE/MOVEMENT. THIS INCLUDES LEFT TURN MOVEMENTS. EACH LEFT TURN MOVEMENT SHALL HAVE CONDUCTORS AVAILABLE FOR PROTECTED AND PERMISSIVE OPERATION.
5. CURRENTLY NO LOOPS EXIST ON NB MOVEMENT ALONG N. WILLOW AVENUE. THE SB MOVEMENTS WILL BE REPLACED WITH MICROWAVE DETECTION.
6. THE COPPER COMMUNICATION CABLE THAT RUNS UP THE SIGNAL POLE ON THE NW CORNER TO THE SW CORNER AND INTO THE CABINET WILL BE PRESERVED.
7. THE LOCATION OF THE MICROWAVE DETECTION SHALL BE COORDINATED WITH THE CITY OF TAMPA PRIOR TO INSTALLING.



CONTROLLER TIMINGS			
TIMING FUNCTION			
MOVEMENT NUMBER	EB	EBRAMP	N/S
MINIMUM GREEN	10	10	15
EXTENSION	3.0	5.0	3.0
MAXIMUM GREEN 1	55	25	35
MAXIMUM GREEN 2	55	25	50
YELLOW CLEARANCE	4.4	4.4	3.7
ALL RED	2.6	2.7	2.4
PEDESTRIAN WALK	7		7
PED. CLEARANCE	21		15
RECALL	MAX		MAX

THE CITY OF TAMPA WILL BE DETERMINING THE NEW PHASING AND TIMING PRIOR TO THE CONSTRUCTION OF THIS PROJECT.

MICROWAVE VEHICLE DETECTION ASSIGNMENTS		
MICROWAVE DETECTION	DETECTION ZONE	DELAY TIME (SECS.)
MD 1	D-SB	-
MD 1	D-SBL (A)	-
MD 1	D-SBL (B)	-

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

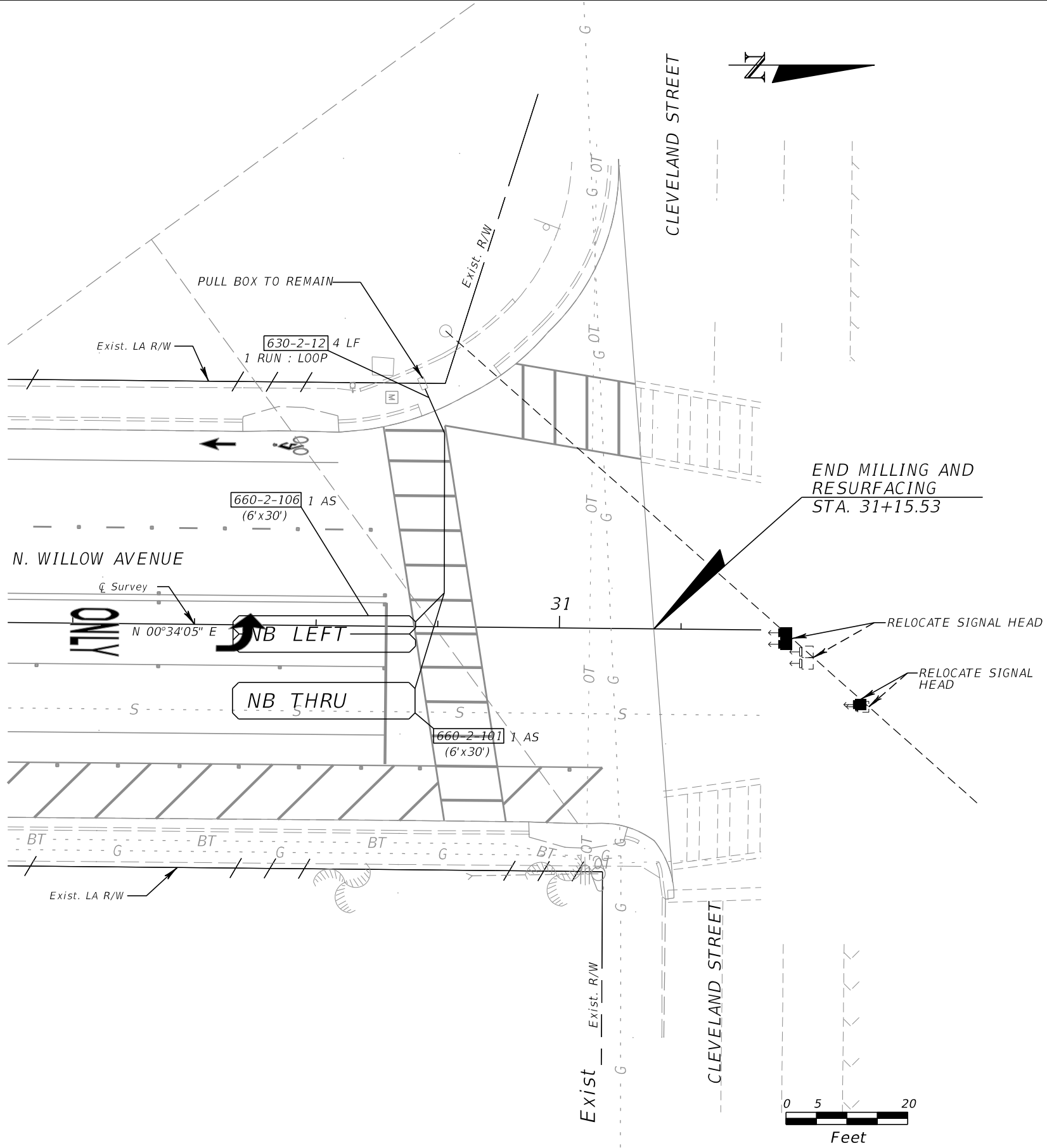
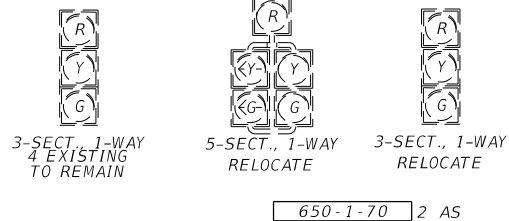
FELICIA A. PANNELL, P.E.  
 P.E. LICENSE NUMBER 66348  
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 2709 N. ROCKY POINT DR., SUITE 104  
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 CERTIFICATE OF AUTHORIZATION 30268

CITY OF TAMPA TRANSPORTATION DEPARTMENT	
FINANCIAL PROJECT ID	CITY PROJECT ID
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**SIGNAL PLAN (1)**

SHEET NO.  
T-4

SIGNAL HEAD DETAILS:

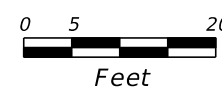
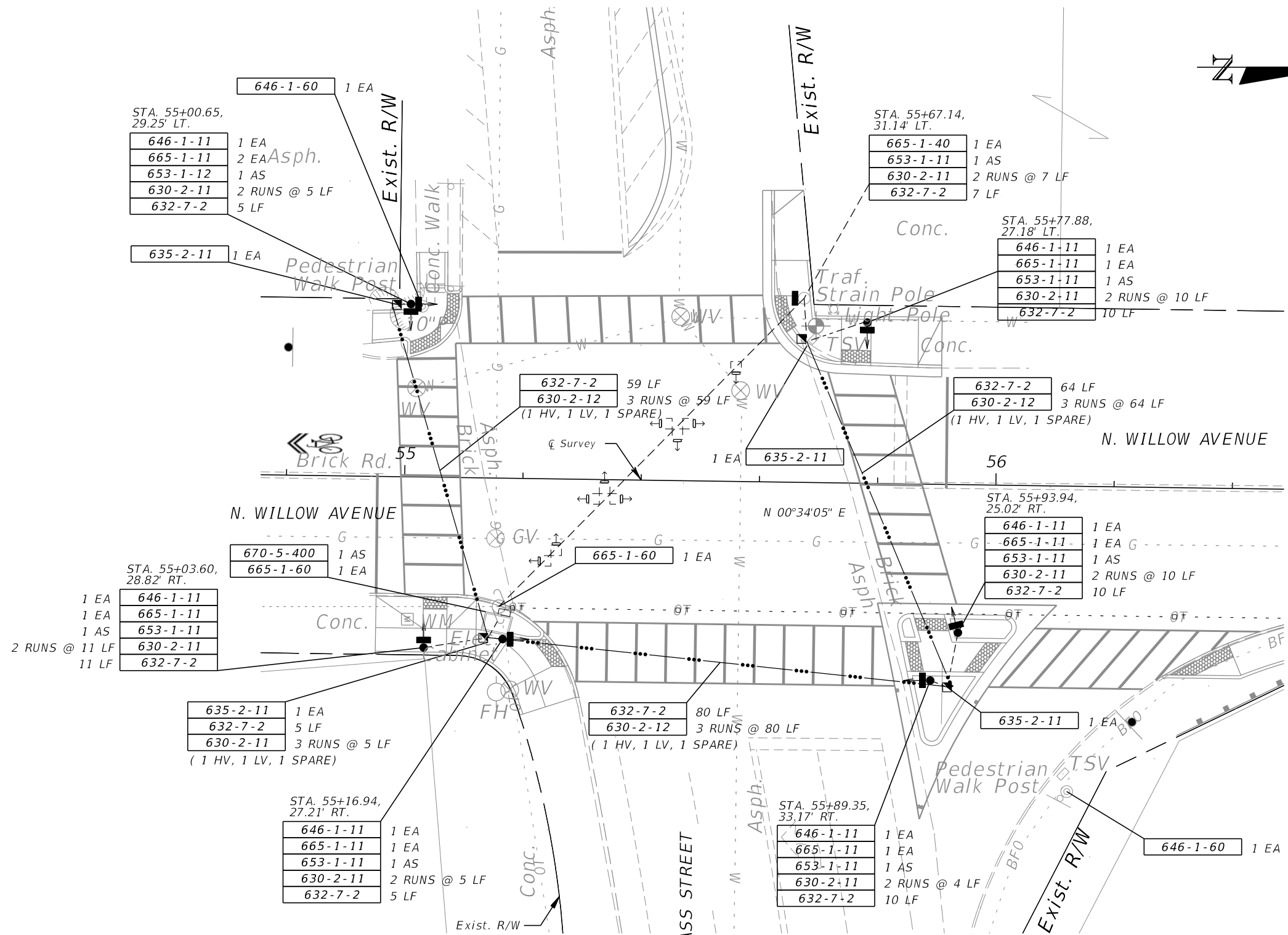


REVISIONS		REVISIONS		FELICIA A. PANNELL, P.E. P.E. LICENSE NUMBER 66348 SAM SCHWARTZ ENGINEERING 2709 N. ROCKY POINT DR., SUITE 104 TAMPA, FL 33607 CERTIFICATE OF AUTHORIZATION 30268	CITY OF TAMPA TRANSPORTATION DEPARTMENT		SIGNAL PLAN (2)	SHEET NO. T-5
DATE	DESCRIPTION	DATE	DESCRIPTION		FINANCIAL PROJECT ID	CITY PROJECT ID		
					432717-1-58-01	1000260		



CONTROLLER TIMINGS		
TIMING FUNCTION	E/W	N/S
MOVEMENT NUMBER		
MINIMUM GREEN	10	10
EXTENSION	3.0	3.0
MAXIMUM GREEN 1	25	25
MAXIMUM GREEN 2	25	25
YELLOW CLEARANCE	4.0	4.0
ALL RED	1.5	2.0
PEDESTRIAN WALK	4	4
PED. CLEARANCE	21	15
RECALL	MAX	

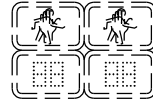
EXISTING CONTROLLING TIMINGS TO REMAIN.  
THESE TIMINGS WILL NEED TO BE REVISED  
BY THE CITY OF TAMPA PRIOR TO  
CONSTRUCTION.



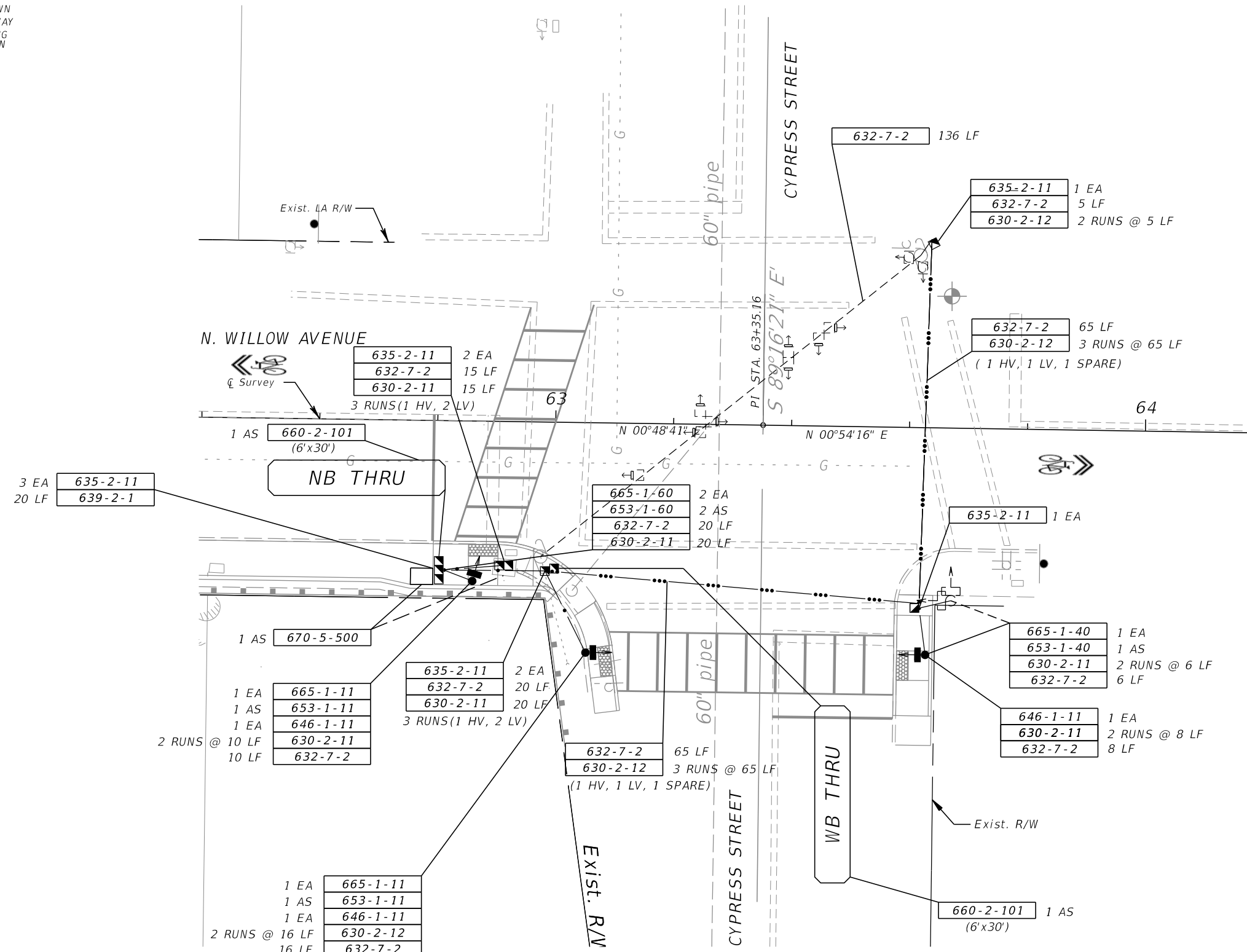
REVISIONS				FELICIA A. PANNEL, P.E. P.E. LICENSE NUMBER 66348 SAM SCHWARTZ ENGINEERING 2709 N. ROCKY POINT DR., SUITE 104 TAMPA, FL 33607 CERTIFICATE OF AUTHORIZATION 30268	CITY OF TAMPA TRANSPORTATION DEPARTMENT		SHEET NO.  T-6
DATE	DESCRIPTION	DATE	DESCRIPTION		FINANCIAL PROJECT ID	CITY PROJECT ID	
					432717-1-58-01	1000260	<b>SIGNAL PLAN (3)</b>



PED. SIGNAL  
COUNT-DOWN  
1-SECT., 1-WAY  
2 EXISTING  
TO REMAIN



PED. SIGNAL  
COUNT-DOWN  
2-SECT., 2-WAY  
1 EXISTING  
TO REMAIN



REVISIONS				FELICIA A. PANNELL, P.E. P.E. LICENSE NUMBER 66348 SAM SCHWARTZ ENGINEERING 2709 N. ROCKY POINT DR., SUITE 104 TAMPA, FL 33607 CERTIFICATE OF AUTHORIZATION 30268	CITY OF TAMPA TRANSPORTATION DEPARTMENT		SIGNAL PLAN (4)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		FINANCIAL PROJECT ID	CITY PROJECT ID		
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