

**INDIAN RIVER COUNTY
PUBLIC WORKS**

CONTRACT PLANS

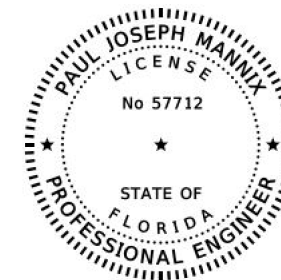
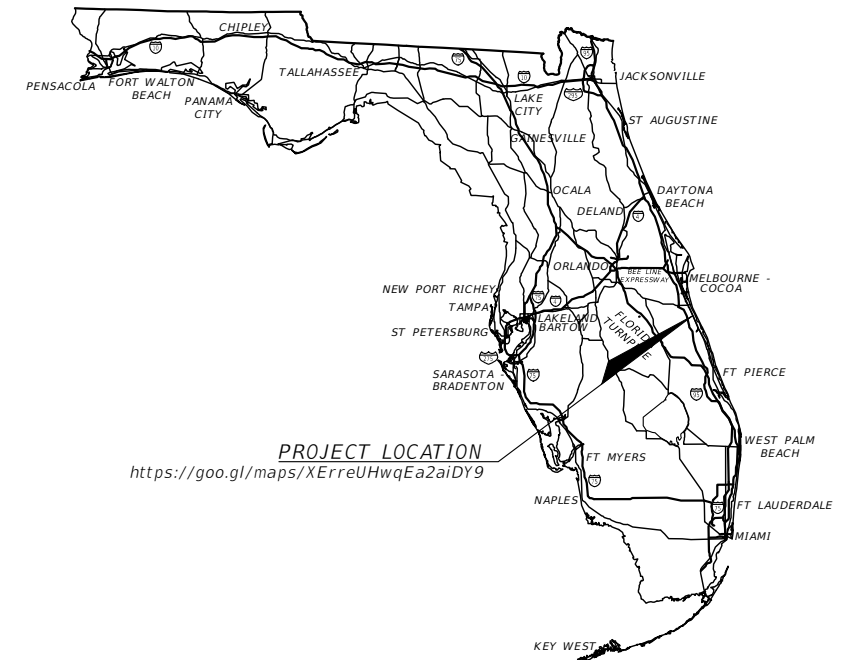
INDIAN RIVER COUNTY PROJECT NO. 1638
FPID 438074-1-54-01

6TH AVENUE MILLING & RESURFACING
FROM U.S. 1/S.R. 5 TO 21ST STREET
INDIAN RIVER COUNTY (88020)

SIGNALIZATION PLANS

INDEX OF SIGNALIZATION PLANS

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**SIGNALIZATION PLANS
ENGINEER OF RECORD:**

PAUL J. MANNIX, P.E. NO.: 57712
ATKINS NORTH AMERICA, INC.
482 S. KELLER RD.
ORLANDO, FL 32810
(407) 647-7275
VENDOR NO.: 59-0896138.007

PROJECT DESIGNED TO FDOT
RESURFACING, RESTORATION, AND
REHABILITATION (RRR) CRITERIA

GOVERNING STANDARD PLANS:
Florida Department of Transportation, FY2017-18 Design Standards for Road and Bridge Construction and applicable Interim Revisions (Irs).

Standard Plans for Road Construction and associated Irs are available at the following website:
<http://www.fdot.gov/design/Standardplans.shtm>

APPLICABLE IRs: IR536-001-01, IR521-001-01

Standard Plans for Bridge Construction are included in the Structures Plans Component.

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, July, 2018 Standard Specifications for Road and Bridge Construction at the following website:
<http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

**100% SUBMITTAL
OCTOBER 2, 2020**

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
	19-20	T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			T-5		T-6		T-7		T-8		T-9		T-10		PLAN	FINAL	PLAN	FINAL		
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL						
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	11		28					34							73	73		
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	175		244					62							481	481		
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1		1					1							3	3		
0635 2 11	PULL & SPLICE BOX, F&I, 13" X 24" COVER SIZE	EA	6		8					3							17	17		
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	1		3												4	4		
0646 1 12	ALUMINUM SIGNALS POLE, FURNISH & INSTALL PEDESTRIAN DETECTOR POST	EA	2		1					2							5	5		
0646 1 60	ALUMINUM SIGNALS POLE, REMOVE	EA	1		3												4	4		
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	2		2			1		2							7	7		
0653 1 12	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 2 WAYS	AS			3					1							4	4		
0653 1 60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL- POLE/PEDESTAL TO REMAIN	AS	1		4			1		3							9	9		
0665 1 11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	3		8					4							15	15		
0665 1 40	PEDESTRIAN DETECTOR, RELOCATE	EA	1														1	1		
0665 1 50	PEDESTRIAN DETECTOR, ADJUST/MODIFY ON EXISTING POLE	EA	1														1	1		
0665 1 60	PEDESTRIAN DETECTOR, REMOVE- POLE/PEDESTAL TO REMAIN	EA	2		2					4							8	8		
0676 1500	TRAFFIC SIGNAL CONTROLLER CABINET, ADJUST/MODIFY	EA	1		1					1							3	3		

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				PAUL J. MANNIX, P.E. P.E. LICENSE NUMBER 57712 ATKINS NORTH AMERICA, INC. 482 SOUTH KELLER ROAD ORLANDO, FLORIDA 32810	INDIAN RIVER COUNTY PUBLIC WORKS	TABULATION OF QUANTITIES	SHEET NO. T-2
					6TH AVENUE RESURFACING		

GENERAL NOTES:

- ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING:
MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD); FLORIDA DEPARTMENT OF TRANSPORTATION, JULY, 2018 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (STANDARD SPECIFICATIONS); FLORIDA DEPARTMENT OF TRANSPORTATION, FY2017-2018 DESIGN STANDARDS (STANDARD INDEXES), ALL SUPPLEMENTS THERETO; NATIONAL ELECTRIC CODE; INDIAN RIVER COUNTY TRAFFIC SIGNAL SPECIFICATIONS; AND ANY OR ALL INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION REQUIREMENTS.
- THE AGENCY RESPONSIBLE FOR MAINTENANCE OF THE TRAFFIC SIGNAL AND RELATED COMMUNICATIONS EQUIPMENT IS INDIAN RIVER COUNTY TRAFFIC ENGINEERING DIVISION (IRCTED) (772) 226-1547. ALL TRAFFIC SIGNAL AND RELATED COMMUNICATIONS EQUIPMENT WHEN USING PAY ITEM SERIES: 632, 634, 635, 660, 670, 684 AND 685 FOR THIS CONTRACT SHALL BE COMPATIBLE WITH IRCTED'S CENTRAL COMPUTER NETWORK SYSTEM. PRIOR TO ANY PURCHASING OF THE ABOVE PRODUCTS, ENSURE THEY HAVE BEEN APPROVED FOR SYSTEM COMPATIBILITY BY THE MAINTAINING AGENCY.
- IRCTED SHALL BE NOTIFIED AT (772) 226-1547 AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO ANY WORK BEING PERFORMED AT A SIGNALIZED LOCATION IN ORDER TO PROPERLY TRANSFER MAINTENANCE RESPONSIBILITIES.
- THE CONTRACTOR SHALL DELIVER ALL REMOVED TRAFFIC SIGNAL EQUIPMENT, EXCEPT CONCRETE STRAIN POLES, TO IRCTED LOCATED AT 4548 41ST STREET, VERO BEACH, FL 32967 (772) 226-3460. THE COST OF DELIVERY TO IRCTED SHALL BE INCLUDED IN THE REMOVAL OF THE RELATED SIGNAL PAY ITEM. THE CONTRACTOR SHALL CONTACT THE IRCTED SEVEN (7) FULL BUSINESS DAYS PRIOR TO THE DELIVERY OF ANY REMOVED EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR CONCRETE STRAIN POLE DISPOSAL AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL BE ADVISED THAT OTHER PROJECTS MAY BE UNDER CONSTRUCTION CONCURRENTLY WITH THIS PROJECT AND THAT COORDINATION EFFORTS MAY BE NECESSARY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CONSTRUCTION SCHEDULE AND FOR THE AMOUNT OF COORDINATION REQUIRED. THE COST SHALL BE INCLUDED IN THE BID.
- LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND OTHER FEATURES AFFECTING HIS/HER WORK PRIOR TO CONSTRUCTION, AND NOTIFY THE ENGINEER IMMEDIATELY AND PRIOR TO ANY FURTHER RELATED WORK ACTIVITY WHEN CONFLICT BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
- THE CONTRACTOR SHALL CALL SUNSHINE STATE ONE-CALL AT 1-800-432-4770 FOR LOCATIONS OF UTILITIES WITHIN THE AREA(S) OF CONSTRUCTION FOR THIS PROJECT A MINIMUM OF TWO (2) FULL BUSINESS DAYS PRIOR TO ANY DIGGING OR EXCAVATION ACTIVITIES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO CONTACT ANY UTILITY OWNER(S) THAT MAY NOT BE A "SUNSHINE" MEMBER.
- EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE LOCATION AND PROTECTION, REPAIR AND/OR REPLACEMENT OF ALL UTILITIES THAT MAY BE AFFECTED BY THE CONSTRUCTION OF THIS PROJECT. EXISTING UTILITIES SHALL BE MAINTAINED IN SERVICE DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE UTILITY OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ANY REQUIRED UTILITY RELOCATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE COMPANY PROVIDING ELECTRICAL POWER TO DETERMINE IF A SERVICE PROCESSING FEE IS REQUIRED. IF REQUIRED, FEE SHALL BE REFLECTED IN THE CONTRACTOR'S BID UNIT PRICE FOR ELECTRICAL POWER SERVICE ASSEMBLY.
- THE CONTRACTOR SHALL COORDINATE AND FIELD VERIFY LOCATION(S) OF THE ELECTRIC SERVICE POINT PRIOR TO INSTALLING CONDUIT, DISCONNECT SWITCH, AND PULL BOXES.
- (IF APPLICABLE) IT SHOULD BE NOTED THAT NO TEST BORINGS WERE MADE WHERE CONDUIT RUNS ARE TO BE INSTALLED BY JACKING OR TRENCHING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS IN ACCORDANCE WITH SECTION 2-4 OF THE FDOT SPECIFICATIONS.
- THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH THE APPLICABLE GUIDELINES SET FORTH IN FDOT DESIGN STANDARD INDEXES 600 THROUGH 660; THE MUTCD; AND SECTION 102 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL MAKE ALL VIDEO DETECTORS INSTALLED AS PART OF THE PROJECT FULLY OPERATIONAL IN ACCORDANCE WITH THEIR ASSOCIATED ISOLATED INTERSECTION SIGNAL TIMING CHART PRIOR TO THE ACTIVATION OF THE SIGNAL.

GENERAL NOTES (CONTINUED):

- THE CONTRACTOR SHALL VERIFY ALL SIGNAL POLE ELEVATIONS AND LOCATIONS INCLUDING POSSIBLE UTILITY CONFLICTS PRIOR TO PROCURMENT. THE CONTRACTOR SHALL VERIFY THAT ALL SIGNAL POLE ELEVATIONS WILL MEET MUTCD, FDOT AND INDIAN RIVER COUNTY REQUIREMENTS FOR LOW POINT OF CLEARANCE. ALL SIGNAL ASSEMBLIES SHALL HAVE A VERTICAL CLEARANCE OF 17.5 FEET MINIMUM AND 19 FEET MAXIMUM FROM THE BOTTOM OF THE ASSEMBLY TO THE ROAD.
- UNDER NO CIRCUMSTANCES SHALL ENERGIZED SIGNAL CABLE BE PLACED IN THE SAME CONDUIT OR PULL BOX AS VIDEO DETECTION CABLE OR COMMUNICATION.
- ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT LEGIBLE, WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE. THE TAGGING SYSTEM PROPOSED SHALL BE SUBMITTED FOR APPROVAL WITH THE OTHER EQUIPMENT SUBMITTALS REQUIRED FOR THIS PROJECT.
- THE CABINET DOOR SHALL OPEN AWAY FROM THE INTERSECTION UNLESS SPECIFIED OTHERWISE.
- TRAFFIC SIGNAL ACCEPTANCE TESTING PROCEDURES SHALL BE IN ACCORDANCE WITH SECTION 611 OF THE STANDARD SPECIFICATIONS.
- THERE WILL BE A 90 DAY WARRANTY PERIOD SUBJECT TO THE REQUIREMENTS CONTAINED IN ARTICLE (SECTIONS 611-5 THROUGH 611-7.3) "CONTRACTOR'S WARRANTY PERIOD FOR SIGNAL INSTALLATIONS" AS FOUND IN THE JULY 2018 FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE FOUR COPIES OF MARKED-UP (AS-BUILT) CONSTRUCTION PLANS, ALSO A COPY OF SHOP DRAWING AND A COPY OF MAST ARM SPECIFICATION AND ANY/ALL APPROVED SHOP DRAWINGS AT THE TIME OF SIGNAL CONDITIONAL ACCEPTANCE INSPECTION BY THE MAINTAINING AGENCY.
- ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW IN ACCORDANCE WITH SECTION 603 OF THE JULY 2018 STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR SIGNAL INSPECTION TO THE MAINTAINING AGENCY. (ALLOW TWO (2) WEEKS FOR SIGNAL INSPECTION).
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN FOUR (4) PORTABLE CHANGEABLE (VARIABLE) MESSAGE SIGNS (PCMS) FOR A PERIOD OF TWO WEEKS. THE PCMS WILL BE LOCATED AT AN APPROPRIATE DISTANCE IN ADVANCE OF THE APPROACHES TO THE NEW SIGNALIZED INTERSECTION AS SPECIFIED BY THE MAINTAINING AGENCY'S ENGINEER. THE PCMS WILL BE PROVIDED ONE (1) WEEK PRIOR TO THE SCHEDULED ACTIVATION TO FULL COLOR OPERATION AND SHALL REMAIN IN PLACE FOR ONE (1) WEEK FOLLOWING ACTIVATION. COST OF FURNISHING PCMS TO BE INCLUDED UNDER PAY ITEM NO. 102-1 - MAINTENANCE OF TRAFFIC.
- IN ACCORDANCE WITH FDOT STANDARDS & SPECIFICATIONS, THE CONTRACTOR SHALL PROVIDE THE ASSOCIATED TRAFFIC SIGNAL MANUFACTURER WARRANTIES FOR THE ASSOCIATED MATERIALS AND/OR EQUIPMENT PRIOR TO THE FINAL ACCEPTANCE OF THE TRAFFIC SIGNAL.
- PRIOR TO ACTIVATION THE PCMS SIGN SHALL BE:
(PANEL ONE - LINE 1) "TRAFFIC"
(PANEL ONE - LINE 2) "SIGNAL"
(PANEL ONE - LINE 3) "WILL BE"
(PANEL TWO - LINE 1) "ACTIVE"
(PANEL TWO - LINE 2) "ON DAY"
(PANEL TWO - LINE 3) "MONTH XX"

SUBSTITUTION FOR THE WORD "DAY" SHALL BE AS FOLLOWS:
SUNDAY AS "SUN"
MONDAY AS "MON"
TUESDAY AS "TUES"
WEDNESDAY AS "WED"
THURSDAY AS "THUR"
FRIDAY AS "FRI"
SATURDAY AS "SAT"

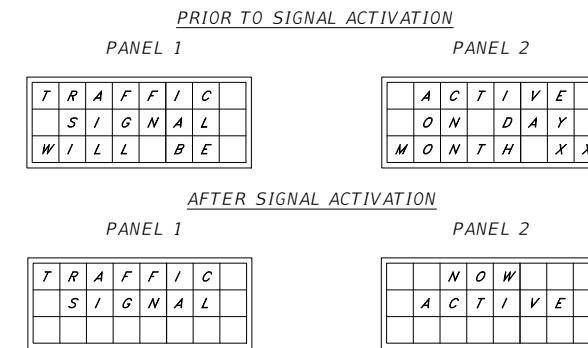
GENERAL NOTES (CONTINUED):

SUBSTITUTION FOR THE WORD "MONTH" SHALL BE AS FOLLOWS:
JANUARY AS "JAN"
FEBRUARY AS "FEB"
MARCH AS "MAR"
APRIL AS "APR"
MAY AS "MAY"
JUNE AS "JUN"
JULY AS "JUL"
AUGUST AS "AUG"
SEPTEMBER AS "SEP"
OCTOBER AS "OCT"
NOVEMBER AS "NOV"
DECEMBER AS "DEC"

SUBSTITUTION FOR THE WORD "XX" SHALL BE AS FOLLOWS:
THE NUMERICAL DAY OF THE MONTH, FROM ONE (1) TO THIRTY-ONE (31). THE DATES LESS THAN TEN (10) SHALL BE PRECEDED BY A ZERO (0); EXAMPLE: "JAN 03" FOR JANUARY 3RD.

- AFTER THE TURN-ON, THE PCMS SHALL BE CHANGED TO:
(PANEL ONE - LINE 1) "TRAFFIC"
(PANEL ONE - LINE 2) "SIGNAL"
(PANEL TWO - LINE 1) "NOW"
(PANEL TWO - LINE 2) "ACTIVE"

PANEL TWO, LINE AND LINE 2, SHALL FLASH THREE (3) TIMES BEFORE REVERTING BACK TO PANEL ONE.



27. THE ENGINEER OR CONTRACTOR SHALL SUBMIT IN WRITING A REQUEST FOR SIGNAL ACTIVATION (TURN-ON) TO THE MAINTAINING AGENCY. THE MAINTAINING AGENCY WILL SCHEDULE THE SIGNAL ACTIVATION A MINIMUM OF SEVEN (7) DAYS AFTER NOTIFICATION THAT THE SIGNAL HAS BEEN PLACED FLASHING MODE AND INSPECTIONS BY MAINTAINING AGENCY FORCES HAVE BEEN COMPLETED.

28. THE CONTRACTOR SHALL BE PRESENT AND SHALL CONDUCT THE TURN-ON TO FULL COLOR OPERATION IN THE PRESENCE OF THE MAINTAINING AGENCY'S ENGINEER. NO ACTIVATIONS SHALL BE SCHEDULED ON MONDAYS, FRIDAYS OR WEEKENDS UNLESS OTHERWISE APPROVED BY THE MAINTAINING AGENCY'S ENGINEER. ANY PROPOSED OR NECESSARY SCHEDULE CHANGE DURING THE SEVEN (7) DAYS PRIOR TO SCHEDULED TURN-ON WILL BE AT THE DETERMINATION AND DISCRETION OF THE MAINTAINING AGENCY'S ENGINEER.

29. UPON COMPLETION AND FINAL ACCEPTANCE OF THE PERMANENT TRAFFIC SIGNAL INSTALLATION BY INDIAN RIVER COUNTY, THE SIGNALS AND EQUIPMENT SHALL BE MAINTAINED BY IRCTED.

30. WHEN IRCTED DETERMINES THAT THE NEED FOR A TRAFFIC SIGNAL IS CRITICAL TO THE PUBLIC WELFARE, EARLY TURN-ON OF THE SIGNAL MAY BE REQUIRED BEFORE THE COMPLETION OF THE CONTRACT. IF THIS NEED ARISES, IRCTED MAY ASSUME THE RESPONSIBILITY FOR MAINTENANCE AND LIABILITY, OR NEGOTIATE WITH THE CONTRACTOR FOR MAINTENANCE AND LIABILITY, FOR SUCH A SIGNAL. NEW SIGNALS SHALL NOT BE PLACED ON FULL COLOR OPERATION UNTIL THE DATE OF INSPECTION EXCEPT AS STATED ABOVE. NEW SIGNALS SHALL BE FLASHED NO LESS THAN A WEEK OR MORE THAN TWO WEEKS PRIOR TO THE INSPECTION. SIGNAL HEADS MUST BE BAGGED WITH BURLAP OR TURNED BACK UNTIL THIS TIME.

R E V I S I O N S				PAUL J. MANNIX, P.E. P.E. LICENSE NUMBER 57712 ATKINS NORTH AMERICA, INC. 482 SOUTH KELLER ROAD ORLANDO, FLORIDA 32810	INDIAN RIVER COUNTY PUBLIC WORKS	6TH AVENUE RESURFACING	GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION					T-3

GENERAL NOTES (CONTINUED):

31. CONDUITS NOTED TO BE INSTALLED UNDER PROPOSED SIDEWALK BY TRENCHING METHODS MAY BE INSTALLED BY EITHER TRENCHING OR BORING DURING CONSTRUCTION AND VICE VERSA, AS DETERMINED IN THE FIELD BASED ON THE SEQUENCE OF CONSTRUCTION AND FIELD CONDITIONS.
32. ANY TRAFFIC SIGNAL, LOOP SENSOR, CONDUIT, INTERCONNECT CABLE, OR ANY SUPPORT EQUIPMENT DAMAGED BY A CONTRACTOR SHALL BE REPAIRED/REPLACED AT THE CONTRACTOR'S EXPENSE.
33. SIGNAL CABLE SHALL BE INSTALLED AS A HOME RUN WITHOUT SPLICING FROM TRAFFIC CONTROL DEVICE TO THE APPROPRIATE TERMINAL BLOCK WITHIN THE TRAFFIC SIGNAL CONTROL CABINET. THE SIGNAL CABLE COLOR CODE SHALL BE VERIFIED WITH THE MAINTAINING AGENCY PRIOR TO WIRING INTERSECTION.
34. SIGNAL CABLE SHALL BE INSTALLED PER FDOT STANDARD INDEX 17700 AS APPLICABLE. THREE SPARE CONDUCTORS PER SIGNAL CABLE ARE REQUIRED. SPARES SHALL BE GROUNDED TO THE BUS GROUNDING FACILITY IN THE CONTROLLER CABINET.

A. POWER SERVICE

1. POWER SERVICES SHALL FOLLOW THE LATEST STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARD INDEX NO. 17504, 17736
2. SERVICE BREAKER BOX SHALL BE SQUARE-D MODEL #Q024L70RB, OR APPROVED EQUIVALENT.
3. POWER SERVICES ARE TO BE 120/240 VAC WITH TRIPLEX SERVICE DROP WIRE WITH TWO BLACK AND ONE WHITE CABLE FROM SERVICE DISCONNECT TO POWER SERVICE CONNECTION POINT.
4. ALL ABOVE GROUND CONDUIT SHALL BE HD GAVINIZED OR ALUMINUM.
5. MAST ARM POWER SERVICES SHALL BE MOUNTED ON A STUB POLE.
6. UNDERGROUND POWER SERVICE SHOULD HAVE AN FPL PULL BOX FOR THE LINE SIDE NEAR SERVICE DISCONNECT.
7. CONCRETE STRAIN POLE INSTALLATIONS SHOULD HAVE THE POWER SERVICE MOUNTED ON THE STRAIN POLE.

B. TRAFFIC SIGNAL CONTROLLER

1. SHALL BE COMPATIBLE WITH ECONOLITE SYSTEM SOFTWARE.
2. SHALL HAVE INTERNAL TIME-BASED CAPABILITIES.
3. SHALL HAVE INTERNAL RAILROAD PREEMPTION WITH IMMEDIATE RETURN TO COORDINATION.

C. TRAFFIC SIGNAL COMMUNICATIONS INTERCONNECT

NOTE: VARIANCE TO COMMUNICATION INTERCONNECT DUE TO DESIGN CRITERIA WOULD REQUIRE PRIOR APPROVAL FROM INDIAN RIVER COUNTY.

1. TWO 2" CONDUITS SHALL BE INSTALLED WITH ALL INTERCONNECT RUNS.
2. PULL BOXES CONTAINING INTERCONNECT ARE TO BE INSTALLED AT NO MORE THAN 1000 FOOT INTERVALS MARKED "TRAFFIC SIGNAL" (FDOT DESIGN STANDARD INDEX 17700).
3. FIBER OPTIC INTERCONNECT RUNS SHALL HAVE A SLACK/SPLICE BOX AT ALL SIGNALIZED INTERSECTIONS MARKED "FIBER OPTICS". SLACK/SPLICE BOXES SHALL CONTAIN A MINIMUM OF 100 FEET OF FIBER OPTIC CABLE SLACK (FDOT DESIGN STANDARD 635-001) AND SHALL BE LOCATED AT NO MORE THAN 1/2-MILE INTERVALS.
4. FIBER OPTIC CABLE SHALL BE 96-FIBER SINGLE MODE. A #14 AWG (OR IRC-APPROVED ALTERNATIVE) TRACE WIRE SHALL BE INSTALLED WITH THE FIBER RUN.

PAY ITEM NOTES:

1. 0630 2 11

SHALL BE INSTALLED PER SECTION 630, OF FDOT'S STANDARD SPECIFICATIONS. ALL CONDUITS SHALL ENTER PULL BOXES AS REQUIRED IN FDOT STANDARD DESIGN INDEX 17700. ALL CONDUIT SHALL BE 2 INCH, SCHEDULE 40 PVC UNLESS SPECIFIED OTHERWISE IN THE PLANS OR SPECIFICATIONS. ALL SPARE CONDUITS SHALL ENTER THE SIGNAL CABLE PULL BOX UNLESS OTHERWISE STATED IN THE PLANS.

THIS PAY ITEM SHALL ALSO INCLUDE THE PAYMENT FOR FURNISHING AND INSTALLATION OF 2 INCH, SCHEDULE 40 PVC CONDUIT PER SECTION 630, OF FDOT'S STANDARD SPECIFICATION AND AS REQUIRED IN FDOT STANDARD INDEX 17721.

2. 0630 2 12

SHALL CONSIST OF MULTIPLE 2 INCH SCHEDULE 40 PVC SLEEVES PER BORE. SEE SPECIFIC PLAN SHEETS FOR NUMBER REQUIRED FOR THE BORE. ALL DIRECTIONAL BORING SHALL BE DONE IN CONFORMANCE WITH FDOT UTILITY ACCOMODATIONS MANUAL REQUIREMENTS.

3. 0632 7 1

SHALL BE INSTALLED PER FDOT STANDARD INDEX 17727 AS APPLICABLE. THREE SPARE CONDUCTORS PER SIGNAL CABLE ARE REQUIRED. SPARES SHALL BE GROUNDED TO THE BUS GROUNDING FACILITY IN THE CONTROLLER CABINET. MAST ARM CABLING SHALL CONSIST OF A TWENTY CONDUCTOR IMSA-19 SIGNAL CABLE FROM CONTROL CABINET TO EACH MAST ARM. EACH CONDUCTOR SHALL BE TERMINATED UPON THE 20 TERMINAL-TERMINAL BLOCK LOCATED IN THE TERMINAL COMPARTMENT OF THE MAST. A SEPARATE IMSA-19 SEVEN CONDUCTOR SHALL BE RUN FROM THE TERMINAL BLOCK TO EACH SIGNAL HEAD. PEDESTRIAN SIGNALS SHALL HAVE A SEVEN CONDUCTOR TO EACH CORNER ALONG WITH A FOUR CONDUCTOR FOR THE PEDESTRIAN DETECTORS. SPAN WIRE INSTALLATIONS SHOULD CONSIST OF A SEPARATE IMSA-19 TWELVE CONDUCTOR CABLE TO EACH APPROACH. PEDESTRIAN SIGNALS SHALL HAVE AN IMSA-19 SEVEN CONDUCTOR TO EACH CORNER ALONG WITH A FOUR CONDUCTOR FOR THE PEDESTRIAN DETECTORS. THESE CABLES SHOULD RUN FROM PEDESTRIAN SIGNAL TO CONTROL CABINET DIRECTLY.

THIS PAY ITEM SHALL ALSO PAY FOR THE CONTRACTOR TO DISCONNECT SIGNAL CABLE FROM EXISTING PEDESTRIAN SIGNAL HEAD AND / OR DETECTOR AND RE-UTILIZE EXISTING CABLE FOR NEW EQUIPMENT, WHERE NOTED IN THE PLANS. IF THE EXISTING SIGNAL CABLE IS UNABLE TO BE RE-UTILIZED, THE CONTRACTOR SHALL REMOVE EXISTING CABLE AND INSTALL A NEW HOMERUN CABLE RUN FROM THE TRAFFIC SIGNAL CONTROLLER TO THE PROPOSED SIGNAL EQUIPMENT.

4. 0635 2 11

SHALL BE INSTALLED IN ACCORDANCE WITH FDOT DESIGN STANDARD INDEX 17700, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SIZE THE PULL BOXES SUCH THAT THEY WILL ALLOW PLACEMENT OF ALL CABLES INSIDE THE PULL BOXES WHILE MAINTAINING THE REQUIRED MINIMUM BENDING RADII ON THE CABLES AND NOT EXCEEDING THE MAXIMUM BENDING RADII OF THE CABLES. PULL BOX COVERS SHALL BE FDOT APPROVED OF NON-METALLIC CONSTRUCTION WITH RECESSED COVER LOGO "TRAFFIC SIGNAL" OR "FIBER OPTIC" AS APPROPRIATE. PULL BOXES SHALL BE QUAZITE AND PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, THE PULL BOXES SHALL BE PLACED A MINIMUM OF 7 FEET FROM THE EDGE OF PAVEMENT WITH PULL BOXES AND LIDS BEING TRAFFIC BEARING. PULL BOXES SHALL NOT BE PLACED IN PEDESTRIAN RAMPS. PULL BOXES SHALL HAVE CONCRETE MOWER PADS IN ACCORDANCE WITH STANDARD DESIGN INDEX 17700.

THIS PAY ITEM SHALL ALSO INCLUDE THE COST OF ALL WORK RELATED TO THE FURNISH AND INSTALLATION OF QUAZITE TRAFFIC SIGNAL PULL BOXES WITH APPROVED FDOT NON-METALLIC LIDS AND "TRAFFIC SIGNAL" STAMPED COVER LOGO.

5. 0653 1 60 AND 0665 1 60

THIS ITEM SHALL INCLUDE THE COST OF REMOVING EXISTING CABLE FROM THE PEDESTRIAN SIGNAL HEAD OR PEDESTRIAN DETECTOR TO THE TRAFFIC SIGNAL CONTROLLER CABINET TERMINAL BLOCK, UNLESS OTHERWISE INDICATED IN THE PLANS.

THIS ITEM SHALL INCLUDE THE COST OF REPAIRING, WITH A WATER-TIGHT SEAL, ALL REMAINING OPEN CABLE ENTRY AND EQUIPMENT MOUNTING HOLES FOR PEDESTRIAN SIGNAL HARDWARE AND CABLE ON THE FACE OF THE EXISTING STRAIN POLE OR EXISTING ALUMINUM PEDESTAL AND POLE, UNLESS OTHERWISE INDICATED IN THE PLANS.

THIS ITEM SHALL INCLUDE THE WORK TO RESTORE THE INTEGRITY OF THE PEDESTRIAN SIGNAL POLE, AS NOTED IN PLANS. THIS SHALL INCLUDE ITEMS SUCH AS FILLING HOLES AND SPOT GALVANIZING.

6. 0665 1 11

THIS ITEM SHALL INCLUDE THE COST OF THE PEDESTRIAN ACTUATION SIGN FTP-68B-06, AS NOTED IN THE PLANS.

7. 0665 1 50

THIS ITEM SHALL INCLUDE THE COST OF REMOVING EXISTING DAMAGED PEDESTRIAN ACTUATION SIGNS AND INSTALLATION OF NEW FTP-68B-06 SIGNS, AS NOTED IN THE PLANS.

THIS PAY ITEM SHALL ALSO INCLUDE THE WORK TO RESTORE THE INTEGRITY OF THE PEDESTRIAN SIGNAL POLE WHEN PEDESTRIAN DETECTORS ARE REMOVED, AS NOTED IN THE PLANS. THIS SHALL INCLUDE ITEMS SUCH AS FILLING HOLES AND SPOT GALVANIZING.

PAY ITEM NOTES (CONTINUED):

8. 0676 1500

THIS ITEM SHALL INCLUDE THE COST FOR ALL WORK NECESSARY WITHIN THE TRAFFIC SIGNAL CONTROLLER CABINET INCLUDING, BUT NOT LIMITED TO, THE REMOVAL OF EXISTING AND INSTALLATION OF NEW PEDESTRIAN SIGNAL, VIDEO DETECTION (WHERE APPLICABLE), AND DETECTION CABLING, AS WELL AS ALL OTHER WIRING, CONNECTION, GROUNDING, AND ANCILLARY WORK NECESSARY FOR A COMPLETE SYSTEM INSTALLATION.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

PAUL J. MANNIX, P.E.
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ATKINS NORTH AMERICA, INC.
482 SOUTH KELLER ROAD
ORLANDO, FLORIDA 32810

INDIAN RIVER COUNTY
PUBLIC WORKS

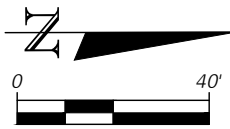
6TH AVENUE RESURFACING

GENERAL NOTES

T-4

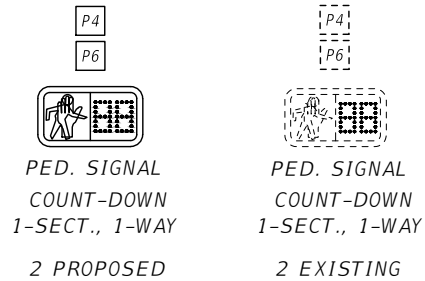
SHEET NO.
T-4

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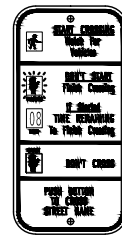


PEDESTRIAN POLE INFORMATION			
PED ID	STA.	OFFSET	SIDE OF ROADWAY
P-1	117+53	30.9	RT
P-2	EXIST. TO REMAIN		
P-3	EXIST. TO REMAIN		
P-4	118+31	32.8	RT
P-5	118+22	40.6	LT

PEDESTRIAN HEAD DETAIL

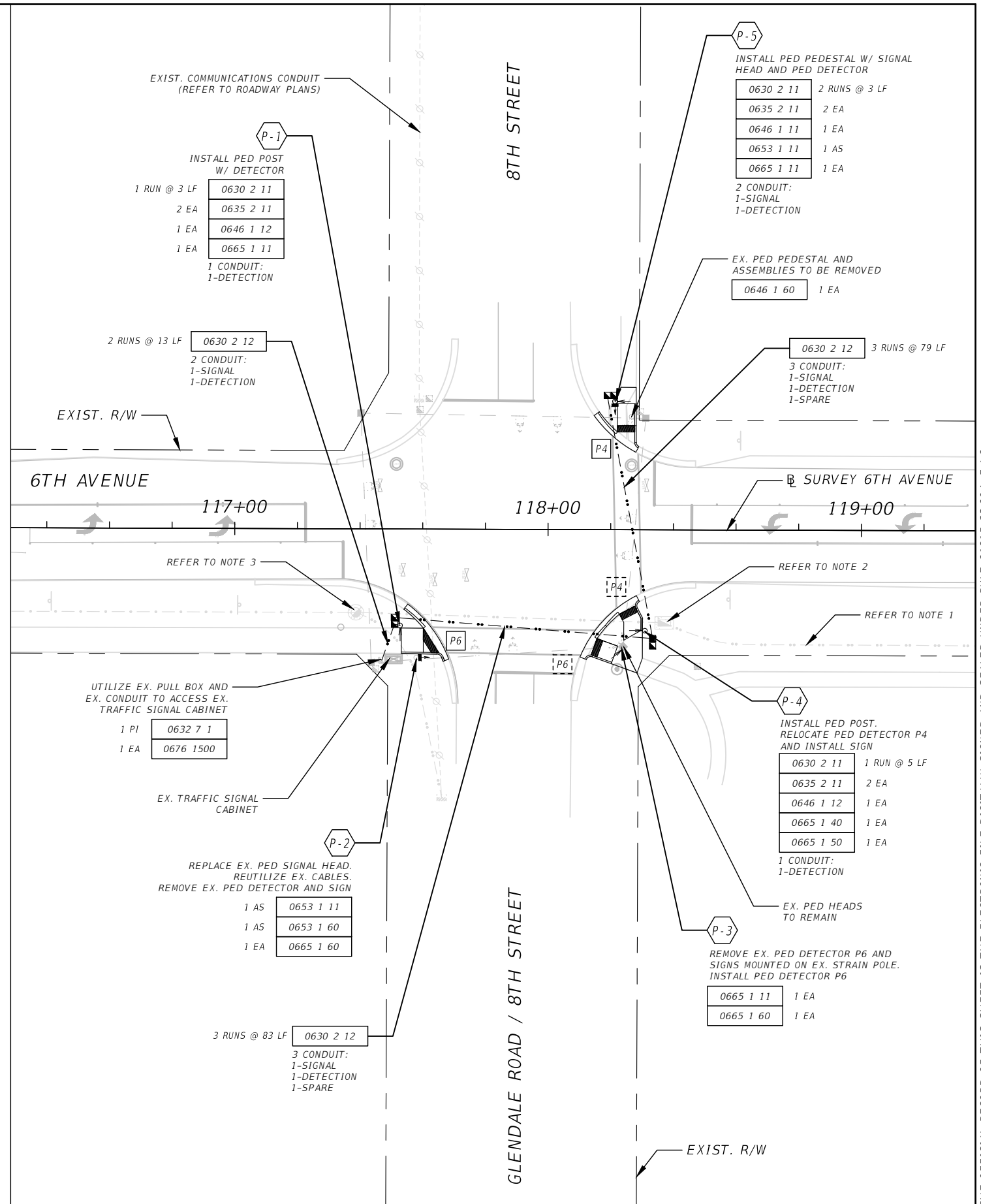


PEDESTRIAN DETECTOR SIGN



FTP-68B-06, 4 REQUIRED
(INCLUDED W/ 0665 1 11, 0665 1 50)

- NOTES:
1. PROPOSED 2-2" UNDERGROUND CONDUIT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 2. PROPOSED FIBER OPTIC PULL BOX (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 3. PROPOSED SPLICE VAULT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 4. EXISTING DETECTOR LOOPS TO BE ABANDONED IN PLACE.
 5. EXISTING TIMINGS, PREEMPTION (IF EXISTING), AND S.O.P. TO REMAIN UNLESS OTHERWISE NOTED.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

PAUL J. MANNIX, P.E.
P.E. LICENSE NUMBER 57712
ATKINS NORTH AMERICA, INC.
482 SOUTH KELLER ROAD
ORLANDO, FLORIDA 32810

INDIAN RIVER COUNTY
PUBLIC WORKS

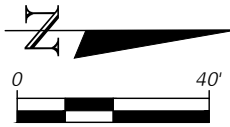
6TH AVENUE RESURFACING

SIGNALIZATION PLAN (1)

T-5

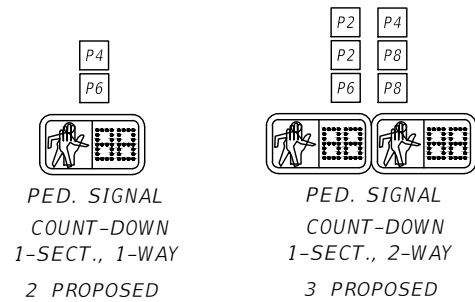
SHEET NO.
T-5

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

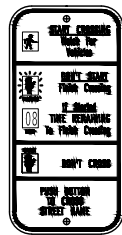


PEDESTRIAN POLE INFORMATION			
PED ID	STA.	OFFSET	SIDE OF ROADWAY
P-1	143+95	50.3	RT
P-2	144+81	50.8	RT
P-3	EXIST. TO REMAIN		
P-4	144+77	30.4	LT
P-5	143+94	24.1	LT

PEDESTRIAN HEAD DETAIL

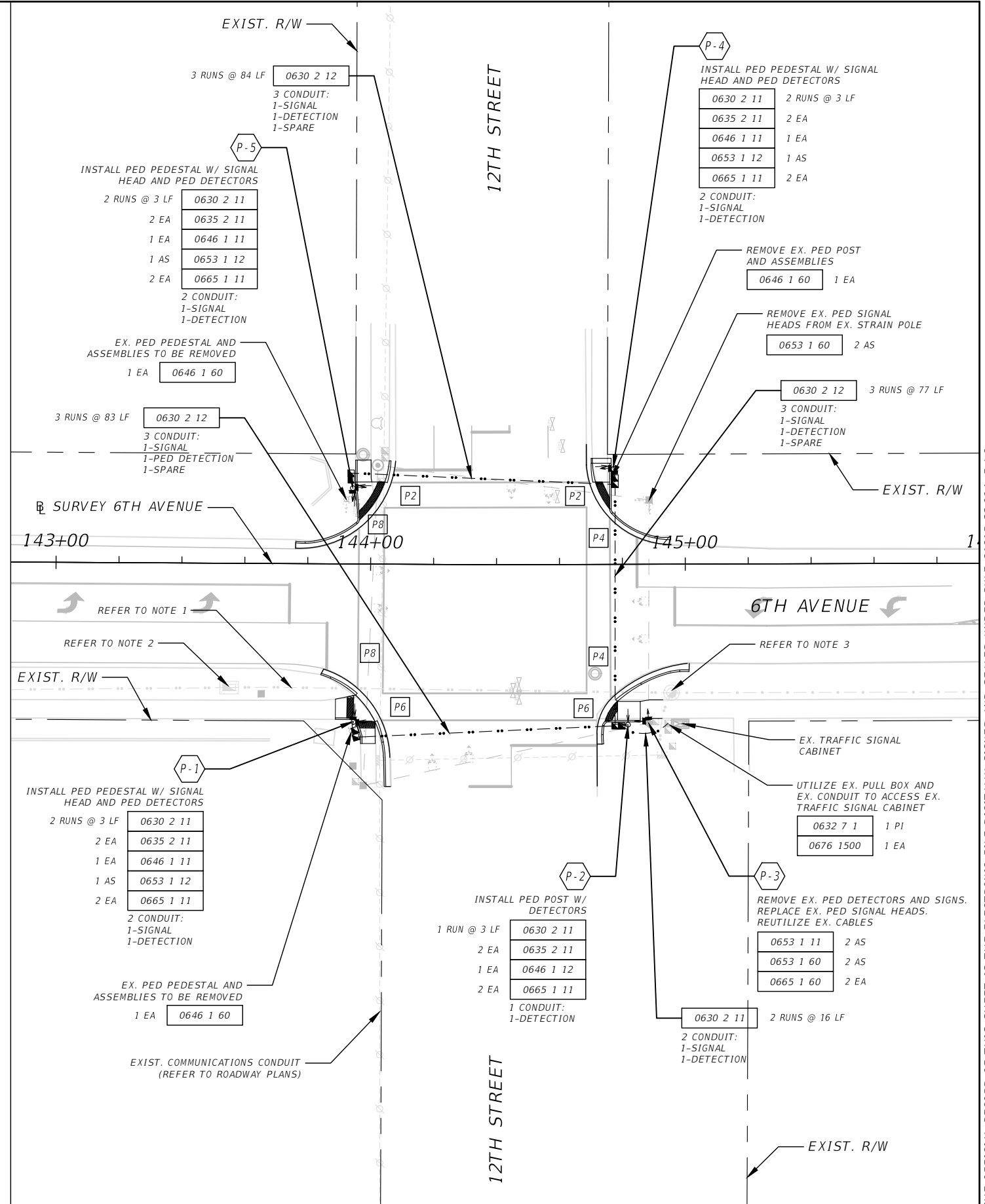


PEDESTRIAN DETECTOR SIGN



FTP-68B-06, 8 REQUIRED
(INCLUDED W/ 0665 1 11)

- NOTES:**
1. PROPOSED 2-2" UNDERGROUND CONDUIT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 2. PROPOSED FIBER OPTIC PULL BOX (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 3. PROPOSED SPLICE VAULT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 4. EXISTING DETECTOR LOOPS TO BE ABANDONED IN PLACE.
 5. EXISTING TIMINGS, PREEMPTION (IF EXISTING), AND S.O.P. TO REMAIN UNLESS OTHERWISE NOTED.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

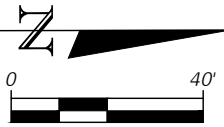
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INDIAN RIVER COUNTY
 PUBLIC WORKS
 6TH AVENUE RESURFACING

SIGNALIZATION PLAN (2)
 T-6

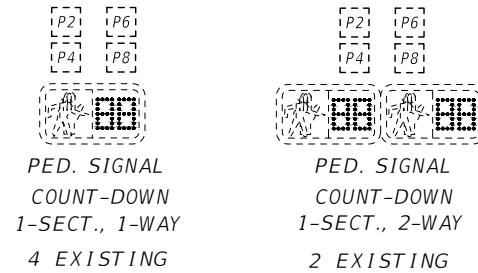
SHEET NO.
 T-6

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PEDESTRIAN POLE INFORMATION			
PED ID	STA.	OFFSET	SIDE OF ROADWAY
P-1	EXIST. TO REMAIN		
P-2	EXIST. TO REMAIN		
P-3	EXIST. TO REMAIN		
P-4	EXIST. TO REMAIN		
P-5	EXIST. TO REMAIN		

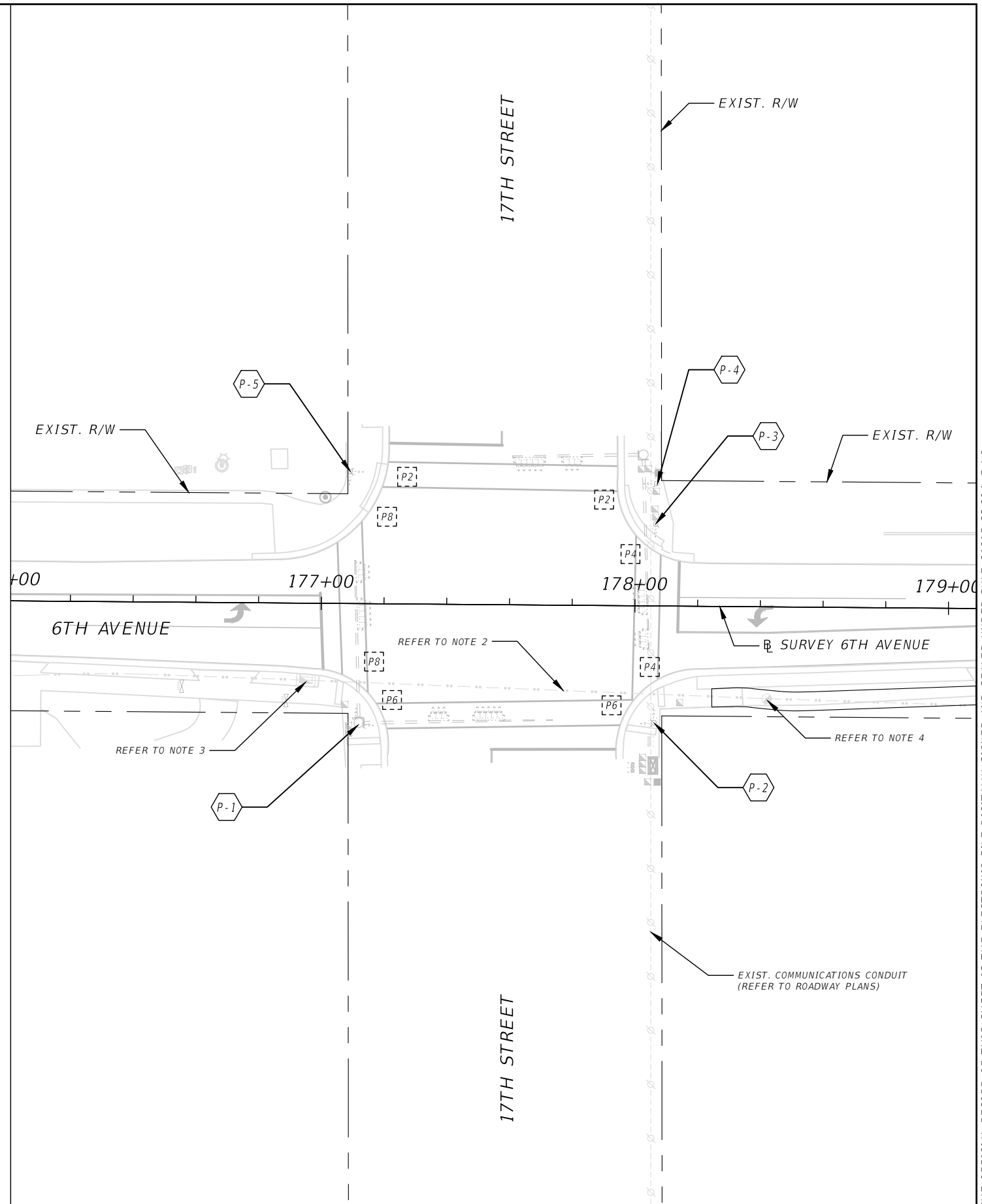
PEDESTRIAN HEAD DETAIL



PEDESTRIAN DETECTOR SIGN



FTP-68B-06, 8 EXISTING



- NOTES:
1. THIS SHEET IS FOR INFORMATION PURPOSES ONLY. NO SIGNAL WORK TO BE COMPLETED.
 2. PROPOSED 2-2" UNDERGROUND CONDUIT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 3. PROPOSED FIBER OPTIC PULL BOX (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 4. PROPOSED SPLICE VAULT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 5. EXISTING TIMINGS, PREEMPTION (IF EXISTING), AND S.O.P. TO REMAIN UNLESS OTHERWISE NOTED.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

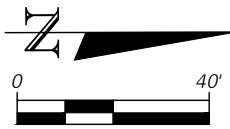
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PUBLIC WORKS

6TH AVENUE RESURFACING

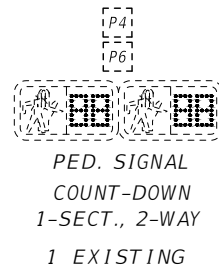
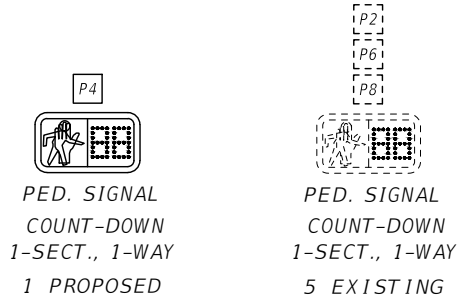
SIGNALIZATION PLAN (3)

SHEET NO.
T-7



PEDESTRIAN POLE INFORMATION			
PED ID	STA.	OFFSET	SIDE OF ROADWAY
P-1	EXIST.	TO REMAIN	
P-2	EXIST.	TO REMAIN	
P-3	EXIST.	TO REMAIN	
P-4	EXIST.	TO REMAIN	

PEDESTRIAN HEAD DETAIL



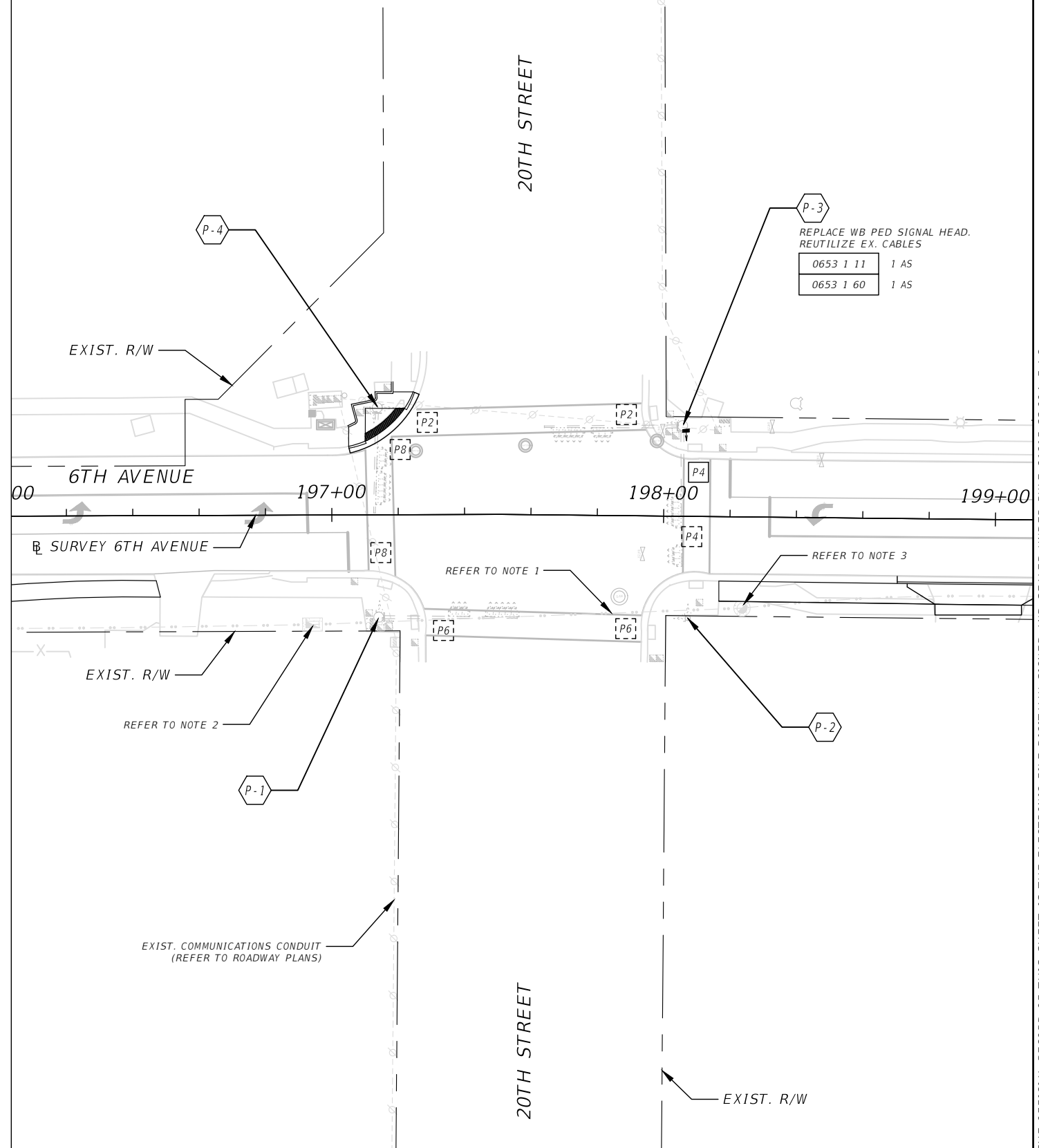
PEDESTRIAN DETECTOR SIGN



FTP-68B-06, 8 EXISTING

NOTES:

1. PROPOSED 2-2" UNDERGROUND CONDUIT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
2. PROPOSED FIBER OPTIC PULL BOX (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
3. PROPOSED SPLICE VAULT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
4. EXISTING TIMINGS, PREEMPTION (IF EXISTING), AND S.O.P. TO REMAIN UNLESS OTHERWISE NOTED.



REVISIONS			
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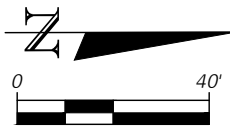
6TH AVENUE RESURFACING

SIGNALIZATION PLAN (4)

T-8

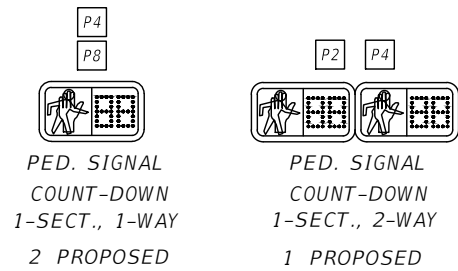
SHEET NO.

T-8

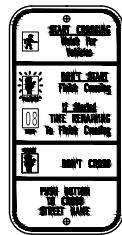


PEDESTRIAN POLE INFORMATION			
PED ID	STA.	OFFSET	SIDE OF ROADWAY
P-1	EXIST. TO REMAIN		
P-2	200+95	27.2	RT
P-3	EXIST. TO REMAIN		
P-4	201+08	29.6	LT
P-5	EXIST. TO REMAIN		
P-6	EXIST. TO REMAIN		

PEDESTRIAN HEAD DETAIL

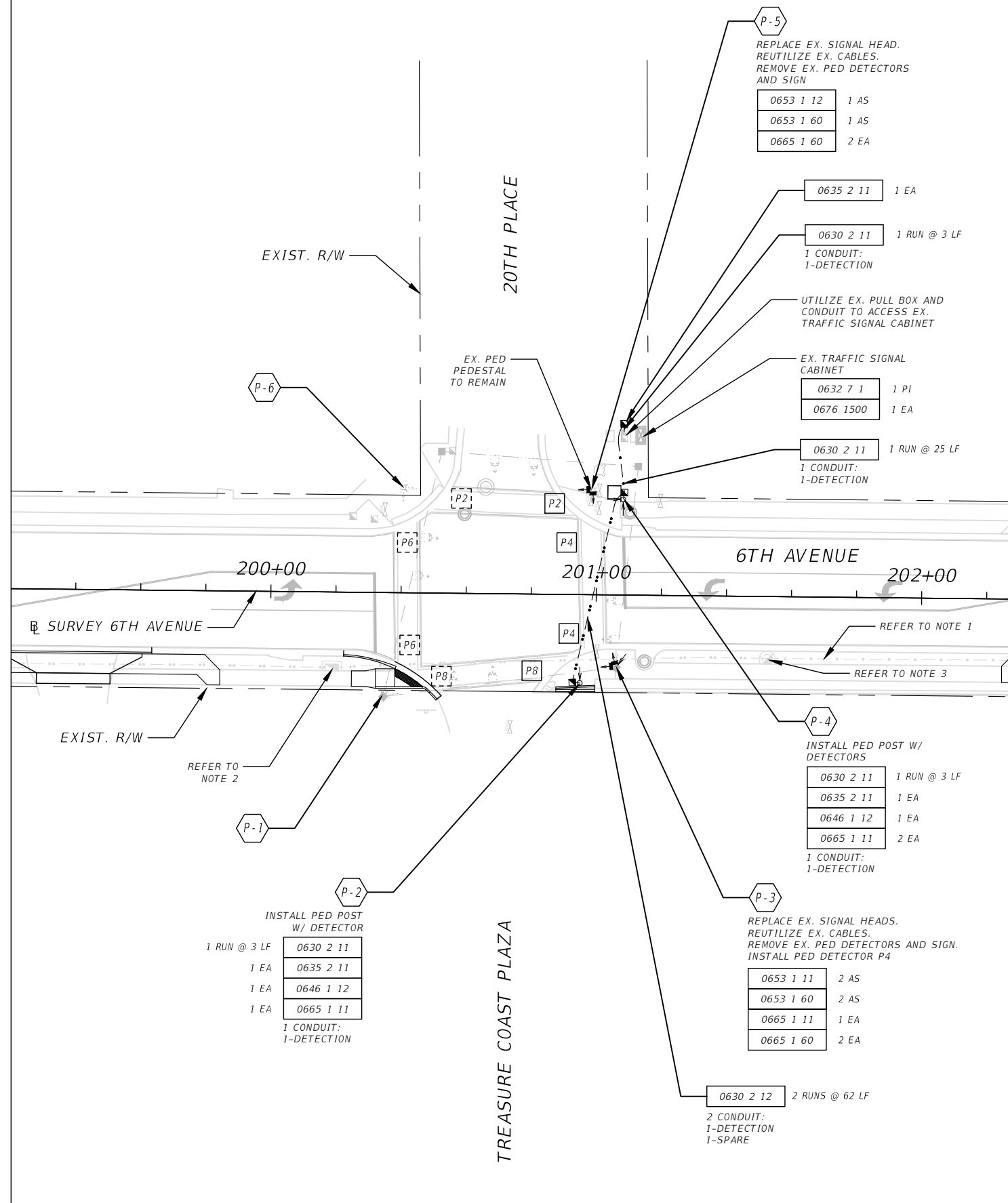


PEDESTRIAN DETECTOR SIGN



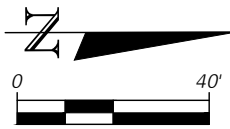
FTP-68B-06, 4 REQUIRED
(INCLUDED W/ 0665 1 11)

- NOTES:
- PROPOSED 2-2" UNDERGROUND CONDUIT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 - PROPOSED FIBER OPTIC PULL BOX (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 - PROPOSED SPLICE VAULT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 - EXISTING DETECTOR LOOPS TO BE ABANDONED IN PLACE.
 - EXISTING TIMINGS, PREEMPTION (IF EXISTING), AND S.O.P. TO REMAIN UNLESS OTHERWISE NOTED.

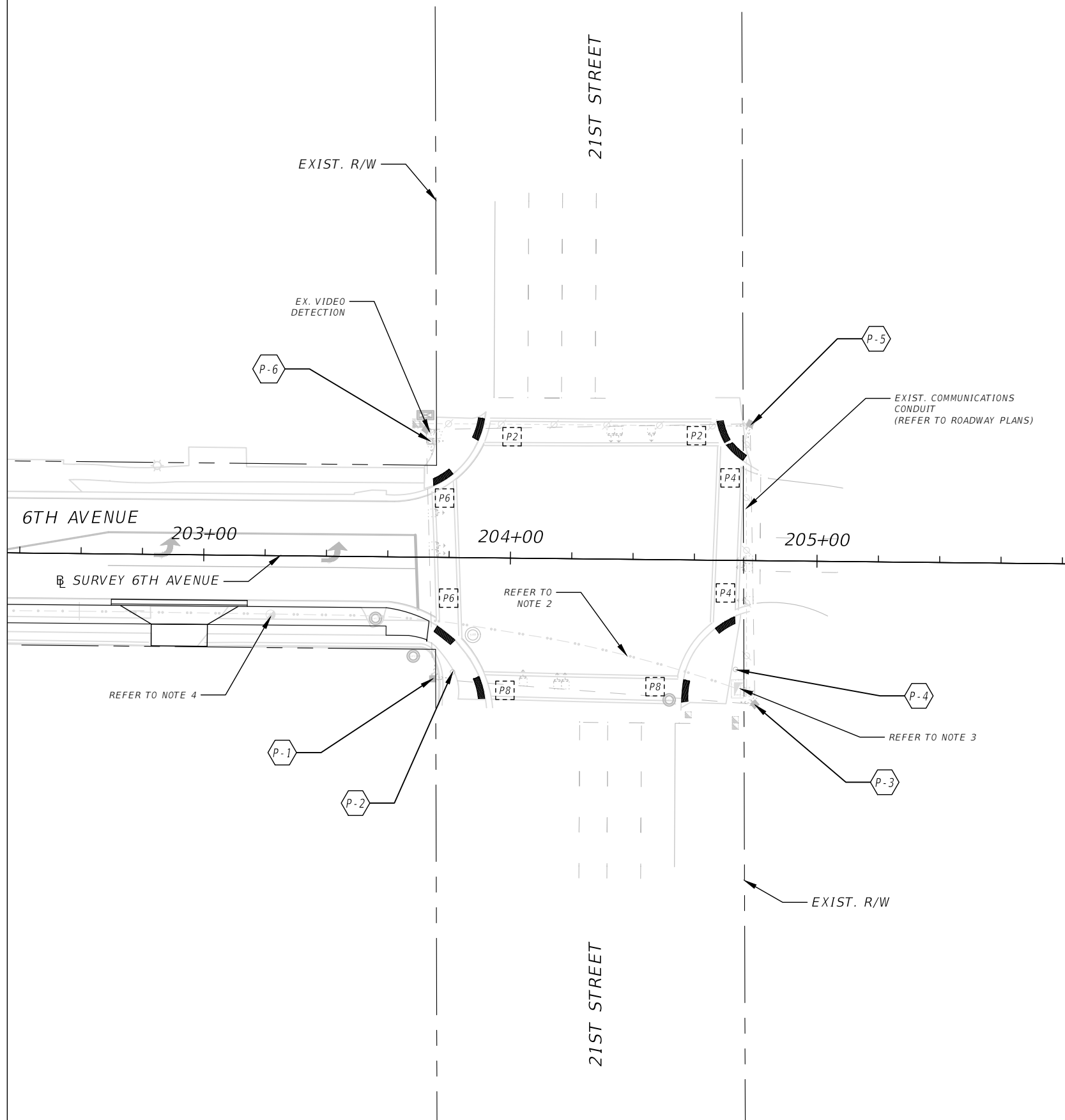


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DATE	DESCRIPTION	DATE	DESCRIPTION				
					6TH AVENUE RESURFACING		

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PEDESTRIAN POLE INFORMATION			
PED ID	STA.	OFFSET	SIDE OF ROADWAY
P-1	EXIST. TO REMAIN		
P-2	EXIST. TO REMAIN		
P-3	EXIST. TO REMAIN		
P-4	EXIST. TO REMAIN		
P-5	EXIST. TO REMAIN		
P-6	EXIST. TO REMAIN		



- NOTES:
1. THIS SHEET IS FOR INFORMATION PURPOSES ONLY. NO SIGNAL WORK TO BE COMPLETED.
 2. PROPOSED 2-2" UNDERGROUND CONDUIT (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
 3. PROPOSED FIBER OPTIC PULL BOX (REFER TO ROADWAY PLANS FOR MORE INFORMATION).
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 5. EXISTING TIMINGS, PREEMPTION (IF EXISTING), AND S.O.P. TO REMAIN UNLESS OTHERWISE NOTED.

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DATE	DESCRIPTION	DATE	DESCRIPTION				
					6TH AVENUE RESURFACING		