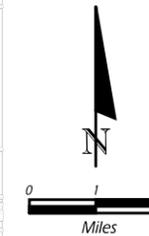
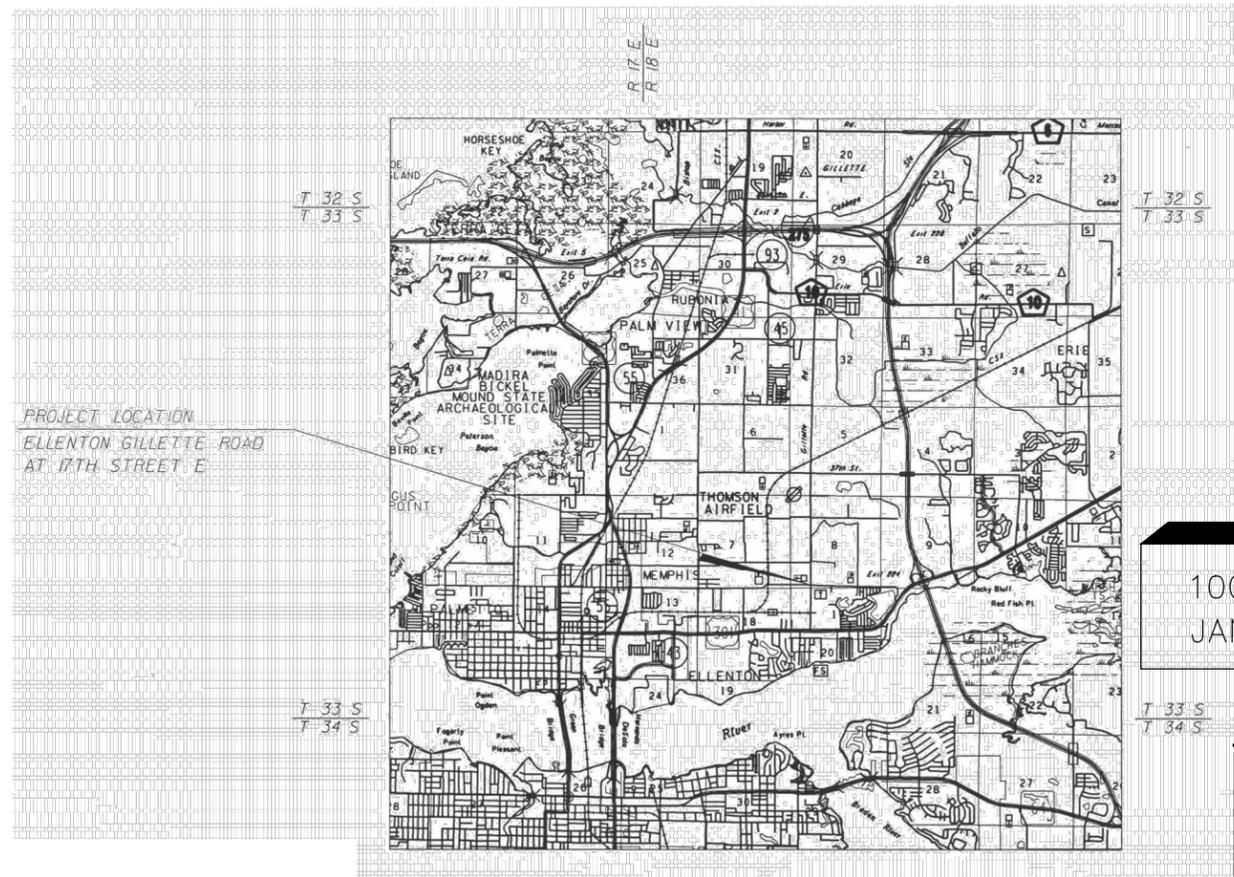
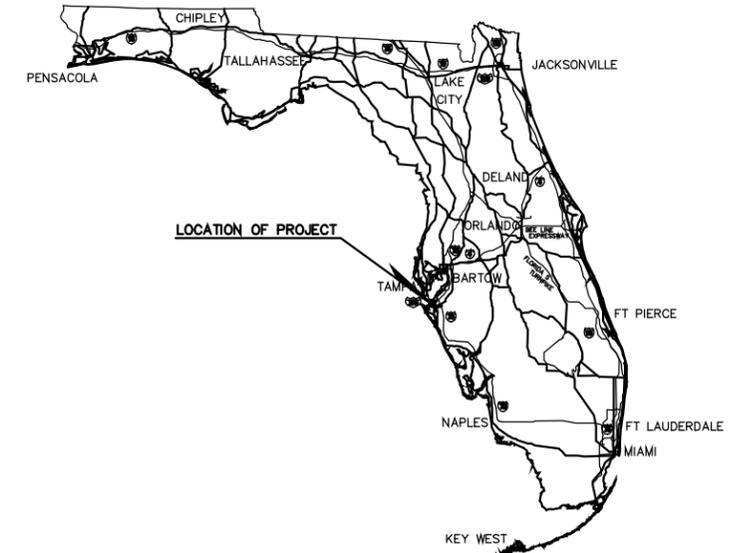


INTERSECTION MODIFICATION

ELLENTON GILLETTE ROAD AT 17TH STREET EAST MANATEE COUNTY

INDEX TO INTERSECTION PLANS:

SHEET NO.	SHEET DESCRIPTION
T-1	KEY SHEET
T-2	TABULATION OF QUANTITIES
T-3	PROJECT NOTES AND PAY ITEM NOTES
T-4 AND T-5	INTERSECTION MODIFICATION PLAN



100% PLANS
JANUARY 28, 2021

INTERSECTION SHOP DRAWINGS TO BE SUBMITTED TO:

JEREMY PETTIT, P.E.
INGENIUM ENTERPRISES
14499 NORTH DALE MABRY HIGHWAY
SUITE 250
TAMPA, FLORIDA 33618
PHONE: (813) 387-0084

PLANS PREPARED BY:

INGENIUM ENTERPRISES
14499 NORTH DALE MABRY HIGHWAY
SUITE 250
TAMPA, FLORIDA 33618
PHONE: (813) 387-0084
CONSULTANT VENDOR NO. F-593601236

FBPR CERTIFICATION OF AUTHORIZATION NO. 8370

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

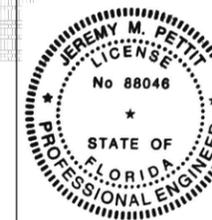
GOVERNING STANDARDS AND SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, 2015 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HERIN, AND JANUARY 2015 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

NOTE: THESE PLANS WERE ORIGINALLY COMPLETED AND ISSUED TO MANATEE COUNTY ON APRIL 27, 2015. AS OF JANUARY 28, 2021, THE PROJECT HAS NOT BEEN CONSTRUCTED. INGENIUM ENTERPRISES, INC. WAS NOT PROVIDED ANY UPDATED EXISTING OR BASE CONDITION INFORMATION FOR THE REINSURANCE OF THESE PLANS. INGENIUM ENTERPRISES, INC. DOES NOT WARRANT THE VALIDITY OF THE EXISTING CONDITIONS SHOWN ON THESE PLANS AND RECOMMENDS THAT MANATEE COUNTY PROVIDE UPDATED EXISTING AND BASE CONDITION INFORMATION. THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING AND BASE CONDITIONS PRIOR TO STARTING ANY CONSTRUCTION. ANY DISCREPANCIES BETWEEN THE FIELD VERIFICATION AND THE EXISTING CONDITIONS AS SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

LOCATION MAP

SECTION 8, TOWNSHIP 33S, RANGE 18E



Digitally signed by Jeremy M. Pettit, P.E.
DN: cn=Jeremy M. Pettit, P.E., c=US,
email=jpettit@ingeniumteam.com
Date: 2021.01.28 12:34:46 -05'00'

JEREMY PETTIT, STATE OF FLORIDA,
PROFESSIONAL ENGINEER, LICENSE NO. 88046

THIS ITEM HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY JEREMY PETTIT ON THE DATE INDICATED HERE USING A SHA AUTHENTICATION CODE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

SIGNALIZATION PLANS
ENGINEER OF RECORDS: JEREMY PETTIT

P.E. NO.: 88046

FISCAL YEAR	SHEET NO.
15	T-1

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL	
			T-4		T-5													
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
110-1-1	CLEARING & GRUBBING	LS	1														1	1
120-1	REGULAR EXCAVATION	CY	3.55														3.55	3.55
520-1-10	CONCRETE CURB AND GUTTER, TYPE F	LF	76														76	76
522-1	CONCRETE SIDEWALK & DRIVEWAY (4" THICK)	SY	33														33	33
527-2	DETECTABLE WARNINGS	SF	30														30	30
570-1-2	PERFORMANCE TURF, SOD	SY		44													44	44
630-2-11	CONDUIT (F&I) (OPEN TRENCH)	LF	39	5													44	44
632-7-1	SIGNAL CABLE - NEW OR RECONSTRUCTION (F&I)	PI	1														1	1
635-2-11	PULL & SPLICE BOX (F&I) (17" x 30" x 12" COVER SIZE)	EA	2	1													3	3
646-1-11	ALUMINUM SIGNALS POLE (PEDESTAL)	EA	4														4	4
646-1-60	ALUMINUM SIGNAL POLE (REMOVE)	EA	1														1	1
653-1-11	PEDESTRIAN SIGNAL (F&I - LED COUNTDOWN) (1 WAY)	AS	4														4	4
653-1-61	PEDESTRIAN SIGNAL (REMOVED PED SIGNAL - POLE/PEDESTAL TO REMAIN)	AS	2														2	2
660-2-102	LOOP ASSEMBLY (F&I) (TYPE B - 6'X6')	AS		2													2	2
660-2-106	LOOP ASSEMBLY (F&I) (TYPE F - 6'X40')	AS		6													6	6
665-1-11	PEDESTRIAN DETECTOR (F&I) (STANDARD)	EA	4														4	4
665-1-60	PEDESTRIAN DETECTOR, REMOVE-POLE/PEDESTAL TO REMAIN	EA	2														2	2
670-5-400	TRAFFIC CONTROLLER ASSEMBLY (MODIFY)	AS	1														1	1
685-106	SYSTEM AUXILIARIES (F&I) (UNITERRUPTIBLE POWER SOURCE)	EA	1														1	1

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<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>DATE</th> <th>DESCRIPTION</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		DATE	DESCRIPTION	DATE	DESCRIPTION					<p>INGENIUM ENTERPRISES 14499 NORTH DALE MABRY HIGHWAY SUITE 250 TAMPA, FLORIDA 33618 (813) 387-0084 FBPR CERTIFICATION OF AUTHORIZATION NO. 8370 ENGINEER OF RECORD: JEREMY PETTIT, P.E. No. 88046</p>	 <p>MANATEE COUNTY PUBLIC WORKS</p>	<p>TABULATION OF QUANTITIES</p>	<p>SHEET NO. T-2</p>
DATE	DESCRIPTION	DATE	DESCRIPTION										

PROJECT NOTES AND PAY ITEM NOTES:

1. 520-1-10 AND 522-1 INCLUDES COST OF REMOVAL AND EXISTING CURB & GUTTER AND SIDEWALK.
2. 630-2-11:
INSTALL CONDUIT UNDER PROPOSED ROADWAY AND/OR SIDEWALK PRIOR TO INSTALLATION OF ROADWAY BASE AND SURFACE OR CONCRETE.

TWO (2) CONDUIT RUNS SHALL BE PROVIDED FOR THE PROVISION OF SEPARATING HIGH AND LOW VOLTAGE WIRING FOR PEDESTRIAN ASSEMBLIES.

#14 XHHW PULL WIRE SHALL BE INSTALLED IN ALL CONDUITS, AT LEAST 2 FEET OF PULL WIRE SHALL BE ACCESSIBLE.
3. 632-7-1:
COMPLETELY REWIRE THE INTERSECTION AT ALL SIGNAL LOCATIONS.

VERIFY THE COLOR OF SIGNAL CABLE WITH THE MAINTAINING AGENCY PRIOR TO WIRING INTERSECTION.

USE MINIMUM OF 7 CONDUCTOR SIGNAL CABLE FOR SIGNAL HEADS AND PEDESTRIAN HEADS.
4. 635-2-11:
PULL BOXES ARE TO BE PLACED BEHIND THE CURB & GUTTER. IF THERE IS NO CURB AND GUTTER, PULL BOXES SHALL BE PLACED A MINIMUM OF 7' FROM THE EDGE OF PAVEMENT. PULL BOXES ARE TO BE POLYMER TYPE (QUAZITE OR EQUIVALENT). ALL PULL BOXES AND SPLICE BOXES SHALL HAVE TRAFFIC BEARING LIDS WITH A MINIMUM LOAD OF 20,000 LBS.

STANDARD PULL BOX DIMENSIONS SHALL BE 17" X 30" 12" AND THE LID SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL" ON THE COVER.
5. 646-1-11:
USE LOCKING COLLARS WHEN MOUNTING PEDESTRIAN SIGNAL HEADS TO THE PEDESTRIAN PEDESTAL.

USE LOCKING COLLARS WHEN MOUNTING ALUMINUM PEDESTRIAN POLES TO PEDESTRIAN PEDESTAL BASES.

USE BREAKAWAY ALUMINUM SQUARE BASE ASSEMBLIES WITH ALUMINUM DOORS FOR PEDESTRIAN PEDESTALS. INSIDE DIAMETER OF PEDESTALS SHALL BE FOUR INCHES (4").
6. 653-1-11:
PEDESTRIAN SIGNAL HEADS TO BE 16" INTERNATIONAL SYMBOL, LED COUNTDOWN TYPE.
7. 660-2-102 AND 660-2-106:
PERMANENTLY MARK EACH LOOP PER PHASE AND PER VEHICLE MOVEMENT AT EACH SPLICE POINT AND AT THE CABINET TERMINATION POINT.

FOR INCREASED SENSITIVITY, INDUCTANCE LOOPS TO HAVE A MINIMUM OF THREE TURNS OF WIRE.

INSTALL LOOP LEAD-IN WIRE IN EXISTING CONDUIT AND PULL BOX FROM LOOP PULL BOX TO CONTROLLER UNLESS NOTED OTHERWISE ON PLAN SHEET.
8. 665-1-11:
USE PEDESTRIAN BUTTON SIGNAL SIGN FTP-68B-06. STREET NAME SHALL BE IN ACCORDANCE WITH THE STREET NAMES SHOWN ON THE SIGNALIZATION PLAN SHEETS.
9. 670-5-400:
THE COORDINATION TIMING WILL BE SUPPLIED TO THE ENGINEER UPON REQUEST FROM CONTRACTOR. REQUESTS SHOULD BE MADE TO THE TRAFFIC ENGINEERING DIVISION (MR. VISHAL S. KAKKAD, 941- 749-3502).

MODIFY EXISTING CONTROLLER AND PERFORM ANY CABINET AND FIELD WIRING NECESSARY.

CORE DRILLING 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 3" IN 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.
10. 685-106:
INCLUDE AN UNINTERRUPTIBLE POWER SUPPLY UNIT (UPS). ATTACH UPS UNIT TO THE OUTSIDE OF THE CONTROLLER CABINET. INSTALL UPS UNIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. UPS EQUIPMENT TO BE COMPATIBLE WITH MAINTAINING AGENCY EXISTING SYSTEM AND SHALL INCLUDE 110 W/ETHERNET AND SNMP (PROTOCOL).
11. UNLESS OTHERWISE NOTED, ALL REMOVED EQUIPMENT (EXCEPT CONCRETE POLES) SHALL BE TURNED OVER TO MANATEE COUNTY AND DELIVERED TO THE TRAFFIC OPERATIONS DIVISION LOCATED AT 2904 12TH STREET COURT EAST, BRADENTON, FLORIDA 34208. CONTACT AARON BURKETT AT (941) 708-7509. CONCRETE POLES SHALL BE PROPERLY DISPOSED OF BY THE SIGNAL CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
12. MAINTAINING AGENCY: MANATEE COUNTY.

13. PAVEMENT MARKINGS ARE SHOWN FOR REFERENCE PURPOSES ONLY. FOR PAVEMENT MARKING DESIGN INFORMATION, SEE PAVEMENT MARKING PLANS.
14. PEACE RIVER POWER COMPANY TO ASSIST CONTRACTOR IN PERFORMING ALL NECESSARY WORK UNDER THEIR POWER LINES, SUCH AS THE INSTALLATION OF SPAN SIRE, SIGNAL CABLE, FIBERGLASS INSULATORS, AND SIGNAL POLES. CONTRACTOR TO NOTIFY THE POWER COMPANY AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO INSTALLATION OF THIS EQUIPMENT.
15. THE CONTRACTOR SHALL MAINTAIN TEMPORARY VEHICLE DETECTION ON ALL APPROACHES THROUGHOUT CONSTRUCTION UNTIL MANATEE COUNTY ACCEPTS THE PROJECT. ANY DAMAGE TO THE EXISTING DETECTION SYSTEM AT AN INTERSECTION MUST BE RESTORED WITHIN TWENTY-FOUR (24) HOURS AT NO ADDITIONAL COST TO THE COUNTY. MANATEE COUNTY TRAFFIC OPERATIONS DIVISION WILL ASSIST AS NEEDED WHEN POSSIBLE.
16. AT LEAST FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT MANATEE COUNTY TRAFFIC OPERATIONS DIVISION, MR. AARON BURKETT (941) 708-7509, AND TRAFFIC ENGINEERING DIVISION, MR. VISHAL S. KAKKAD (941) 749-3502, TO INFORM THEM OF CONSTRUCTION OPERATIONS.
17. THE CONTRACTOR SHALL SUBMIT THE AS-BUILT PLANS TO THE ENGINEER FOR APPROVAL WHEN CONSTRUCTION IS COMPLETE.
18. WHEN CONSTRUCTION IS COMPLETE, DELIVER THREE HARD-COPY SETS OF AS-BUILT RECORD DRAWINGS. TWO SETS OF IMSA INSPECTION FORMS, AND ONE COMPACT DISK OF RECORD DRAWINGS IN ADOBE ACROBAT (.PDF) AND AUTOCAD (.DWG) FORMAT TO:

MANATEE COUNTY TRAFFIC ENGINEERING DIVISION
ATTN: VISHAL S. KAKKAD, PE, PTOE
2101 47TH TERRACE EAST
BRADENTON, FLORIDA 34203

RECORD DRAWINGS AND INSPECTION FORMS MUST BE DELIVERED TO THE COUNTY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION.
19. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv Vh AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN POINTS HAVE NOT BEEN VERIFIED.
20. EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
21. CONTRACTOR SHALL NOTIFY UTILITY OWNERS OF ANY EXCAVATION OR DEMOLITION ACTIVITY THROUGH SUNSHINE ONE CALL OF FLORIDA INC. (1-800-432-4770) AND SHALL ALSO NOTIFY THOSE UTILITY OWNERS/AGENCIES LISTED WITHIN OR IMPACTED BY THESE PLANS, NOT LESS THAN TWO (2) FULL BUSINESS DAYS IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.

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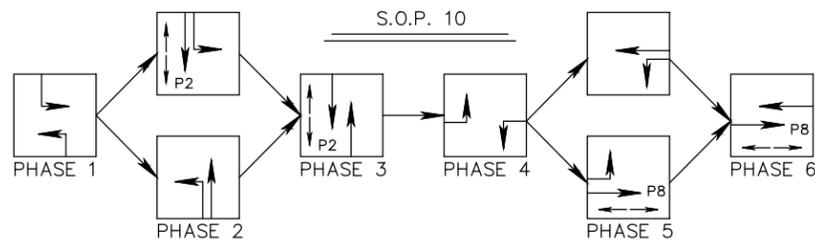
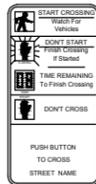
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DATE	DESCRIPTION	DATE	DESCRIPTION				T-3

P2 P8



PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
4 AS
653-1-11



NOTES:

1. MAJOR ROAD IS ELLENTON GILLETTE ROAD, PHASE 3 (MOVEMENTS 2 AND 6); MINOR ROAD IS 17TH STREET E, PHASE 6 (MOVEMENTS 4 AND 8)
2. EXISTING PULL BOXES TO BE UTILIZED UNLESS OTHERWISE NOTED.
3. EXISTING SOP AND TIMINGS TO REMAIN, EXCEPT FOR PEDESTRIAN TIMINGS.
4. FIBER OPTIC INTERCONNECT DETAILS TO BE PROVIDED BY OTHERS IN A SEPARATE PLAN SET.
5. WHEN IN FLASHING MODE, FLASHING OPERATION SHALL BE YELLOW FOR HEADS 2 AND 6, AND RED FOR HEADS 4 AND 8.

ELLENTON GILLETTE ROAD
DESIGN SPEED: 45 MPH
POSTED SPEED: 45 MPH

17TH STREET EAST
DESIGN SPEED: 40 MPH
POSTED SPEED: 30 MPH

*NOTE: THE SPEED LIMIT INFORMATION IS CURRENT AS OF APRIL 27TH, 2015.

CONTROLLER TIMINGS

TIMING FUNCTION	1	2	3	4	5	6	7	8
MOVEMENT NUMBER	1	2	3	4	5	6	7	8
MINIMUM GREEN	7	20	7	7	7	20	7	7
EXTENSION	3	5	3	4	3	5	3	4
MAXIMUM GREEN 1	15	40	15	30	15	40	15	25
MAXIMUM GREEN 2								
YELLOW CLEARANCE	4.5	4.5	3.5	3.5	4.5	4.5	3.5	3.5
ALL RED	2.5	1.5	3	2.5	2.5	1.5	3	2.5
PEDESTRIAN WALK		10						10
PED. CLEARANCE		14						17
RECALL								

*NOTE: THE CONTROLLER TIMINGS INFORMATION IS CURRENT AS OF APRIL 27TH, 2015.

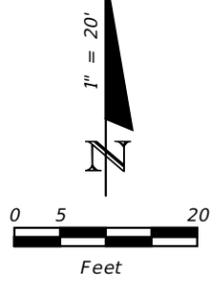
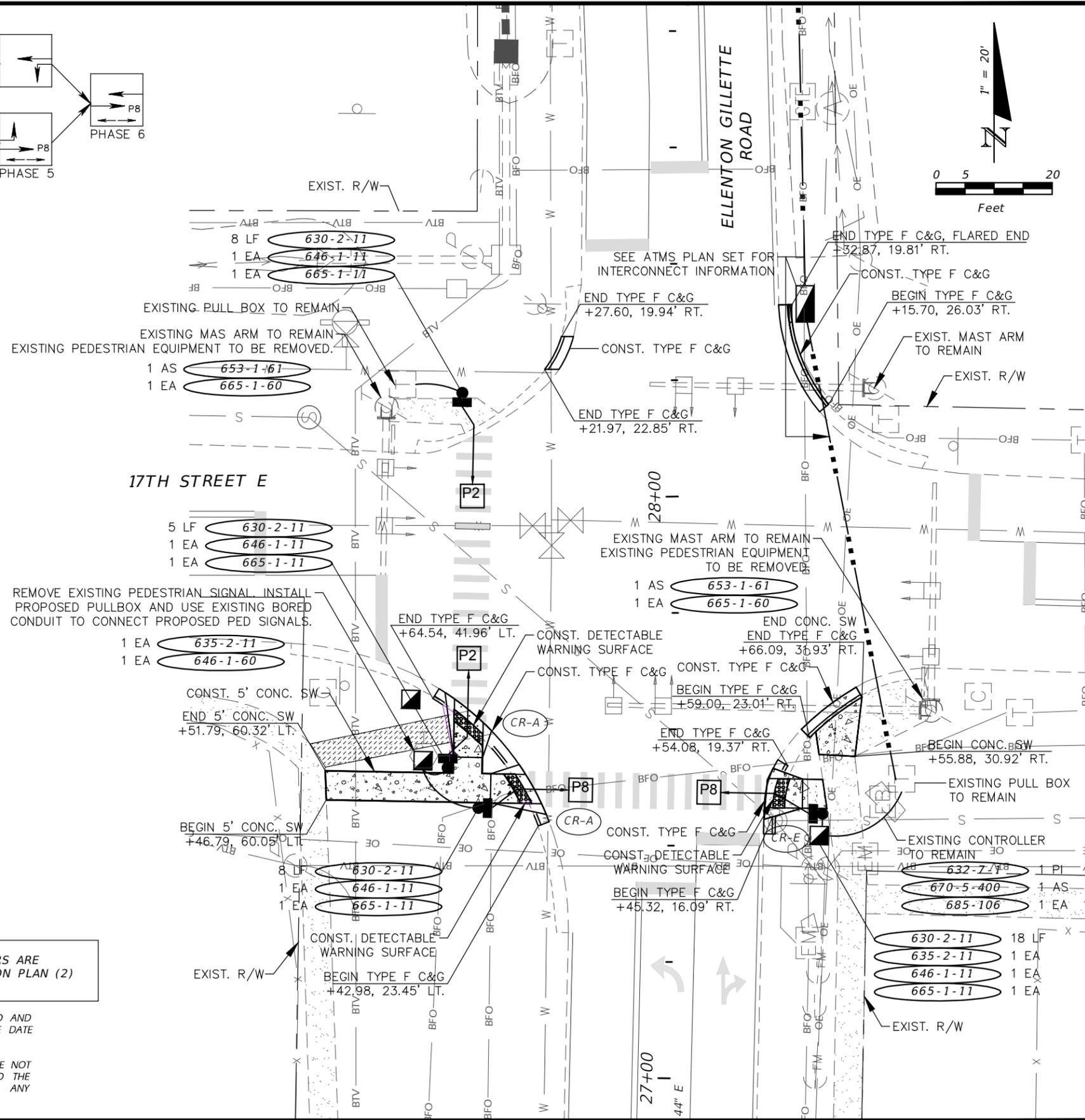
NOTE: SOD AREAS AND LOOP DETECTORS ARE SHOWN ON INTERSECTION MODIFICATION PLAN (2)

LEGEND:

- PROPOSED 4" CONCRETE SIDEWALK
- EXISTING CONCRETE SIDEWALK TO BE REMOVED

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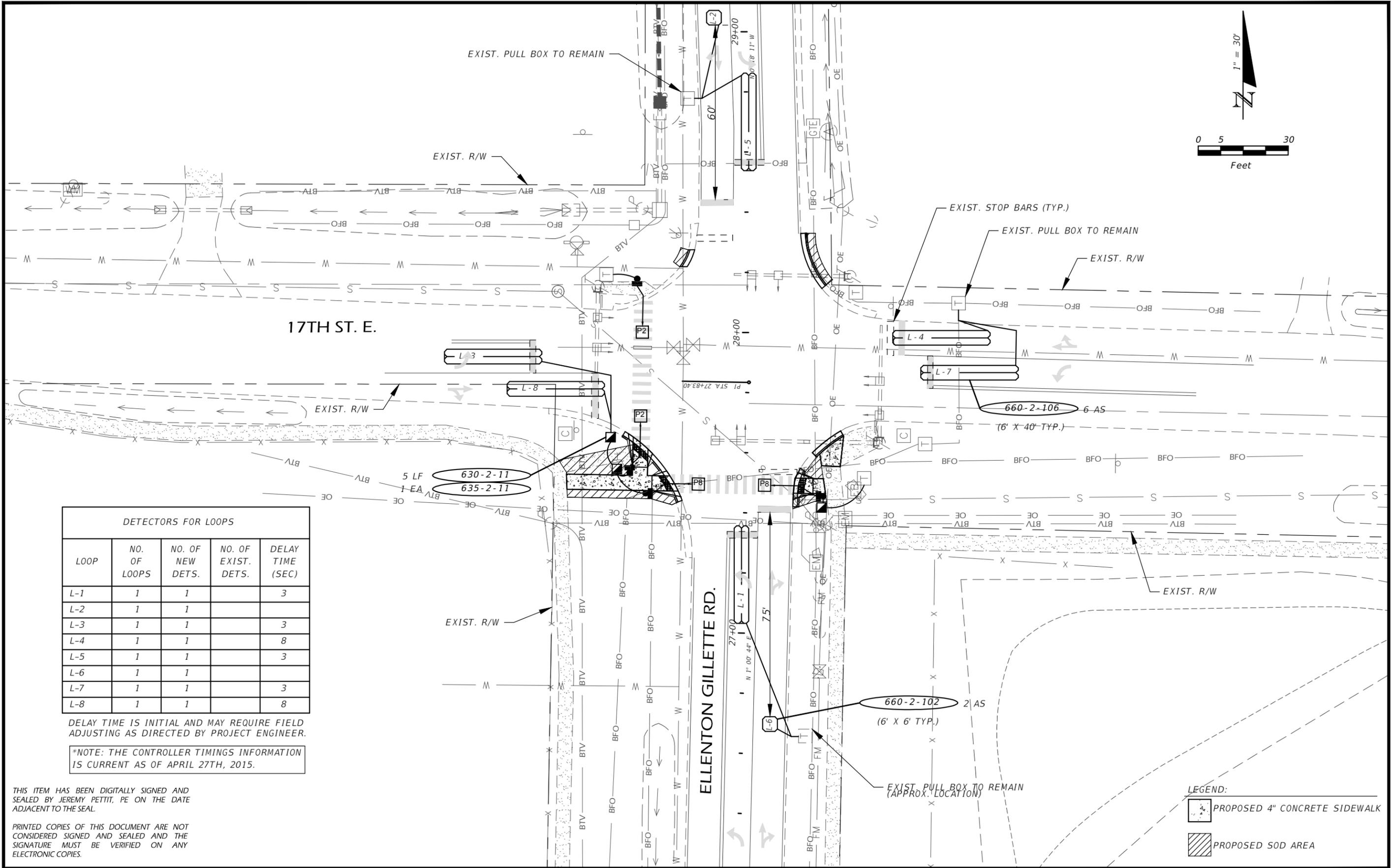
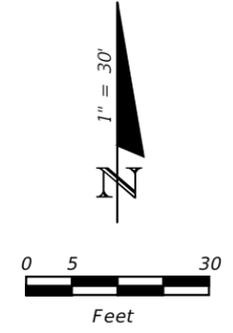
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ENGINEER OF RECORD: JEREMY PETTIT, P.E. No. 88046



MANATEE COUNTY
PUBLIC WORKS

INTERSECTION
MODIFICATION PLAN (1)

SHEET NO.
T-4



DETECTORS FOR LOOPS

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

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

*NOTE: THE CONTROLLER TIMINGS INFORMATION IS CURRENT AS OF APRIL 27TH, 2015.

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LEGEND:

- PROPOSED 4" CONCRETE SIDEWALK
- PROPOSED SOD AREA

REVISIONS		REVISIONS	
DATE	DESCRIPTION	DATE	DESCRIPTION

INGENIUM ENTERPRISES
 14499 NORTH DALE MABRY HIGHWAY
 SUITE 250
 TAMPA, FLORIDA 33618
 (813) 387-0084
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MANATEE COUNTY
 PUBLIC WORKS

INTERSECTION
 MODIFICATION PLAN (2)

SHEET
 NO.

T-5