

CONTRACT PLANS COMPONENTS

ROADWAY
SIGNING AND PAVEMENT MARKING
SIGNALIZATION
LIGHTING
STRUCTURES

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
SIGNALIZATION PLANS

FINANCIAL PROJECT ID 441512-1-52-01 & 441512-1-52-02
(FEDERAL FUNDS)
COLLIER COUNTY (03010)
SR 45 (US 41)

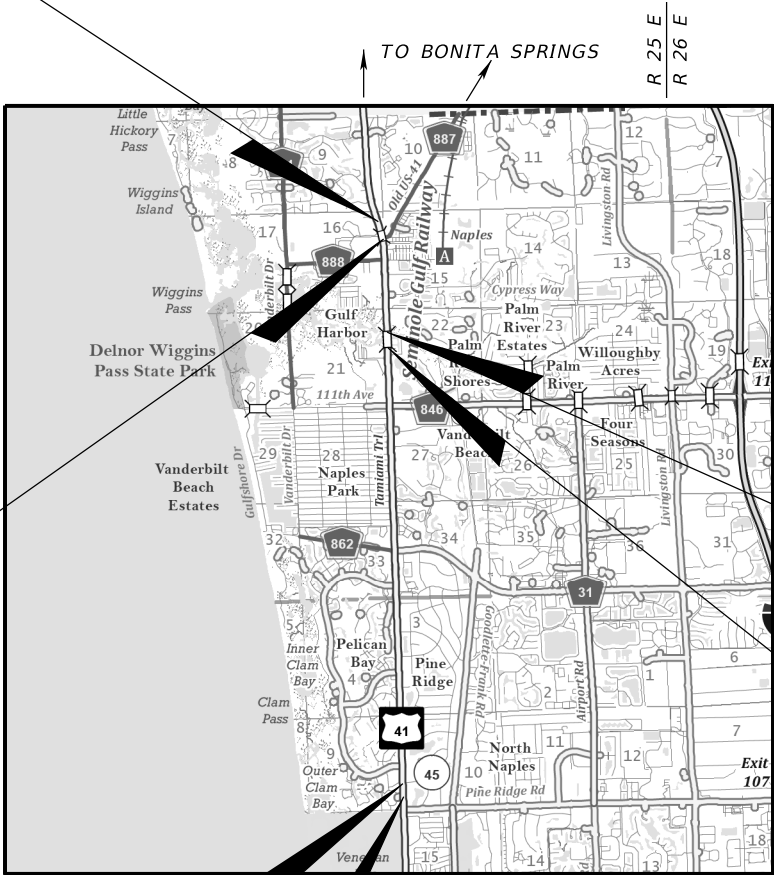
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END PROJECT
STA. 131+73.57
MP 1.181

FROM N OF OLD US 41 TO S OF GULF PARK DR

STA. 383+11.88 @ SURVEY US 41 SOUTH =
STA. 107+05.94 @ SURVEY US 41 NORTH
T 48 S
T 49 S



BEGIN PROJECT
STA. 159+05.02
MP 5.888

BEGIN CONSTRUCTION
STA. 156+07.05
MP 5.945

T 48 S
T 49 S

END BRIDGE NO. 030017
END BRIDGE NO. 030306
STA. 347+08.51

BEGIN BRIDGE NO. 030017
BEGIN BRIDGE NO. 030306
STA. 345+13.41

GOVERNING STANDARD PLANS:

Florida Department of Transportation, FY2026-27 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

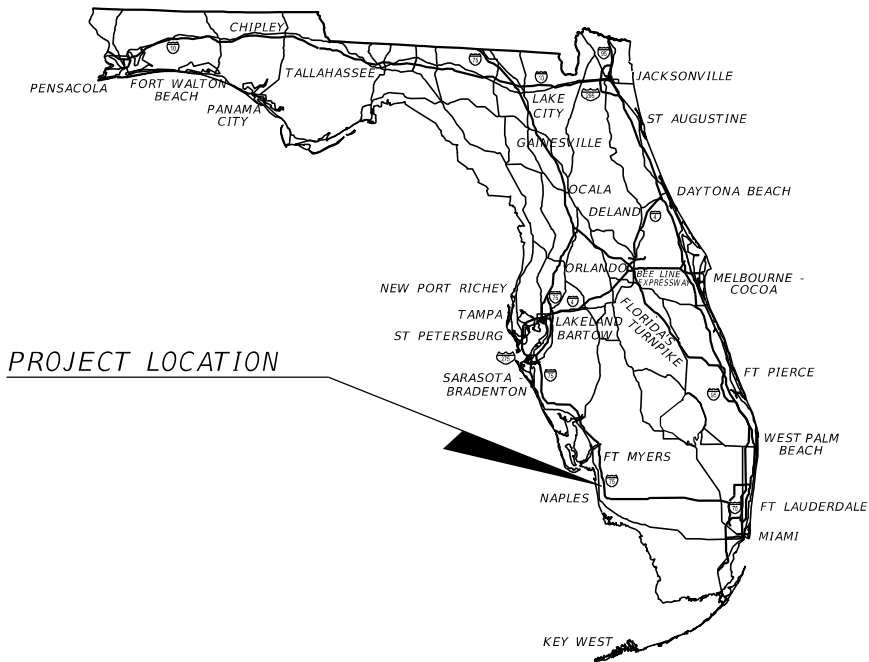
Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

APPLICABLE IRs: N/A

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

GOVERNING STANDARD SPECIFICATIONS:

Florida Department of Transportation, FY2026-27 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>



PHASE IIIR
MAY 2026

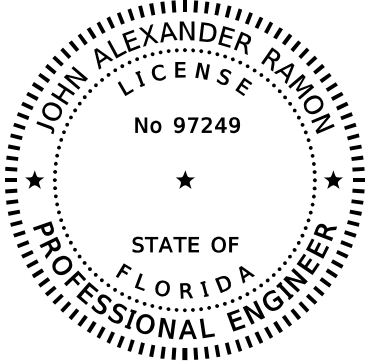
SIGNALIZATION PLANS
ENGINEER OF RECORD:

JOHN ALEXANDER RAMON, P.E.
P.E. LICENSE NUMBER 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874
(813) 261-5136
CONTRACT NO.: CA411
VENDOR NO.: F592594956001

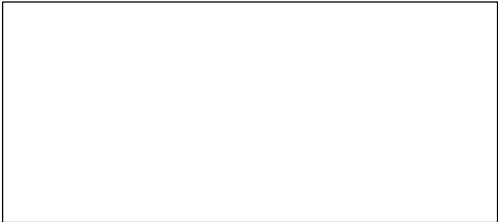
FDOT PROJECT MANAGER:

DAVID J. AGACINSKI

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
T1837	27	T-1



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:

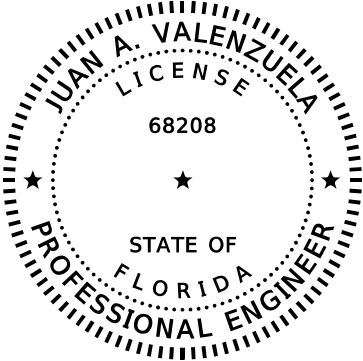


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ON ANY ELECTRONIC COPIES.

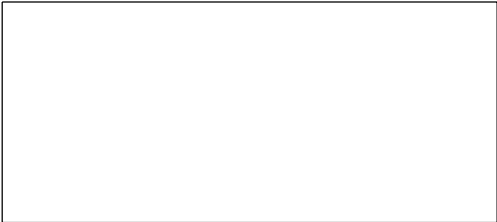
FALLER, DAVIS & ASSOCIATES, INC
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FLORIDA 33607-4874
JOHN ALEXANDER RAMON, P.E. NO.: 97249

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-1	KEY SHEET
T-2	SIGNATURE SHEET
T-3	GENERAL NOTES
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T-41	SPECIAL SIGNALIZATION DETAILS



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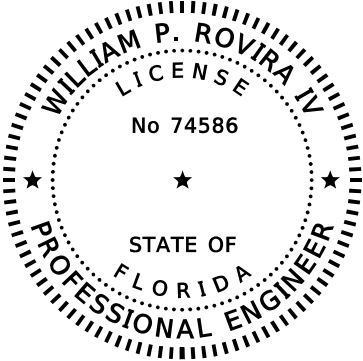


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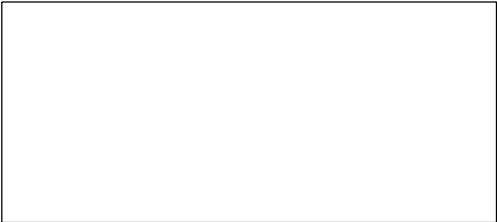
FLORIDA BRIDGE AND TRANSPORTATION INC.
633 DARTMOUTH STREET
ORLANDO, FL 32804
JUAN A. VALENZUELA, P.E. NO.: 68208

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-2	SIGNATURE SHEET
T-42	STANDARD MAST ARM ASSEMBLIES DATA TABLE
T-43	SPECIAL MAST ARM ASSEMBLIES DATA TABLE



THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:



ON THE DATE ADJACENT TO THE SEAL
SIGNATURE MUST BE VERIFIED
ON ANY ELECTRONIC COPIES.

TIERRA, INC.
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FL. 33637
WILLIAM P. ROVIRA IV, P.E. NO.: 74586

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
T-2	SIGNATURE SHEET
T-44 - T-53	REPORT OF CORE BORINGS

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNATURE SHEET	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR 45	COLLIER	441512-1-52-01		T-2

GENERAL NOTES: 1. WHERE MAST ARM, STRAIN POLES, OR ANY OTHER SIGNAL EQUIPMENT REQUIRING FOUNDATIONS ARE PROPOSED WITHIN 4 FEET OF ANY UNDERGROUND UTILITY, THE UTILITY MUST BE LOCATED AND EXPOSED. THE INITIAL 5 FEET OF THE SHAFT INSTALLATION MUST BE EXCAVATED USING NON MECHANIZED EQUIPMENT. 2. FOR REMOVED SIGNAL EQUIPMENT CLAIMED BY THE MAINTAINING AGENCY, CONTACT: CHRISTOPHER ORDONEZ, P.E. COLLIER COUNTY TRAFFIC OPERATIONS 2885 S. HORSESHOE DRIVE NAPLES, FL 34104 (239) 252-5136 CHRISTOPHER.ORDONEZ@COLLIER.GOV 3. MAINTAINING AGENCY: COLLIER COUNTY 4. PAVEMENT MARKINGS ARE SHOWN FOR REFERENCE PURPOSES ONLY. FOR PAVEMENT MARKING DESIGN INFORMATION, SEE PAVEMENT MARKING PLANS. 5. AT LEAST TWO (2) FULL BUSINESS DAYS PRIOR TO BEGINNING THE TRAFFIC SIGNAL INSTALLATION, CONTACT THE TRAFFIC SIGNAL INSPECTOR/LIAISON: FLORIDA DEPARTMENT OF TRANSPORTATION FORT MYERS OPERATIONS CENTER 2981 N. E. PINE ISLAND ROAD CAPE CORAL, FL. 33909 (239) 985-7800 6. WHEN CONSTRUCTION IS COMPLETE, IN ADDITION TO THE REQUIREMENT OF STANDARD SPECIFICATION 9-8, PROVIDE A SET OF "AS-BUILT" PLANS TO: CHRISTOPHER ORDONEZ, P.E. COLLIER COUNTY TRAFFIC OPERATIONS 2885 S. HORSESHOE DRIVE NAPLES, FL 34104 (239) 252-5136 CHRISTOPHER.ORDONEZ@COLLIER.GOV 7. WHEN CONSTRUCTION IS COMPLETE, PROVIDE A SET OF "AS-BUILT" PLANS IN ELECTRONIC FORM (PDF) TO: FDOT TRAFFIC OPERATIONS NEAL TURNER, P.E., TSM&O ENGINEER - ARTERIALS 801 N. BROADWAY AVE. P.O. BOX 1249 BARTOW, FL 33830-1249 EMAIL: NEAL.TURNER@DOT.STATE.FL.US PHONE: 863-519-2216 8. 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 LOCATION/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN POINTS HAVE NOT BEEN VERIFIED. SIGNALIZATION PAY ITEM NOTES: 1. 630-2-11 AND 630-2-12: USE A MINIMUM OF 3" DIAMETER CONDUIT FOR ALL DIRECTIONAL BORES UNLESS OTHERWISE NOTED IN THE PLANS. COAT ALL CONDUIT WITH AN ANTI-SEIZE LUBRICANT. 2. 632-7-1: COMPLETELY REWIRE INTERSECTION AT ALL SIGNAL LOCATIONS. VERIFY THE COLOR CODE OF SIGNAL CABLE WITH THE MAINTAINING AGENCY PRIOR TO WIRING INTERSECTION. 3. 633-3-15: SC CONNECTORS TO BE USED ON THE PIGTAIL AND PATCH PANEL. 4. 635-2-11, 635-2-12, AND 635-2-14: PULL BOXES ARE TO BE PLACED BEHIND CURB AND GUTTER. IF THERE IS NO CURB AND GUTTER, PULL BOXES MUST BE PLACED A MINIMUM OF 7' FROM THE EDGE OF PAVEMENT. USE HEAVY DUTY COMPOSITE CONCRETE CONSTRUCTION PULL BOXES AND COVERS. INCLUDES REMOVAL OF ALL PULL BOXES AT EACH INTERSECTION THAT ARE NO LONGER IN SERVICE OR BEING USED. 5. 639-1-500: MODIFY THE EXISTING POWER SERVICE TO PROVIDE A #1 SERVICE WIRE FROM THE POWER SERVICE TO THE EXISTING SERVICE DISCONNECT TO POWER THE CONTROLLER CABINET/INTERNALLY ILLUMINATED SIGNS AND INTERSECTION LIGHTING FROM THE SIGNAL CONTROLLER CABINET. 6. 639-3-11: INSTALL A NEW ELECTRICAL SERVICE DISCONNECT THAT IS 100 AMP, COMPRISING OF A SIX (6) CIRCUIT DISCONNECT BOX WITH THREE CIRCUIT BREAKERS - ONE 50 AMP/120 VOLT FOR CONTROLLER/INTERNALLY ILLUMINATED STREET SIGNS, ONE 15 AMP/120 VOLT FOR FUTURE USE, AND ONE 20 AMP/120 VOLT FOR INTERSECTION LIGHTING. 7. 646-1-11 AND 646-1-12: USE LOCKING COLLARS WHEN MOUNTING ALUMINUM PEDESTRIAN POLES TO PEDESTRIAN PEDESTAL BASES. USE BREAKAWAY ALUMINUM SQUARE BASE ASSEMBLIES WITH ALUMINUM DOORS FOR PEDESTRIAN PEDESTALS. 8. 649-21-6, 649-21-10, 649-21-15, 649-21-18, 649-21-20, 649-21-21, 649-21-24, 649-21-26 AND 649-21-27: USE THREE 2" AND ONE 3/4" CONDUITS STUBBED OUT THROUGH THE MAST ARM POLE FOUNDATION AND TEMPORARILY SEAL. MAST ARM 4-2 TO BE PAINTED "ENGLISH IVY", FEDERAL COLOR CODE RAL 6005. PROVIDE TERMINAL COMPARTMENT FOR ALL PROPOSED MAST ARMS.
--

SIGNALIZATION PAY ITEM NOTES:

9.

650-1-14, 650-1-16 AND 650-1-18:
AVOID ADDITIONAL STRESS ON EXISTING SIGNAL SUPPORT STRUCTURE BY ALTERNATING INSTALLATION OF EACH NEW SIGNAL HEAD WITH THE REMOVAL OF EACH OLD SIGNAL HEAD.

USE LOUVERED ALUMINUM SIGNAL HEAD BACK PLATES.

10.

653-1-11:
PEDESTRIAN SIGNAL HEADS TO BE 16" INTERNATIONAL SYMBOL, LED COUNTDOWN TYPE.

11.

660-4-11 AND 660-4-12:
CONTACT THE MAINTAINING AGENCY PRIOR TO ORDERING VIDEO DETECTOR AND CABINET EQUIPMENT TO CONFIRM COMPATIBILITY.

12.

660-4-61:
INCLUDES REMOVAL OF CABINET EQUIPMENT AND DELIVERY OF REMOVED EQUIPMENT TO COLLIER COUNTY.

13.

660-4-62:
INCLUDES REMOVAL OF CAMERA VIDEO DETECTORS AND DELIVERY OF REMOVED EQUIPMENT TO COLLIER COUNTY.

14.

663-1-111 AND 663-1-112:
SEE PLAN SHEET FOR THE NUMBER OF INFRARED DETECTORS INCLUDED FOR PREEMPTION DETECTION.

CONTACT THE MAINTAINING AGENCY PRIOR TO ORDERING PREEMPTION DETECTORS AND CABINET EQUIPMENT TO CONFIRM COMPATIBILITY.

15.

663-1-400:
INCLUDES RELOCATING THE EMERGENCY PREEMPTION CABINET EQUIPMENT AND CABLING FROM THE EXISTING CABINET TO THE NEW CABINET AND RECONNECTING.

THIS PAY ITEM IS ALSO USED FOR THE COST OF RELOCATING THE EXISTING DETECTOR FROM THE EXISTING SIGNAL POLE TO THE PROPOSED SIGNAL POLE ON THE NORTHEAST CORNER OF THE INTERSECTION OF SR 45 AND PELICAN MARSH BLVD.

16.

663-1-500:
INCLUDES ANY EFFORT NECESSARY TO CONNECT THE NEW PREEMPTION DETECTORS TO THE EXISTING CABINET EQUIPMENT.

17.

665-1-11:
USE PEDESTRIAN BUTTON SIGNAL SIGN R10-3.

18.

671-2-50:
INCLUDES THE RELOCATION OF ALL EXISTING CABINET EQUIPMENT FROM THE EXISTING CABINET TO THE NEW CABINET ALONG WITH THE CONTROLLER. INCLUDES REMOVAL OF ALL EXISTING LOOP DETECTORS AND DELIVERY OF EXISTING LOOP DETECTORS TO COLLIER COUNTY TRAFFIC OPERATIONS.

MODIFY EXISTING CONTROLLER AND PERFORM ANY CABINET AND FIELD WIRING NECESSARY TO RELOCATE THE CONTROLLER, UPDATE PHASING AND NEW CONTROLLER TIMINGS AND PROVIDE A FULLY FUNCTIONING INTERSECTION.

19.

676-1-117:
POWER ROADWAY LUMINAIRES AND INTERNALLY ILLUMINATED SIGNS FROM A MINI LOAD CENTER IN THE CONTROLLER CABINET. INCLUDE A PHOTOELECTRIC CELL AND SEPARATE CIRCUIT BREAKERS/FUSES FOR INTERNALLY ILLUMINATED SIGNS AND LUMINAIRES IN THE MINI LOAD CENTER PANEL.

PAY ITEM INCLUDES FURNISHING AND INSTALLING A NEW CONTROLLER MMU THAT IS COMPATIBLE WITH FOUR SECTION HEAD OPERATION/LOGIC.

20.

676-1-500:
POWER ROADWAY LUMINAIRES AND INTERNALLY ILLUMINATED SIGNS FROM A MINI LOAD CENTER IN THE CONTROLLER CABINET. INCLUDE A PHOTOELECTRIC CELL AND SEPARATE CIRCUIT BREAKERS/FUSES FOR INTERNALLY ILLUMINATED SIGNS AND LUMINAIRES IN THE MINI LOAD CENTER PANEL.

21.

682-1-163:
MOUNT CCTV CAMERAS TO THE MAST ARM PER DETAIL PROVIDED ON SHEET T-40.

CCTV CAMERA HARDWARE AND SOFTWARE MUST BE COMPATIBLE WITH COLLIER COUNTY'S EXISTING CCTV CAMERA SYSTEM. CONTACT THE MAINTAINING AGENCY PRIOR TO ORDERING CCTV CAMERA TO CONFIRM COMPATIBILITY.

22.

682-1-500:
INCLUDES RELOCATING THE EXISTING CCTV CAMERA CABINET EQUIPMENT AND CABLING TO THE PROPOSED CONTROLLER CABINET AND RECONNECTING.

23.

682-1-600:
RETURN REMOVED CCTV EQUIPMENT TO COLLIER COUNTY.

24.

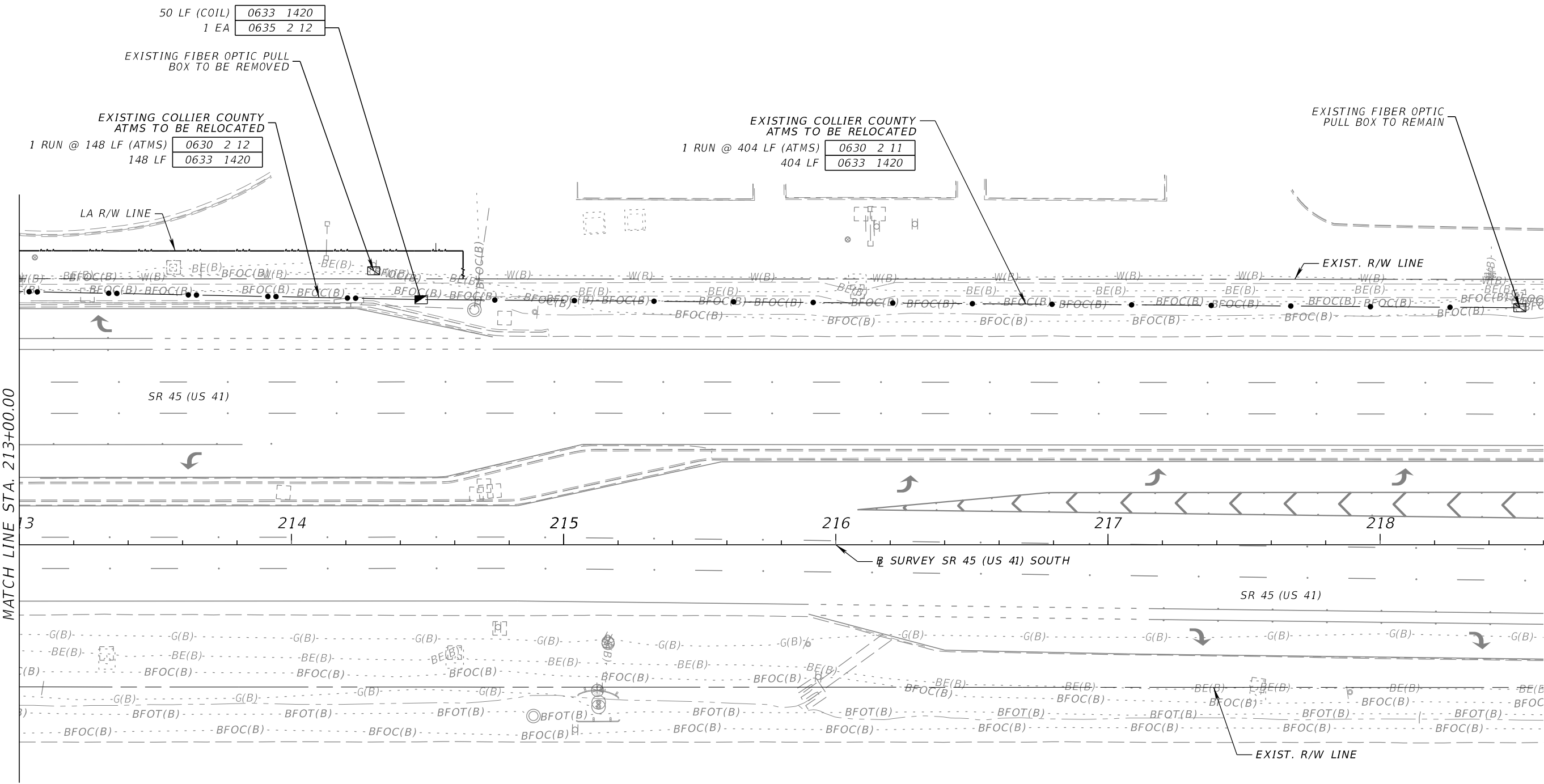
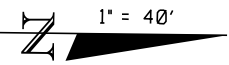
700-5-21 AND 700-5-22:
ALL INTERNALLY ILLUMINATED STREET NAME SIGNS TO BE MOUNTED RIGIDLY ON MAST ARMS UNLESS OTHERWISE NOTED IN THE PLANS.

25.

924-681-1 AND 924-681-2:
INCLUDES ALL MOUNTING ARMS, MOUNTING BRACKETS AND ASSEMBLIES, HARDWARE, WIRING, AND ANCILLARY EQUIPMENT THAT ARE NOT REUSABLE FOR A COMPLETE AND ACCEPTABLE INSTALLATION.

INCLUDES THE RELOCATION OF BOTH THE RSU AND INDUSTRIAL COMPUTER AT VANDERBILT BEACH RD., IMMOKALEE RD., WIGGINS PASS RD., AND OLD US 41. THIS INCLUDES ONLY THE RELOCATION OF THE INDUSTRIAL COMPUTER AND RECONNECTION OF EXISTING RSU AT PELICAN MARSH BLVD.

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

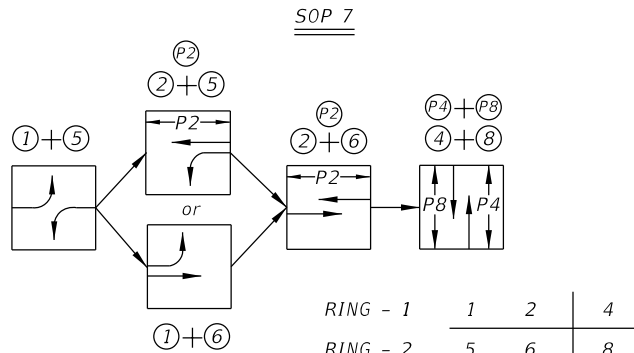
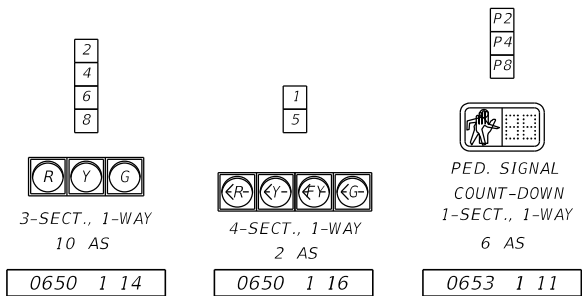


REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 45	COLLIER	441512-1-52-01	

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

SIGNALIZATION PLAN (2)
T-5

SIGNAL DISPLAY DETAILS



NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMIAMI TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS PELICAN BAY BLVD. (MOVEMENTS 4 AND 8).
- STANDARD SIGNAL OPERATING PLAN NO. 7 WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4) AND 8 (P8).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
 - PHASES 1 AND 5 MUST BE RUN PROTECTED ONLY AT ALL TIMES.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMIAMI TRAIL (NB) = 55 MPH
 - SR 45/US 41/S. TAMIAMI TRAIL (SB) = 55 MPH
 - PELICAN BAY BLVD. = 30 MPH
 - BUSINESS ENTRANCE = 25 MPH (NOT POSTED)

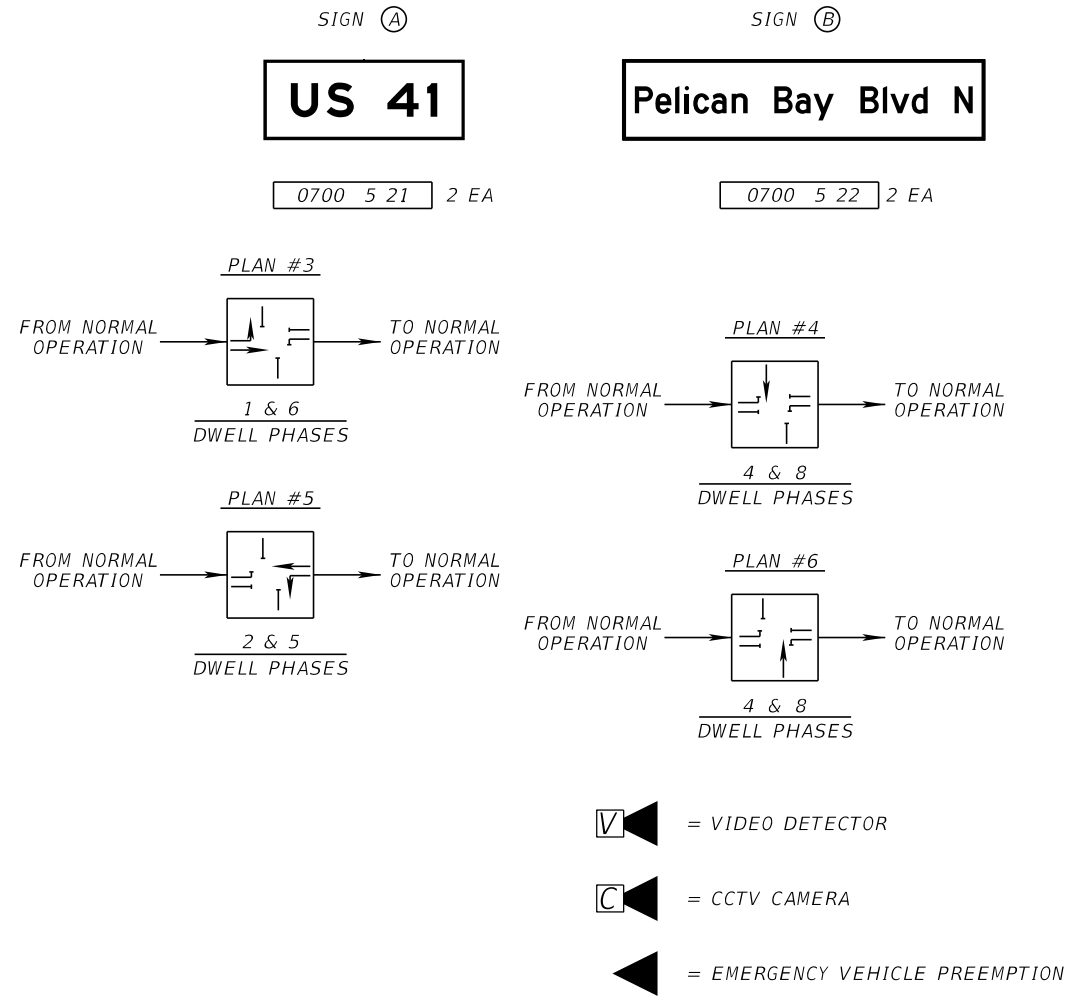
CONTROLLER TIMINGS									
MOVEMENT NUMBER (CONTROLLER PHASE Ø)	1	2	3	4	5	6	7	8	
DIRECTION	NBL	SB		WB	SBL	NB		EB	
TURN TYPE	PROT				PROT				
MIN GREEN	5	24		7	5	24		7	
EXT	3.0	2.4		3.0	3.0	2.4		3.0	
YELLOW	5.5	5.5		4.0	5.5	5.5		4.0	
ALL RED	3.0	3.0		3.2	3.0	3.0		3.2	
MAX I	20	40		25	20	40		25	
MAX II									
WALK		7		7				7	
FLASHING DON'T WALK		25		36				36	
DETECTOR MEMORY									
DET. CROSS SWITCH									
DUAL ENTRY		ON		ON		ON		ON	
VEHICLE RECALL		MIN				MIN			
REST IN WALK									
CNA									

EMERGENCY VEHICLE PREEMPTION							
PREEMPTION TIMING PLAN	1	2	3(NB)	4(EB)	5(SB)	6(WB)	
PRIORITY			6	6	6	6	
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0	
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*	
LOCK CALL			OFF	OFF	OFF	OFF	
MAXIMUM PRESENCE (SEC)			120	120	120	120	
YELLOW CLEARANCE (SEC)			**	**	**	**	
RED CLEARANCE (SEC)			**	**	**	**	
DWELL PHASE(S)			1&6	4&8	2&5	4&8	
MINIMUM DWELL (SEC)			24	7	24	7	
YELLOW CLEARANCE (SEC) **			**	**	**	**	
RED CLEARANCE (SEC) **			**	**	**	**	
EXIT PHASES			2&6	2&6	2&6	2&6	

- * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

VIDEO DETECTION				
VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
VD 2	DZ-5	5	-	6'X40'
	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
VD 3	DZ-6Z	6	-	3'X20'
	DZ-1	1	-	6'X40'
	DZ-8A	8	8	6'X40'
VD 4	DZ-8B	8	-	6'X40'
	DZ-4A	4	8	6'X40'
	DZ-4B	4	3	6'X40'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

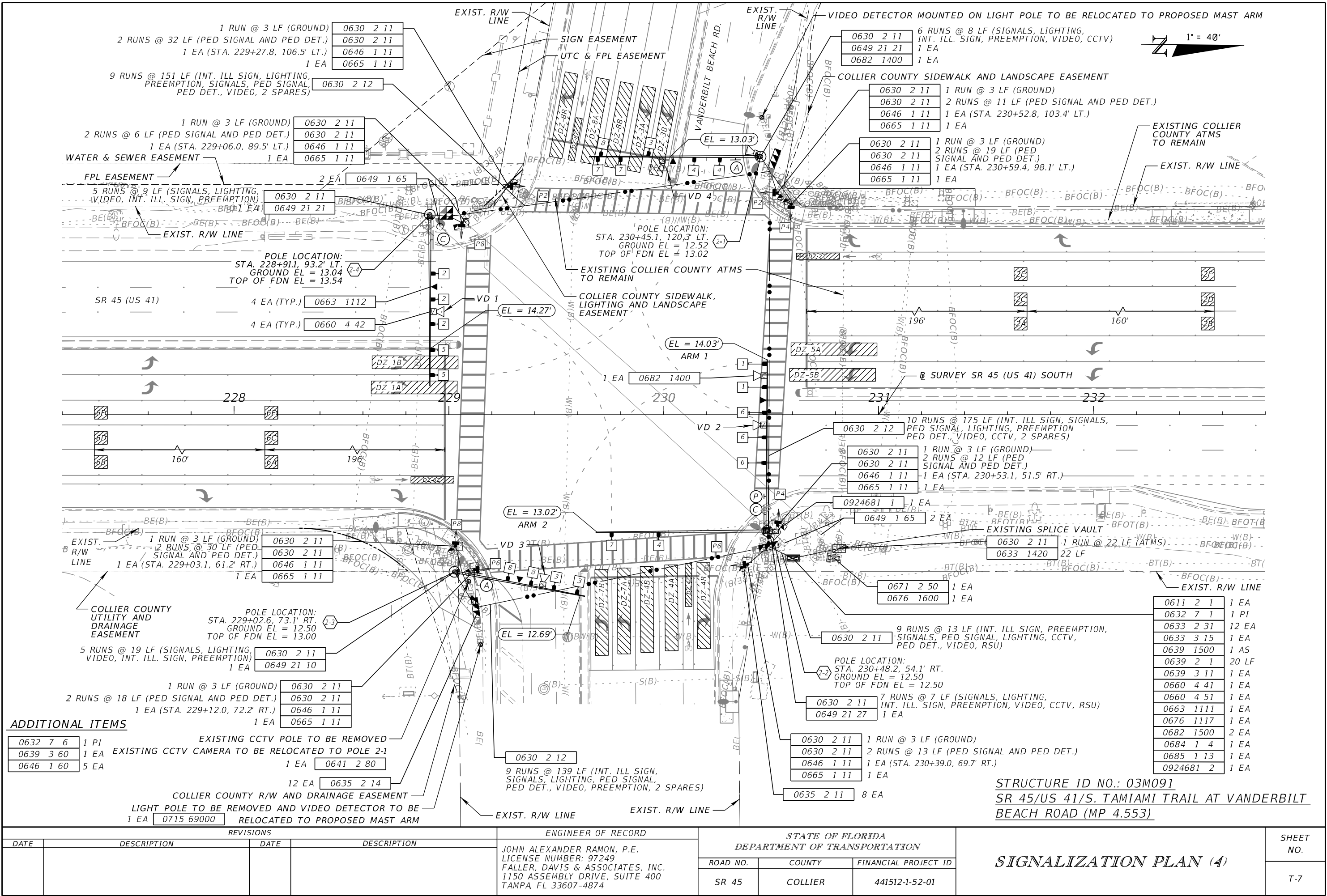


STRUCTURE ID NO.: 03M090
SR 45/US 41/S. TAMIAMI TRAIL AT PELICAN BAY BLVD. N.
(MP 4.915)

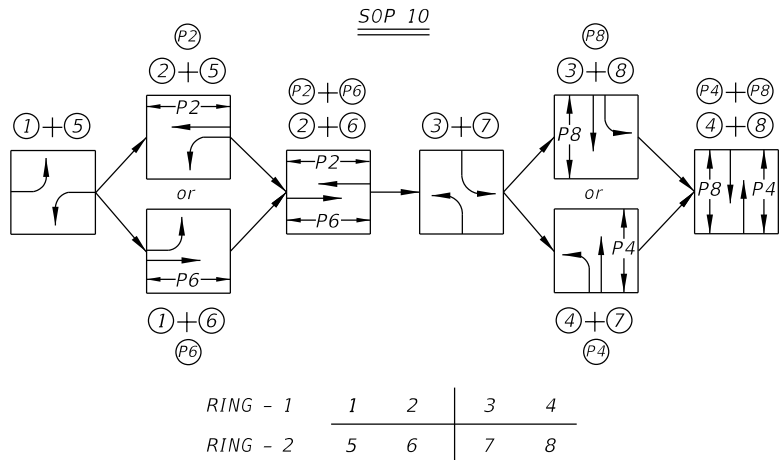
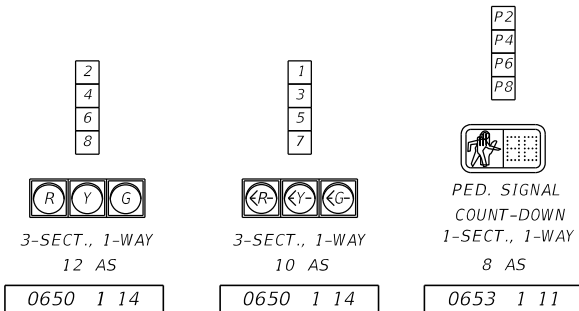
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DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
							SR 45	COLLIER	441512-1-52-01	

SIGNALIZATION PLAN (3)

T-6



SIGNAL DISPLAY DETAILS



NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMiami TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS VANDERBILT BEACH RD. (MOVEMENTS 4 AND 8).
- STANDARD SIGNAL OPERATING PLAN NO. 10 WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), 6 (P6) AND 8 (P8).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMiami TRAIL (NB) = 50 MPH
 - SR 45/US 41/S. TAMiami TRAIL (SB) = 50 MPH
 - VANDERBILT BEACH RD. (EB) = 35 MPH
 - VANDERBILT BEACH RD. (WB) = 35 MPH

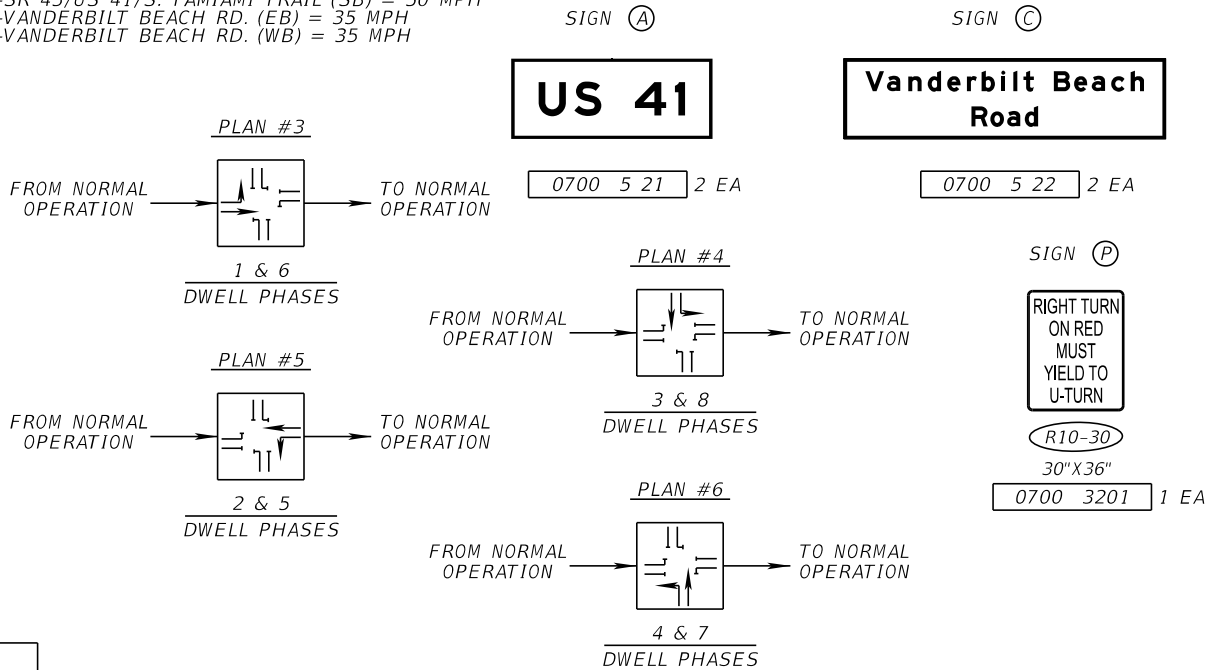
VIDEO DETECTION				
VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
	DZ-5A	5	-	6'X40'
VD 2	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-6Z	6	-	3'X20'
	DZ-1A	1	-	6'X40'
VD 3	DZ-1B	1	-	6'X40'
	DZ-3A	3	-	6'X40'
	DZ-3B	3	-	6'X40'
	DZ-8A	8	-	6'X40'
	DZ-8B	8	-	6'X40'
	DZ-8R	8	8	6'X40'
VD 4	DZ-8Z	8	-	3'X20'
	DZ-7A	7	-	6'X40'
	DZ-7B	7	-	6'X40'
	DZ-4A	4	-	6'X40'
	DZ-4B	4	-	6'X40'
	DZ-4R	4	8	6'X40'
	DZ-4Z	4	-	3'X20'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

CONTROLLER TIMINGS								
MOVEMENT NUMBER (CONTROLLER PHASE Ø)	1	2	3	4	5	6	7	8
DIRECTION	NBL	SB	EBL	WB	SBL	NB	WBL	EB
TURN TYPE	PROT		PROT		PROT		PROT	
MIN GREEN	5	21	5	7	5	21	5	7
EXT	3.0	2.2	3.0	3.0	3.0	2.2	3.0	3.0
YELLOW	5.1	5.1	4.0	4.0	5.1	5.1	4.0	4.0
ALL RED	2.2	2.0	3.0	3.0	2.9	2.0	3.0	2.8
MAX I	25	50	20	20	25	50	20	20
MAX II	34	50	29	29	34	48	29	29
WALK		7		7		7		7
FLASHING DON'T WALK		32		39		34		41
DETECTOR MEMORY								
DET. CROSS SWITCH								
DUAL ENTRY		ON		ON		ON		ON
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

EMERGENCY VEHICLE PREEMPTION						
PREEMPTION TIMING PLAN	1	2	3(NB)	4(EB)	5(SB)	6(WB)
PRIORITY			6	6	6	6
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*
LOCK CALL			OFF	OFF	OFF	OFF
MAXIMUM PRESENCE (SEC)			120	120	120	120
YELLOW CLEARANCE (SEC)			**	**	**	**
RED CLEARANCE (SEC)			**	**	**	**
DWELL PHASE(S)			1&6	3&8	2&5	4&7
MINIMUM DWELL (SEC)			21	7	21	7
YELLOW CLEARANCE (SEC) **			**	**	**	**
RED CLEARANCE (SEC) **			**	**	**	**
EXIT PHASES			2&6	2&6	2&6	2&6

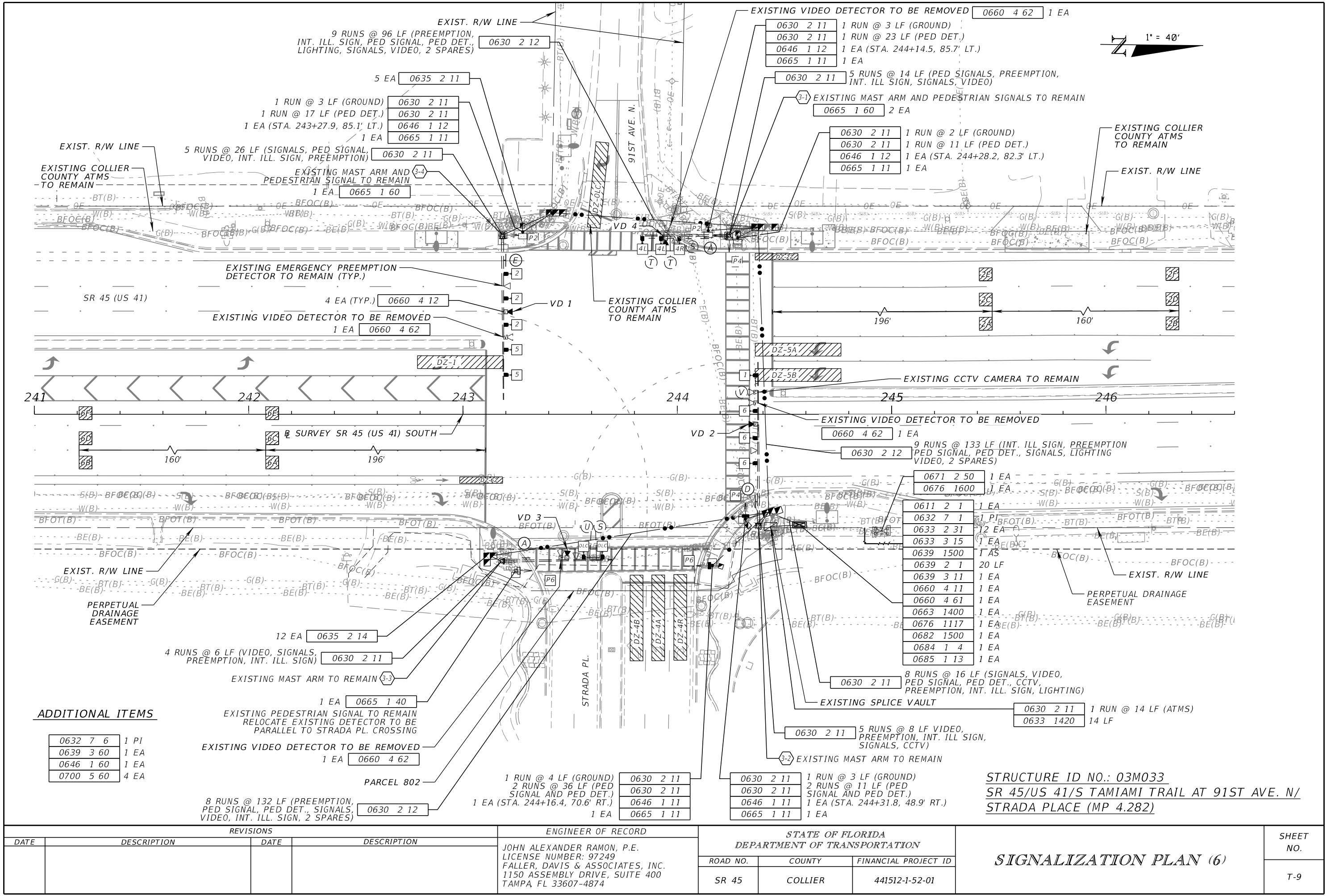
- 1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.



- Legend for symbols:
- RSU = CONNECTED VEHICLE ROAD SIDE UNIT
 - V = RELOCATED VIDEO DETECTOR
 - C = RELOCATED CCTV CAMERA
 - ◀ = EMERGENCY VEHICLE PREEMPTION

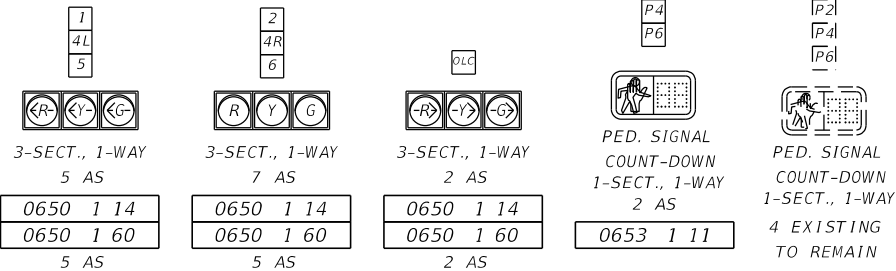
STRUCTURE ID NO.: 03M091
SR 45/US 41/S. TAMiami TRAIL AT VANDERBILT BEACH ROAD (MP 4.553)

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		SIGNALIZATION PLAN (5)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874		ROAD NO.	COUNTY		
						SR 45	COLLIER	441512-1-52-01	



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

SIGNAL DISPLAY DETAILS



VIDEO DETECTION

VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
	DZ-5A	5	-	6'X40'
VD 2	DZ-5B	5	-	6'X40'
	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-6Z	6	-	3'X20'
VD 3	DZ-1	1	-	6'X40'
VD 4	DZ-OLC	1	8	6'X40'
	DZ-4A	4	-	6'X40'
	DZ-4B	4	-	6'X40'
	DZ-4R	4	8	6'X40'

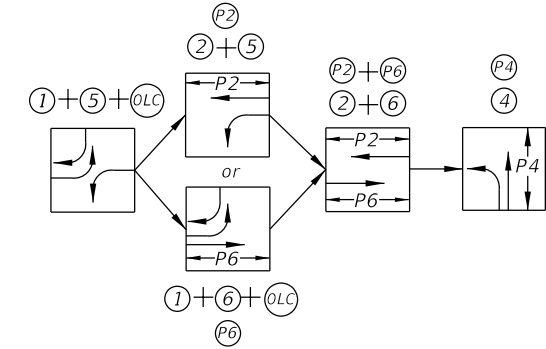
FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

CONTROLLER TIMINGS

MOVEMENT NUMBER (CONTROLLER PHASE 0)	1	2	3	4	5	6	7	8
DIRECTION	NBL	SB		WB	SBL	NB		
TURN TYPE	PROT			PROT	PROT			
MIN GREEN	5	21		7	5	21		
EXT	3.0	2.2		3.0	3.0	2.2		
YELLOW	5.1	5.1		4.0	5.1	5.1		
ALL RED	2.0	2.0		3.0	3.0	2.0		
MAX I	20	60		24	24	60		
MAX II								
WALK		7		7		7		
FLASHING DON'T WALK		17		35		23		
DETECTOR MEMORY								
DET. CROSS SWITCH								
DUAL ENTRY		ON				ON		
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

NOTE: EBR (MOVEMENT OLC) OVERLAPS WITH MOVEMENT 1 (CONTROLLER PHASE 1)

SPECIAL SOP

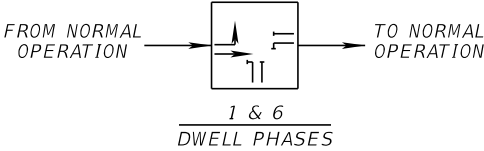


RING - 1	1+OLC	2	4
RING - 2	5	6	

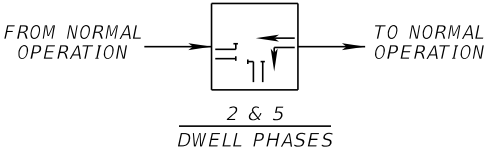
NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMIAMI TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS 91ST AVE. N. / STRADA PLACE (MOVEMENT 4).
- SPECIAL SIGNAL OPERATING PLAN WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), AND 6 (P6).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMIAMI TRAIL (NB) = 50 MPH
 - SR 45/US 41/S. TAMIAMI TRAIL (SB) = 50 MPH
 - 91ST AVE. N. = 25 MPH
 - STRADA PLACE = 30 MPH (NOT POSTED)
- MOVEMENT 8 = OLC (EB RIGHT)
OLC OPERATES WITH MOVEMENT 1 (CONTROLLER PHASE 1) ONLY, AND HAS 4.0 SECONDS OF YELLOW AND 2.0 SECONDS OF ALL RED.

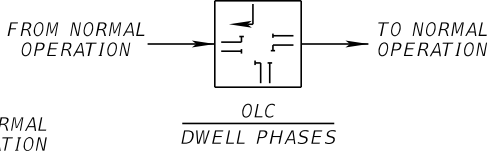
PLAN #3



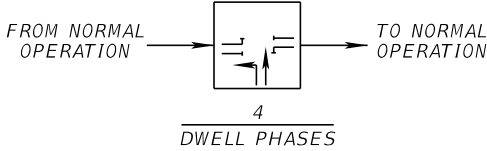
PLAN #5



PLAN #4



PLAN #6

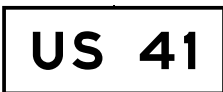


SIGN (D)



0700 5 22 1 EA

SIGN (A)



0700 5 21 2 EA

SIGN (E)



0700 5 22 1 EA

SIGN (S)



EXISTING TO REMAIN

SIGN (T)



EXISTING TO REMAIN

SIGN (U)



EXISTING TO REMAIN

SIGN (V)



EXISTING TO REMAIN

[C] = EXISTING CCTV CAMERA

[V] = EXISTING EMERGENCY VEHICLE PREEMPTION

[V] = EXISTING VIDEO DETECTOR

[V] = VIDEO DETECTOR

STRUCTURE ID NO.: 03M033

SR 45/US 41/S TAMIAMI TRAIL AT 91ST AVE. N./
STRADA PLACE (MP 4.282)

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ENGINEER OF RECORD

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

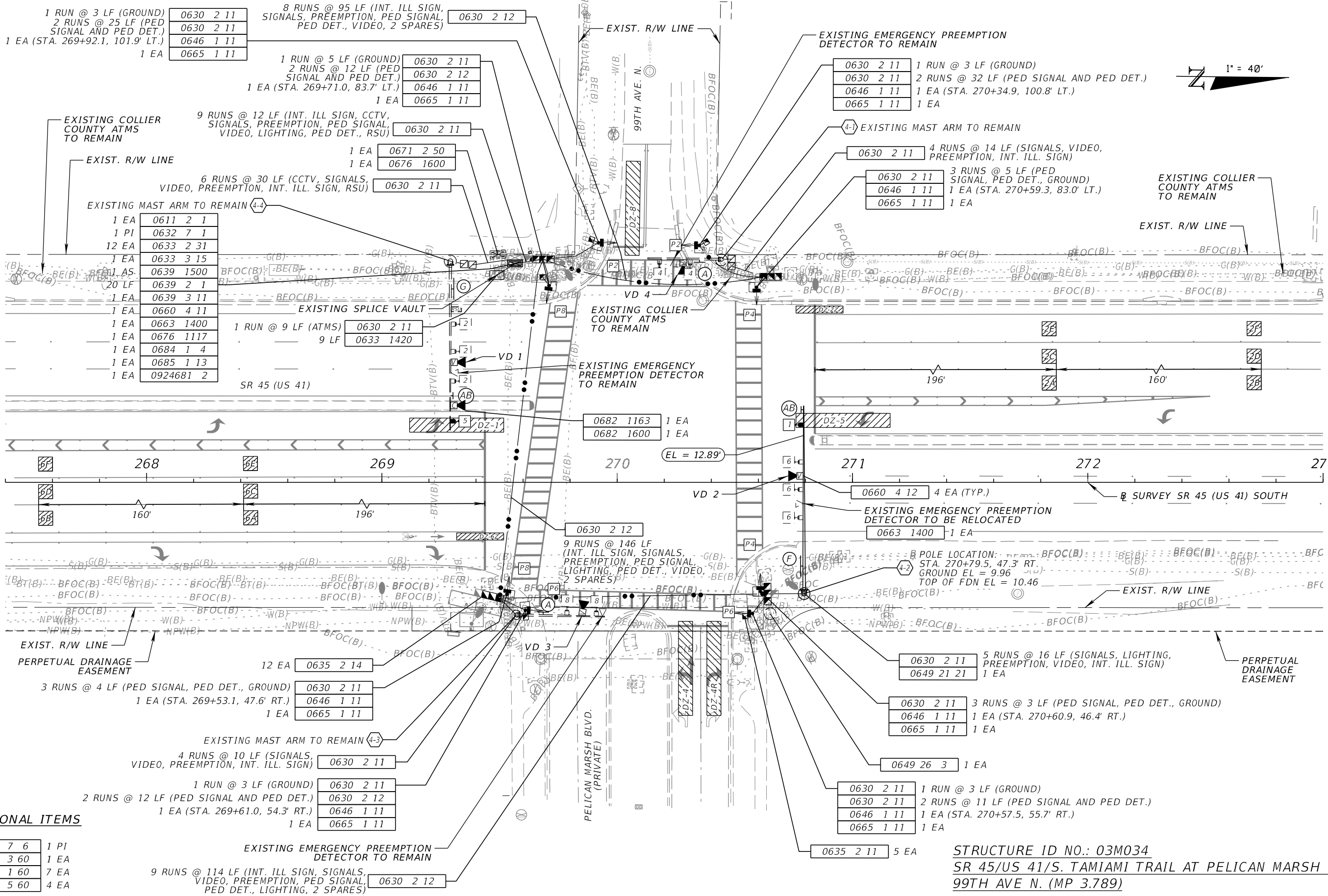
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 45	COLLIER	441512-1-52-01

SIGNALIZATION PLAN (7)

SHEET NO.

T-10



ADDITIONAL ITEMS

0632 7 6	1 PI
0639 3 60	1 EA
0646 1 60	7 EA
0700 5 60	4 EA

EXISTING EMERGENCY PREEMPTION
DETECTOR TO REMAIN

9 RUNS @ 114 LF (INT. ILL SIGN, SIGNALS,
VIDEO, PREEMPTION, PED SIGNAL,
PED DET., LIGHTING, 2 SPARES)

0630 2 12

STRUCTURE ID NO.: 03M034
SR 45/US 41/S. TAMiami TRAIL AT PELICAN MARSH BLVD./
99TH AVE N. (MP 3.789)

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 45	COLLIER	441512-1-52-01	
				JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874				T-11

2

4

8

R

Y

G

3-SECT., 1-WAY
7 AS

0650 1 70

THESE SIGNAL HEADS ARE TO REMAIN IN THE SAME LOCATION AND ROTATED TO BE HORIZONTAL.

6

R

Y

G

3-SECT., 1-WAY
3 AS

0650 1 70

THESE SIGNAL HEADS ARE TO BE RELOCATED TO A NEW LOCATION AND ROTATED TO BE HORIZONTAL.

7

R

S

Y

G

4-SECT., 1-WAY

0650 1 16 1 AS

5

R

S

Y

G

4-SECT., 1-WAY

0650 1 16 1 AS
0650 1 60 1 AS

P2

P4

P6

P8

PED. SIGNAL

COUNT-DOWN

1-SECT., 1-WAY

8 AS

0653 1 11

CONTROLLER TIMINGS

MOVEMENT NUMBER (CONTROLLER PHASE 0)	1	2	3	4	5	6	7	8
DIRECTION	NBL	SB		WB	SBL	NB		EB
TURN TYPE	PROT / PERM				PROT / PERM			
MIN GREEN	5	21		7	5	21		7
EXT	3.0	2.2		3.0	3.0	2.2		3.0
YELLOW	5.1	5.1		4.0	5.1	5.1		4.0
ALL RED	2.2	2.2		3.3	2.2	2.2		3.3
MAX I	20	55		25	20	55		25
MAX II								
WALK		7		7		7		7
FLASHING DON'T WALK		12		31		25		36
DETECTOR MEMORY								
DET. CROSS SWITCH	Ø 6				Ø 2			
DUAL ENTRY		ON		ON		ON		ON
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

VIDEO DETECTION

VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
DZ-5	5	-	6'X40'	
VD 2	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-6Z	6	-	3'X20'
	DZ-1	1	-	6'X40'
VD 3	DZ-8	8	8	6'X40'
VD 4	DZ-4	4	-	6'X40'
	DZ-4R	4	8	6'X40'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

5

SOP 7

RING - 1 1 2 4
RING - 2 5 6 8

PLAN #4

4&8 DWELL PHASES

PLAN #5

2 & 5 DWELL PHASES

PLAN #6

4&8 DWELL PHASES

PLAN #3

1 & 6 DWELL PHASES

EMERGENCY VEHICLE PREEMPTION

PREEMPTION TIMING PLAN	1	2	3(NB)	4(EB)	5(SB)	6(WB)
PRIORITY			6	6	6	6
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*
LOCK CALL			OFF	OFF	OFF	OFF
MAXIMUM PRESENCE (SEC)			120	120	120	120
YELLOW CLEARANCE (SEC)			**	**	**	**
RED CLEARANCE (SEC)			**	**	**	**
DWELL PHASE(S)			1&6	4&8	2&5	4&8
MINIMUM DWELL (SEC)			21	7	21	7
YELLOW CLEARANCE (SEC) **			**	**	**	**
RED CLEARANCE (SEC) **			**	**	**	**
EXIT PHASES			2&6	2&6	2&6	2&6

1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

NOTES:

1. MAJOR STREET IS SR 45/US 41/S. TAMiami TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS 99TH AVE. N / PELICAN MARSH BLVD. (MOVEMENTS 4 AND 8).

2. STANDARD SIGNAL OPERATING PLAN NO. 7 WITH THE FOLLOWING:

(A) REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.

(B) CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), 6 (P6) AND 8 (P8).

(C) EMERGENCY VEHICLE PREEMPTION.

(i) ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.

(ii) YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

(D) WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.

3. THE POSTED SPEED LIMITS ARE AS FOLLOWS:

-SR 45/US 41/S. TAMiami TRAIL (NB) = 50 MPH

-SR 45/US 41/S. TAMiami TRAIL (SB) = 50 MPH

-99TH AVE. N. = 25 MPH

-PELICAN MARSH BLVD. = 30 MPH

4. PROGRAM 2.0 SECONDS OF DELAY FOR THE FLASHING YELLOW ARROW OPERATION.

5. PROGRAM PHASE RESTRICTIONS TO OMIT MOVEMENT 1 AND REDIRECT CALLS FROM MOVEMENT 1 TO MOVEMENT 6, WHEN MOVEMENT 2 IS GREEN AND TO OMIT MOVEMENT 5 AND REDIRECT CALLS FROM MOVEMENT 5 TO MOVEMENT 2, WHEN MOVEMENT 6 IS GREEN.

SIGN A

US 41

0700 5 21 2 EA

SIGN F

← 99th Ave N
Pelican Marsh Blvd →

0700 5 22 1 EA

SIGN G

← Pelican Marsh Blvd
99th Ave N →

0700 5 22 1 EA

SIGN AB

LEFT TURN
YIELD ON
FLASHING
YELLOW
ARROW

R10-12a
30"X36"

0700 3 201 2 EA

STRUCTURE ID NO.: 03M034

SR 45/US 41/S. TAMiami TRAIL AT PELICAN MARSH BLVD./

99TH AVE N. (MP 3.789)

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

ENGINEER OF RECORD

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 45	COLLIER	441512-1-52-01

SIGNALIZATION PLAN (9)

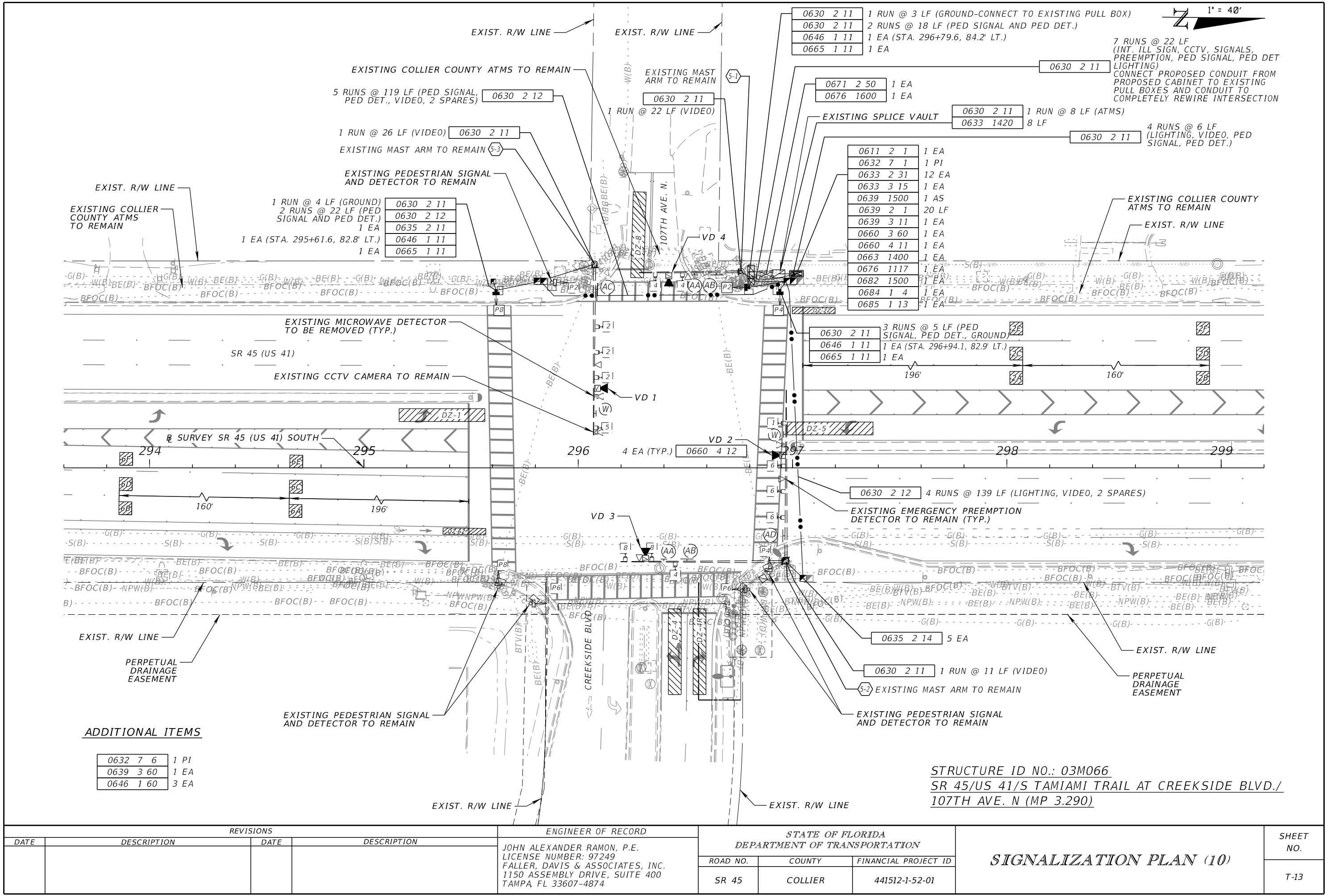
SHEET NO.

T-12

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

X:\FDOT\44151215201\Signalization\PLANS\G01.dgn : DETAILS PELICAN MARSH - 99TH

John.Ramon 5/27/2026 10:00:10 AM



ADDITIONAL ITEMS

0632	7	6	1 PI
0639	3	60	1 EA
0646	1	60	3 EA

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	SR 45	COLLIER	441512-1-52-01	T-13

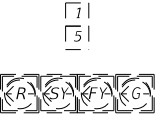
STRUCTURE ID NO.: 03M066
SR 45/US 41/S TAMIAAMI TRAIL AT CREEKSIDE BLVD./
107TH AVE. N (MP 3.290)

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

SIGNAL DISPLAY DETAILS



3-SECT., 1-WAY
11 EXISTING



4-SECT., 1-WAY
2 EXISTING

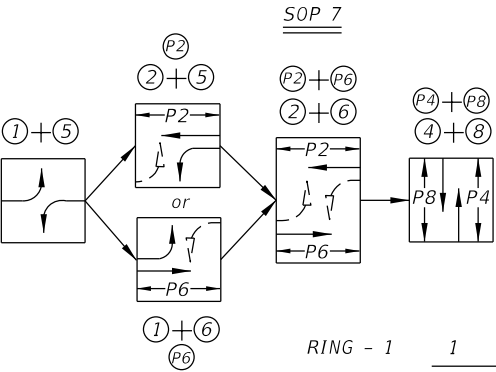


PED. SIGNAL
COUNT-DOWN
1-SECT., 1-WAY
3 AS

0653 1 11



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



RING - 1	1	2	4
RING - 2	5	6	8

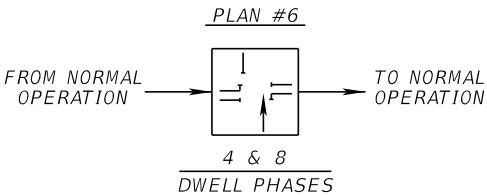
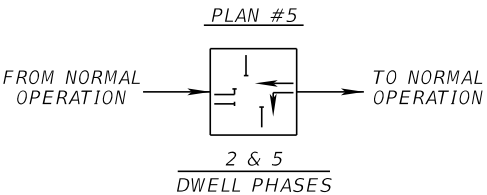
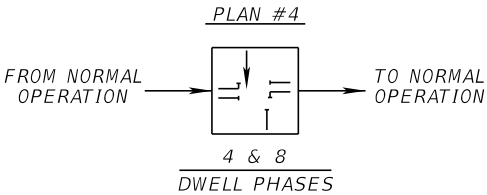
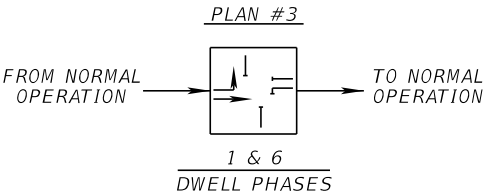
CONTROLLER TIMINGS								
MOVEMENT NUMBER (CONTROLLER PHASE Ø)	1	2	3	4	5	6	7	8
DIRECTION	NBL	SB		WB	SBL	NB		EB
TURN TYPE	PROT/ PERM				PROT/ PERM			
MIN GREEN	5	21		7	5	21		7
EXT	3.0	2.2		3.0	3.0	2.2		3.0
YELLOW	5.1	5.1		4.0	5.1	5.1		4.0
ALL RED	3.0	3.0		3.3	3.0	3.0		3.3
MAX I	20	60		25	20	60		12
MAX II								
WALK		7		7		7		7
FLASHING DON'T WALK		16		34		26		36
DETECTOR MEMORY								
DET. CROSS SWITCH								
DUAL ENTRY		ON		ON		ON		ON
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

EMERGENCY VEHICLE PREEMPTION							
PREEMPTION TIMING PLAN	1	2	3 (NB)	4 (EB)	5 (SB)	6 (WB)	
PRIORITY			6	6	6	6	
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0	
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*	
LOCK CALL			OFF	OFF	OFF	OFF	
MAXIMUM PRESENCE (SEC)			120	120	120	120	
YELLOW CLEARANCE (SEC)			**	**	**	**	
RED CLEARANCE (SEC)			**	**	**	**	
DWELL PHASE(S)			1&6	4&8	2&5	4&8	
MINIMUM DWELL (SEC)			21	7	21	7	
YELLOW CLEARANCE (SEC) **			**	**	**	**	
RED CLEARANCE (SEC) **			**	**	**	**	
EXIT PHASES			2&6	2&6	2&6	2&6	

- 1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMIAMI TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS 107TH AVE. N. / CREEKSIDE BLVD. (MOVEMENTS 4 AND 8).
- STANDARD SIGNAL OPERATING PLAN NO. 7 WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), 6 (P6) AND 8 (P8).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMIAMI TRAIL (NB) = 50 MPH
 - SR 45/US 41/S. TAMIAMI TRAIL (SB) = 50 MPH
 - 107TH AVE. N. = 25 MPH (NOT POSTED)
 - CREEKSIDE BLVD. = 30 MPH
- PROGRAM A START-UP DELAY OF 2 SECONDS FOR THE FLASHING YELLOW ARROW ON MOVEMENTS 1 AND 5 (RELATIVE TO THE OPPOSING THROUGH MOVEMENTS).
- PROGRAM PHASE RESTRICTIONS TO OMIT MOVEMENT 1 AND REDIRECT CALLS FROM MOVEMENT 1 TO MOVEMENT 6, WHEN MOVEMENT 2 IS GREEN AND TO OMIT MOVEMENT 5 AND REDIRECT CALLS FROM MOVEMENT 5 TO MOVEMENT 2, WHEN MOVEMENT 6 IS GREEN.

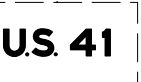


SIGN (W)



EXISTING
TO REMAIN

SIGN (AB)



EXISTING
TO REMAIN

SIGN (AC)



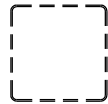
EXISTING
TO REMAIN

SIGN (AD)



EXISTING
TO REMAIN

SIGN (AA)



EXISTING
BLANK OUT SIGN
TO REMAIN

LEGENDS:
NO RIGHT TURN
YIELD TO PEDESTRIANS

= VIDEO DETECTOR

= EXISTING MICROWAVE DETECTOR

= EXISTING CCTV CAMERA

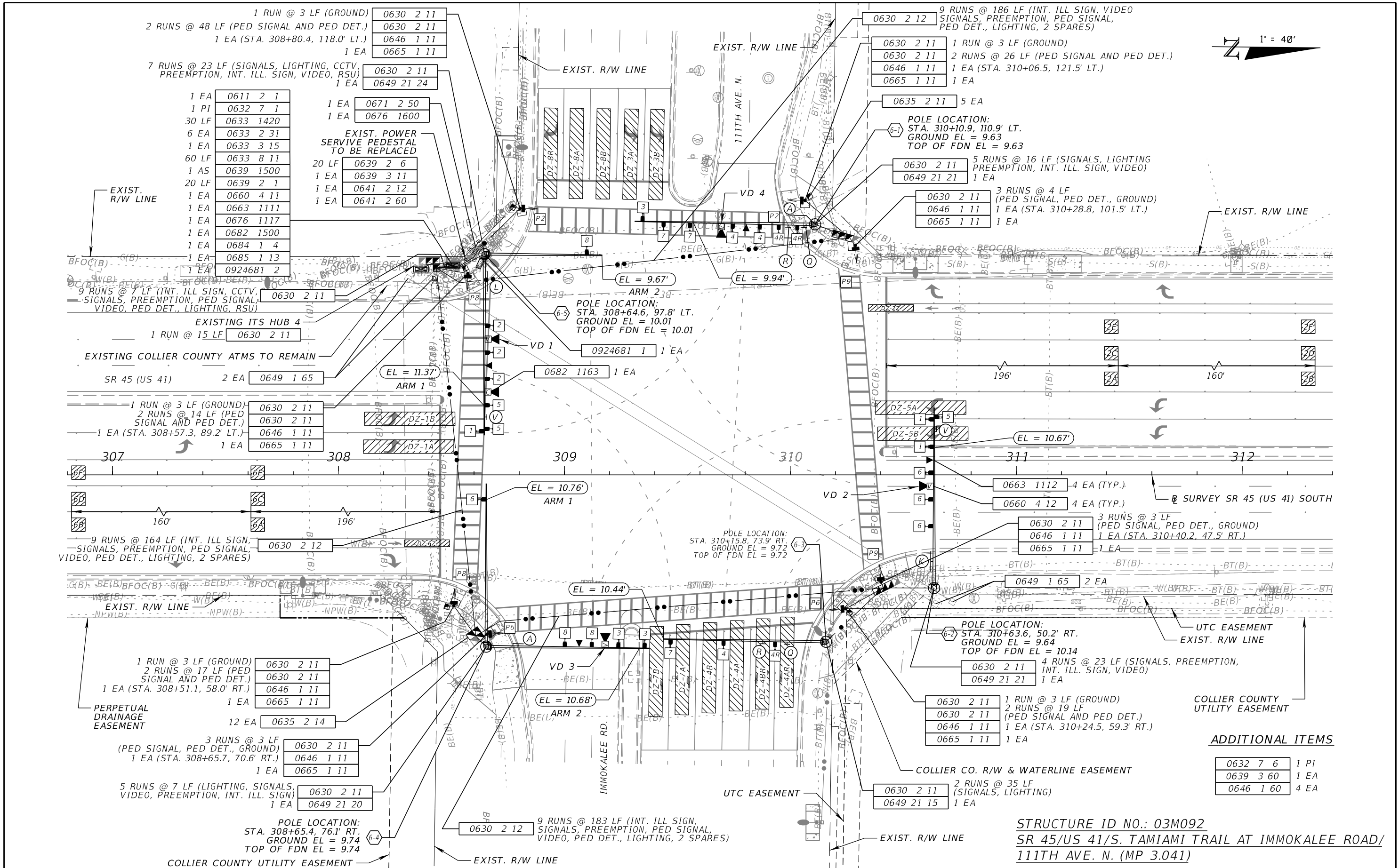
= EXISTING EMERGENCY VEHICLE PREEMPTION

STRUCTURE ID NO.: 03M066
SR 45/US 41/S. TAMIAMI TRAIL AT CREEKSIDE BLVD./
107TH AVE. N. (MP 3.290)

VIDEO DETECTION				
VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
	DZ-5	5	-	6'X40'
VD 2	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-6Z	6	-	3'X20'
	DZ-1	1	-	6'X40'
VD 3	DZ-8	8	8	6'X40'
VD 4	DZ-4	4	-	6'X40'
	DZ-4R	4	8	6'X40'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNALIZATION PLAN (11)	SHEET NO.
DATE	DESCRIPTION		DATE	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-14
				JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	SR 45	COLLIER	441512-1-52-01		



REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
							SR 45	COLIER	441512-1-52-01	

SIGNALIZATION PLAN (12)

VIDEO DETECTION				
VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
	DZ-5A	5	-	6'X40'
VD 2	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-6Z	6	-	3'X20'
	DZ-1A	1	-	6'X40'
VD 3	DZ-1B	1	-	6'X40'
	DZ-3A	3	-	6'X40'
	DZ-3B	3	-	6'X40'
	DZ-8A	8	-	6'X40'
	DZ-8B	8	-	6'X40'
	DZ-8R	8	8	6'X40'
	DZ-7A	7	-	6'X40'
	DZ-7B	7	-	6'X40'
VD 4	DZ-4A	4	-	6'X40'
	DZ-4B	4	-	6'X40'
	DZ-4AR	4	8	6'X40'
	DZ-4BR	4	-	6'X40'

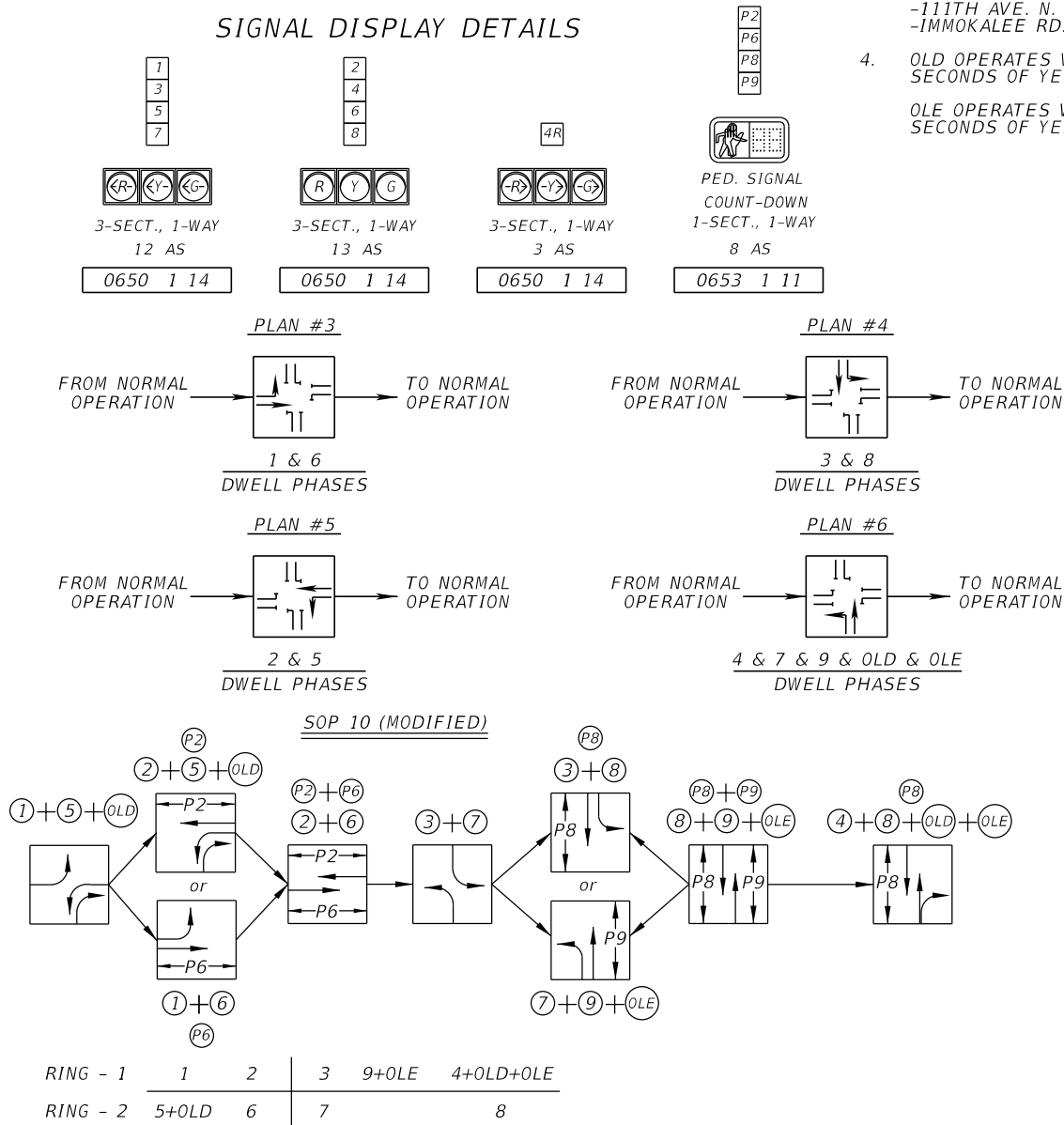
FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

CONTROLLER TIMINGS									
MOVEMENT NUMBER (CONTROLLER PHASE Ø)	1	2	3	4	5	6	7	8	9
DIRECTION	NBL	SB	EBL	WB	SBL	NB	WBL	EB	WB
TURN TYPE	PROT		PROT		PROT		PROT		
MIN GREEN	5	21	5	10	5	21	5	10	10
EXT	3.0	2.2	3.0	3.0	3.0	2.2	3.0	3.0	3.0
YELLOW	5.1	5.1	4.8	4.8	5.1	5.1	4.8	4.8	4.8
ALL RED	2.8	2.0	3.0	2.0	2.3	2.0	2.5	2.8	2.0
MAX I	15	55	25	25	35	55	30	25	0
MAX II									
WALK		7				7		7	7
FLASHING DON'T WALK		33				42		38	38
DETECTOR MEMORY									
DET. CROSS SWITCH									
DUAL ENTRY		ON		ON		ON		ON	
VEHICLE RECALL		MIN				MIN			
REST IN WALK									
CNA									

EMERGENCY VEHICLE PREEMPTION						
PREEMPTION TIMING PLAN	1	2	3(NB)	4(EB)	5(SB)	6(WB)
PRIORITY			6	6	6	6
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*
LOCK CALL			OFF	OFF	OFF	OFF
MAXIMUM PRESENCE (SEC)			120	120	120	120
YELLOW CLEARANCE (SEC)			**	**	**	**
RED CLEARANCE (SEC)			**	**	**	**
DWELL PHASE(S)			1&6	3&8	2&5	4&7&9&OLD&OLE
MINIMUM DWELL (SEC)			21	10	21	10
YELLOW CLEARANCE (SEC) **			**	**	**	**
RED CLEARANCE (SEC) **			**	**	**	**
EXIT PHASES			2&6	2&6	2&6	2&6

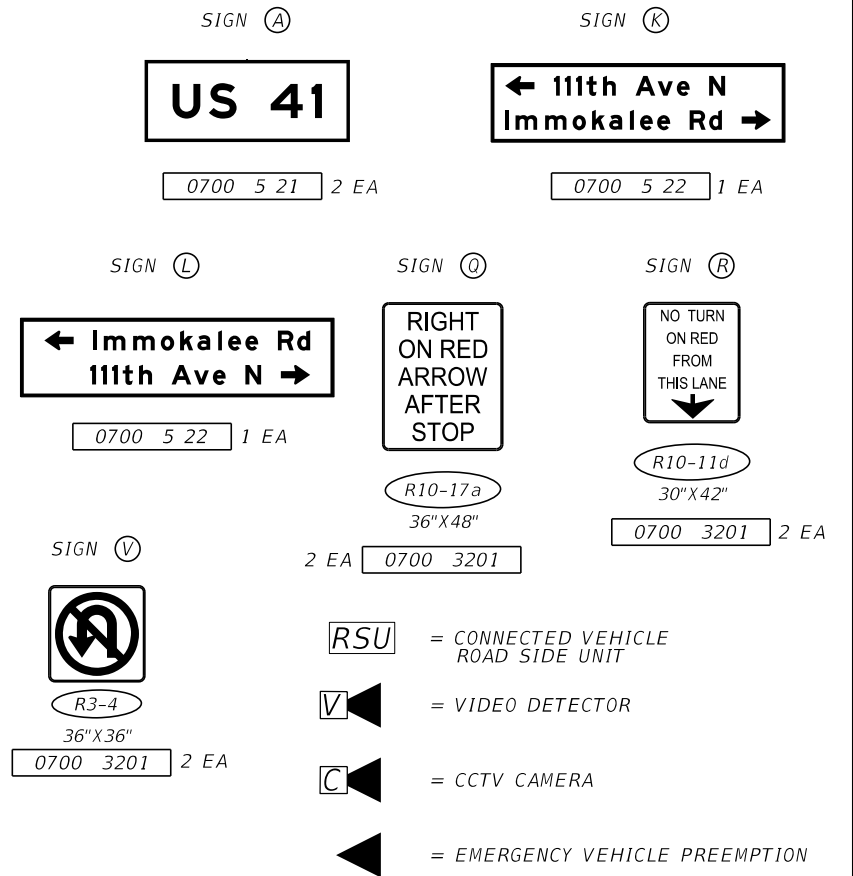
- 1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

SIGNAL DISPLAY DETAILS



NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMiami TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS 111TH AVE. N. / IMMOKALEE RD. (MOVEMENTS 4, 8, AND 9).
- SPECIAL SIGNAL OPERATING PLAN WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 6 (P6), 8 (P8), AND 9 (P9).
 - THE CONTROLLER CABINET MUST BE WIRED IN ACCORDANCE WITH THE SIGNAL OPERATING PLAN.
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMiami TRAIL (NB) = 50 MPH
 - SR 45/US 41/S. TAMiami TRAIL (SB) = 50 MPH
 - 111TH AVE. N. = 35 MPH
 - IMMOKALEE RD. = 45 MPH
- OLD OPERATES WITH MOVEMENTS 4 AND 5 (CONTROLLER PHASES 4 AND 5) ONLY, AND HAS 4.8 SECONDS OF YELLOW AND 2.0 SECONDS OF ALL RED.
OLE OPERATES WITH MOVEMENTS 4 AND 9 (CONTROLLER PHASES 4 AND 9) ONLY, AND HAS 4.8 SECONDS OF YELLOW AND 2.0 SECONDS OF ALL RED.



STRUCTURE ID NO.: 03M092
SR 45/US 41/S. TAMiami TRAIL AT IMMOKALEE ROAD/
111TH AVE. N. (MP 3.041)

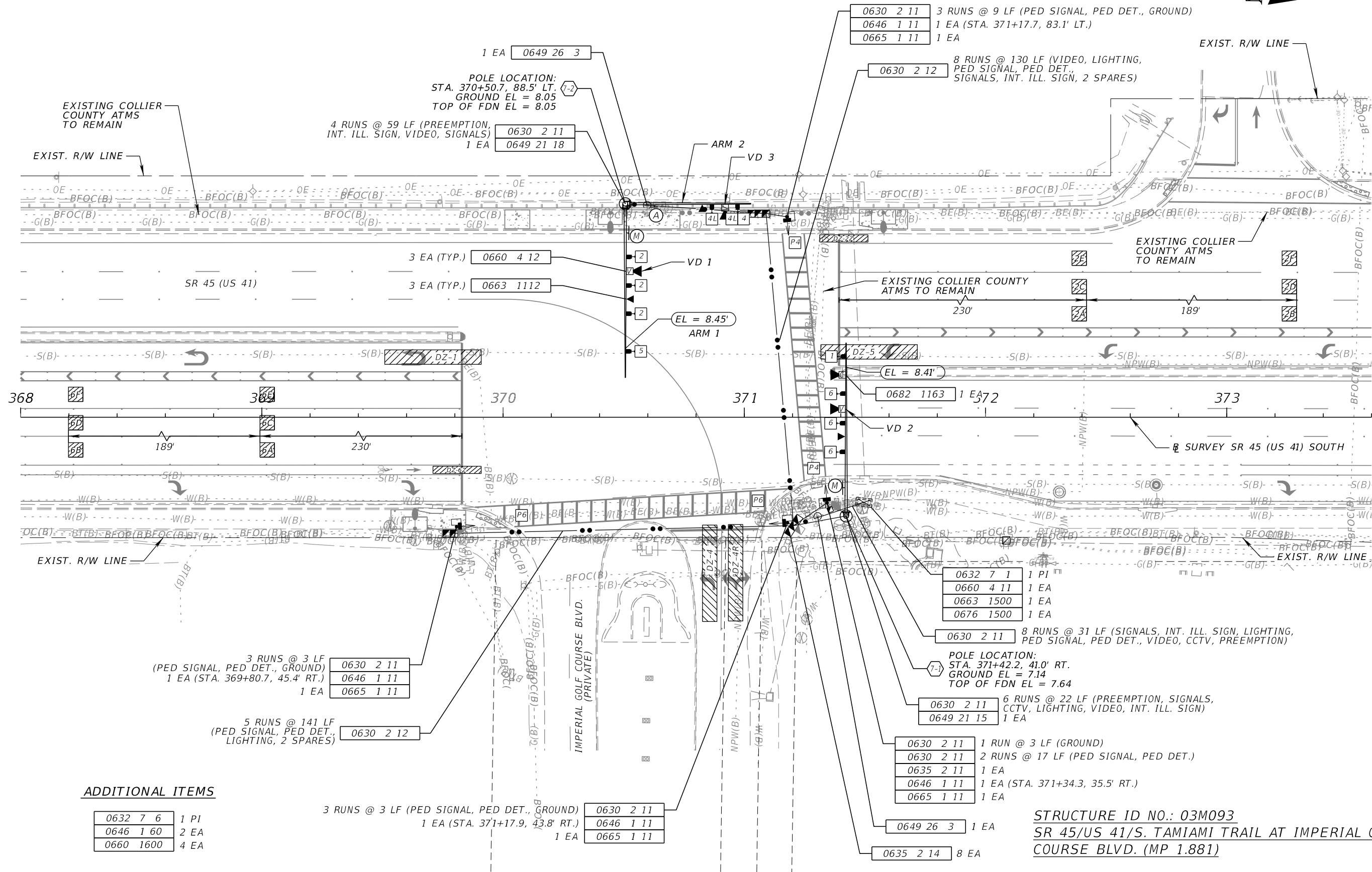
REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION		DATE		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 45	COLLIER	441512-1-52-01	

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

SIGNALIZATION PLAN (13)

T-16

1" = 40'



ADDITIONAL ITEMS

0632 7 6	1 PI
0646 1 60	2 EA
0660 1600	4 EA

3 RUNS @ 3 LF (PED SIGNAL, PED DET., GROUND)
1 EA (STA. 371+17.9, 43.8' RT.)

0630 2 11	1 EA
0646 1 11	1 EA
0665 1 11	1 EA

0632 7 1	1 PI
0660 4 11	1 EA
0663 1500	1 EA
0676 1500	1 EA

8 RUNS @ 31 LF (SIGNALS, INT. ILL. SIGN, LIGHTING, PED SIGNAL, PED DET., VIDEO, CCTV, PREEMPTION)

POLE LOCATION:
STA. 371+42.2, 41.0' RT.
GROUND EL = 7.14
TOP OF FDN EL = 7.64

0630 2 11	6 RUNS @ 22 LF (PREEMPTION, SIGNALS, CCTV, LIGHTING, VIDEO, INT. ILL. SIGN)
0649 21 15	1 EA

0630 2 11	1 RUN @ 3 LF (GROUND)
0630 2 11	2 RUNS @ 17 LF (PED SIGNAL, PED DET.)
0635 2 11	1 EA
0646 1 11	1 EA (STA. 371+34.3, 35.5' RT.)
0665 1 11	1 EA

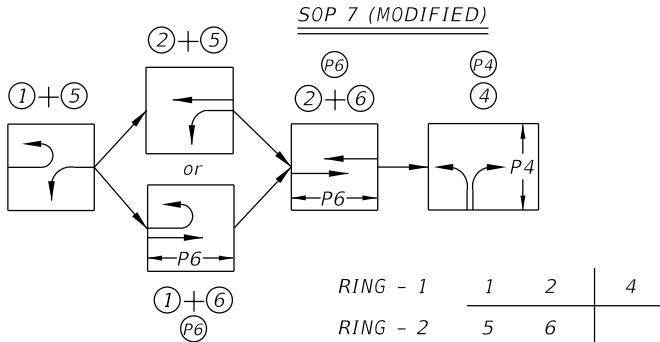
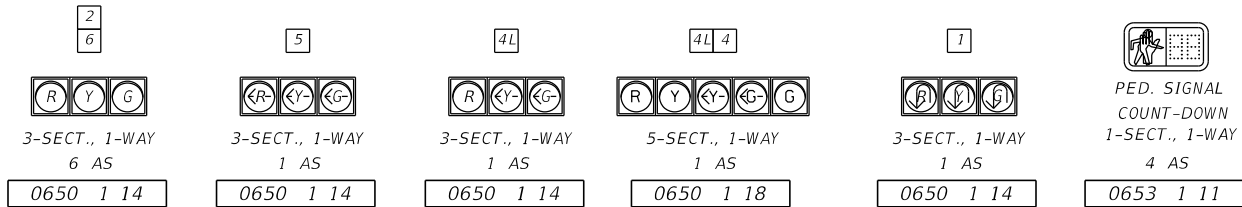
0649 26 3	1 EA
0635 2 14	8 EA

STRUCTURE ID NO.: 03M093
SR 45/US 41/S. TAMIAAMI TRAIL AT IMPERIAL GOLF
COURSE BLVD. (MP 1.881)

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 45	COLLIER	441512-1-52-01	
				JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874				T-17

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

SIGNAL DISPLAY DETAILS



NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMiami TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS IMPERIAL GOLF COURSE BLVD. (MOVEMENT 4).
- STANDARD SIGNAL OPERATING PLAN NO. 7 (MODIFIED) WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 4 (P4) AND 6 (P6).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMiami TRAIL (NB) = 55 MPH
 - SR 45/US 41/S. TAMiami TRAIL (SB) = 55 MPH
 - IMPERIAL GOLF COURSE BLVD. = 25 MPH (NOT POSTED)

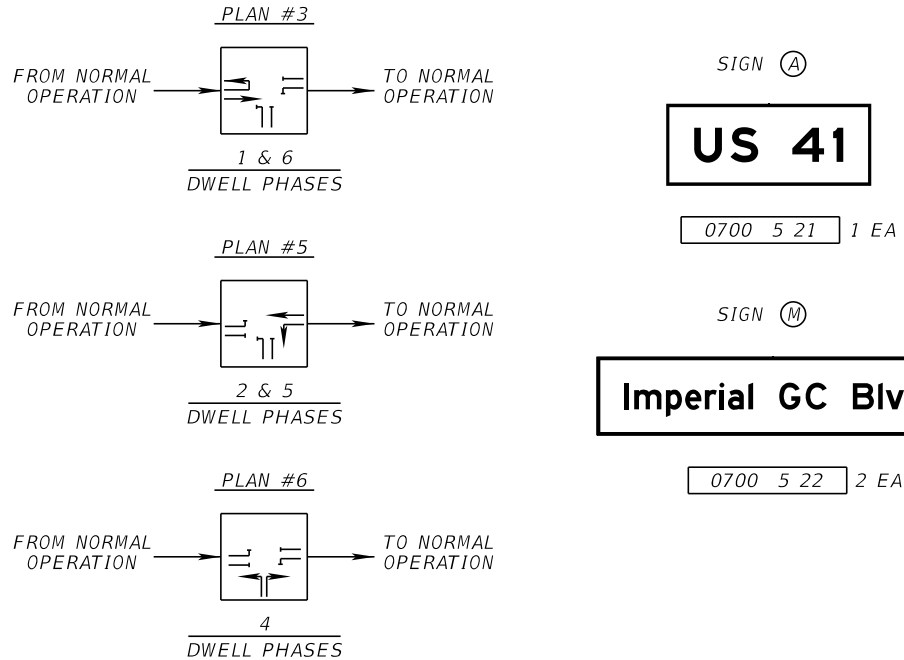
VIDEO DETECTION				
VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
VD 2	DZ-5	5	-	6'X40'
	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
VD 3	DZ-6Z	6	-	3'X20'
	DZ-1	1	-	6'X40'
	DZ-4	4	-	6'X40'
	DZ-4R	4	8	6'X40'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

CONTROLLER TIMINGS								
MOVEMENT NUMBER (CONTROLLER PHASE Ø)	1	2	3	4	5	6	7	8
DIRECTION	NBU	SB		WB	SBL	NB		
TURN TYPE	PROT				PROT			
MIN GREEN	5	24		7	5	24		
EXT	3.0	2.4		3.0	3.0	2.4		
YELLOW	5.5	5.5		4.0	5.5	5.5		
ALL RED	2.0	2.0		4.1	2.0	2.0		
MAX I	16	59		33	16	59		
MAX II								
WALK				7		7		
FLASHING DON'T WALK				30		33		
DETECTOR MEMORY								
DET. CROSS SWITCH								
DUAL ENTRY		ON				ON		
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

EMERGENCY VEHICLE PREEMPTION						
PREEMPTION TIMING PLAN	1	2	3(NB)	4	5(SB)	6(WB)
PRIORITY			6		6	6
DELAY BEFORE PREEMPTION (SEC.)			0		0	0
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*		*	*
LOCK CALL			OFF		OFF	OFF
MAXIMUM PRESENCE (SEC)			120		120	120
YELLOW CLEARANCE (SEC)			**		**	**
RED CLEARANCE (SEC)			**		**	**
DWELL PHASE(S)			1&6		2&5	4
MINIMUM DWELL (SEC)			24		24	7
YELLOW CLEARANCE (SEC) **			**		**	**
RED CLEARANCE (SEC) **			**		**	**
EXIT PHASES			2&6		2&6	2&6

- 1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

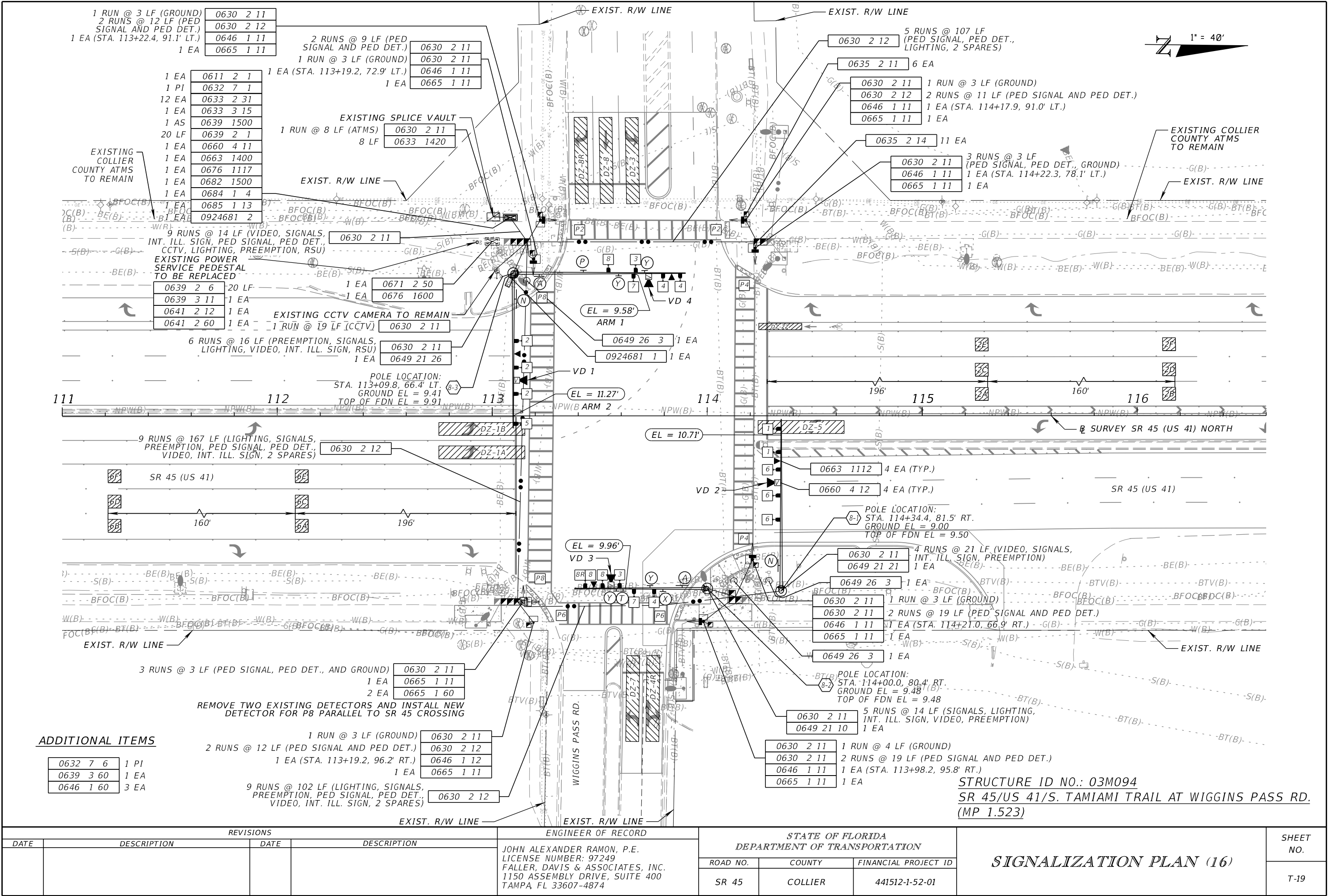


- = CONNECTED VEHICLE ROAD SIDE UNIT
- = VIDEO DETECTOR
- = CCTV CAMERA
- = EMERGENCY VEHICLE PREEMPTION

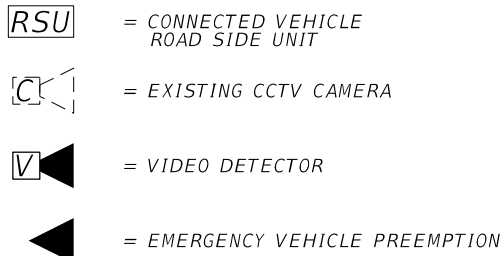
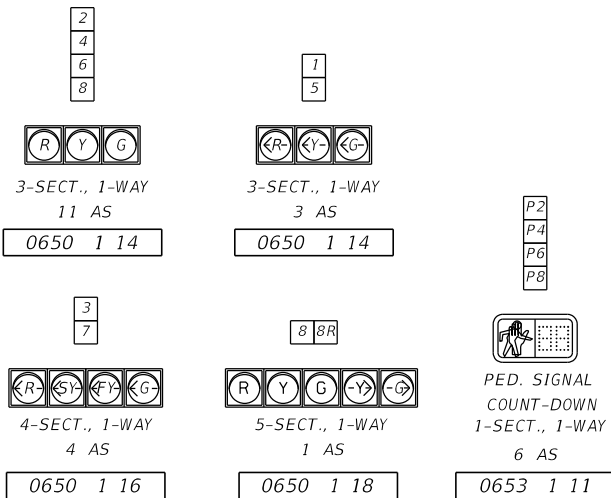
STRUCTURE ID NO.: 03M093
SR 45/US 41/S. TAMiami TRAIL AT IMPERIAL GOLF COURSE BLVD. (MP 1.881)

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNALIZATION PLAN (15)	SHEET NO.
DATE	DESCRIPTION		DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 45	COLLIER	441512-1-52-01		T-18

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874



SIGNAL DISPLAY DETAILS

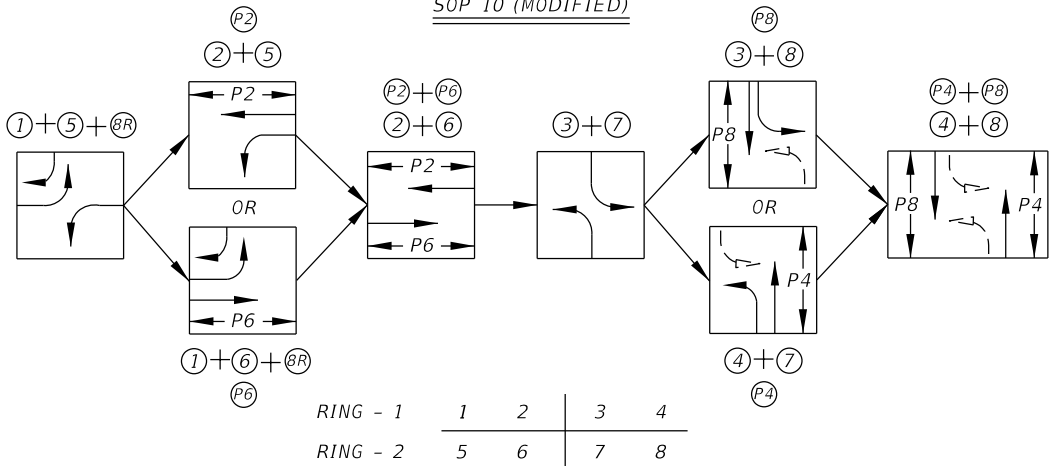


VIDEO DETECTION

VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
VD 2	DZ-5	5	-	6'X40'
	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-1A	1	-	6'X40'
VD 3	DZ-1B	1	-	6'X40'
	DZ-3	3	-	6'X40'
	DZ-8	8	-	6'X40'
VD 4	DZ-8R	8	8	6'X40'
	DZ-4R	4	8	6'X40'
	DZ-7	7	-	6'X40'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

SOP 10 (MODIFIED)



RING - 1	1	2	3	4
RING - 2	5	6	7	8

CONTROLLER TIMINGS

MOVEMENT NUMBER (CONTROLLER PHASE 0)	1	2	3	4	5	6	7	8
DIRECTION	NBL	SB	EBL	WB	SBL	NB	WBL	EB
TURN TYPE	PROT		PROT / PERM		PROT		PROT / PERM	
MIN GREEN	5	21	10	10	5	21	10	10
EXT	3.0	2.2	3.0	3.0	3.0	2.2	3.0	3.0
YELLOW	5.1	5.1	4.8	4.8	5.1	5.1	4.8	4.8
ALL RED	3.0	2.0	6.0	6.0	2.8	2.0	6.0	6.0
MAX I	11	59	30	17	11	59	20	17
MAX II								
WALK		7		7		7		7
FLASHING DON'T WALK		21		38		18		42
DETECTOR MEMORY								
DET. CROSS SWITCH								
DUAL ENTRY		ON		ON		ON		ON
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

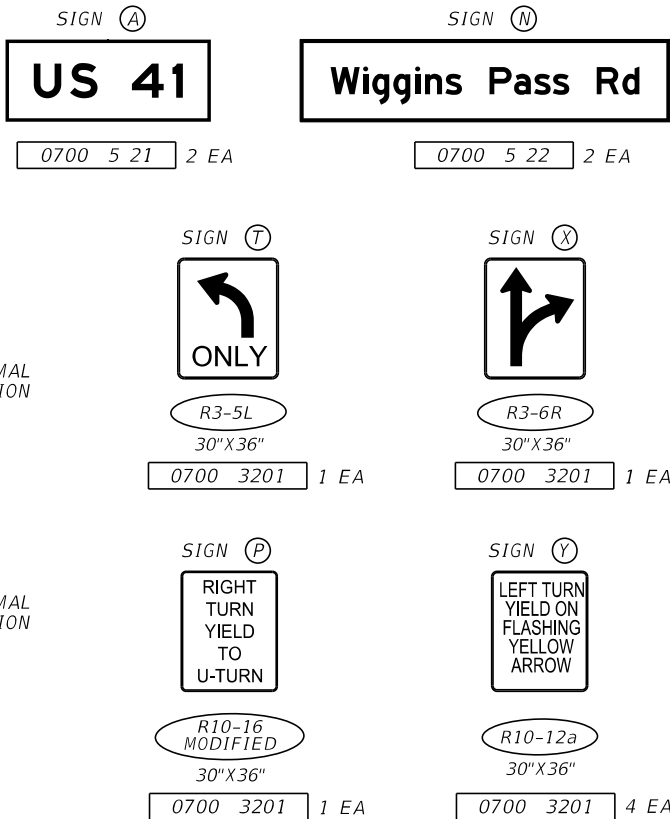
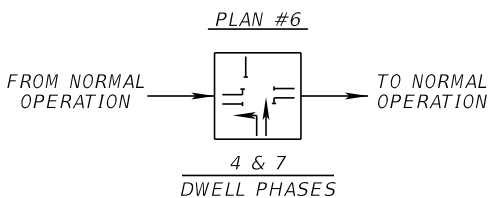
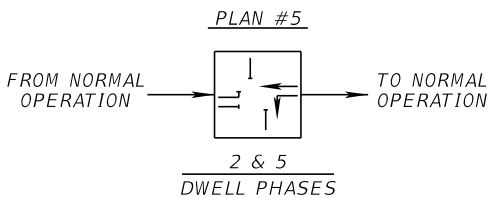
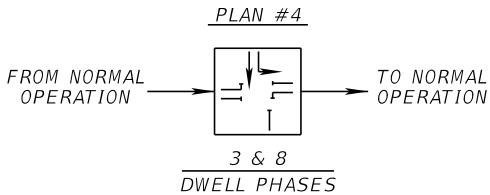
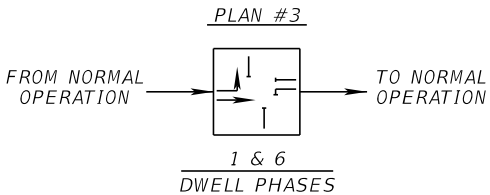
EMERGENCY VEHICLE PREEMPTION

PREEMPTION TIMING PLAN	1	2	3(NB)	4(EB)	5(SB)	6(WB)
PRIORITY			6	6	6	6
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*
LOCK CALL			OFF	OFF	OFF	OFF
MAXIMUM PRESENCE (SEC)			120	120	120	120
YELLOW CLEARANCE (SEC)			**	**	**	**
RED CLEARANCE (SEC)			**	**	**	**
DWELL PHASE(S)			1&6	3&8	2&5	4&7
MINIMUM DWELL (SEC)			21	10	21	10
YELLOW CLEARANCE (SEC) **			**	**	**	**
RED CLEARANCE (SEC) **			**	**	**	**
EXIT PHASES			2&6	2&6	2&6	2&6

- 1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

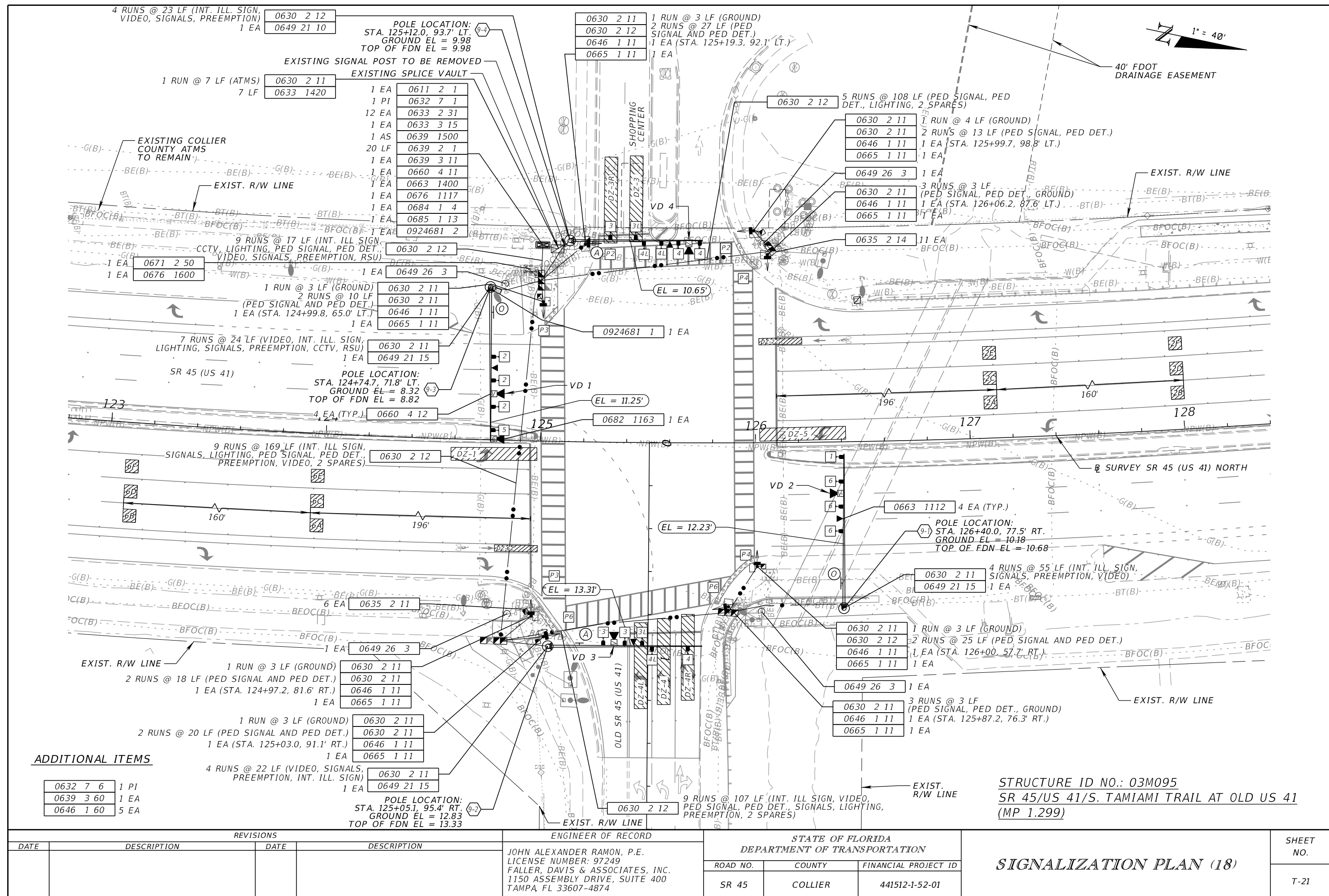
NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMiami TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS WIGGINS PASS RD. (MOVEMENTS 4 AND 8).
- STANDARD SIGNAL OPERATING PLAN NO. 10 (MODIFIED) WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), 6 (P6) AND 8 (P8).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMiami TRAIL (NB) = 50 MPH
 - SR 45/US 41/S. TAMiami TRAIL (SB) = 50 MPH
 - WIGGINS PASS RD. (EB) = 45 MPH
 - WIGGINS PASS RD. (WB) = 20 MPH
- PROGRAM 2.0 SECONDS OF DELAY FOR THE FLASHING YELLOW ARROW OPERATION.
- MOVEMENT 8R (EB RIGHT) OPERATES WITH MOVEMENT 1 (CONTROLLER PHASE 1) ONLY, AND HAS 4.8 SECONDS OF YELLOW AND 2.1 SECONDS OF ALL RED.

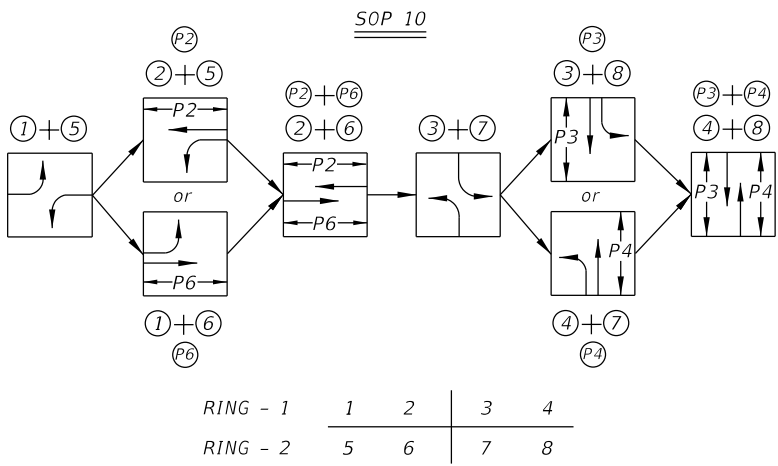
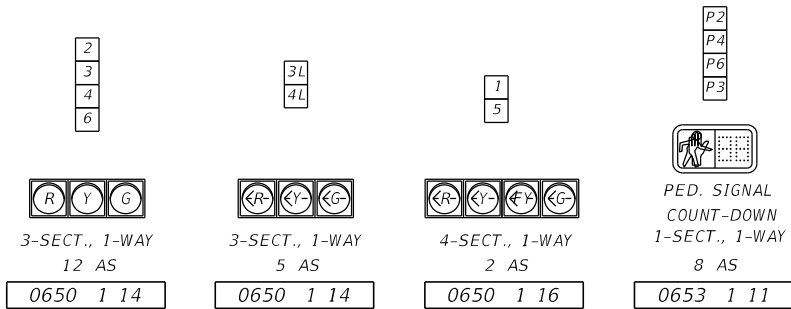


STRUCTURE ID NO.: 03M094
SR 45/US 41/S. TAMiami TRAIL AT WIGGINS PASS RD.
(MP 1.523)

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNALIZATION PLAN (17)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR 45	COLLIER	441512-1-52-01		



SIGNAL DISPLAY DETAILS



RING - 1	1	2	3	4
RING - 2	5	6	7	8

CONTROLLER TIMINGS								
MOVEMENT NUMBER (CONTROLLER PHASE Ø)	1	2	3	4	5	6	7	8
DIRECTION	NBL	SB	EBL	WB	SBL	NB	WBL	EB
TURN TYPE	PROT		PROT		PROT		PROT	
MIN GREEN	5	21	5	10	5	21	5	10
EXT	3.0	2.2	3.0	3.0	3.0	2.2	3.0	3.0
YELLOW	5.1	5.1	4.0	4.8	5.1	5.1	4.8	4.0
ALL RED	2.6	2.6	3.0	2.9	2.6	2.6	2.9	4.0
MAX I	20	57	30	23	20	57	30	23
MAX II								
WALK		7		7		7		7
FLASHING DON'T WALK		20		41		24		40
DETECTOR MEMORY								
DET. CROSS SWITCH								
DUAL ENTRY		ON		ON		ON		ON
VEHICLE RECALL		MIN				MIN		
REST IN WALK								
CNA								

EMERGENCY VEHICLE PREEMPTION							
PREEMPTION TIMING PLAN	1	2	3(NB)	4(EB)	5(SB)	6(WB)	
PRIORITY			6	6	6	6	
DELAY BEFORE PREEMPTION (SEC.)			0	0	0	0	
MINIMUM GREEN BEFORE PREEMPTION (SEC)			*	*	*	*	
LOCK CALL			OFF	OFF	OFF	OFF	
MAXIMUM PRESENCE (SEC)			120	120	120	120	
YELLOW CLEARANCE (SEC)			**	**	**	**	
RED CLEARANCE (SEC)			**	**	**	**	
DWELL PHASE(S)			1&6	3&3L	2&5	4&4L	
MINIMUM DWELL (SEC)			21	10	21	10	
YELLOW CLEARANCE (SEC) **			**	**	**	**	
RED CLEARANCE (SEC) **			**	**	**	**	
EXIT PHASES			2&6	2&6	2&6	2&6	

- 1) * ENTRY INTO PREEMPTION MUST NOT VIOLATE MINIMUM GREEN OR PEDESTRIAN CLEARANCE INTERVALS.
- 2) ** YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.

NOTES:

- MAJOR STREET IS SR 45/US 41/S. TAMiami TRAIL (MOVEMENTS 2 AND 6), AND MINOR STREET IS OLD US 41 (MOVEMENTS 4 AND 8).
- STANDARD SIGNAL OPERATING PLAN NO. 10 WITH THE FOLLOWING:
 - REQUEST UPDATED SIGNAL TIMINGS FROM COLLIER COUNTY WHEN ALL LANES, STRIPING, SIGNALS AND PEDESTRIAN FACILITIES ARE IN THEIR FINAL CONFIGURATION AND THE SIGNAL IS OPERATING AS DESIGNED. PROVIDE COLLIER COUNTY WITH ALL 'AS-BUILT' INFORMATION NECESSARY TO DEVELOP THE BASIC SIGNAL TIMING PARAMETERS, AND ALLOW THREE (3) WEEKS FOLLOWING THE REQUEST FOR COLLIER COUNTY TO DEVELOP THE UPDATED TIMINGS. PROGRAM THE CONTROLLER PER THE TIMINGS PROVIDED BY COLLIER COUNTY.
 - CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 3 (P3), 4 (P4), AND 6 (P6).
 - EMERGENCY VEHICLE PREEMPTION.
 - ENTRY INTO EMERGENCY VEHICLE PREEMPTION MUST NOT FORCE OFF MINIMUM GREEN OR PEDESTRIAN CLEARANCE.
 - YELLOW AND ALL RED INTERVALS DURING PREEMPTION MUST BE THE SAME VALUES USED DURING NORMAL CONTROLLER OPERATIONS.
 - WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 MUST FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS MUST FLASH RED.
 - PHASES 1 AND 5 MUST BE RUN PROTECTED ONLY AT ALL TIMES.
- THE POSTED SPEED LIMITS ARE AS FOLLOWS:
 - SR 45/US 41/S. TAMiami TRAIL (NB) = 50 MPH
 - SR 45/US 41/S. TAMiami TRAIL (SB) = 50 MPH
 - OLD US 41 = 45 MPH
 - SHOPPING CENTER = 25 MPH (NOT POSTED)

SIGN (A)

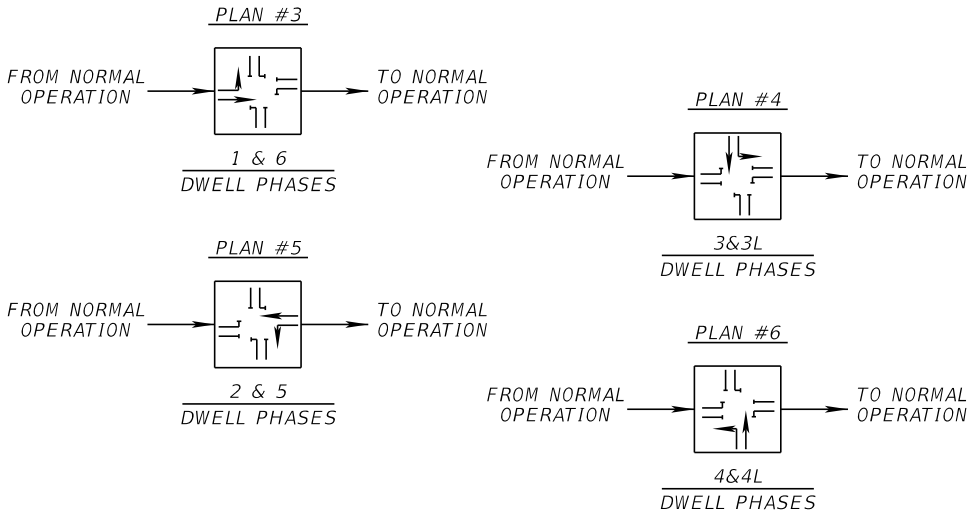
US 41

0700 5 21 2 EA

SIGN (O)

Old US 41

0700 5 22 2 EA



- RSU = CONNECTED VEHICLE ROAD SIDE UNIT
- V = VIDEO DETECTOR
- C = CCTV CAMERA
- = EMERGENCY VEHICLE PREEMPTION

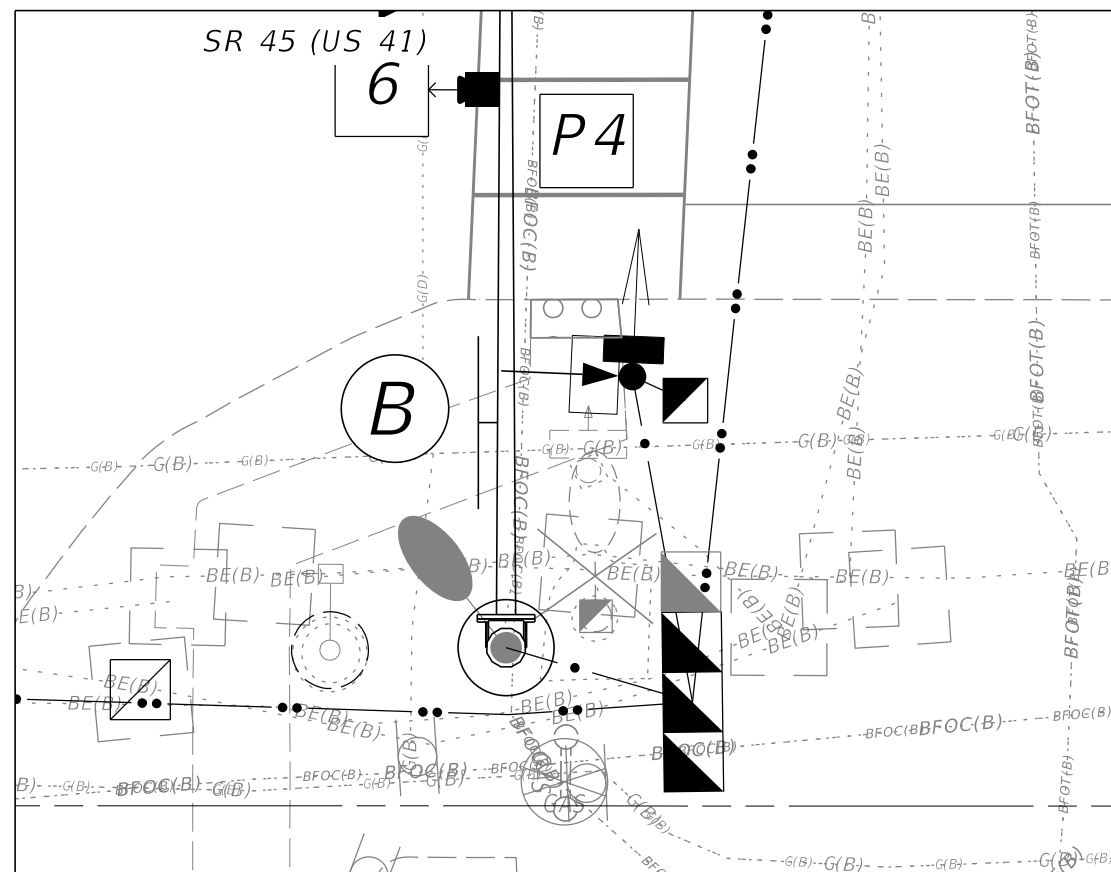
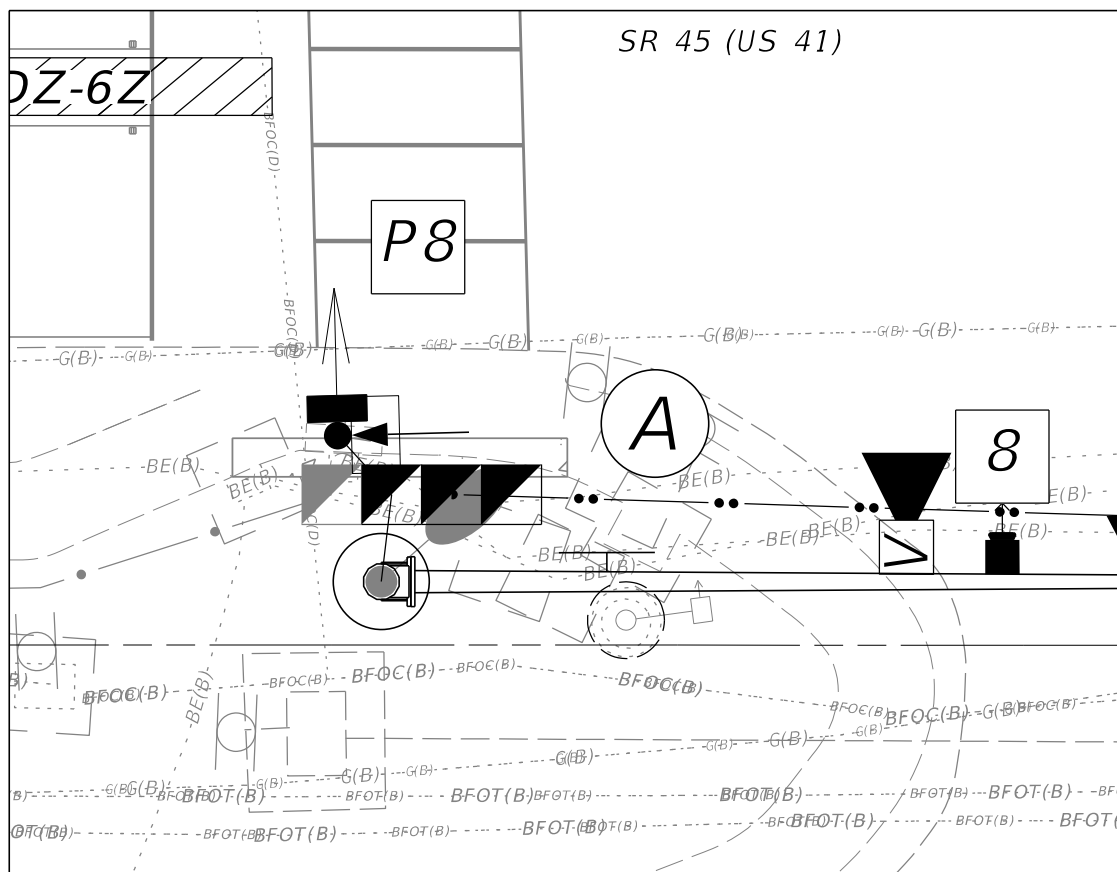
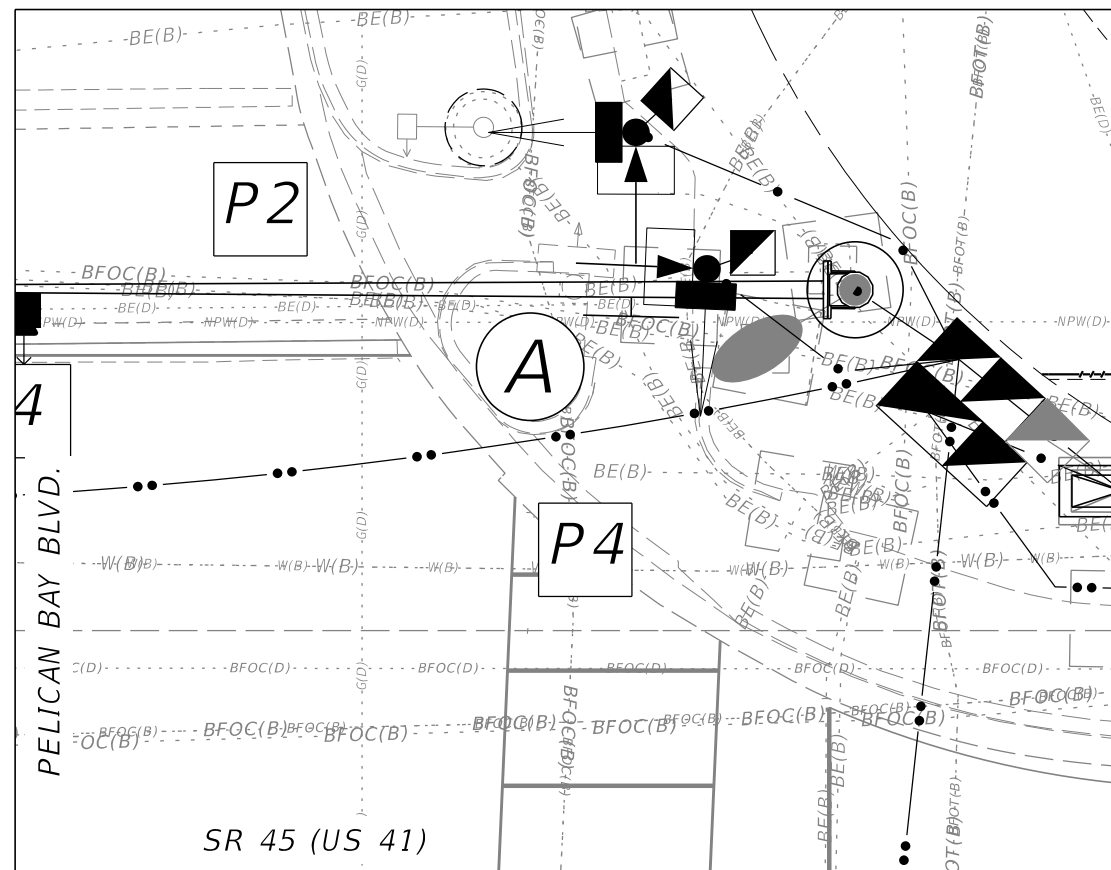
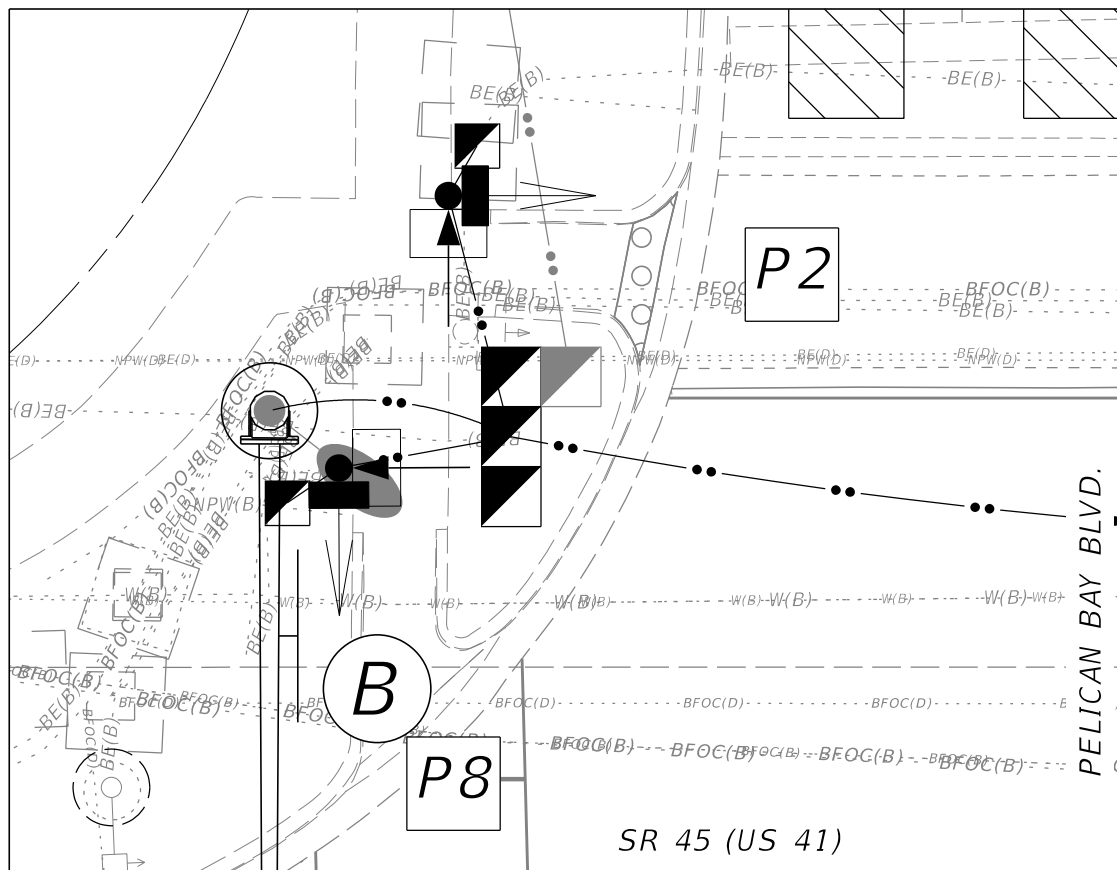
VIDEO DETECTION				
VIDEO DETECTION	DETECTION ZONE	CONNECT TO MOVEMENT	DELAY (SEC)	SIZE (DIAMETER)
VD 1	2A	2	-	6'X6'
	2B	2	-	6'X6'
	2C	2	-	6'X6'
	2D	2	-	6'X6'
	2E	2	-	6'X6'
	2F	2	-	6'X6'
	DZ-2Z	2	-	3'X20'
	DZ-5	5	-	6'X40'
VD 2	6A	6	-	6'X6'
	6B	6	-	6'X6'
	6C	6	-	6'X6'
	6D	6	-	6'X6'
	6E	6	-	6'X6'
	6F	6	-	6'X6'
	DZ-6Z	6	-	3'X20'
	DZ-1	1	-	6'X40'
VD 3	DZ-3	3	-	6'X40'
	DZ-3R	3	8	6'X40'
VD 4	DZ-4	4	-	6'X40'
	DZ-4L	4	3	6'X40'
	DZ-4R	4	8	6'X40'

FRONT OF DETECTION ZONES TO BE SET 2' BEHIND EDGE OF CROSSWALK WITHOUT EXCEEDING A MAXIMUM OF 8' IN FRONT OF STOP BAR.

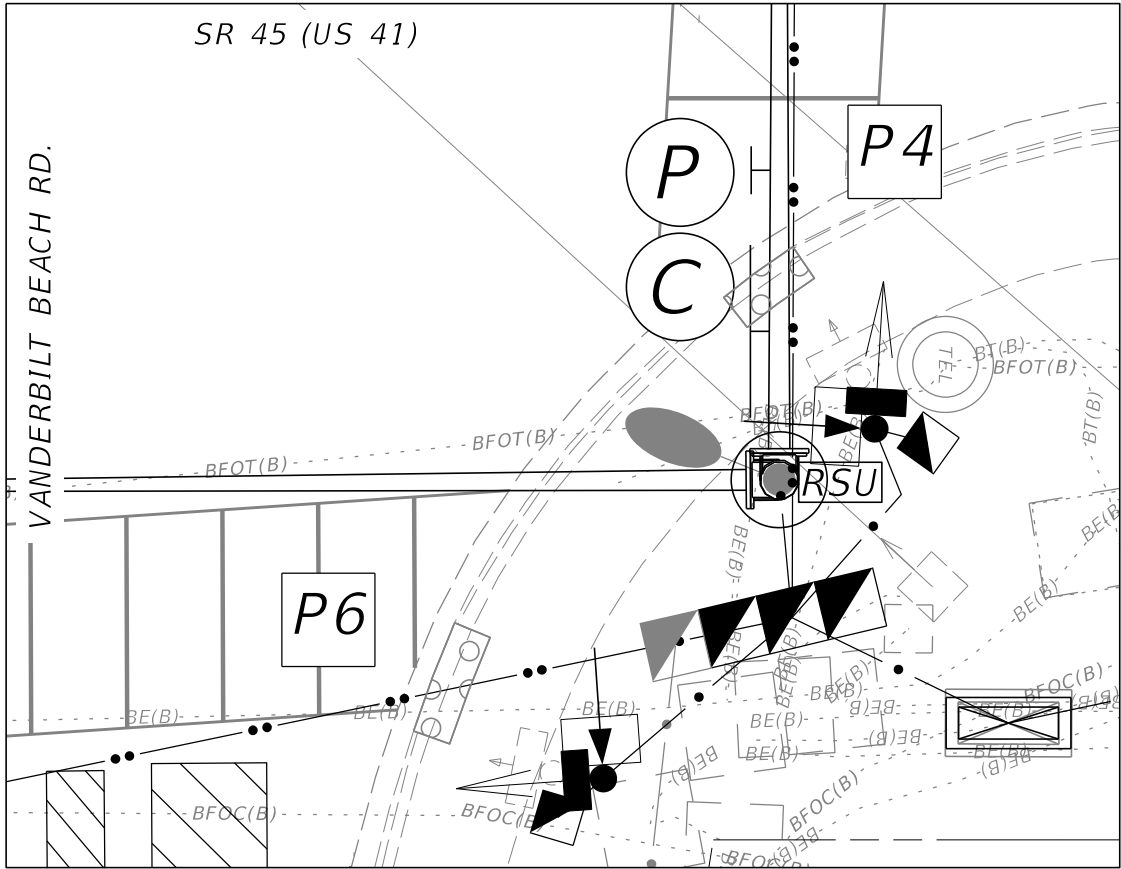
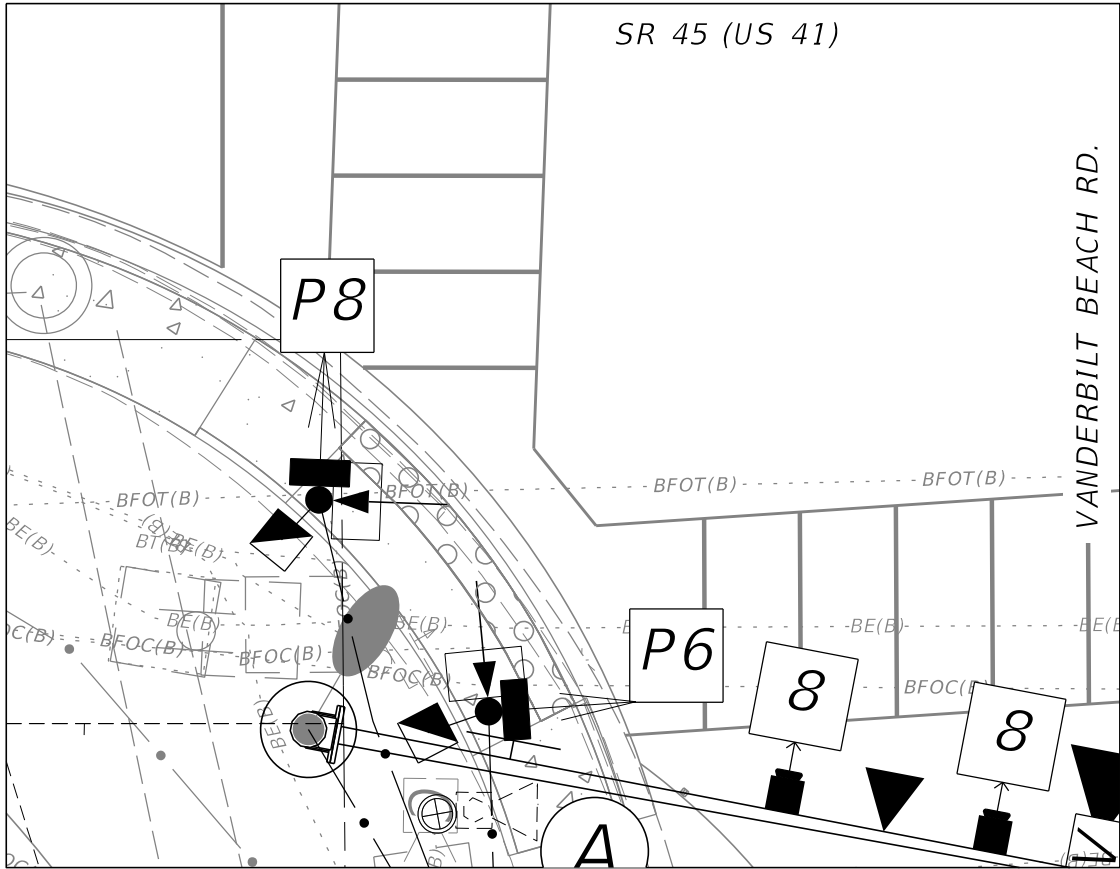
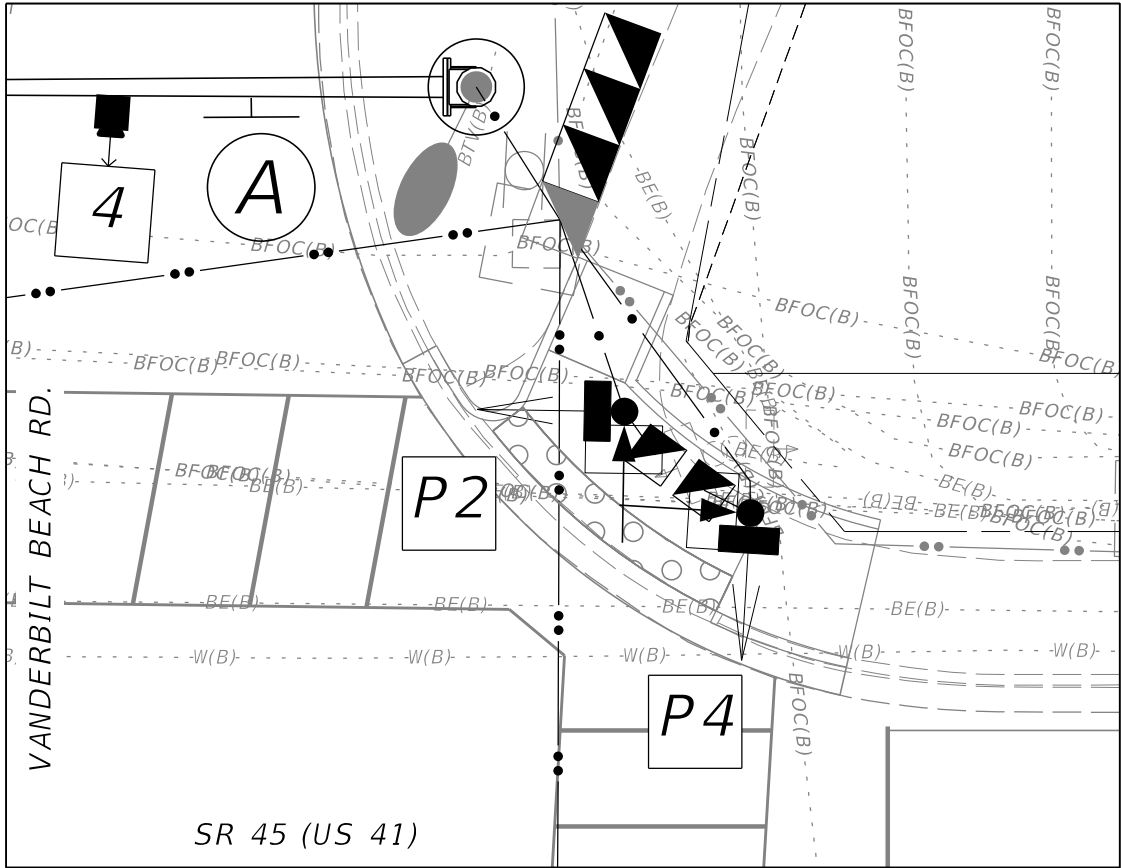
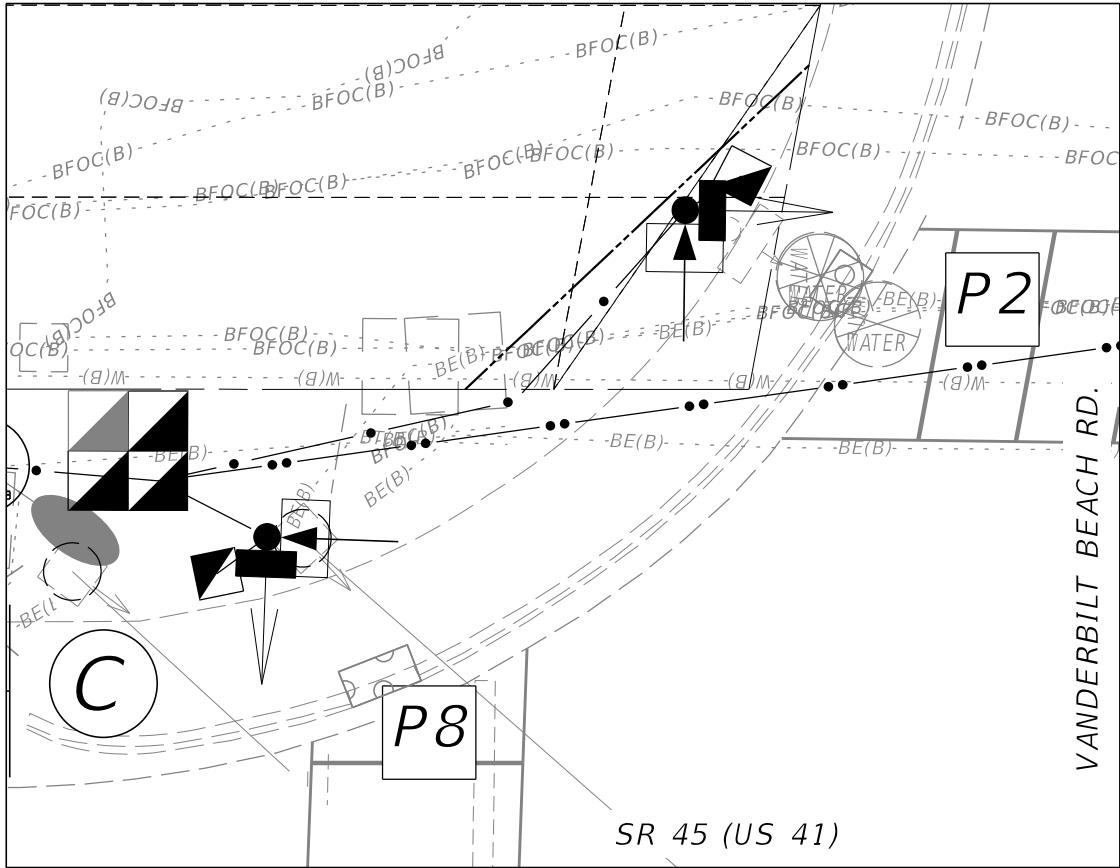
REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNALIZATION PLAN (19)	SHEET NO.
DATE	DESCRIPTION		DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

STRUCTURE ID NO.: 03M095
SR 45/US 41/S. TAMiami TRAIL AT OLD US 41
(MP 1.299)



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (1)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-23
					SR 45	COLLIER	441512-1-52-01		



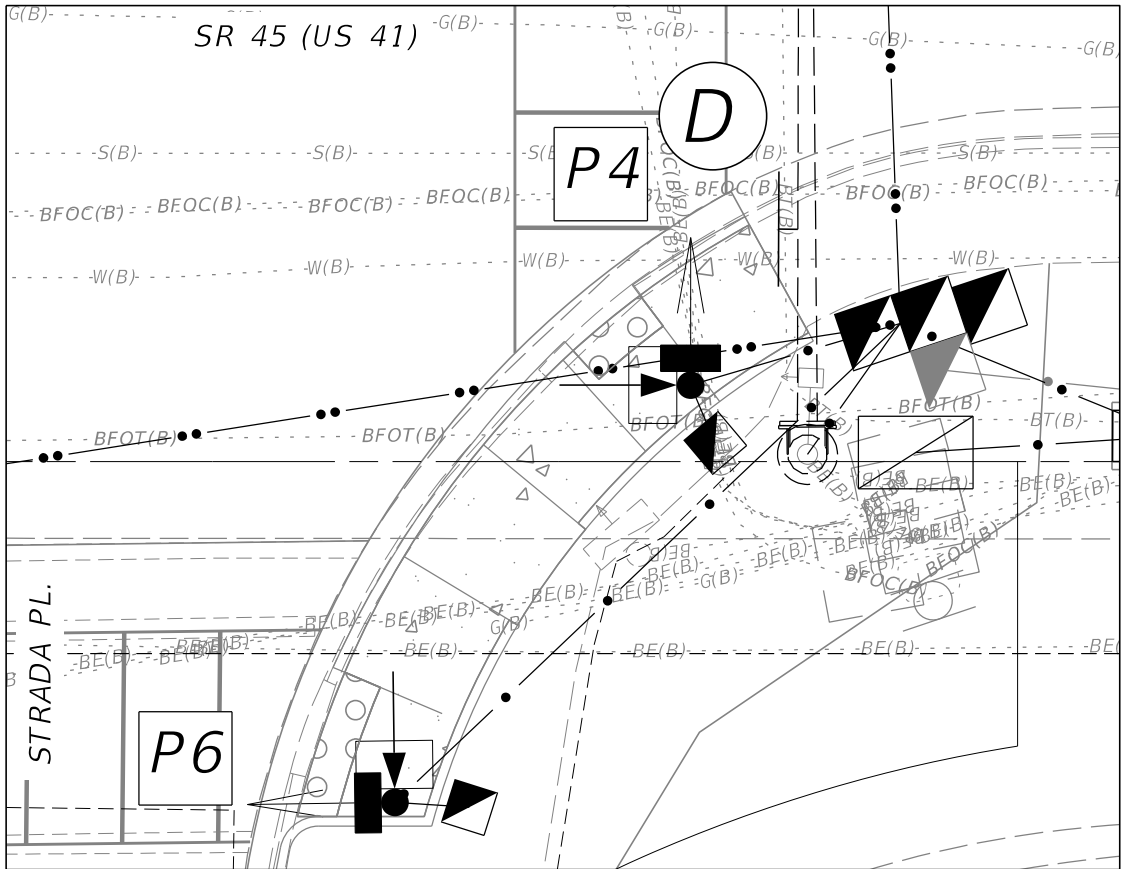
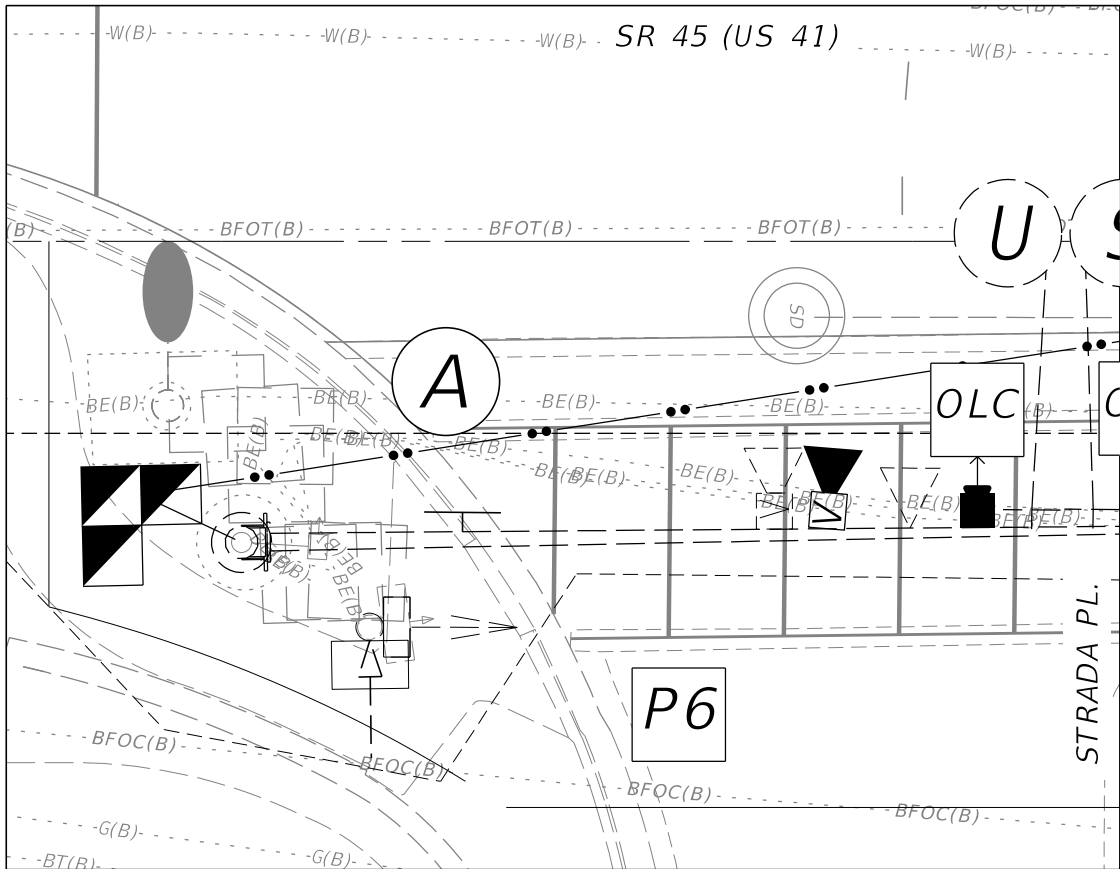
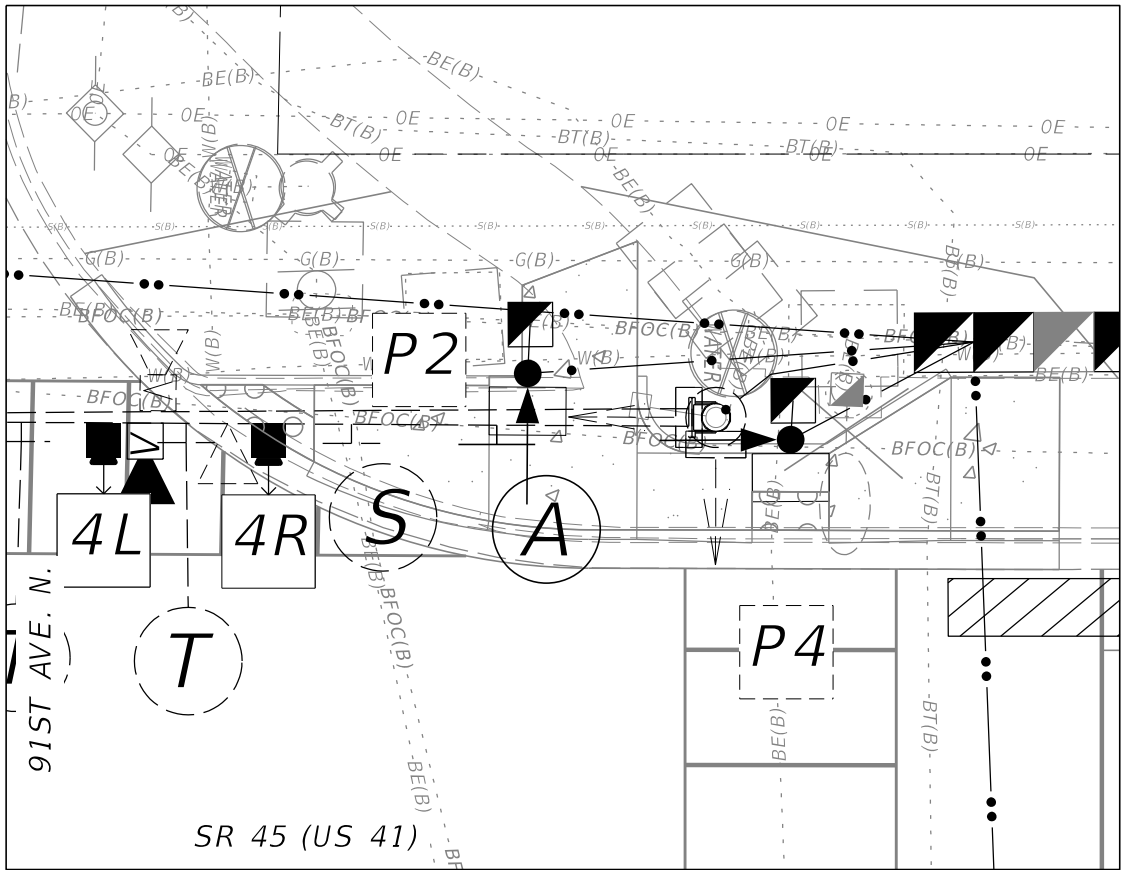
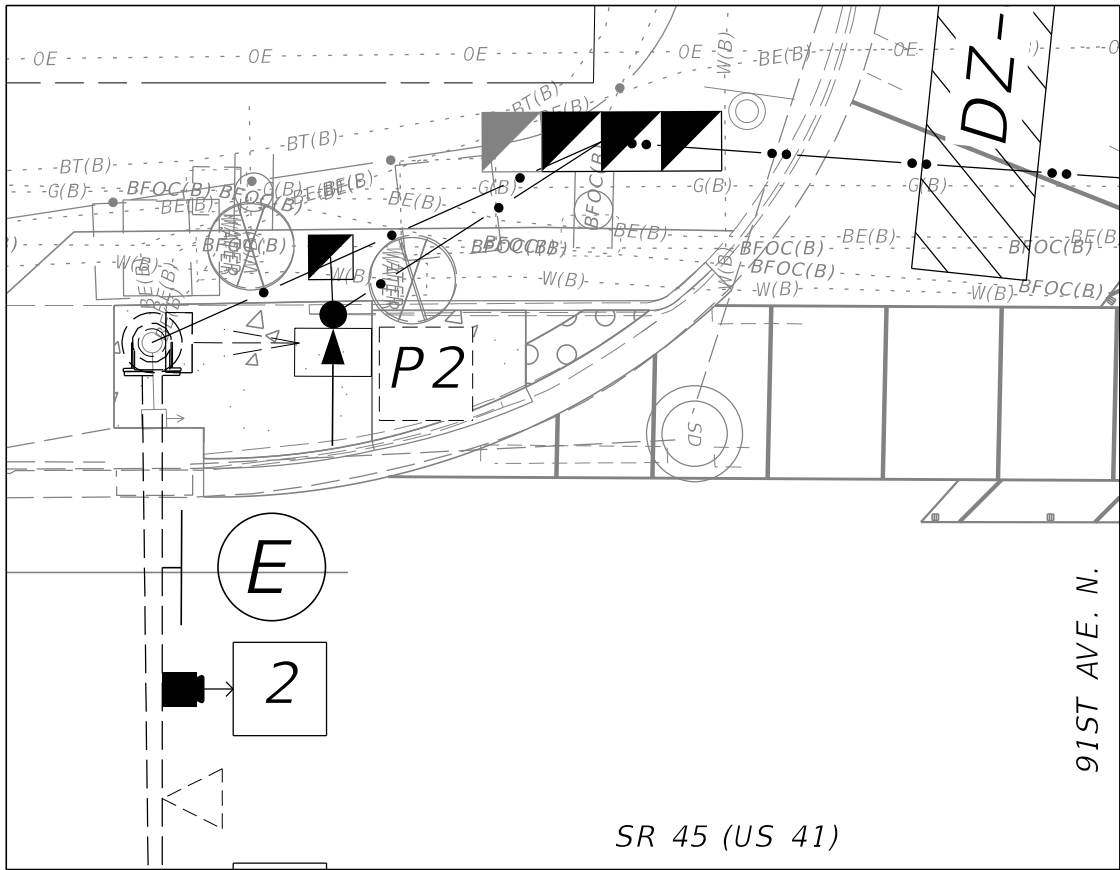
1" = 10'

PEDESTRIAN SYMBOL



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (2)	SHEET NO. T-24
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874



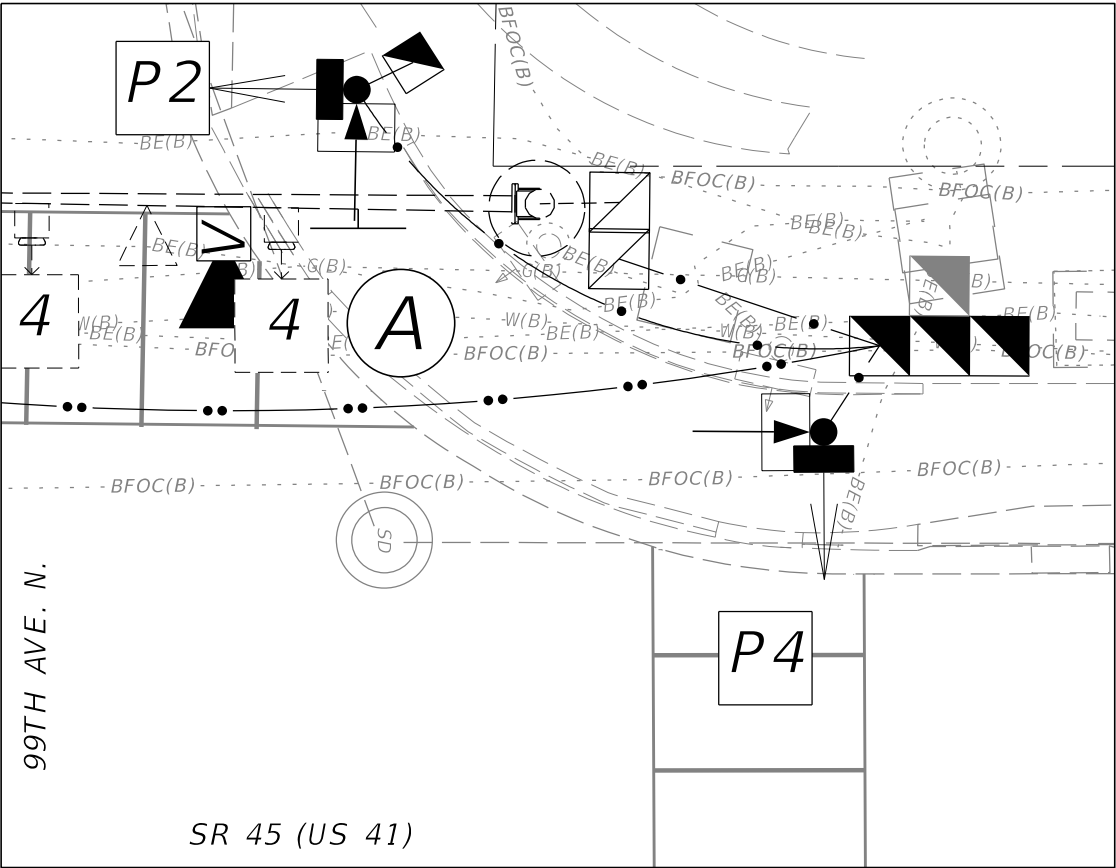
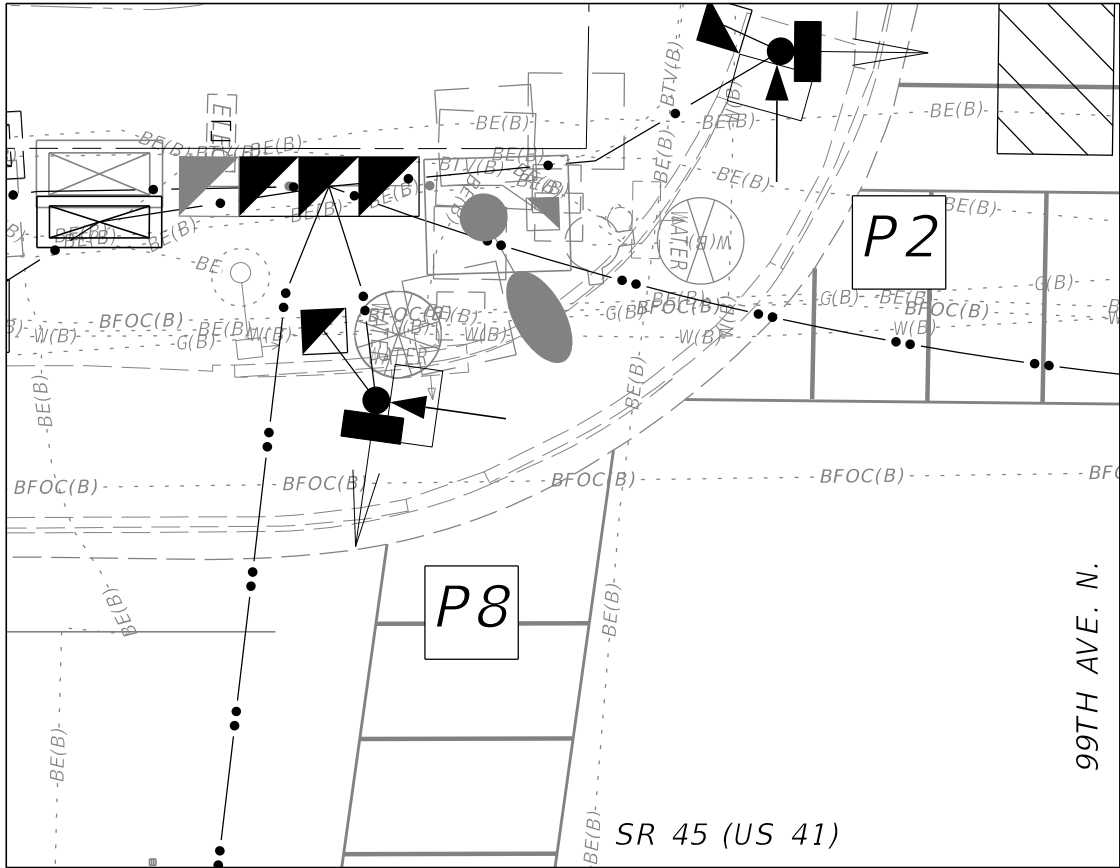
1" = 10'

PEDESTRIAN SYMBOL

- PEDESTRIAN SIGNAL ON PEDESTAL WITH BUTTON
- EXISTING PEDESTRIAN SIGNAL ON PEDESTAL WITH RELOCATED BUTTON
- PEDESTRIAN DETECTOR POST WITH BUTTON

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (3)	SHEET NO. T-25
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

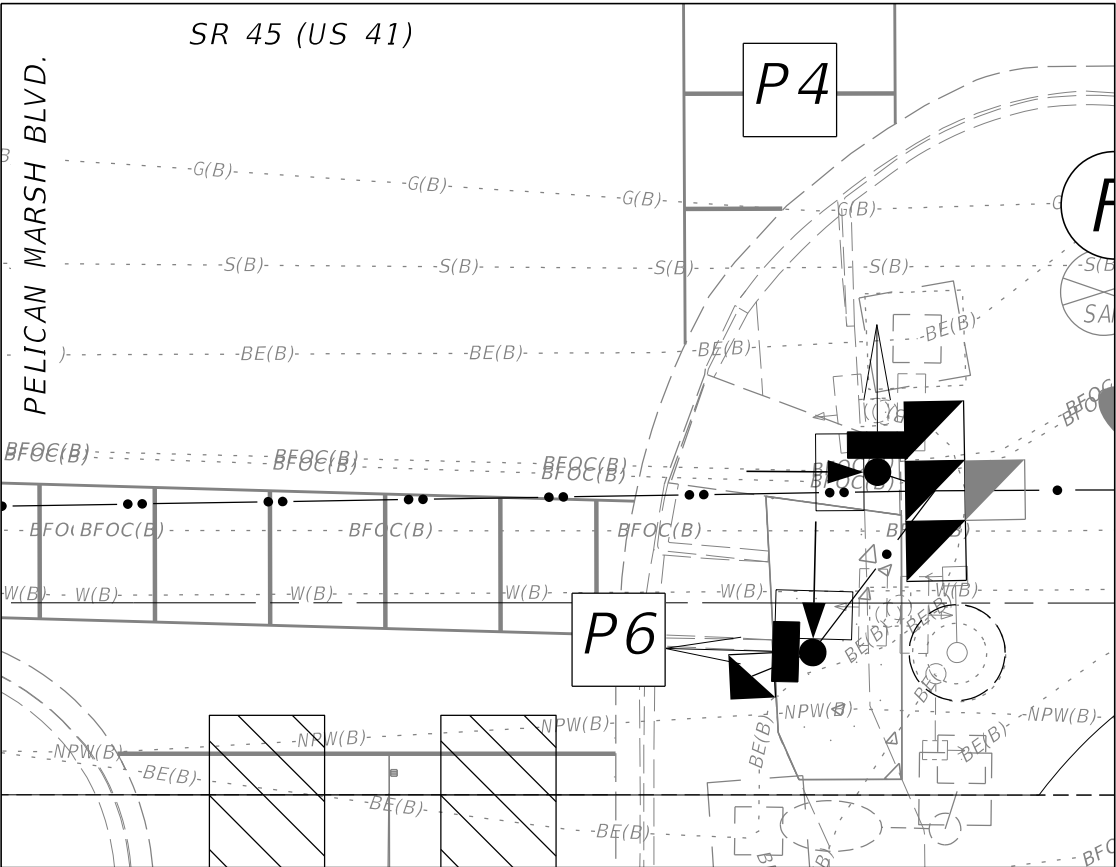
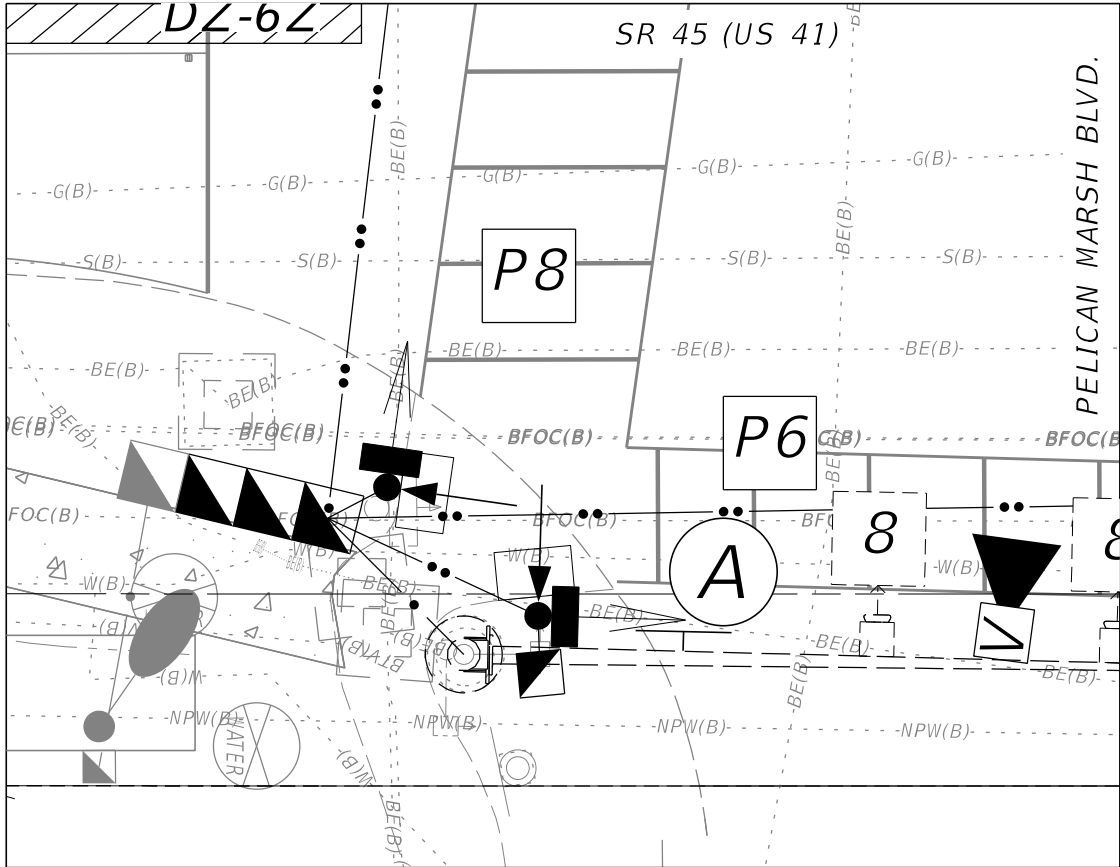


1" = 10'

PEDESTRIAN SYMBOL

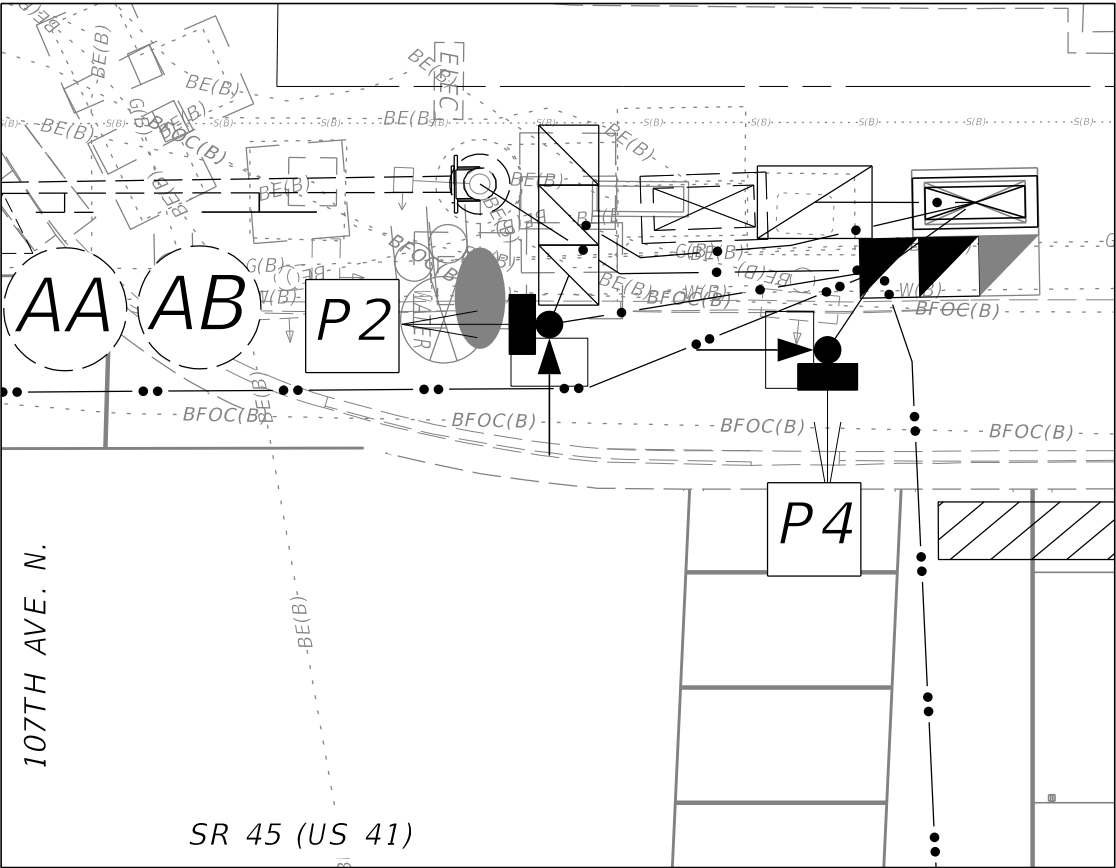
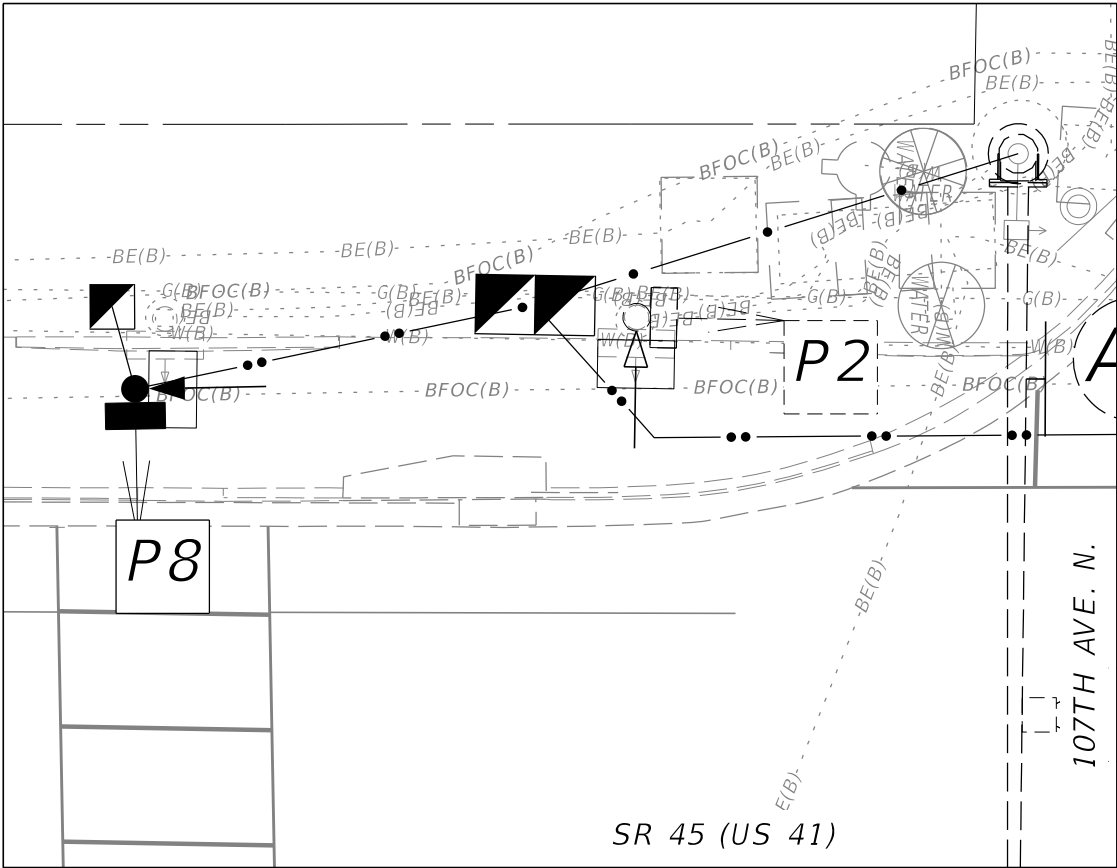


PEDESTRIAN SIGNAL ON
PEDESTAL WITH BUTTON



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (4)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-26
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874



1" = 10'

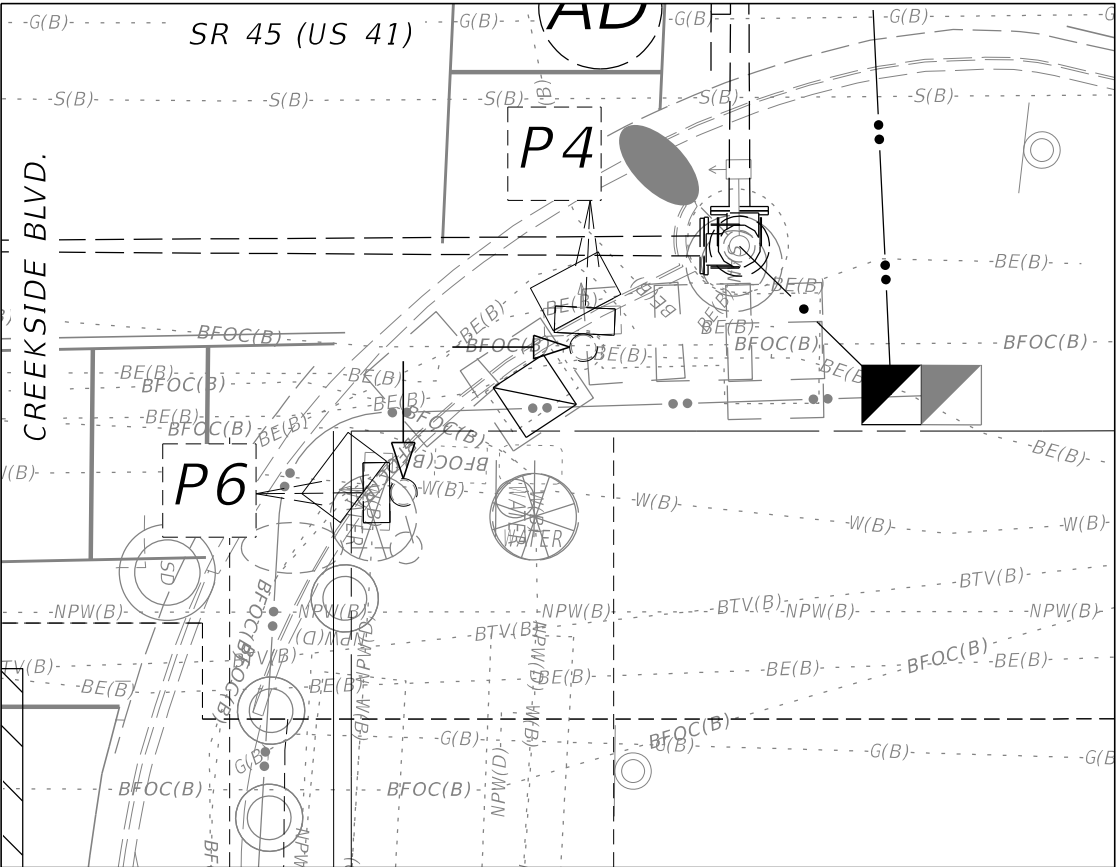
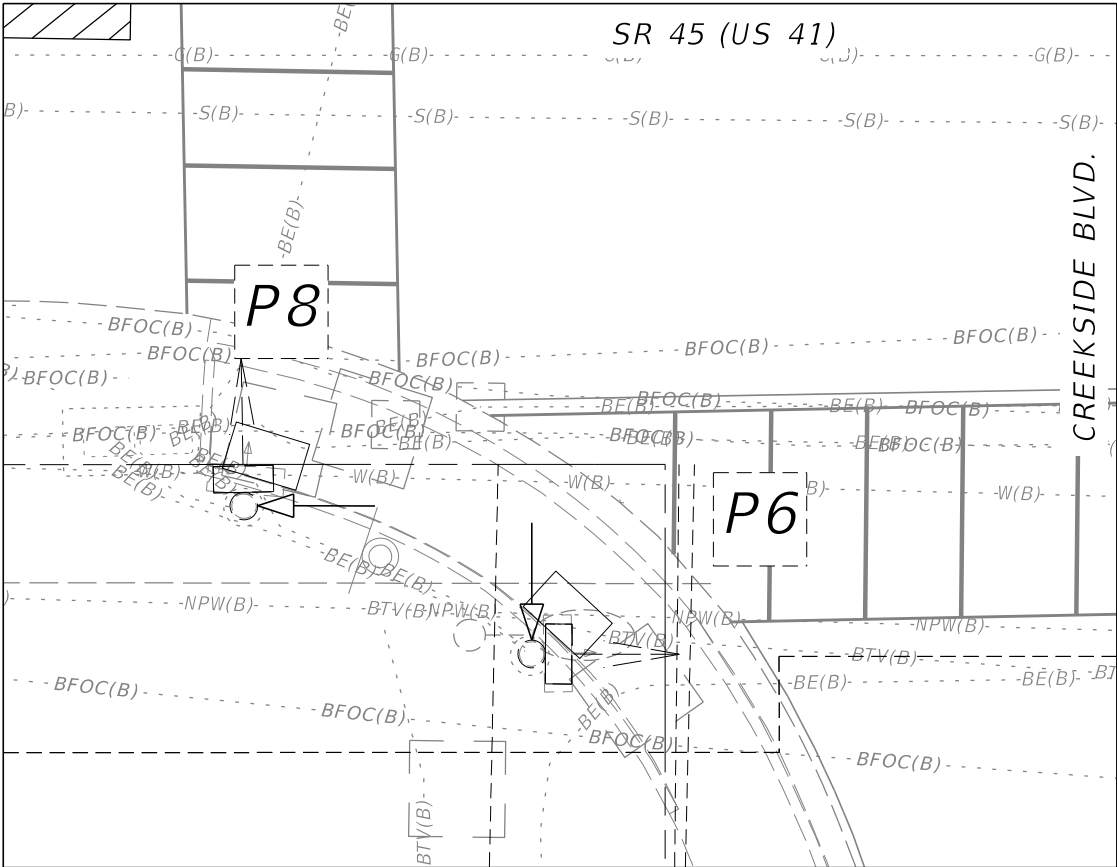
PEDESTRIAN SYMBOL



PEDESTRIAN SIGNAL ON
PEDESTAL WITH BUTTON



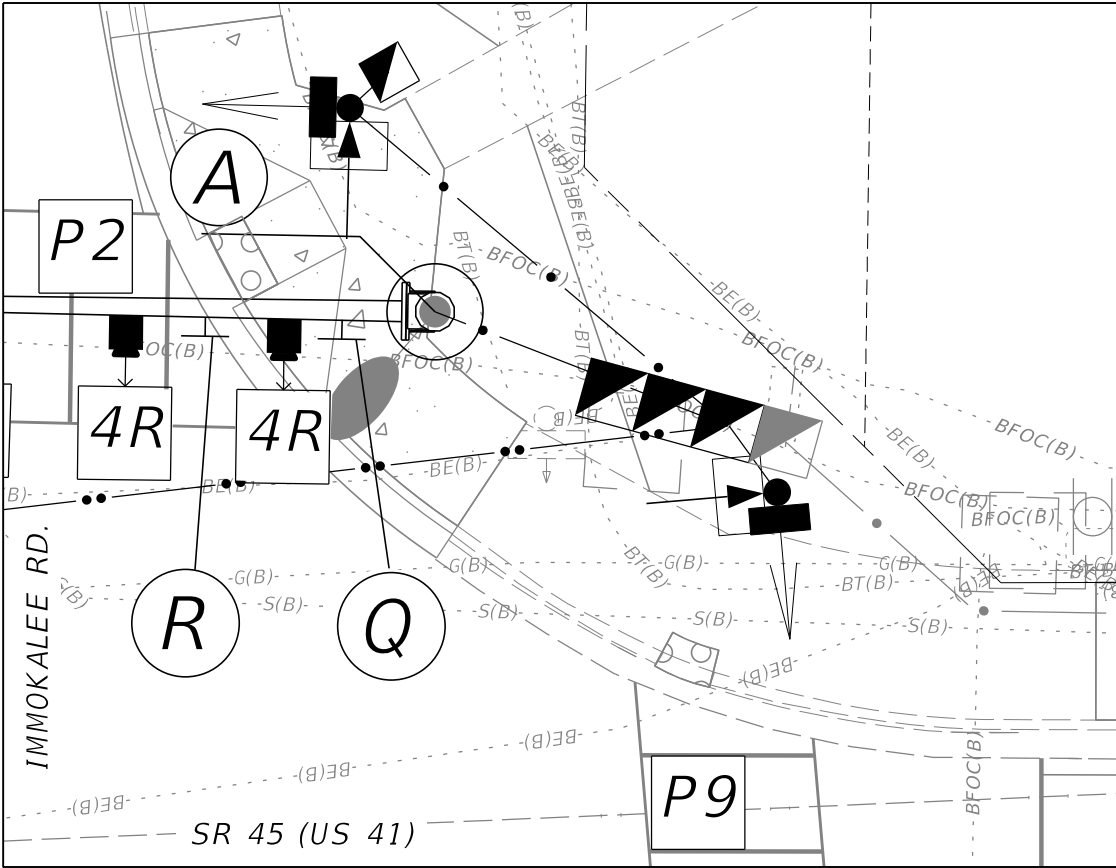
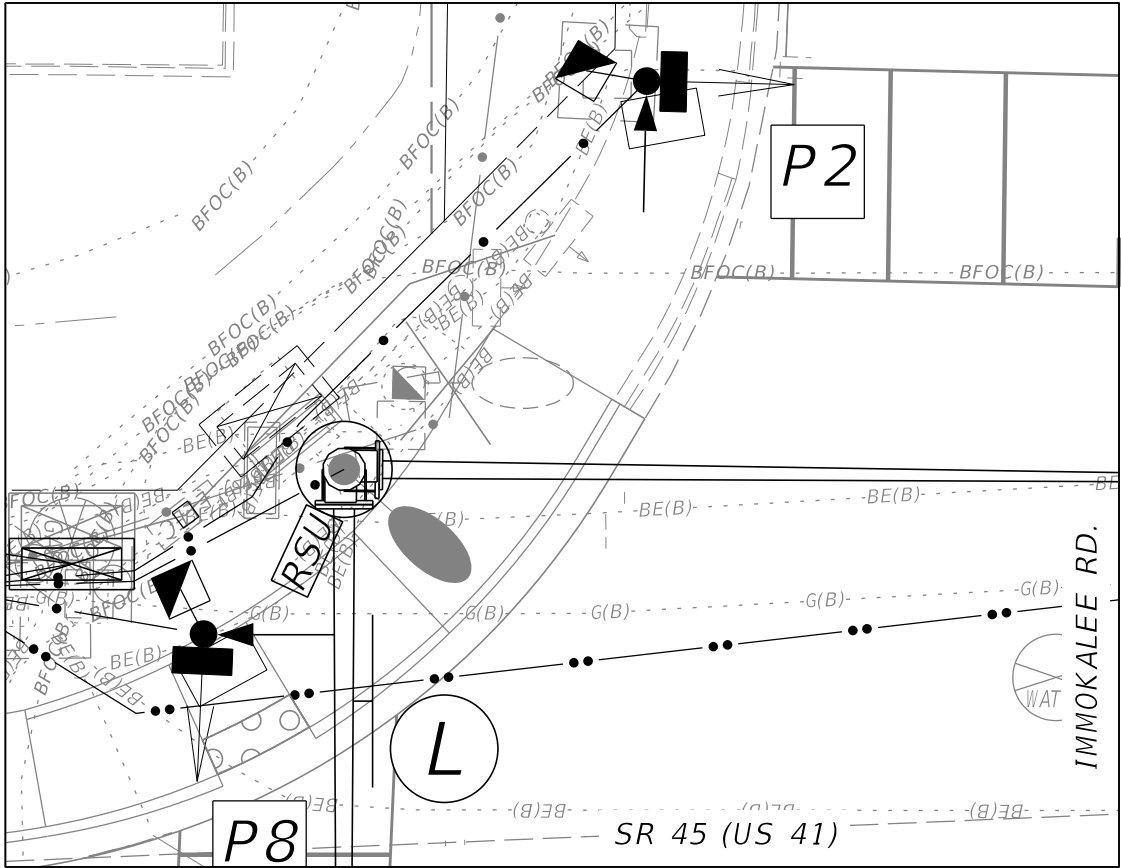
EXISTING PEDESTRIAN SIGNAL
ON PEDESTAL WITH BUTTON



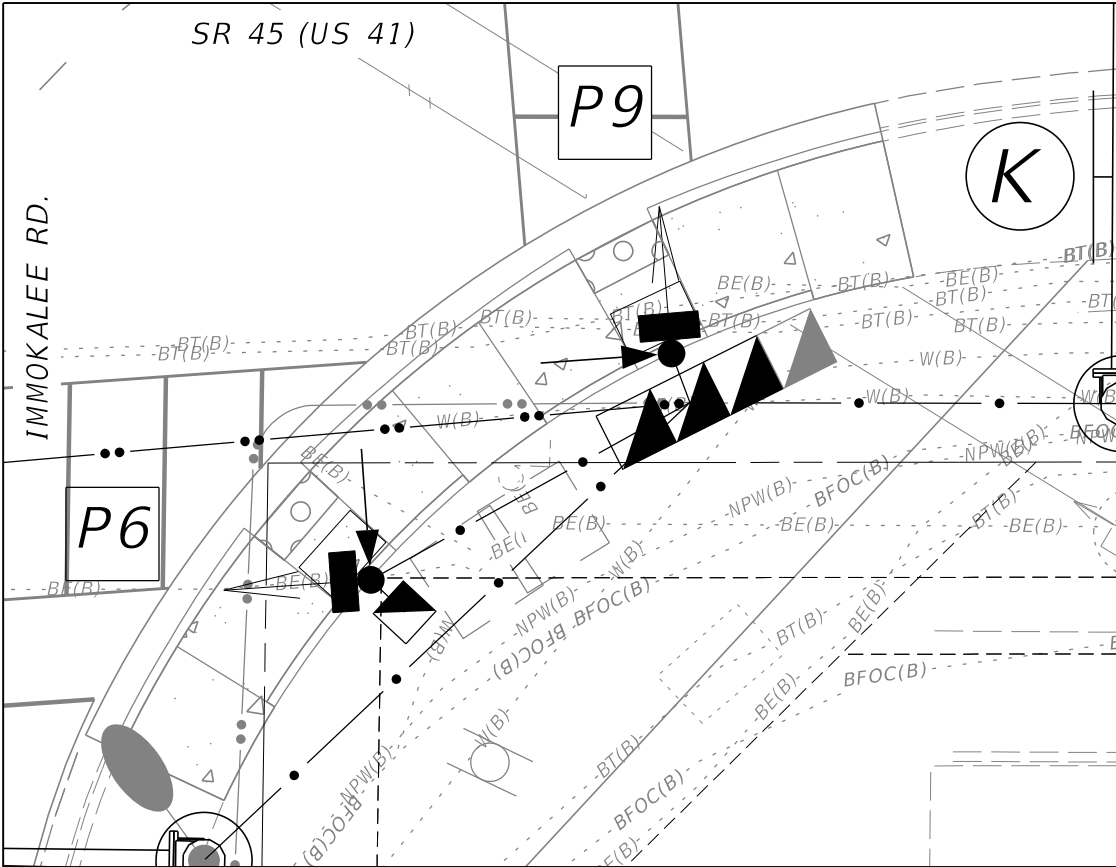
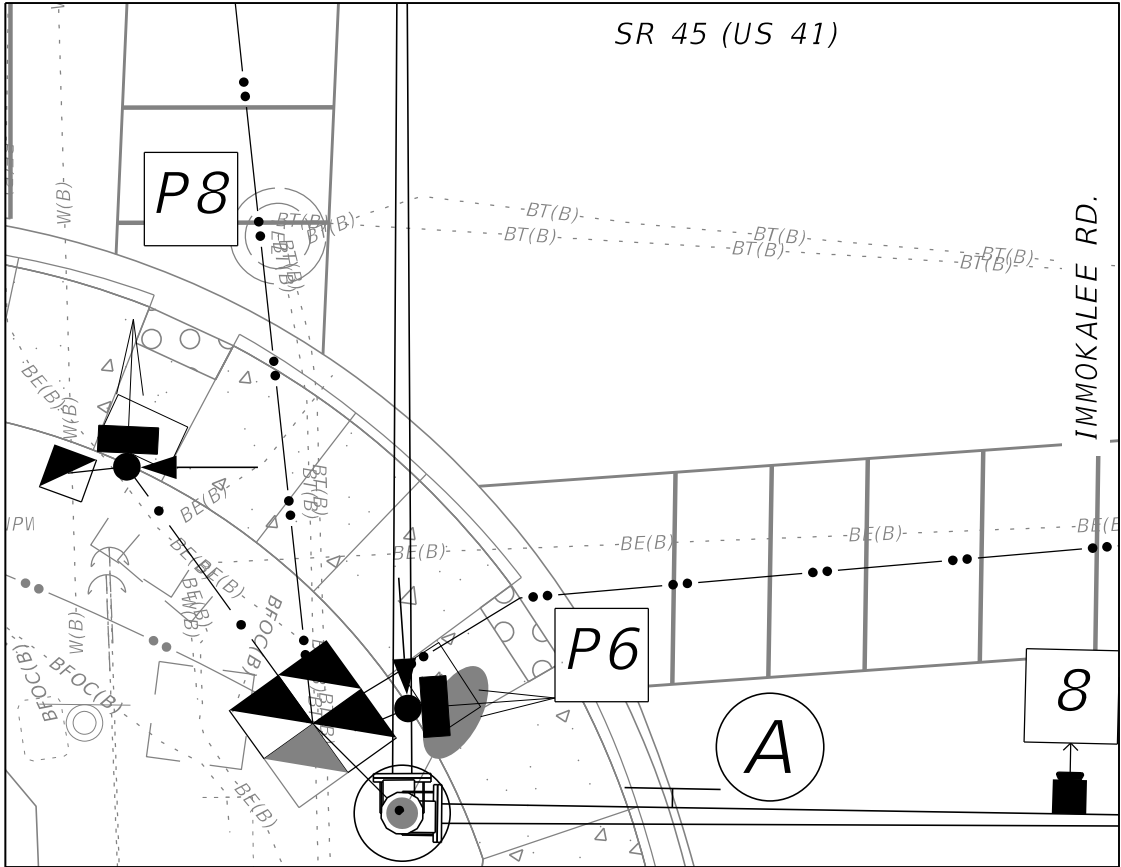
REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (5)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-27
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

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

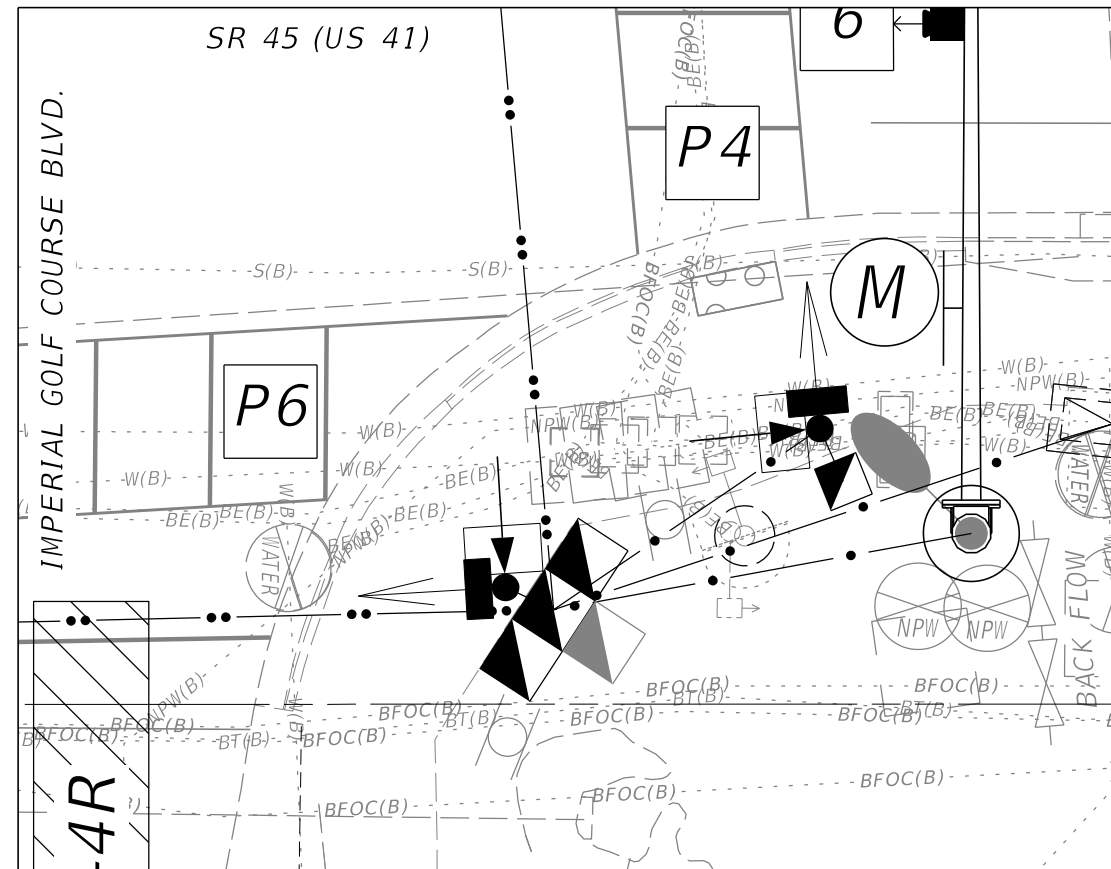
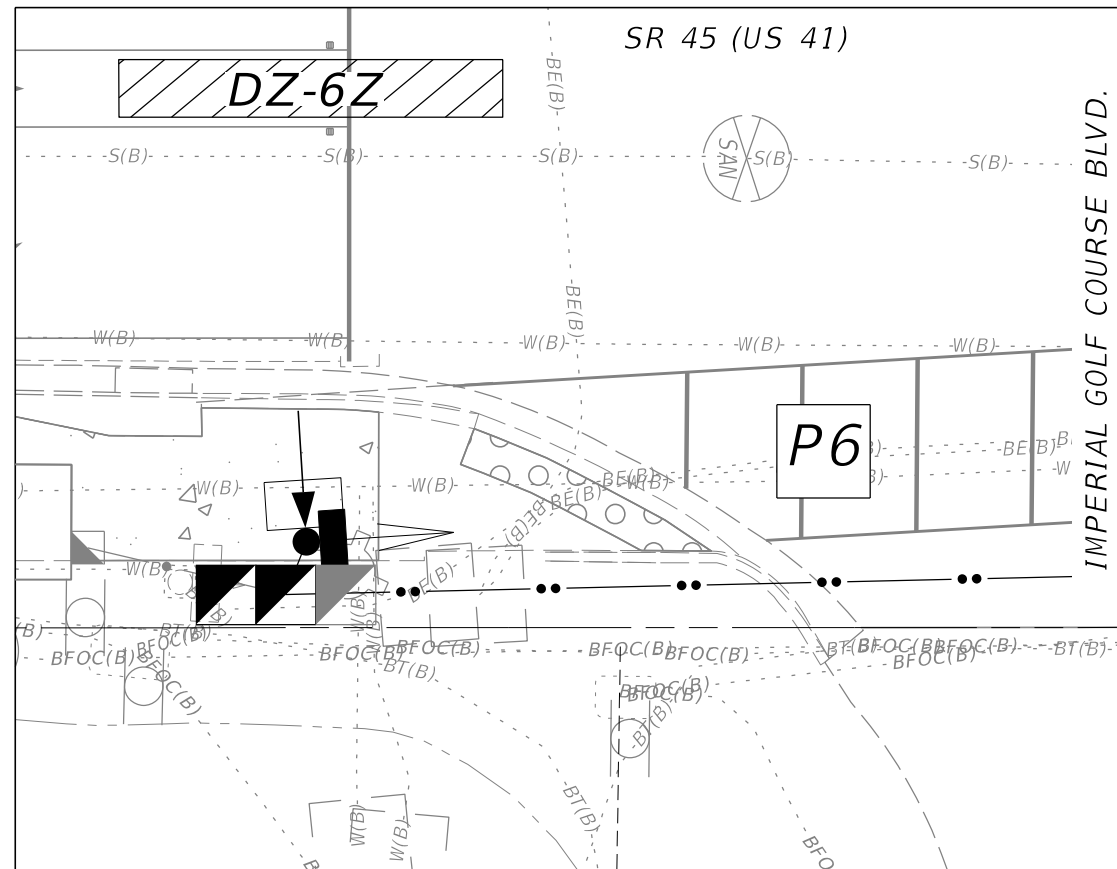
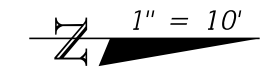
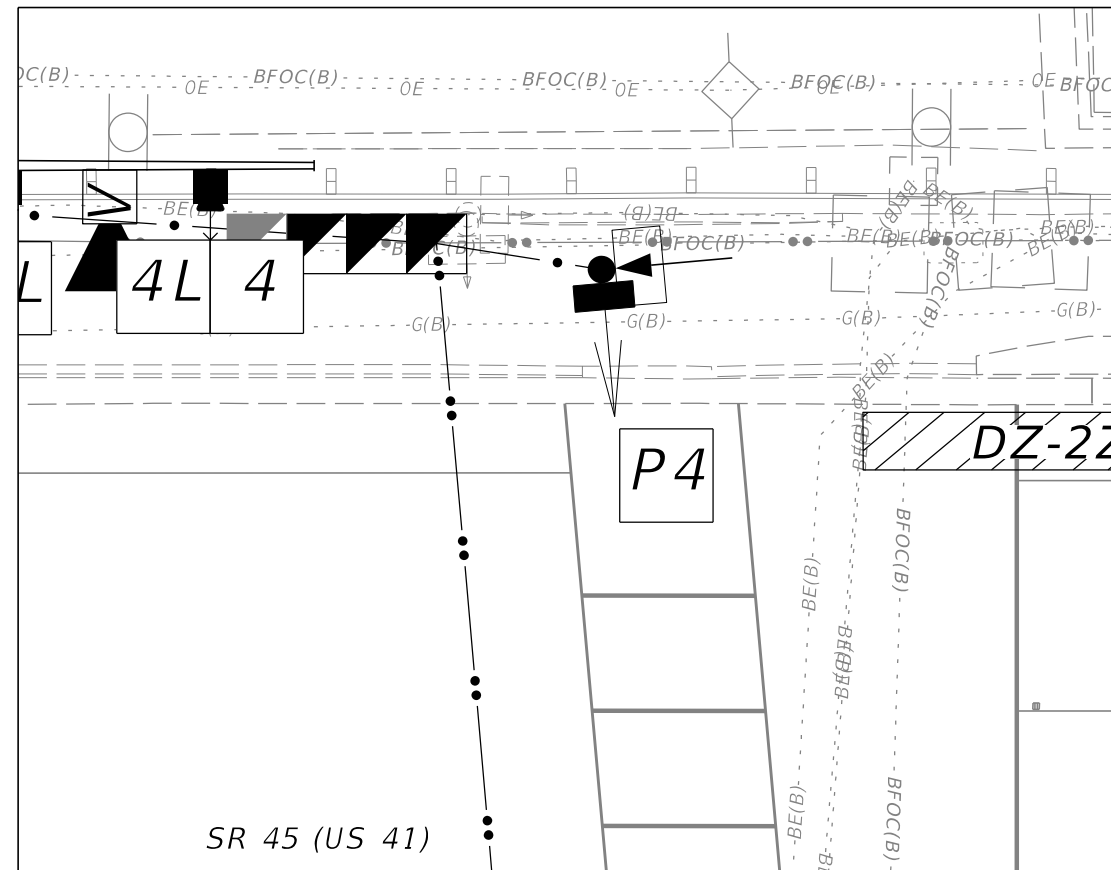


1" = 10'

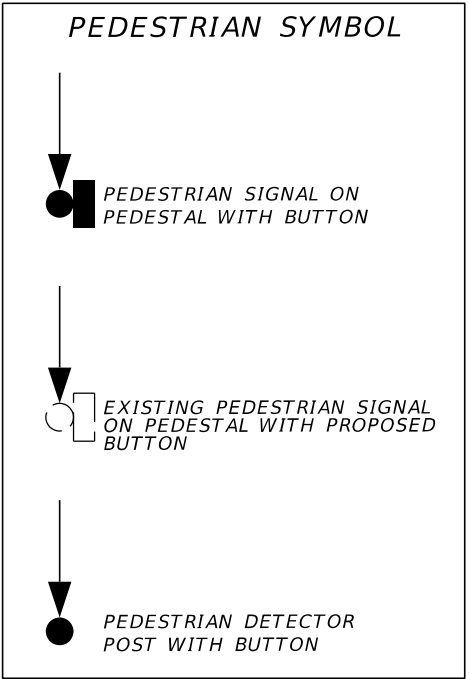
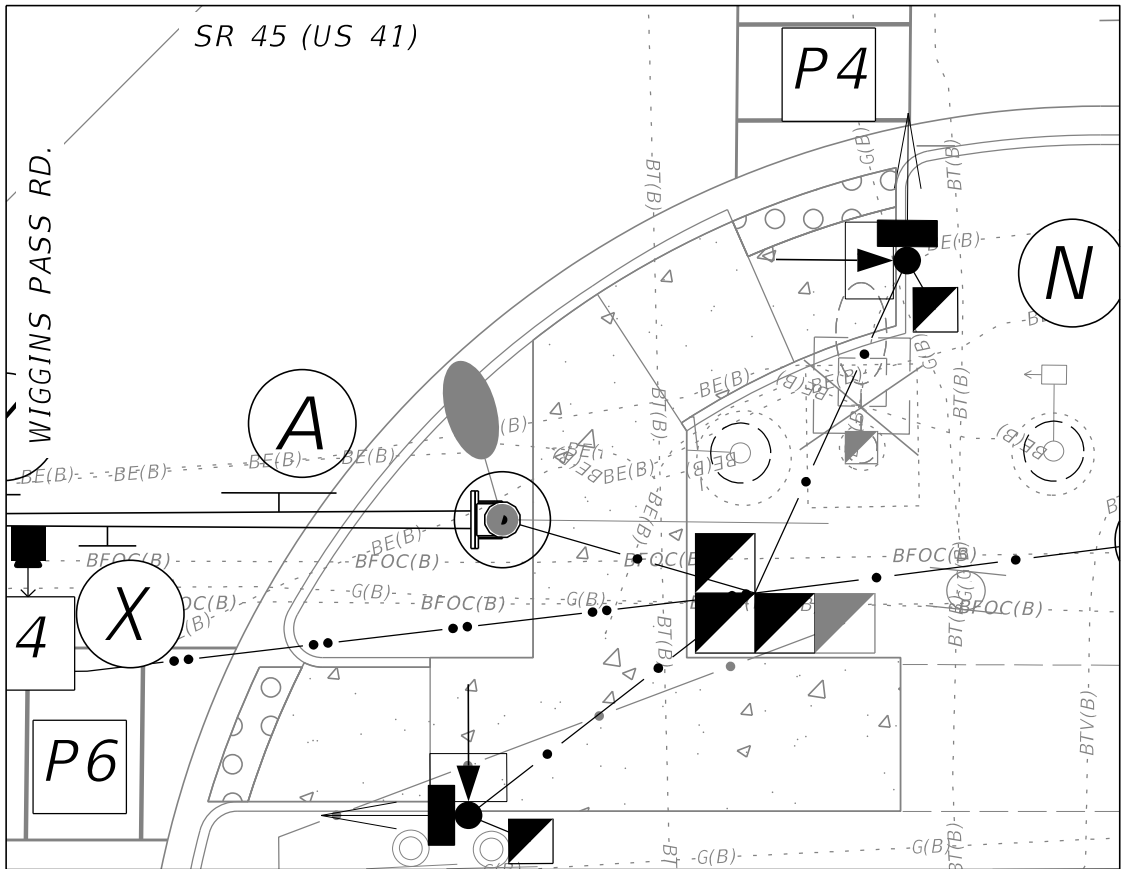
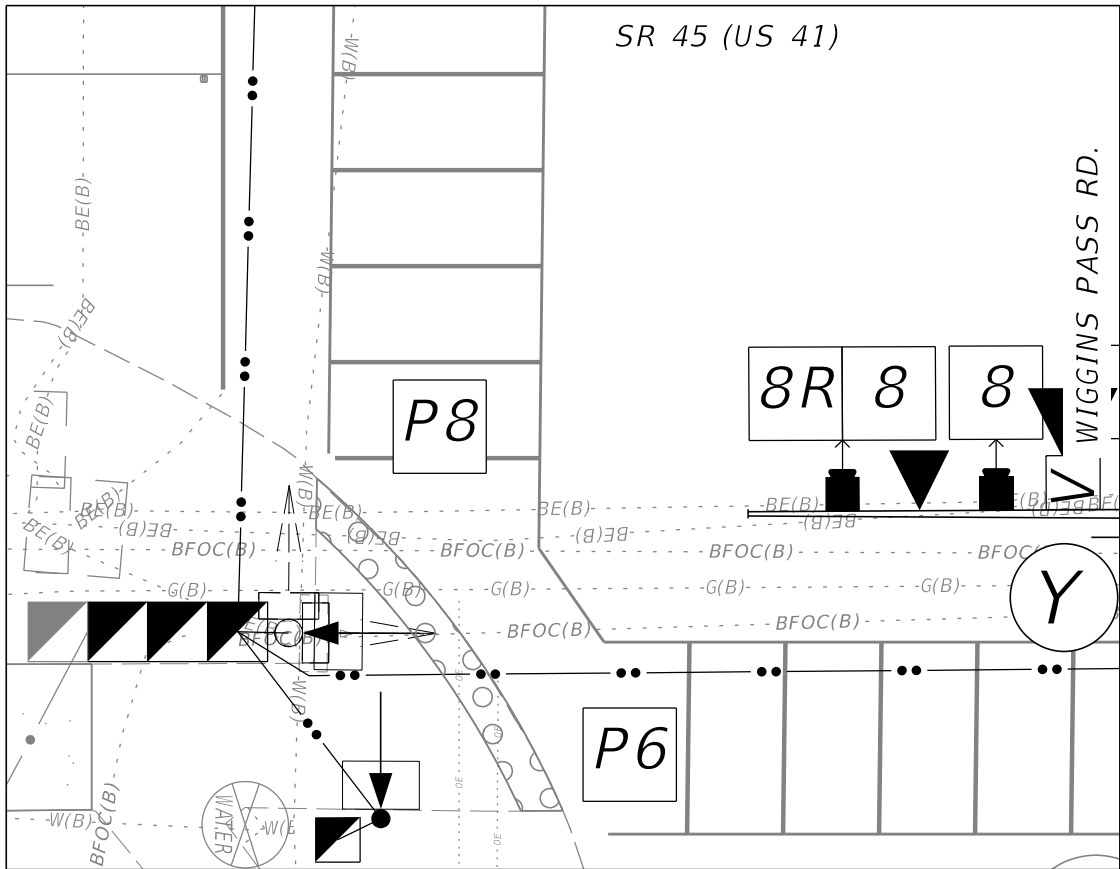
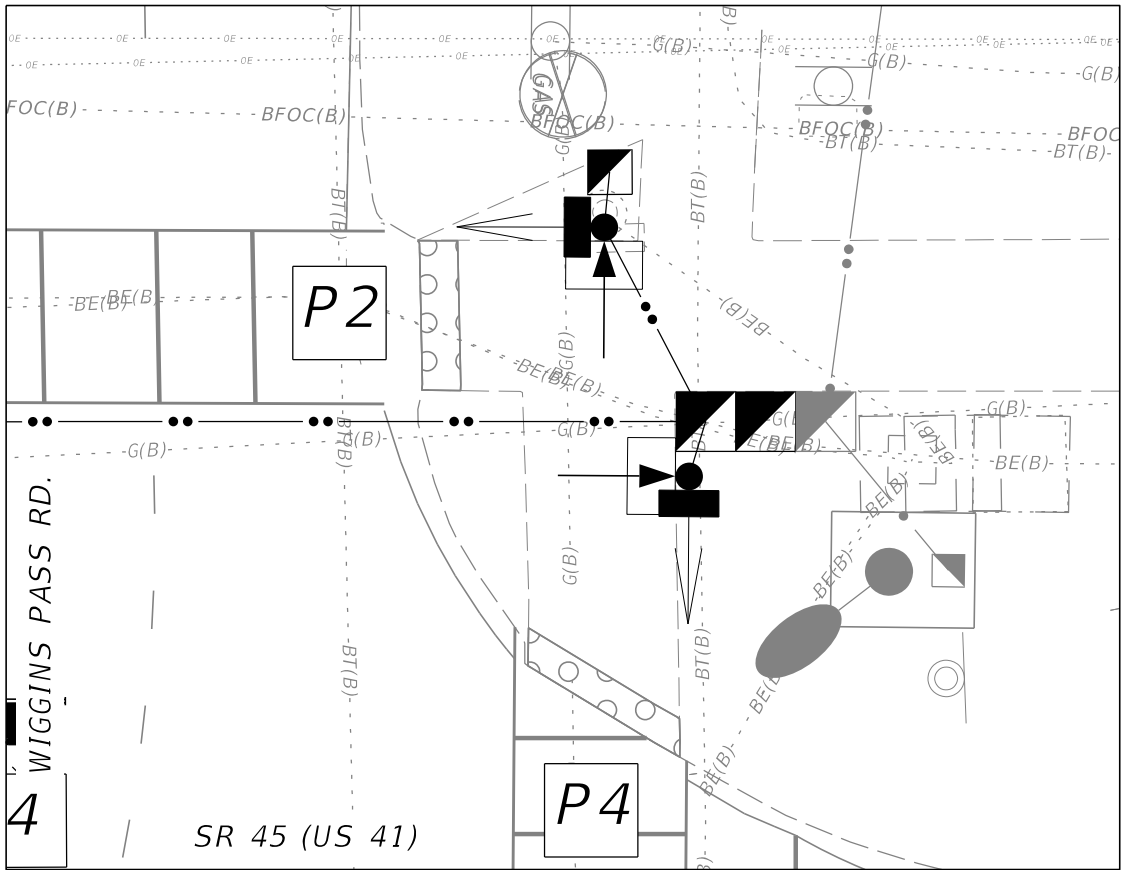
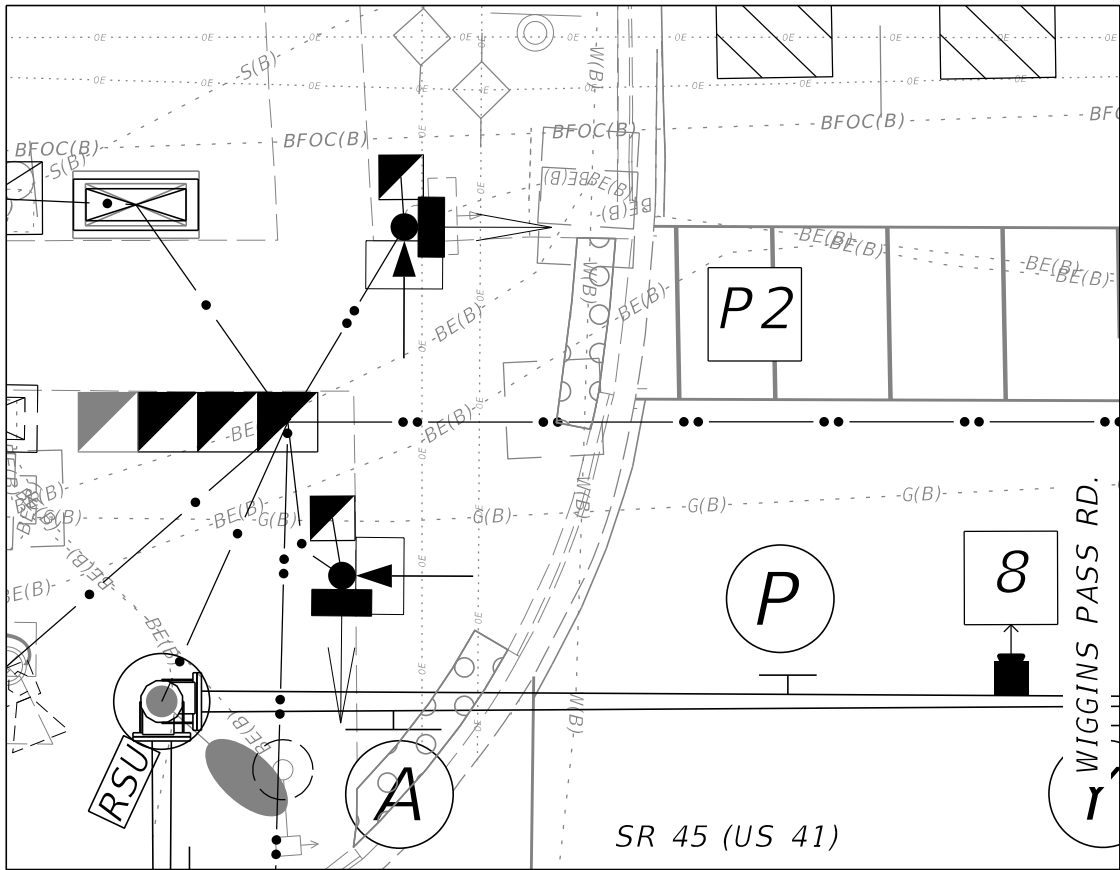


REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (6)	SHEET NO. T-28
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

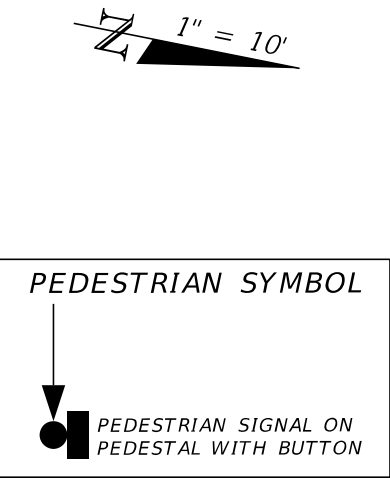
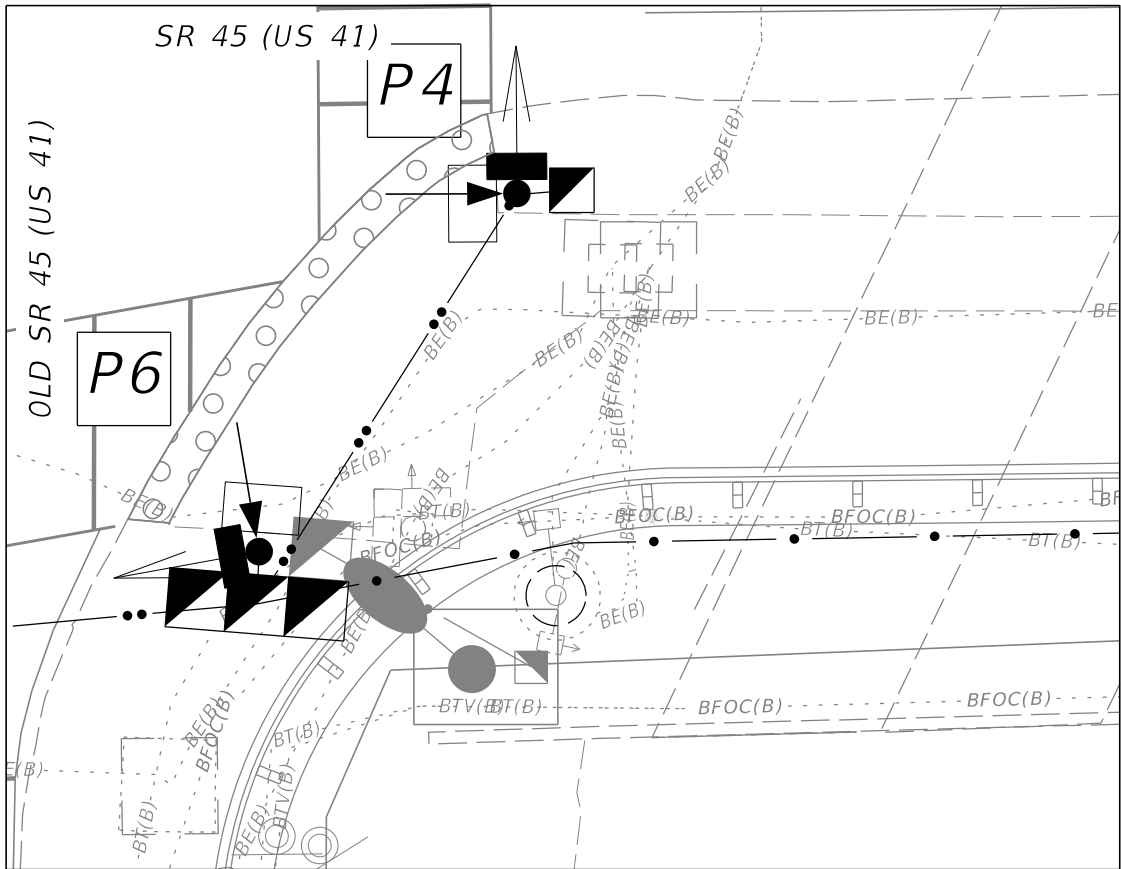
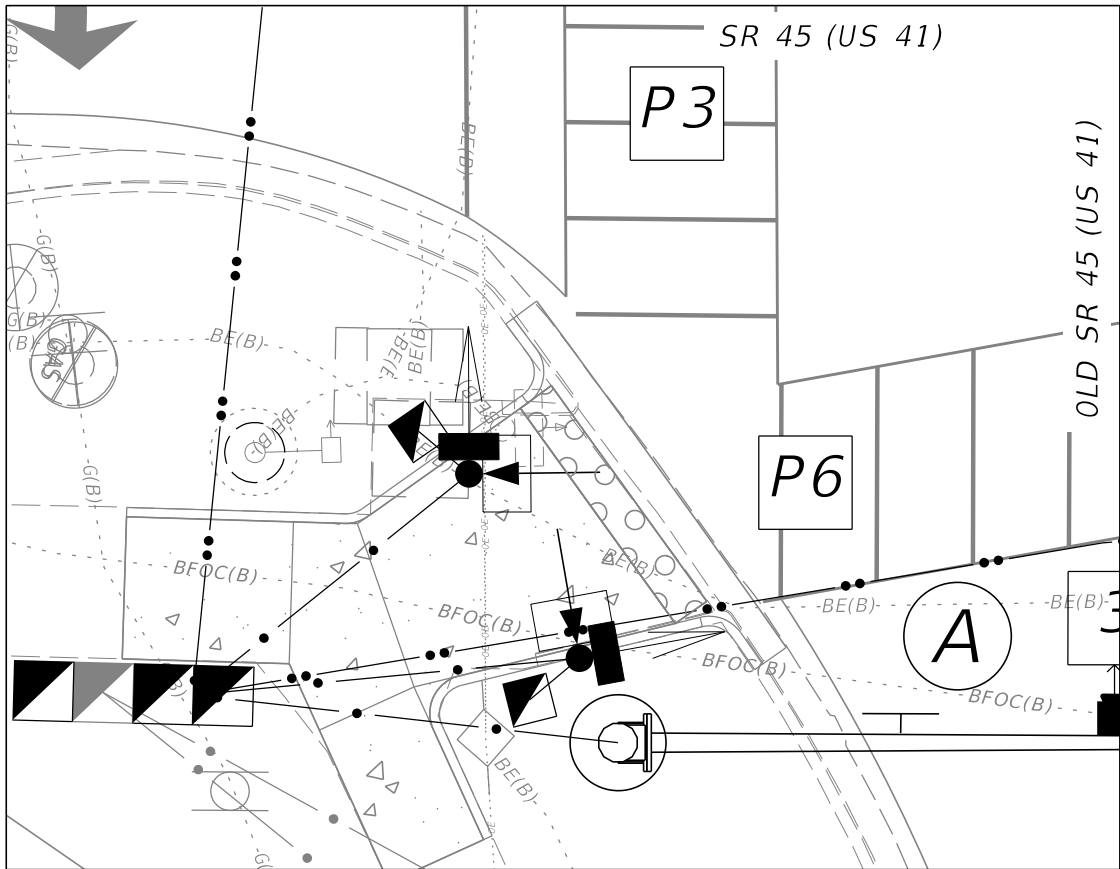
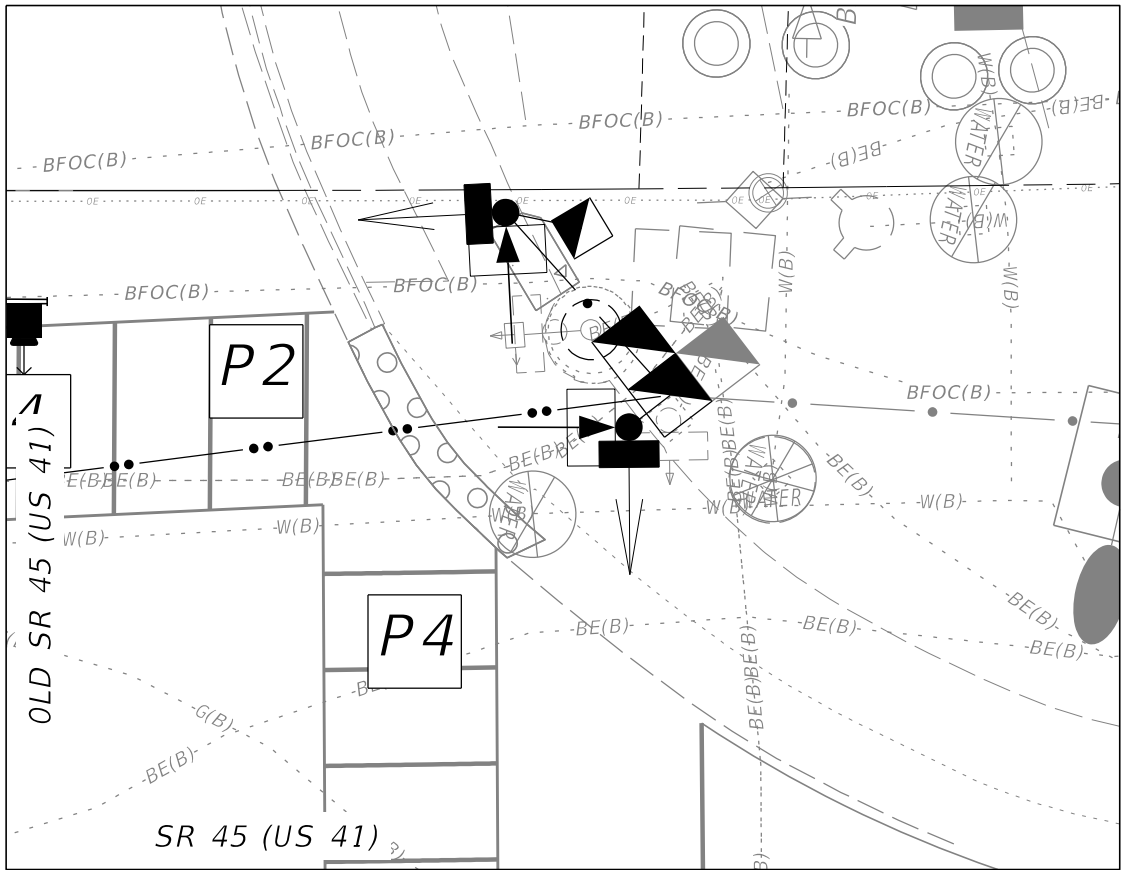
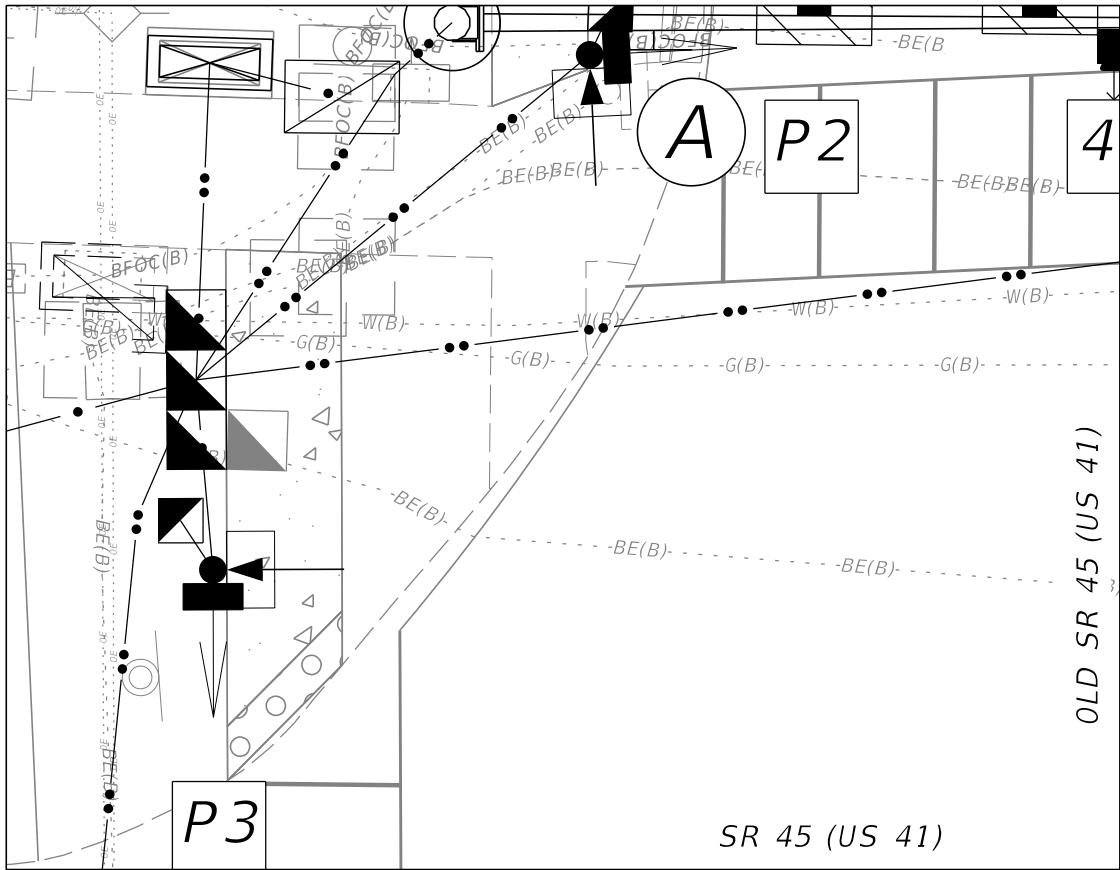


REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (7)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA FL 33607-4874	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-29
					SR 45	COLLIER	441512-1-52-01		



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (8)	SHEET NO. T-30
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PEDESTRIAN SIGNAL DETAIL SHEET (9)	SHEET NO. T-31
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

MAST ARM LIGHT FIXTURES					
POLE ID NO.	SHEET NO.	LOCATION BY STA.	ARM LENGTH	MOUNTING HEIGHT	ORIENTATION (DEGREES) +
1-1	T-4	210+93.0	15'	40'	30
1-2	T-4	210+71.6	15'	40'	40
1-3	T-4	209+69.3	15'	40'	40
1-4	T-4	209+60.4	15'	40'	50
2-1	T-7	230+45.1	15'	40'	65
2-2	T-7	230+48.2	15'	40'	70
2-3	T-7	229+02.6	15'	40'	70
2-4	T-7	228+91.1	15'	40'	55
4-2	T-11	270+79.5	15'	40'	55
6-1	T-15	310+10.9	15'	40'	50
6-3	T-15	310+15.8	15'	40'	305
6-4	T-15	308+65.4	15'	40'	330
6-5	T-15	308+64.6	15'	40'	50
7-1	T-17	371+42.2	15'	40'	45
8-2	T-19	114+00.0	15'	40'	300
8-3	T-19	113+09.8	15'	40'	320
9-3	T-21	124+74.7	8'	40'	35

ORIENTATION MEASURED AS DEGREES COUNTER-CLOCKWISE FROM MAST ARM NO. 1

NOTE:
PROVIDE TERMINAL COMPARTMENT FOR ALL PROPOSED MAST ARMS.

* DENOTES NUMBER OF SECTIONS IN SIGNAL HEAD ASSEMBLY

FOR ALL PROPOSED MAST ARMS.								SIGNAL DATA															LIGHTING DATA					SIGN DATA																	CCTV (CV), VIDEO (V), AND INFRARED (I) DISTANCE FROM POLE					
STRUCT. ID. NO.	POLE ID. NO.	SHEET NO.	LOCATION BY STA.	CRITICAL ROAD EL.	GROUND ELEVATION	TOP OF FOUNDATION ELEVATION	RDWY ARM NO.	SIGNAL V/H	BACK PLATES Y/N	PED. SIGNAL Y/N	DISTANCE FROM POLE															POLE-MOUNTED LUMINAIRE (Y/N)	TOTAL ARM LENGTH	ARM M.H.	L BETWEEN DUAL ARMS 90/270	DISTANCE FROM POLE / HEIGHT AND WIDTH OF SIGN																	CV	I	V	
											1	*	2	*	3	*	4	*	5	*	6	*	7	*	A					H1	W1	B	H2	W2	C	H3	W3	D	H4	W4	E	H5	W5							
03M090	1-1	T-4	210+93.0	16.06	17.29	17.79	1	H	Y	N	41.6	3	54.3	3											Y	60	18.00		10.0	2.0	5.0																45.6	50.3		
							2																																											
03M090	1-2	T-4	210+71.6	17.26	13.90	14.40	1	H	Y	N	27.3	3	39.2	3	50.8	3	62.6	4							Y	70	21.50		10.0	2.0	9.0																68.1	44.2	33.3	
							2																																											
03M090	1-3	T-4	209+69.3	14.77	14.58	15.08	1	H	Y	N	30.6	3	44.9	3										Y	50	18.50		10.0	2.0	5.0																	37.6	25.6		
							2																																											
03M090	1-4	T-4	209+60.4	17.42	17.06	17.06	1	H	Y	N	40.7	3	52.7	3	64.3	3	75.9	4							Y	78	19.00		10.0	2.0	9.0																69.1	58.2		
							2																																											
03M091	2-1	T-7	230+45.1	13.03	12.52	13.02	1	H	Y	N	17.2	3	29.0	3	50.6	3	63.4	3	72.8	3	74.1	3			Y	78	19.00		10.0	2.0	5.0																0.0	38.8	44.0	
							2																																											
03M091	2-2	T-7	230+48.2	14.03	12.50	12.50	1	H	Y	N	30.1	3	41.9	3	53.6	3	65.3	3	76.1	3					Y	78	21.00	90	6.1	2.0	8.0	14.5	3.0	2.5														70.7	59.3	47.7
				13.02			2	H	Y		48.8	3	70.7	3											78	21.00																								
03M091	2-3**	T-7	229+02.6	12.69	12.50	13.00	1	H	Y	N	23.4	3	34.4	3	45.3	3	56.3	3							Y	60	18.50		10.0	2.0	5.0																28.8	39.8		
							2																																											
03M091	2-4	T-7	228+91.1	14.27	13.04	13.54	1	H	Y	N	25.7	3	37.7	3	49.2	3	61.3	3	73.0	3					Y	78	19.50		10.0	2.0	8.0																31.8	43.4		
							2																																											
03M033	3-1	T-9	EXISTING				1																						10.0	2.0	5.0																	28.3		
							2																																											

**MAST ARM 2-3 IS ROTATED 10.6 DEGREES CLOCKWISE FROM THE BASELINE OF SURVEY SR 45 (US 41) SOUTH.

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
DATE	DESCRIPTION		DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
						SR 45	COLLIER	441512-1-52-01	

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

MAST ARM TABULATION (1)

T-32

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

[illegible]

*** MAST ARM 4-2 TO BE PAINTED "ENGLISH IVY", FEDERAL COLOR CODE RAL 6005.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			MAST ARM TABULATION (2) T-33
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
					SR 45	COLLIER	441512-1-52-01	

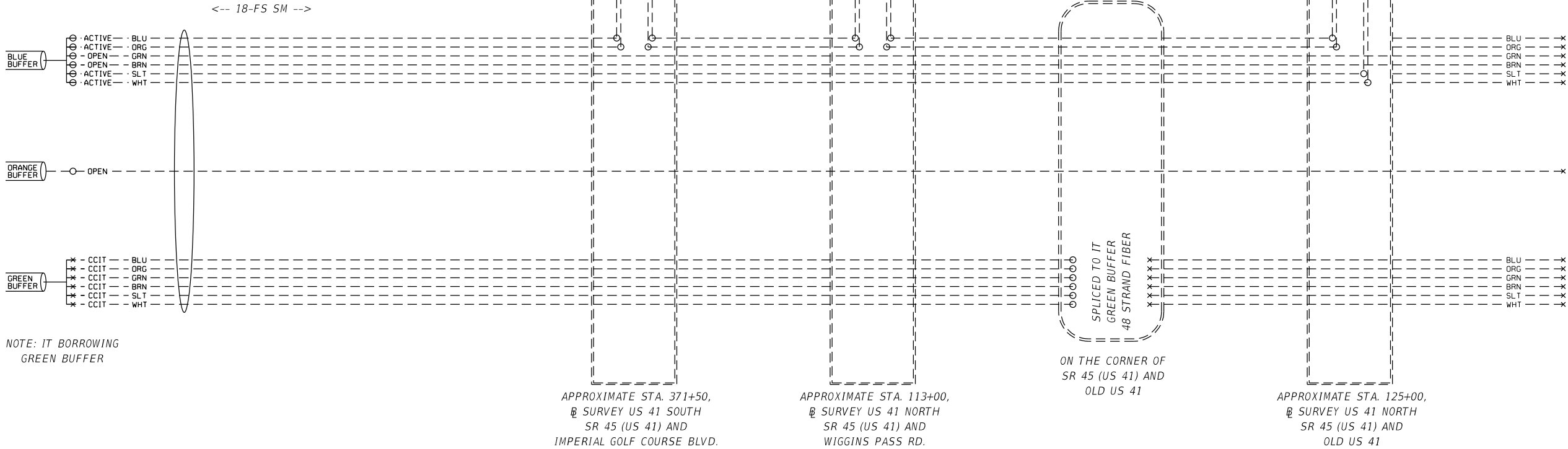
X:\FD0T\44151215201\Signalization\MSSGSG01.dgn : MAST ARM TAB 2 [SHEET]
John.Ramon 5/27/2026 10:02:16 AM

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

HUB 4 - NORTH BRANCH



TO HUB 4 CABINET (IMMOKALEE ROAD)



END OF SEGMENT - H4NBS1

LEGEND:

- [Symbol] = FIELD CABINET 10/100 Mbps ETHERNET SWITCH (SINGLE MODE)
- [Symbol] = 12-PORT PRE-TERMINATED PATCH PANEL
- [Symbol] = 100 Mbps ETHERNET PORT
- [Symbol] = PROPOSED FIBER SPLICE
- [Symbol] = EXISTING FIBER SPLICE
- [Symbol] = TERMINATION POINT
- [Symbol] = PROPOSED EQUIPMENT/CABLING
- [Symbol] = EXISTING EQUIPMENT/CABLING
- [Symbol] = CABINET
- [Symbol] = EXISTING FIBER OPTIC SPLICE BOX
- [Symbol] = CCTV CAMERA

NOTES:

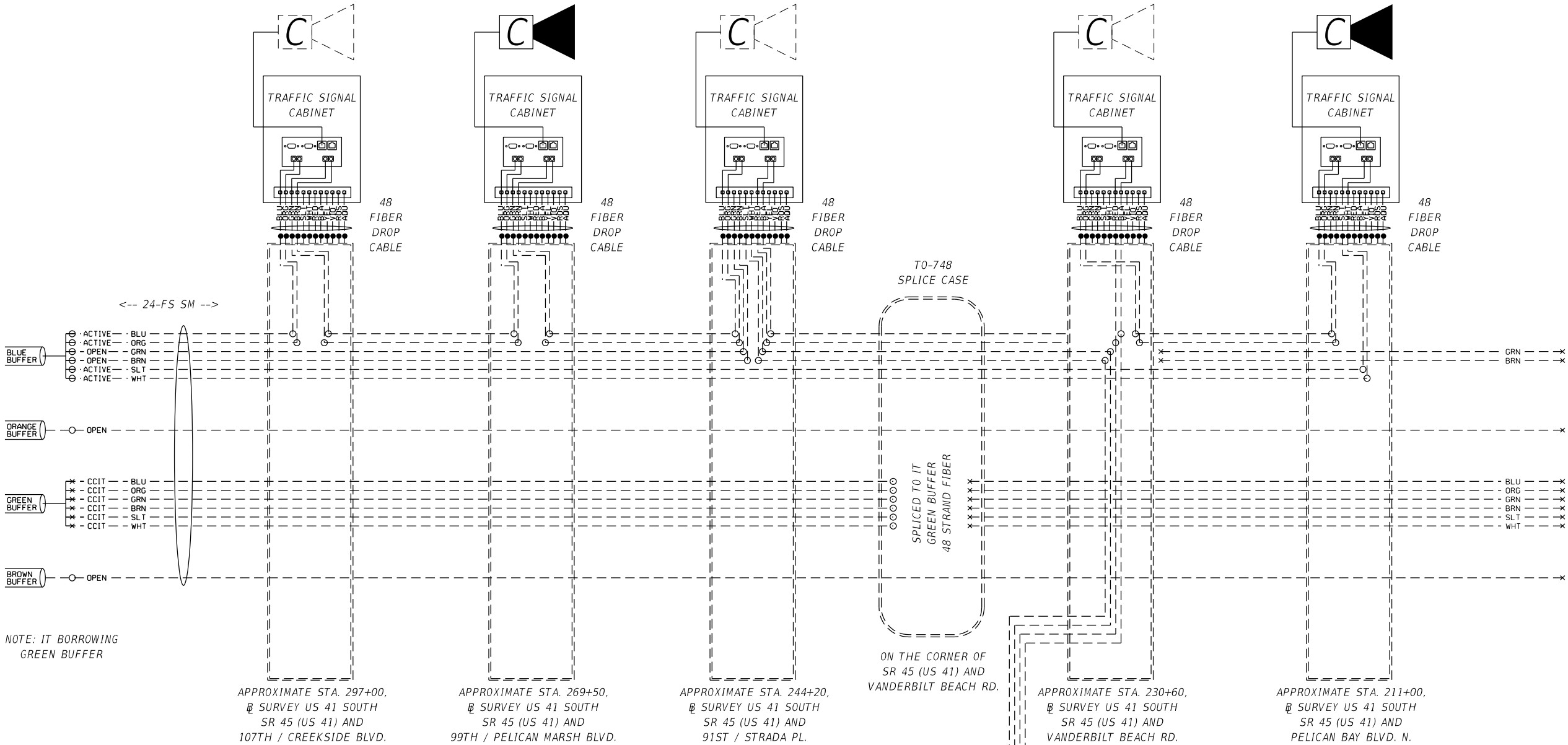
- CUT AND SPLICE TO THE DROP FIBER ONLY THOSE FIBERS SHOWN. REMAINING TRUNK FIBERS ARE TO REMAIN EXPRESSED THROUGH.
- THE EXISTING INFRASTRUCTURE IS REPRESENTED BY DASHED LINES.
- FIBER TO BE COILED AND EXPRESSED THROUGH INTERMEDIATE PULL BOXES (NOT SHOWN) WITHOUT ANY SPLICING.
- CAP/COIL EXISTING DROP CABLE NOT CONNECTED TO PATCH PANEL.

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			FIBER OPTIC SPLICING & CONNECTION DETAIL (1)	SHEET NO. T-38
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 45	COLLIER	441512-1-52-01		

HUB 4 - SOUTH BRANCH SEGMENT 1



TO HUB 4 CABINET (IMMOKALEE ROAD)



END OF SEGMENT - H4SBS1

CONTINUES TO SOUTH BRANCH SEGMENT 2

LEGEND:

- = FIELD CABINET
- = 10/100 Mbps ETHERNET SWITCH (SINGLE MODE)
- = 12-PORT PRE-TERMINATED PATCH PANEL
- = CABINET
- = EXISTING FIBER OPTIC SPLICE BOX
- = CCTV CAMERA
- = 100 Mbps ETHERNET PORT
- = PROPOSED FIBER SPLICE
- = EXISTING FIBER SPLICE
- = TERMINATION POINT
- = PROPOSED EQUIPMENT/CABLING
- = EXISTING EQUIPMENT/CABLING

NOTES:

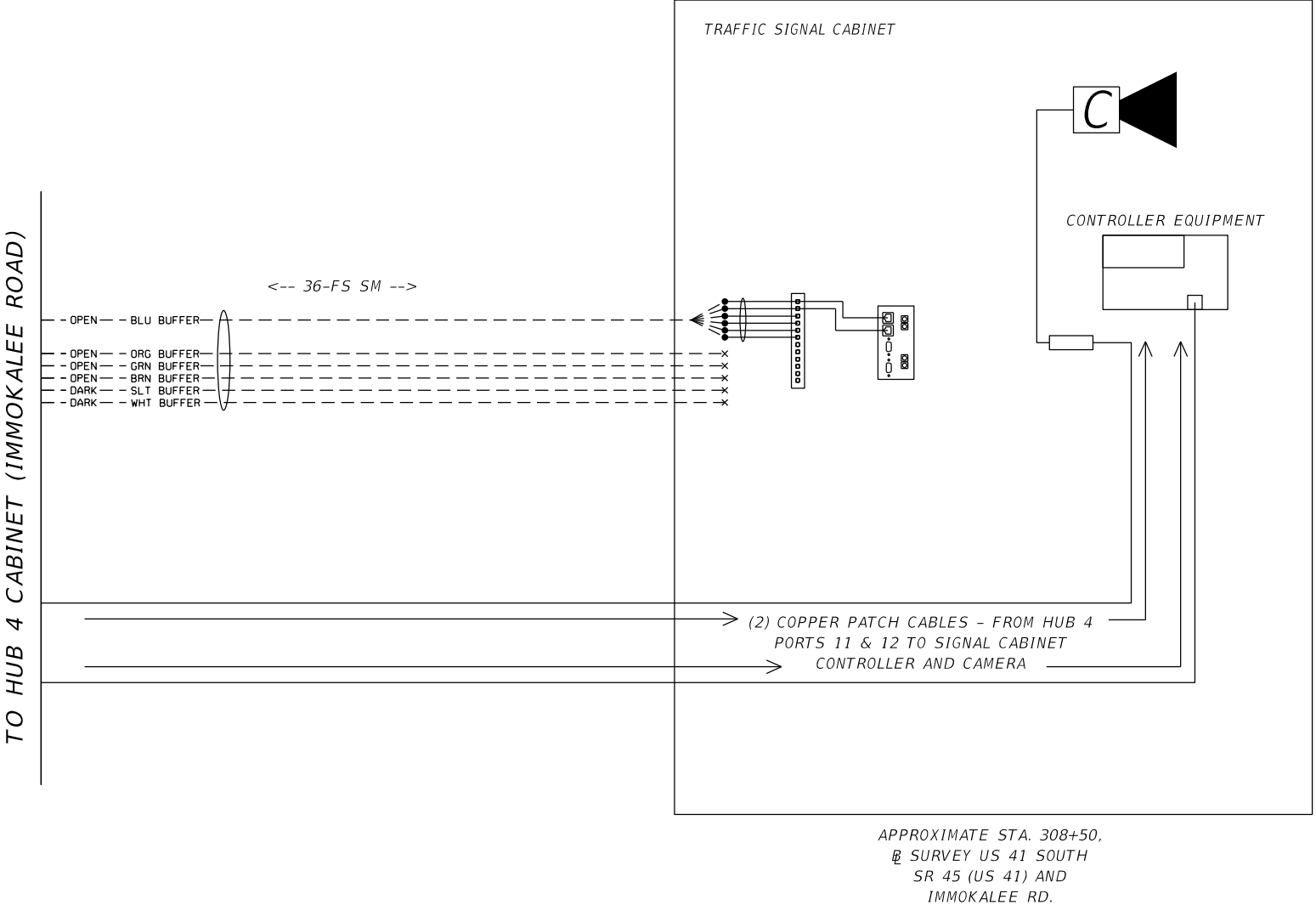
- CUT AND SPLICE TO THE DROP FIBER ONLY THOSE FIBERS SHOWN. REMAINING TRUNK FIBERS ARE TO REMAIN EXPRESSED THROUGH.
- THE EXISTING INFRASTRUCTURE IS REPRESENTED BY DASHED LINES.
- FIBER TO BE COILED AND EXPRESSED THROUGH INTERMEDIATE PULL BOXES (NOT SHOWN) WITHOUT ANY SPLICING.
- CAP/COIL EXISTING DROP CABLE NOT CONNECTED TO PATCH PANEL.



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			FIBER OPTIC SPLICING & CONNECTION DETAIL (2)	SHEET NO. T-39
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 45	COLLIER	441512-1-52-01		

JOHN ALEXANDER RAMON, P.E.
LICENSE NUMBER: 97249
FALLER, DAVIS & ASSOCIATES, INC.
1150 ASSEMBLY DRIVE, SUITE 400
TAMPA, FL 33607-4874

HUB 4 - STAND ALONE CABINET AT IMMOKALEE RD.



LEGEND:

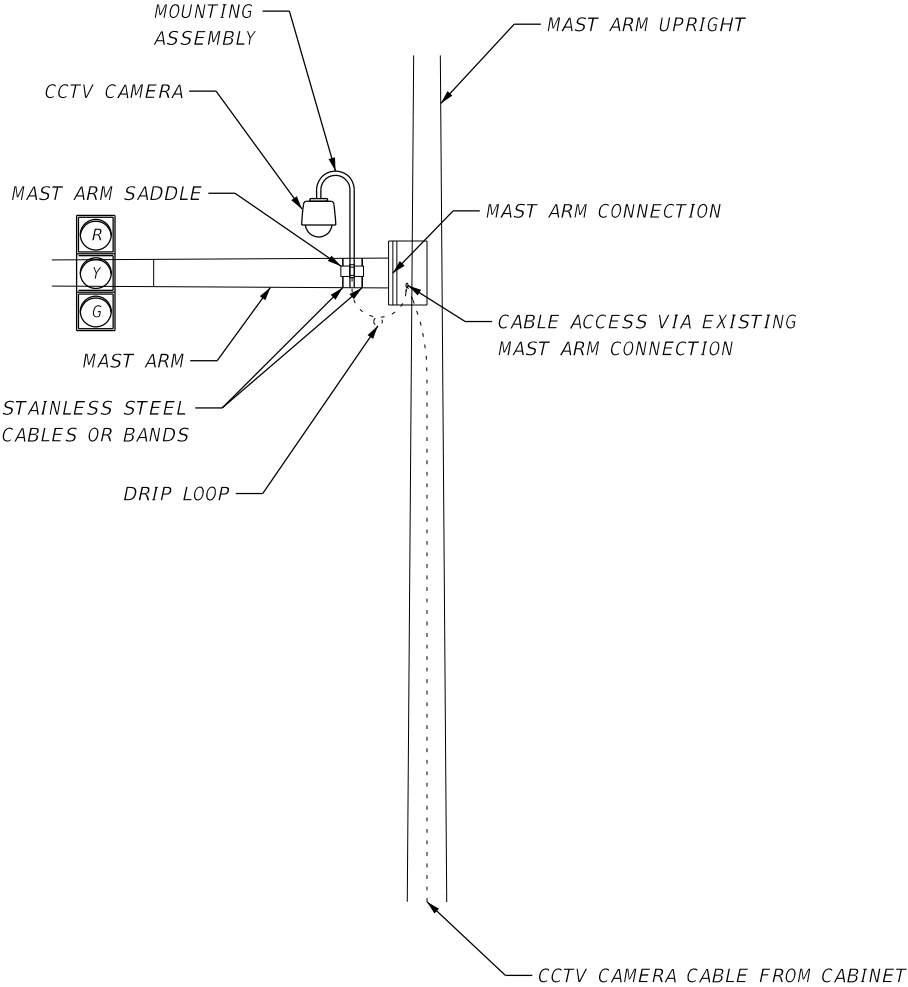
- = FIELD CABINET
10/100 Mbps ETHERNET
SWITCH (SINGLE MODE)
- = 12-PORT PRE-TERMINATED
PATCH PANEL
- = 100 Mbps ETHERNET PORT
- = PROPOSED FIBER SPLICE
- = EXISTING FIBER SPLICE
- = TERMINATION POINT
- = CABINET
- = EXISTING FIBER
OPTIC SPLICE BOX
- = CCTV CAMERA
- = PROPOSED EQUIPMENT/CABLING
- = EXISTING EQUIPMENT/CABLING

NOTES:

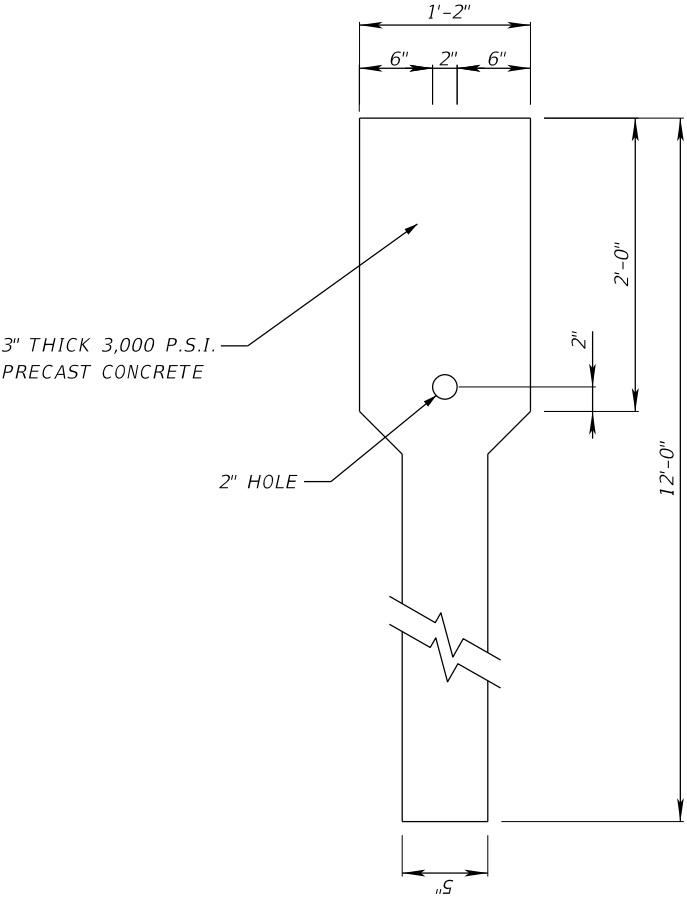
1. THE EXISTING INFRASTRUCTURE IS REPRESENTED BY DASHED LINES.
2. CAP/COIL EXISTING DROP CABLE NOT CONNECTED TO PATCH PANEL.

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			FIBER OPTIC SPLICING & CONNECTION DETAIL (3)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 45	COLLIER	441512-1-52-01		T-40

MAST ARM
CCTV CAMERA INSTALLATION DETAIL
N.T.S.



POWER SERVICE PEDESTAL DETAIL
N.T.S.



REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SPECIAL SIGNALIZATION DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
				JOHN ALEXANDER RAMON, P.E. LICENSE NUMBER: 97249 FALLER, DAVIS & ASSOCIATES, INC. 1150 ASSEMBLY DRIVE, SUITE 400 TAMPA, FL 33607-4874	SR 45	COLLIER	441512-1-52-01		T-41

STANDARD MAST ARM ASSEMBLIES DATA TABLE										TABLE DATE 11-01-16	
STRUCTURE ID NUMBERS	DESIGNATION	FIRST ARM		SECOND ARM		UF (DEG)	LL (DEG)	POLE			DRILLED SHAFT ID
		ARM ID	FAA (FT.)	ARM ID	SAA (FT.)			POLE ID	UAA (FT.)	UB (FT.)	
03M090 1-1	A60/S - P4/S/L	A60/S					30 **	P4/S/L		18.0	DS/16/5.0
03M090 1-2	A70/S - P5/S/L	A70/S					40 **	P5/S/L		21.5	*
03M090 1-3	A50/S - P3/S/L	A50/S					40 **	P3/S/L		18.5	*
03M090 1-4	A78/S - P6/S/L	A78/S					50 **	P6/S/L		19.0	DS/20/5.0
03M091 2-1	A78/S/H - P6/S/L	A78/S/H					65 **	P6/S/L		19.0	DS/25/5.0
03M091 2-2	A78/D/H - A78/D - P7/D/L	A78/D/H		A78/D		90	70 **	P7/D/L		21.0	*
03M091 2-3	A60/S - P4/S/L	A60/S					70 **	P4/S/L		18.5	DS/16/5.0
03M091 2-4	A78/S/H - P6/S/L	A78/S/H					55 **	P6/S/L		19.5	DS/25/5.0
03M034 4-2	A78/S/H - P6/S/L	A78/S/H					55 **	P6/S/L		21.5	*
03M092 6-1	A78/S/H - P6/S/L	A78/S/H					50 **	P6/S/L		20.0	*
03M092 6-3	A70/S - P5/S/L	A70/S					305 **	P5/S/L		20.5	DS/20/5.0
03M092 6-4	A70/D - A70/D - P6/D/L	A70/D		A70/D		270	330 **	P6/D/L		20.0	DS/25/5.0
03M093 7-1	A70/S - P5/S/L	A70/S					45 **	P5/S/L		19.5	DS/20/5.0
03M093 7-2	A70/D - A50/D - P5/D	A70/D		A50/D		90		P5/D	22.00	19.0	*
03M094 8-1	A78/S/H - P6/S	A78/S/H						P6/S	23.0	20.0	*
03M094 8-2	A78/S/H - P6/S/L	A78/S/H	21.0				300 **	P6/S/L		19.5	DS/25/5.0
03M095 9-1	A70/S - P5/S	A70/S						P5/S	23.50	20.5	DS/20/5.0
03M095 9-2	A70/S - P5/S	A70/S						P5/S	22.00	19.0	*
03M095 9-3	A70/S - P5/S/L	A70/S					35 †	P5/S/L		21.5	DS/25/5.0
03M095 9-4	A60/S/H - P4/S	A60/S/H						P4/S	22.50	19.5	DS/25/5.0

* SEE CUSTOM DRILLED SHAFT DATA TABLE

** SEE LUMINAIRE AND CONNECTION DATA TABLE

† SEE LUMINAIRE AND CONNECTION DATA TABLE

NOTES [NOTES DATE 11-01-16]:

1. IF AN ENTRY APPEARS IN COLUMN FAA, A SHORTER ARM IS REQUIRED. THIS IS OBTAINED BY REMOVING LENGTH FROM THE ARM TIP AND THE ARM LENGTH SHORTENED FROM FA TO FAA. SAA SIMILAR.

2. IF AN ENTRY APPEARS IN COLUMN UAA, A SHORTER POLE IS REQUIRED. THIS IS OBTAINED BY REMOVING LENGTH FROM THE POLE TIP AND THE POLE HEIGHT SHORTENED FROM UA TO UAA.

3. WORK THIS SHEET WITH THE SIGNAL DESIGNER'S "MAST ARM TABULATION". SEE "MAST ARM TABULATION" FOR SPECIAL INSTRUCTIONS THAT INCLUDE NON-STANDARD HANDHOLE LOCATION, PAINT COLOR, TERMINAL COMPARTMENT REQUIREMENT, AND PEDESTRIAN FEATURES.

4. WORK WITH INDEXES 649-030 AND 649-031.

5. DESIGN WIND SPEED = 170 MPH IN ACCORDANCE WITH THE JANUARY 2025 STRUCTURES MANUAL.

FOUNDATION NOTES [NOTES DATE 01-01-12]:

1. DESIGN BASED ON BORINGS TAKEN IN DECEMBER 2020 AND DECEMBER 2024 & SEALED BY TIERRA, INC.

2. ASSUMPTIONS AND VALUES USED IN DESIGN:

SOIL TYPE = COHESIONLESS (SAND)

SOIL FRICTION ANGLE =29 DEG. (POLE 1-1, POLE 1-2, POLE 1-4, POLE 2-1, POLE 2-2, POLE 2-3, POLE 2-4, POLE 6-1, POLE 6-3, POLE 6-4, POLE 7-1, POLE 7-2, POLE 8-1, POLE 8-2, POLE 9-1, POLE 9-2, POLE 9-3 POLE 9-4). 28 DEG. (POLE 1-3, POLE 4-2).

SOIL UNIT WEIGHT = 43 PCF. (POLE 1-1, POLE 1-2, POLE 1-4, POLE 2-1, POLE 2-2, POLE 2-3, POLE 2-4, POLE 6-1, POLE 6-2, POLE 6-4, POLE 7-1,POLE 7-2, POLE 8-1, POLE 8-2, POLE 9-1, POLE 9-2, POLE 9-3 POLE 9-4). 40 PCF. (POLE 1-3, POLE 4-2).

SPT N-VALUE = 13 BLOWS/FT (POLE 1-1, POLE 2-3, POLE 6-1, POLE 7-1, POLE 9-1), 11 BLOWS/FT (POLE 1-2), 5 BLOWS/FT (POLE 1-3, POLE 4-2), 12 BLOWS/FT (POLE 1-4), 10 BLOWS/FT (POLE 2-1, POLE 2-2, 6 BLOWS/FT (7-2), POLE 6-3, POLE 8-1, POLE 8-2, POLE 9-2), 9 BLOWS/FT (POLE 2-4, POLE 6-4), 9 BLOWS/FT (POLE 9-3), 7 BLOWS/FT (POLE 9-4).

SOIL LAYER THICKNESS = 30 FT.

DESIGN WATER TABLE = 0 FT. BELOW SURFACE

* CUSTOM DRILLED SHAFT DATA TABLE									
STRUCTURE ID NUMBERS	DA (FT.)	DB (FT.)	RA	RB	RC	RD (IN.)	RE	RF (IN.)	
MA 1-2	21	5.0	11	18	10	6	10	9	
MA 1-3	21	5.0	11	18	10	6	10	9	
MA 2-2	27	5.0	11	18	10	6	10	8	
MA 4-2	35	5.0	11	18	10	6	10	9	
MA 6-1	22	5.0	11	18	10	6	10	9	
MA 6-3	21	5.0	11	18	10	6	10	9	
MA 7-2	26	5.0	11	18	10	6	10	9	
MA 8-1	24	5.0	11	18	10	6	10	9	
MA 9-2	21	5.0	11	18	10	6	10	9	

** LUMINAIRE AND CONNECTION DATA TABLE										
LA (FT)	LB (FT.)	LC (FT.)	LD (IN.)	LE	LF (FT.)	LG (IN.)	LH (IN.)	LJ (IN.)	LK (IN.)	UG (FT.)
40	15	4.375	0.125	0.5	8	0.5	0.75	0.25	0.375	36.25

† LUMINAIRE AND CONNECTION DATA TABLE										
LA (FT)	LB (FT.)	LC (FT.)	LD (IN.)	LE	LF (FT.)	LG (IN.)	LH (IN.)	LJ (IN.)	LK (IN.)	UG (FT.)
40	8	3.000	0.125	0.5	8	0.5	0.75	0.25	0.1875	38

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			STANDARD MAST ARM ASSEMBLIES DATA TABLE		SHEET NO.		
DATE	DESCRIPTION		DATE	DESCRIPTION		ROAD NO.						COUNTY	FINANCIAL PROJECT ID
						SR 45					COLLIER	441512-1-52-01	T-42

JUAN A. VALENZUELA, P.E.
LICENSE NUMBER: 68208
FLORIDA BRIDGE & TRANSPORTATION, INC.
633 DARTMOUTH STREET
ORLANDO, FL 32804

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.
Drawn By : CEM 08-25 Designed By: DMH 08-25
Checked By : JAV 08-25

SPECIAL MAST ARM ASSEMBLIES DATA TABLES

SPECIAL MAST ARM ASSEMBLIES DATA TABLE																							Table Date 01-01-12	
NUMBER OF LOCATIONS	STRUCTURE NUMBER	FIRST ARM				FIRST ARM EXTENSION				SECOND ARM				SECOND ARM EXTENSION				POLE						
		FA (ft)	FB (in)	FC (in)	FD (in)	FE (ft)	FF (in)	FG (in)	FH (in)	SA (ft)	SB (in)	SC (in)	SD (in)	SE (ft)	SF (in)	SG (in)	SH (in)	UA (ft)	UB (ft)	UC (in)	UD (in)	UE (in)	UF(deg)	UG (ft)
1	03M092 6-2	39	12.54	18	0.25	42	17.12	23	0.375									23	20	20.8	24	0.5		
1	03M092 6-5	39	12.54	18	0.25	42	17.12	23	0.375	32.5	7.45	12	0.25	20.5	11.13	14	0.313	39	20.5	20.6	26	0.5	90	36.25
1	03M094 8-3	39	12.54	18	0.25	42	17.12	23	0.375	38	7.68	13	0.25	35	12.1	17	0.375	39	20	22.6	28	0.5	270	36.25

NOTES [NOTES DATE 07-01-13]:
1. WORK WITH INDEX 649-031.
2. DESIGN WIND SPEED = 170 MPH

SPECIAL MAST ARM ASSEMBLIES DATA TABLE (CONT.)																				Table Date 01-01-12		
STRUCTURE NUMBER	FIRST ARM CONNECTION (in) First Arm Camber Angle = 2 Degrees											SECOND ARM CONNECTION (in) Second Arm Camber Angle = 2 Degrees										
	# Bolts	HT	FJ	FK	FL	FN	FO	FP	FR	FS	FT	# Bolts	HT	SJ	SK	SL	SN	SO	SP	SR	SS	ST
03M092 6-2	6	34	38	3	0.75	0.625	18	1.5	2.5	14	0.625											
03M092 6-5	6	34	38	3	0.75	0.625	24	1.5	2.5	14	0.625	6	34	38	3	0.75	0.625	24	1.5	2.5	14	0.625
03M094 8-3	6	34	38	3	0.75	0.625	24	1.5	2.5	14	0.625	6	34	38	3	0.75	0.625	24	1.5	2.5	14	0.625

SPECIAL MAST ARM ASSEMBLIES DATA TABLE (CONT.)																						Table Date 07-01-15			
STRUCTURE NUMBER	POLE BASE CONNECTION (in)					SHAFT AND REINF.								LUMINAIRE AND LUMINAIRE CONNECTION											
	# Bolts	BA	BB	BC	BF	DA (ft)	DB (ft)	RA	RB	RC	RD (in)	RE	RF (in)	LA (ft)	LB (ft)	LC (in)	LD (in)	LE	LF (ft)	LG (in)	LH (in)	LJ (in)	LK (in)	LL(deg)	
03M092 6-2	8	40	2.5	2	40	35	5	11	18	10	6	10	7												
03M092 6-5	8	42	2.5	2	40	23	5	11	18	22	6	10	9	40	15	4.375	0.125	0.5	8	0.5	0.75	0.25	0.375	50	
03M094 8-3	8	44	2.5	2	40	29	5	11	18	10	6	10	6	40	15	4.375	0.125	0.5	8	0.5	0.75	0.25	0.375	320	

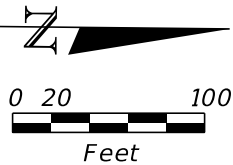
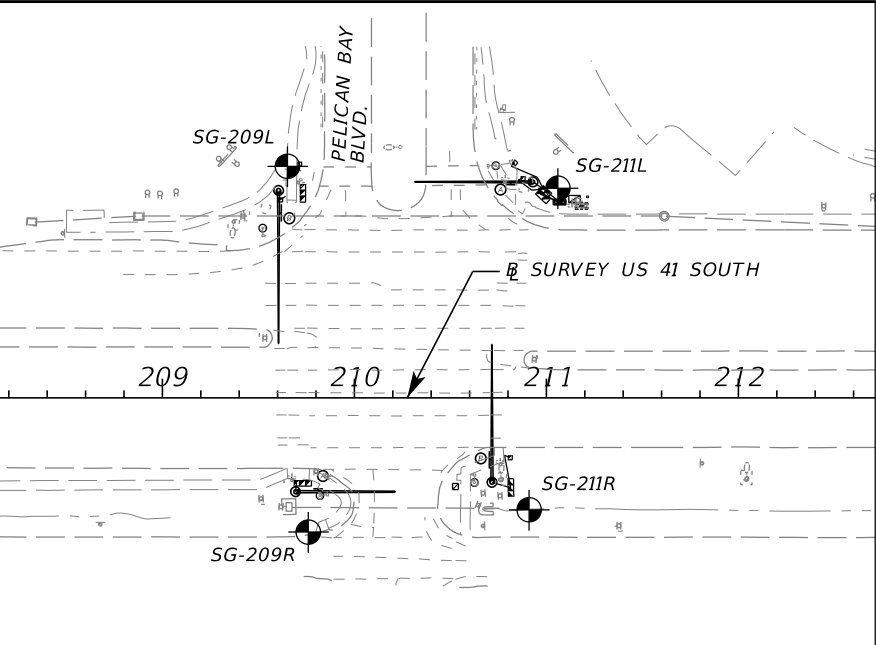
FOUNDATION NOTES [NOTES DATE 01-01-12]:
1. DESIGN BASED ON BORINGS TAKEN IN DECEMBER 2020 AND DECEMBER 2024 & SEALED BY TIERRA, INC.
2. ASSUMPTIONS AND VALUES USED IN DESIGN:
SOIL TYPE COHESIONLESS
SOIL LAYER THICKNESS = 30 FT. (POLE 6-2, POLE 6-5, POLE 8-3).
SOIL FRICTION ANGLE 29 DEG. (POLE 6-2, POLE 6-5, POLE 8-3)
SOIL WEIGHT = 43 PCF. (POLE 6-2, POLE 6-5, POLE 8-3)
BLOW COUNTS = 9 (POLE 6-2), 14 (POLE 6-5); 11 (POLE 8-3)
DESIGN WATER TABLE IS 0 FT. BELOW SURFACE
3. WORK THIS SHEET WITH SIGNAL DESIGNER'S "MAST ARM TABULATION". SEE "MAST ARM TABULATION" FOR SPECIAL INSTRUCTIONS THAT INCLUDE NON STANDARD HANDHOLE LOCATION, PAINT COLOR, TERMINAL COMPARTMENT REQUIREMENT, AND PEDESTRIAN FEATURES.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SPECIAL MAST ARM ASSEMBLIES DATA TABLE	SHEET NO.	
DATE	DESCRIPTION		DATE	DESCRIPTION		ROAD NO.	COUNTY		FINANCIAL PROJECT ID	T-43
						SR 45	COLLIER		441512-1-52-01	

JUAN A. VALENZUELA, P.E.
LICENSE NUMBER: 68208
FLORIDA BRIDGE &
TRANSPORTATION, INC.
633 DARTMOUTH STREET
ORLANDO, FL 32804

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

Drawn By : CEM 08-25 Designed By: DMH 08-25
Checked By : JAV 08-25



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

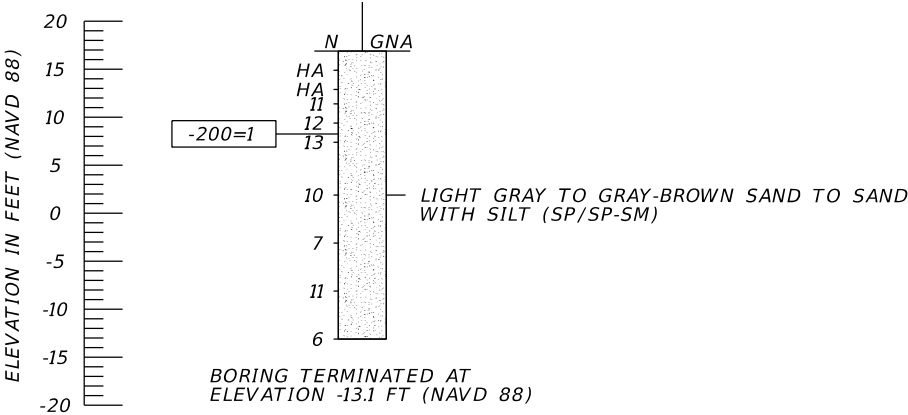
LEGEND

- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

BORING LOCATION PLAN

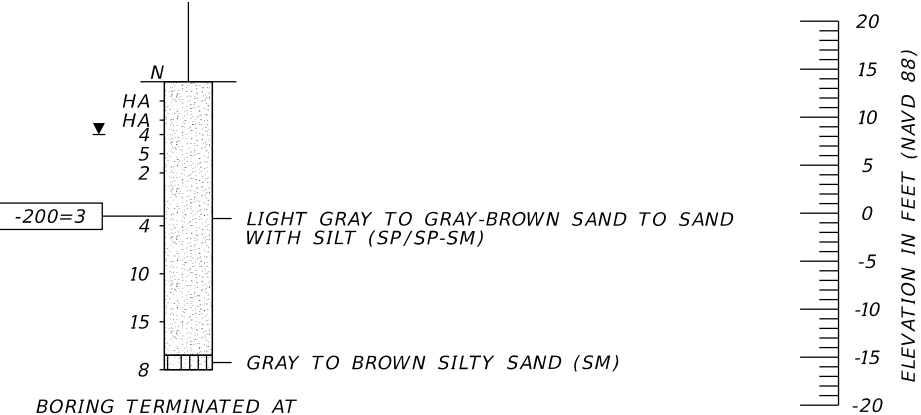
BOR # SG-209L
STA. 209+65
REF. SURVEY S
OFF. 121' LT.
ELEV. 16.9
DATE 8/27/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25

BOR # SG-209R
STA. 209+76
REF. SURVEY S
OFF. 70' RT.
ELEV. 13.7
DATE 8/4/2020
DRILLER A. JACKSON
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -13.1 FT (NAVD 88)

LATITUDE: N 26.244919
LONGITUDE: W 81.801362



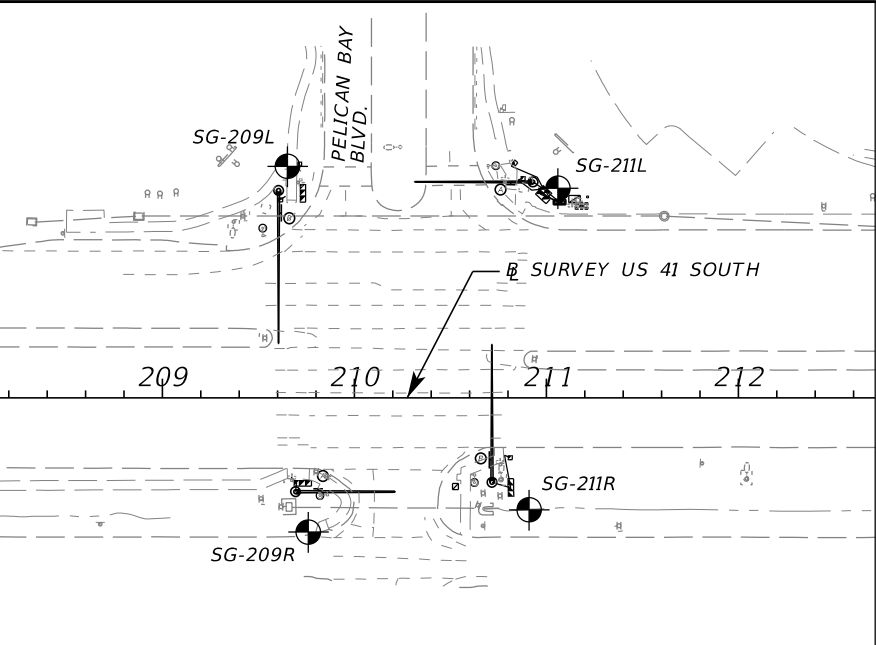
BORING TERMINATED AT
ELEVATION -16.3 FT (NAVD 88)

LATITUDE: N 26.244958
LONGITUDE: W 81.800781

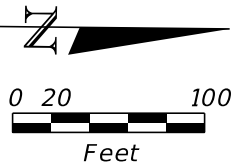
	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

SIGNALS AT SR 45 (US 41) & PELICAN BAY BLVD.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (1)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-44
					SR 45	COLLIER	441512-1-52-01		



BORING LOCATION PLAN



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

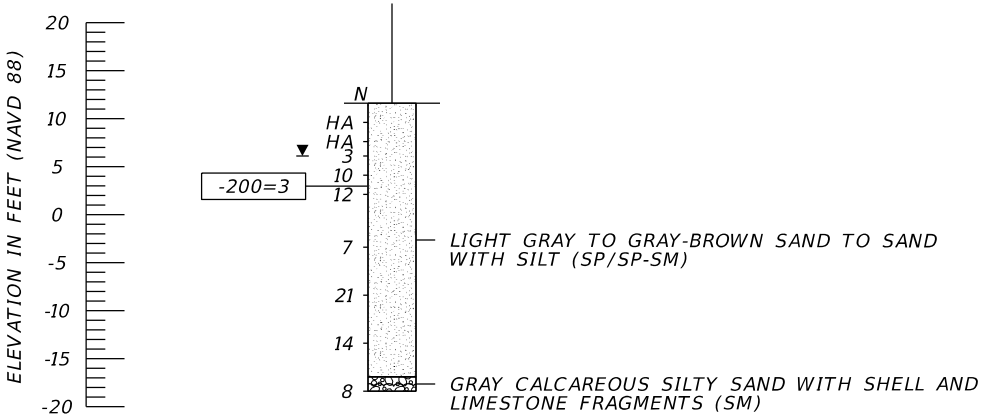
RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND

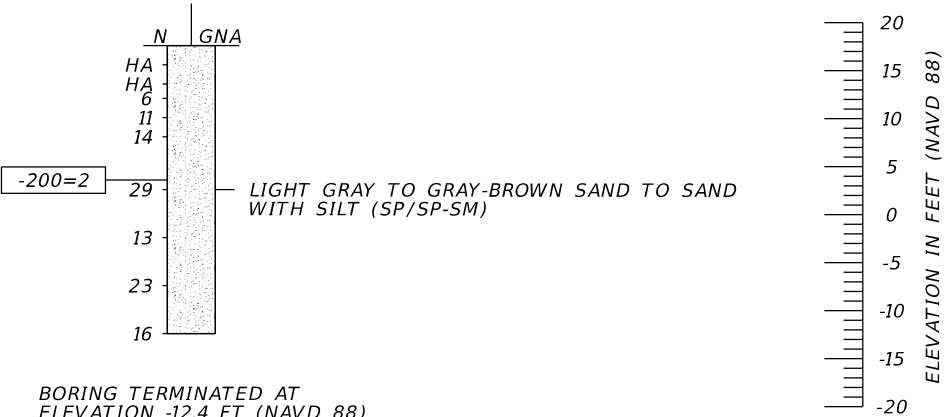
- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Solid Black] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

BOR # SG-211R
STA. 210+91
REF. SURVEY S
OFF. 58' RT.
ELEV. 11.6
DATE 8/4/2020
DRILLER A. JACKSON
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -18.4 FT (NAVD 88)
LATITUDE: N 26.245274
LONGITUDE: W 81.800824

BOR # SG-211L
STA. 211+06
REF. SURVEY S
OFF. 109' LT.
ELEV. 17.6
DATE 8/27/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -12.4 FT (NAVD 88)
LATITUDE: N 26.245307
LONGITUDE: W 81.801335

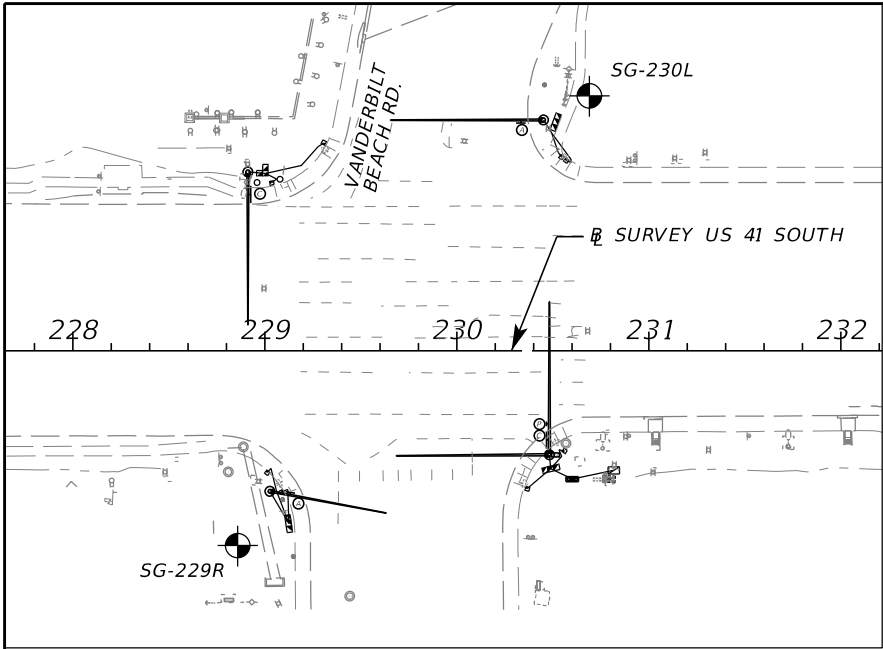
SURVEY S BASELINE SURVEY US 41 SOUTH
SURVEY N BASELINE SURVEY US 41 NORTH

	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

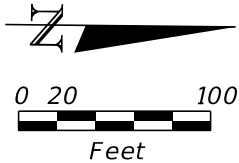
SIGNALS AT SR 45 (US 41) & PELICAN BAY BLVD.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (2)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-45
					SR 45	COLLIER	441512-1-52-01		

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



BORING LOCATION PLAN



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

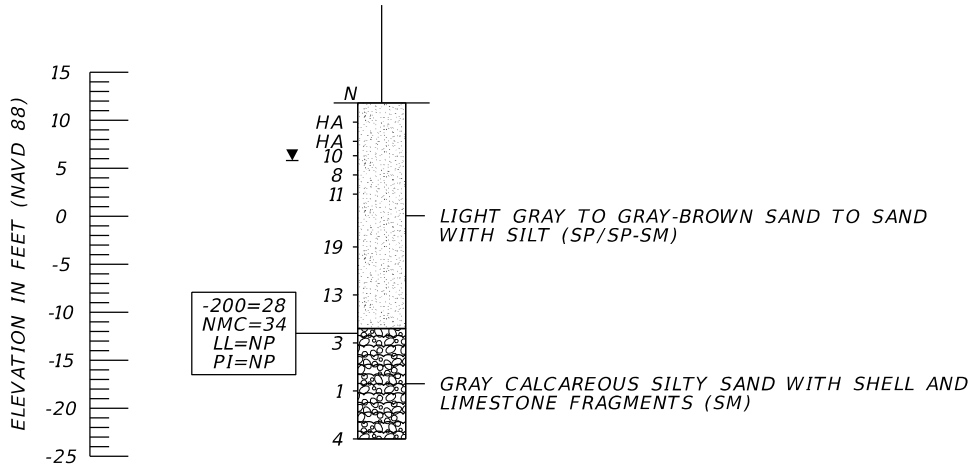
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND

- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Solid Black] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

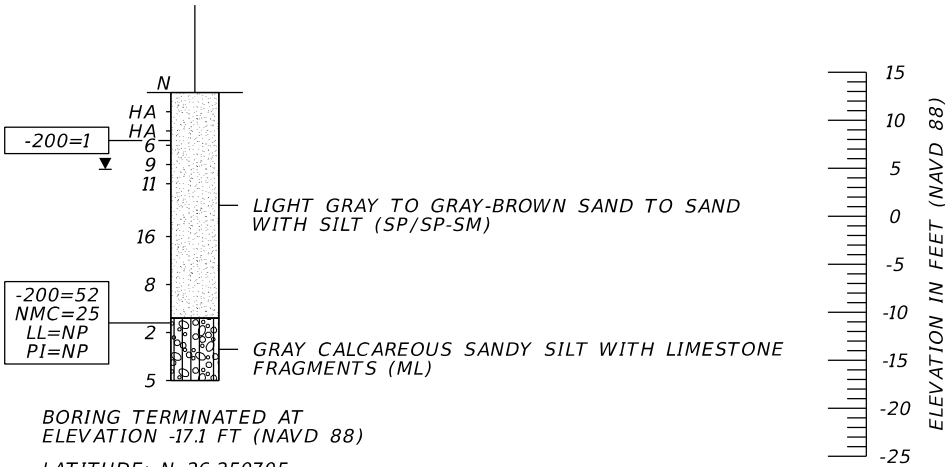
BOR # SG-229R
STA. 228+86
REF. SURVEY S
OFF. 101' RT.
ELEV. 11.8
DATE 8/27/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25

BOR # SG-230L
STA. 230+69
REF. SURVEY S
OFF. 133' LT.
ELEV. 12.9
DATE 8/28/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -23.2 FT (NAVD 88)

LATITUDE: N 26.250213
LONGITUDE: W 81.800787



BORING TERMINATED AT
ELEVATION -17.1 FT (NAVD 88)

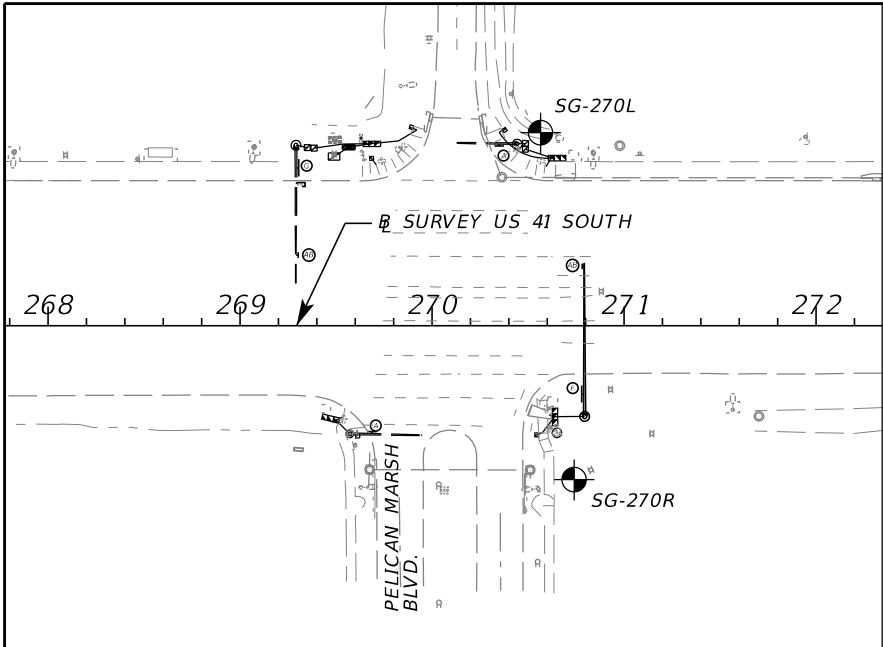
LATITUDE: N 26.250705
LONGITUDE: W 81.801512

SURVEY S BASELINE SURVEY US 41 SOUTH
SURVEY N BASELINE SURVEY US 41 NORTH

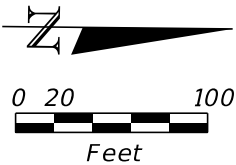
	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

SIGNALS AT SR 45 (US 41) & VANDERBILT BEACH RD.

REVISIONS				ENGINEER OF RECORD			STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (3)	SHEET NO.
DATE	DESCRIPTION		DATE	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	SR 45	COLLIER	441512-1-52-01		T-46



BORING LOCATION PLAN



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

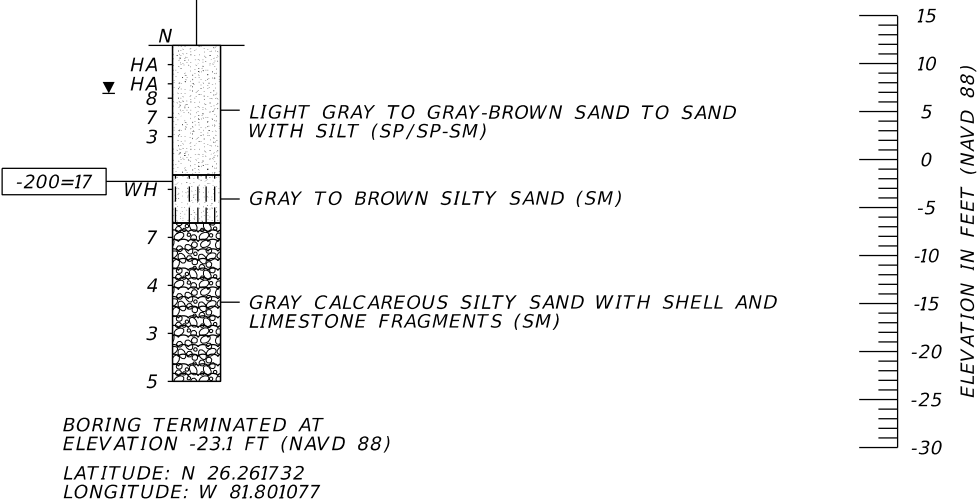
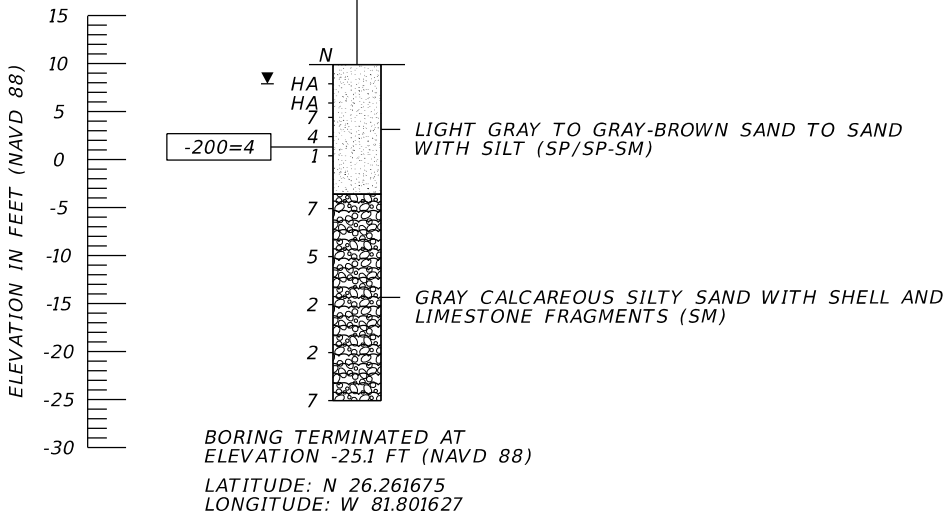
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND

- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Solid Black] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

BOR # SG-270L
STA. 270+56
REF. SURVEY S
OFF. 101' LT.
ELEV. 9.9
DATE 9/2/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25

BOR # SG-270R
STA. 270+74
REF. SURVEY S
OFF. 80' RT.
ELEV. 11.9
DATE 8/28/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25

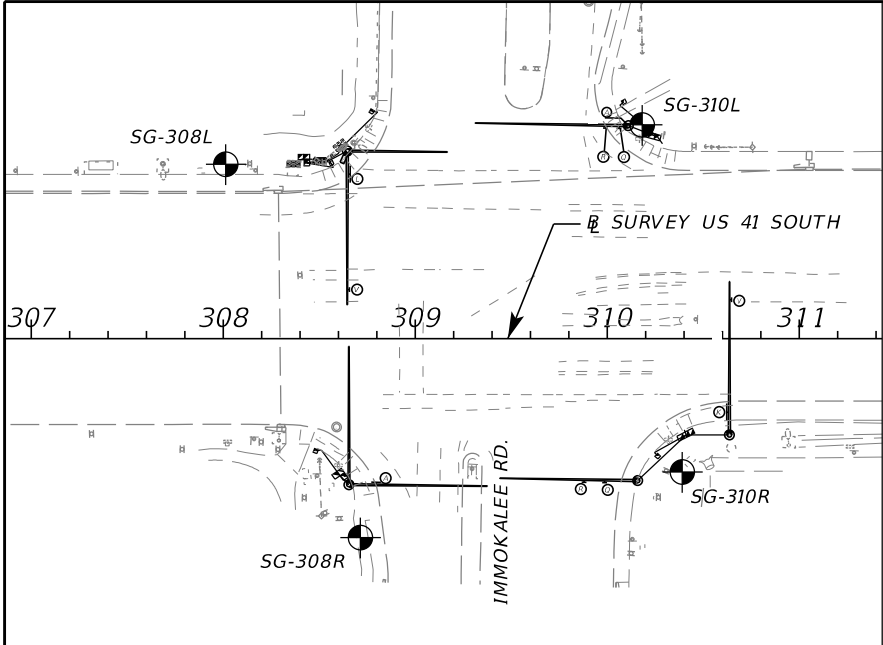


	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS-RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

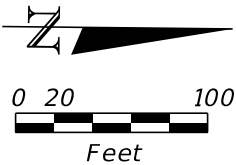
SIGNALS AT SR 45 (US 41) & PELICAN MARSH BLVD.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (4)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637					ROAD NO.
					SR 45	COLLIER	441512-1-52-01		

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



BORING LOCATION PLAN



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

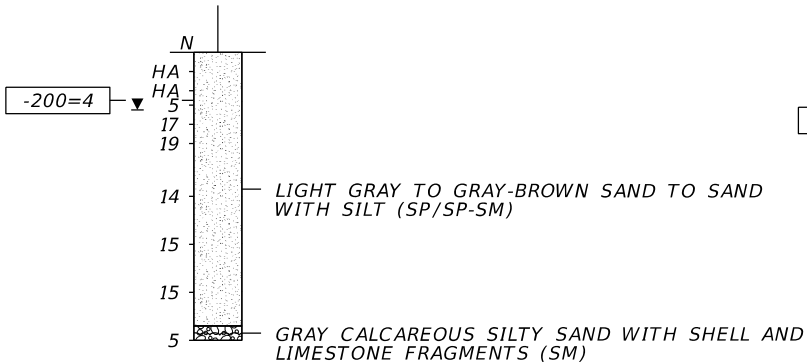
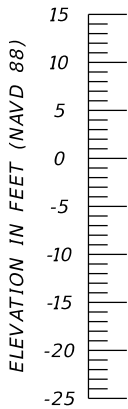
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND

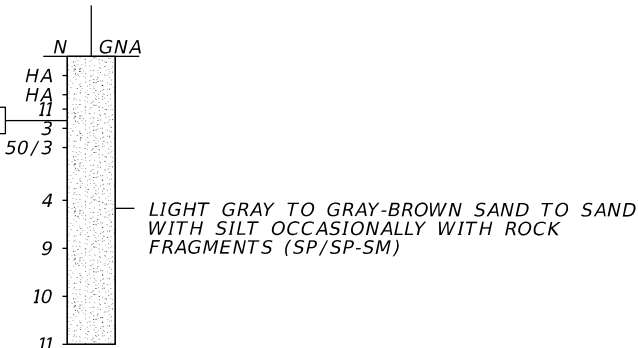
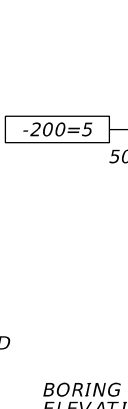
- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Solid Black] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

BOR # SG-308L
STA. 308+01
REF. SURVEY S
OFF. 91' LT.
ELEV. 10.1
DATE 9/1/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25

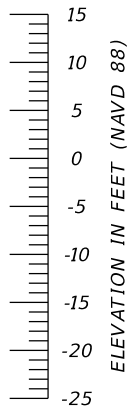
BOR # SG-308R
STA. 308+71
REF. SURVEY S
OFF. 104' RT.
ELEV. 9.7
DATE 8/28/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -19.9 FT (NAVD 88)
LATITUDE: N 26.271976
LONGITUDE: W 81.801798



BORING TERMINATED AT
ELEVATION -20.3 FT (NAVD 88)
LATITUDE: N 26.272178
LONGITUDE: W 81.801209



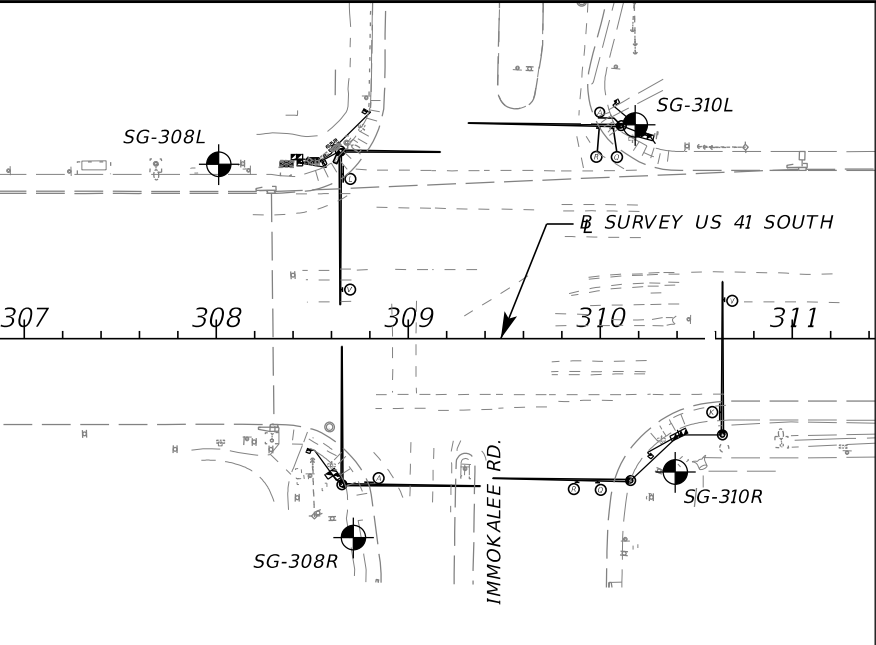
	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

SIGNALS AT SR 45 (US 41) & IMMOKALEE RD.

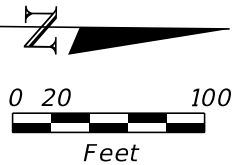
REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (5)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-48
					SR 45	COLLIER	441512-1-52-01		

WILLIAM P. ROVIRA IV, P.E.
LICENSE NUMBER: 74586
TIERRA, INC.
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FLORIDA 33637

REPORT OF CORE BORINGS (5)



BORING LOCATION PLAN



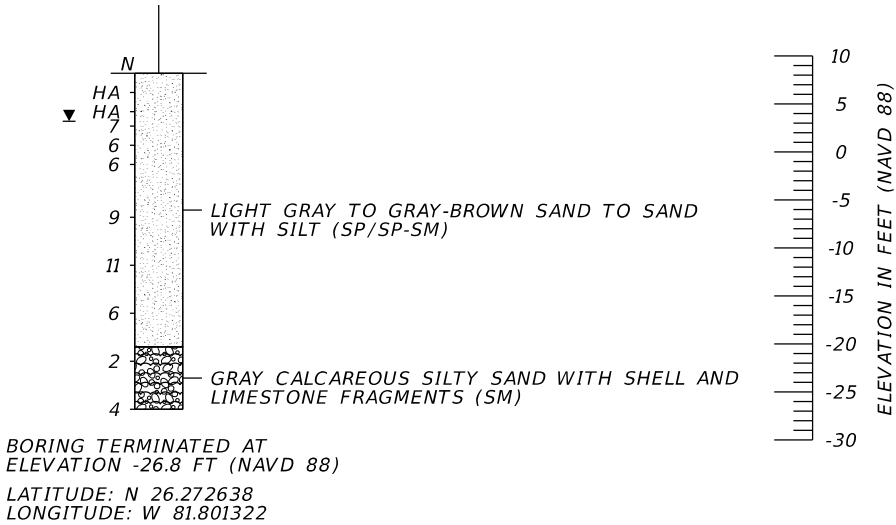
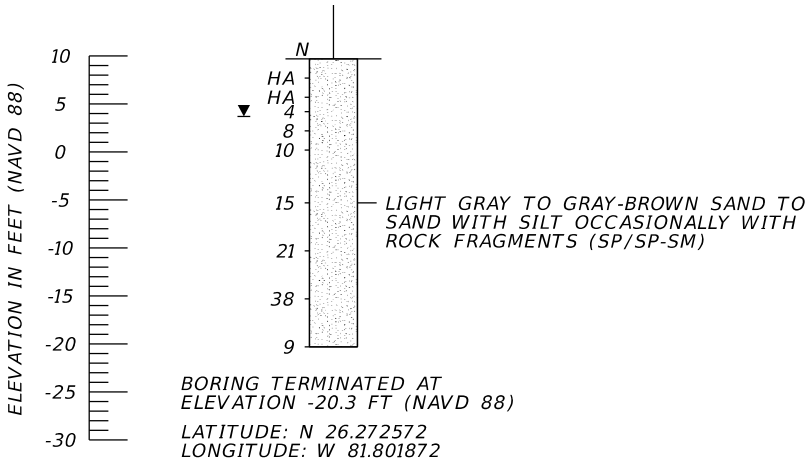
- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND	
	LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
	GRAY TO BROWN SILTY SAND (SM)
	GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
	GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
	GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
	DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
	PAVEMENT AND BASE MATERIAL
SP	UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
N	NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
50/4	NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
HA	HAND AUGERED TO VERIFY UTILITY CLEARANCE
-200	PERCENT PASSING #200 SIEVE
NMC	NATURAL MOISTURE CONTENT (%)
LL	LIQUID LIMIT (%)
PI	PLASTICITY INDEX (%)
OC	ORGANIC CONTENT (%)
NP	NON-PLASTIC
WH	SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988
	APPROXIMATE SPT BORING LOCATION
	GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
GNA	GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
	LOSS OF CIRCULATION OF DRILLING FLUID (%)
	CASING

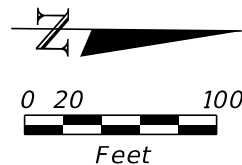
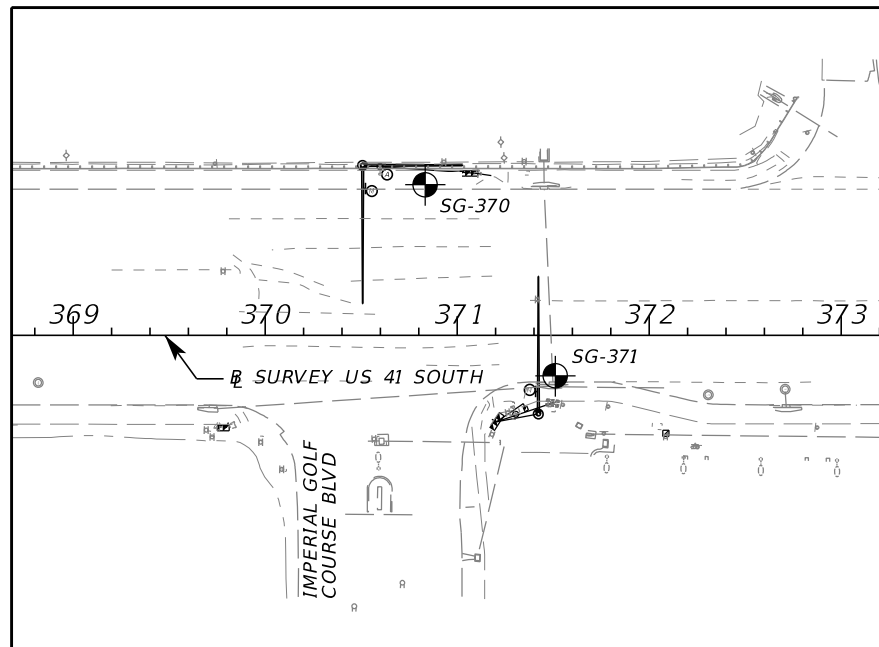
BOR # SG-310L
STA. 310+18
REF. SURVEY S
OFF. 111' LT.
ELEV. 9.7
DATE 9/1/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25

BOR # SG-310R
STA. 310+39
REF. SURVEY S
OFF. 69' RT.
ELEV. 8.2
DATE 9/1/2020
DRILLER B. CRAIG
HAMMER AUTOMATIC
RIG D-25



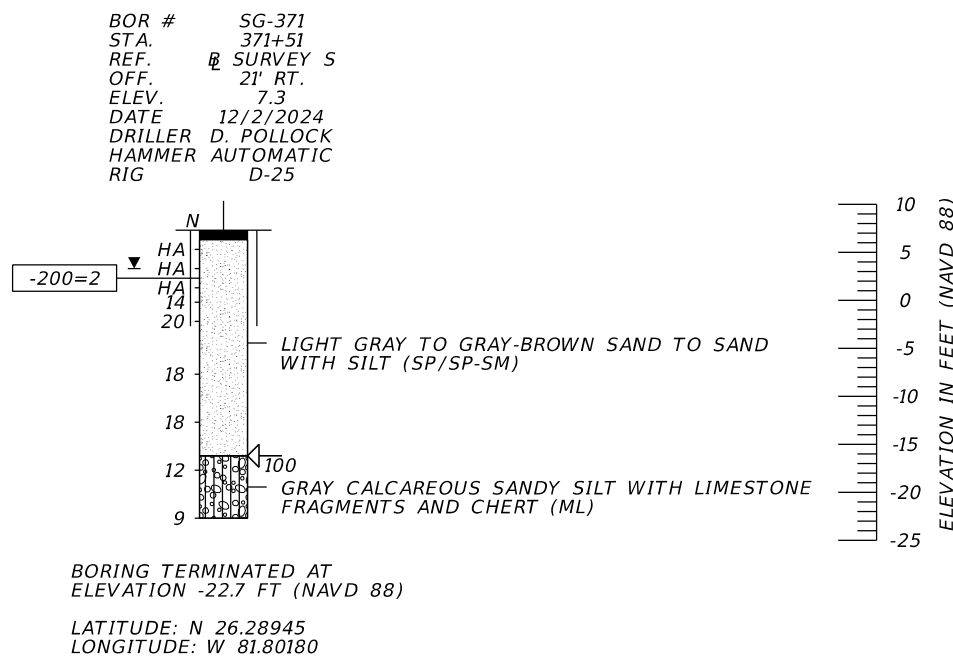
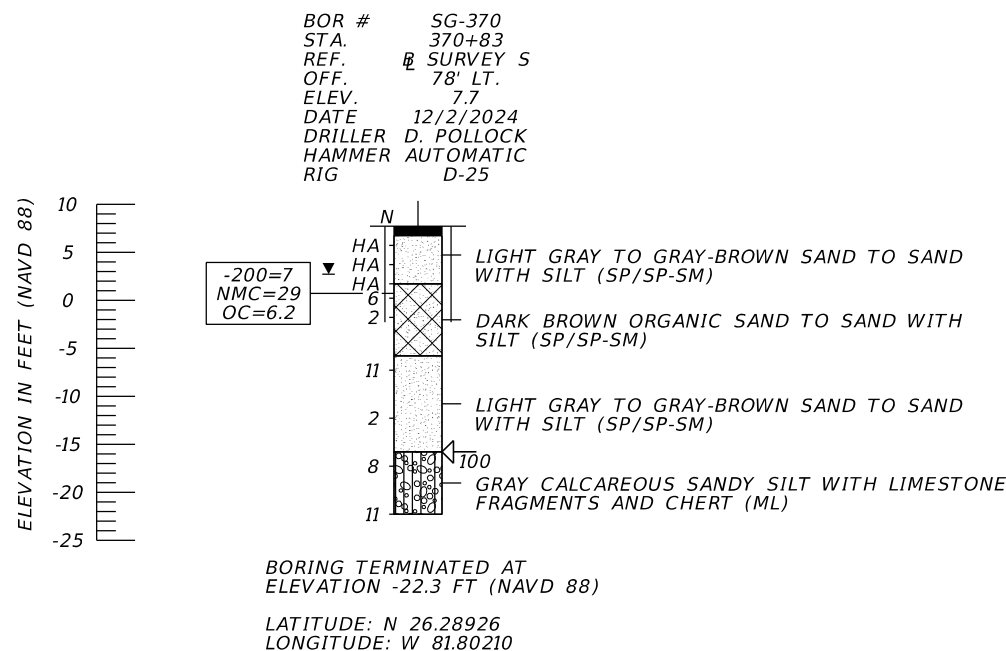
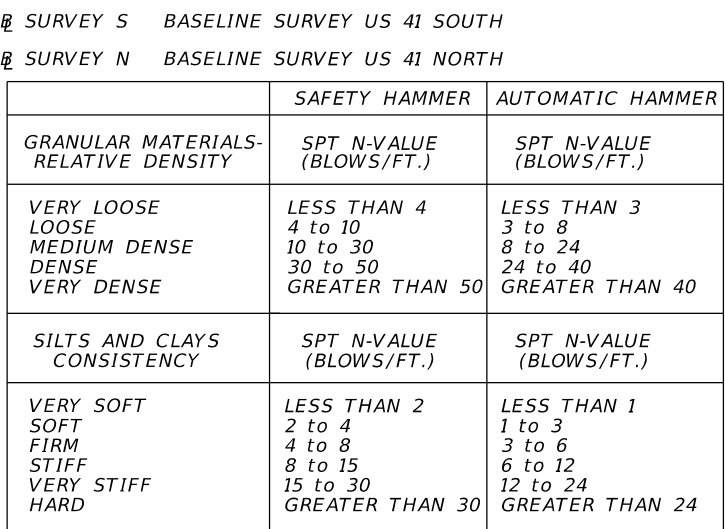
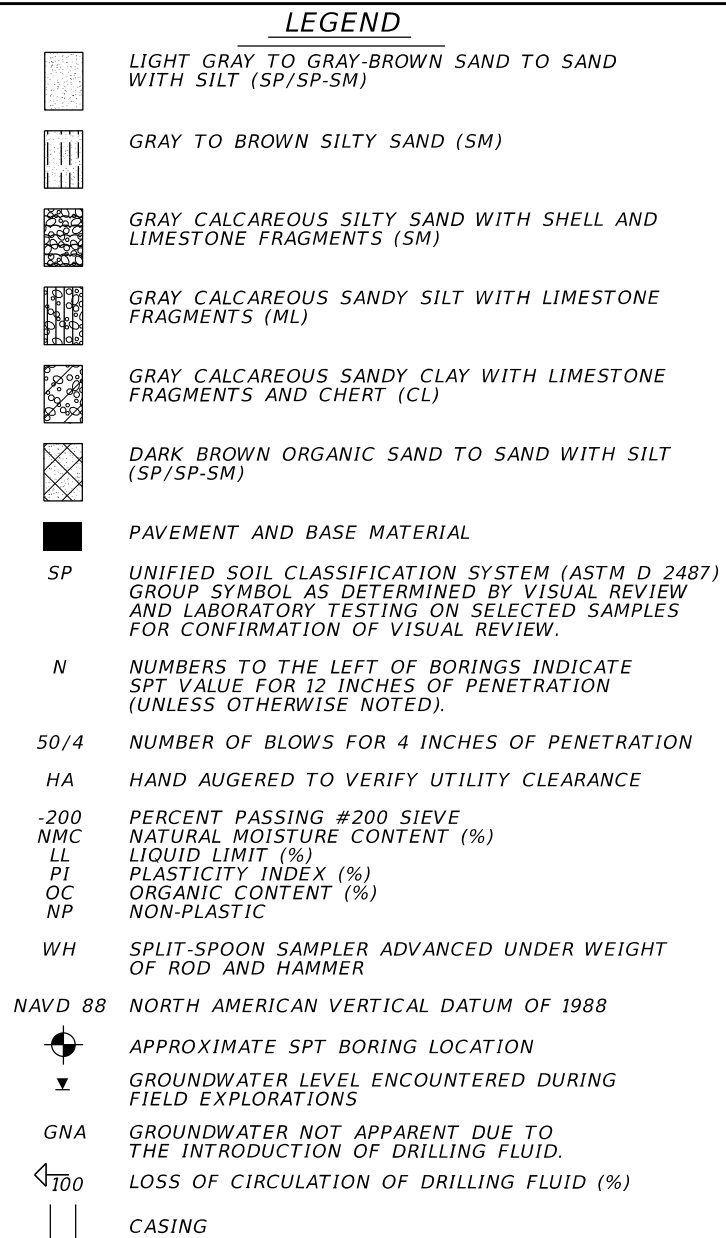
SIGNALS AT SR 45 (US 41) & IMMOKALEE RD.

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (6)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-49
					SR 45	COLLIER	441512-1-52-01		



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
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 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

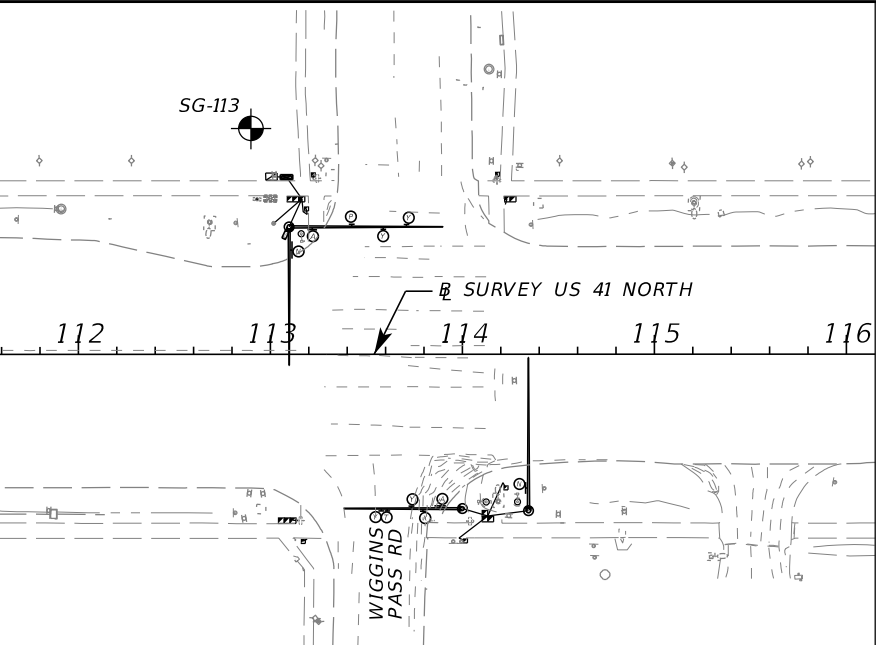
RECOMMENDED ENVIRONMENTAL CLASSIFICATION:
SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE



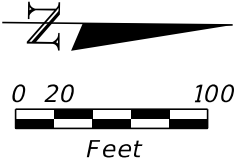
SIGNALS AT SR 45 (US 41) AT IMPERIAL GOLF COURSE BOULEVARD

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (7)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROWIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-50
					SR 45	COLLIER	441512-1-52-01		

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



BORING LOCATION PLAN



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
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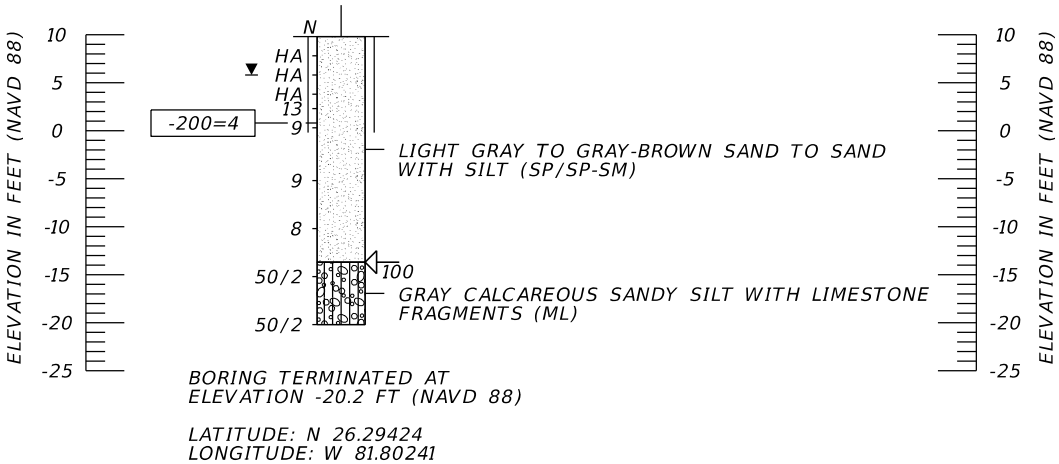
RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND

- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Solid Black] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
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- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

BOR # SG-113
STA. 112+90
REF. SURVEY N
OFF. 117' LT.
ELEV. 9.8
DATE 12/2/2024
DRILLER D. POLLOCK
HAMMER AUTOMATIC
RIG D-25

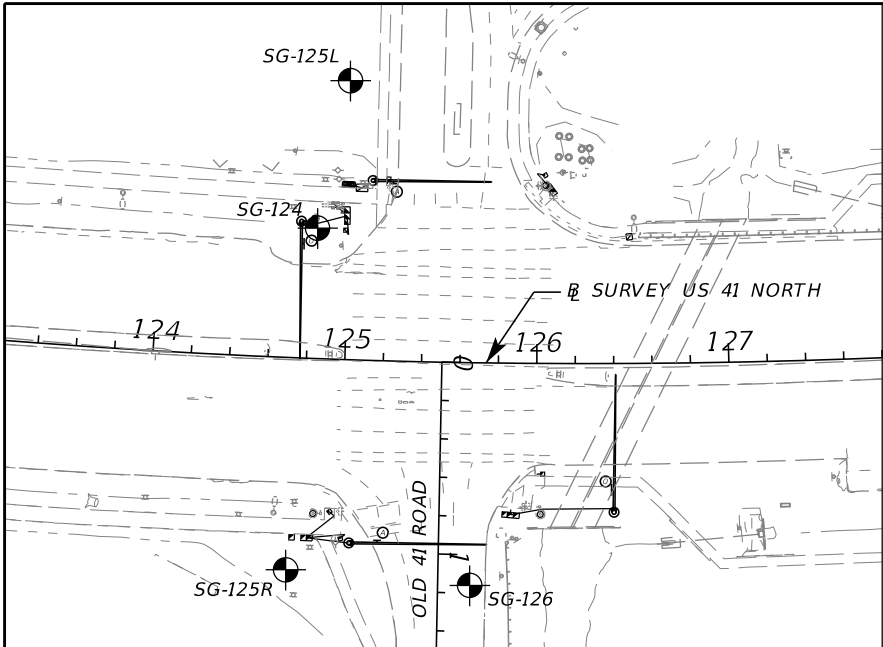


	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

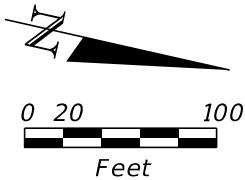
SIGNALS AT SR 45 (US 41) AT WIGGINS PASS ROAD

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (8)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-51
					SR 45	COLLIER	441512-1-52-01		

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



BORING LOCATION PLAN



- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

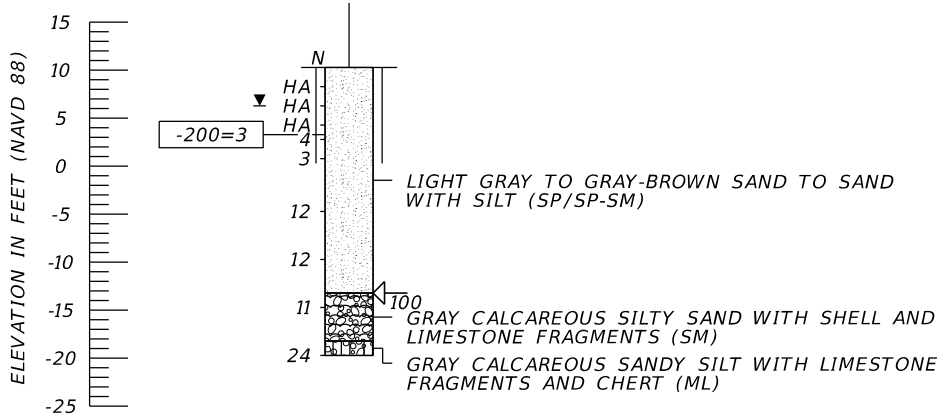
RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

LEGEND

- [Pattern] LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- [Pattern] GRAY TO BROWN SILTY SAND (SM)
- [Pattern] GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- [Pattern] GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- [Pattern] GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- [Pattern] DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- [Solid Black] PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- [Symbol] APPROXIMATE SPT BORING LOCATION
- [Symbol] GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- [Symbol] LOSS OF CIRCULATION OF DRILLING FLUID (%)
- [Symbol] CASING

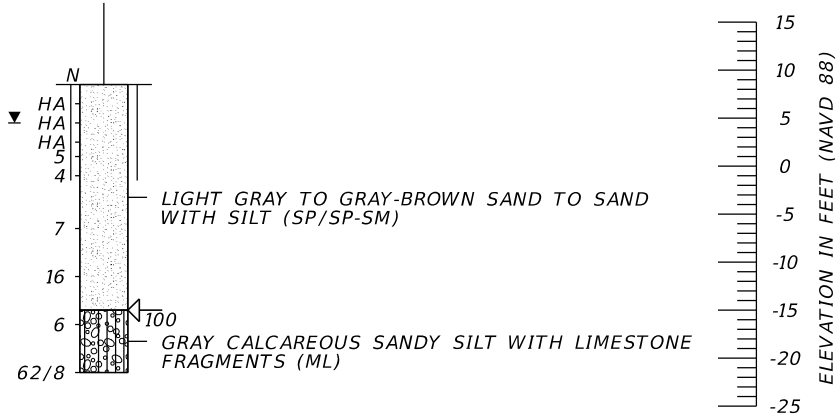
BOR # SG-125R
STA. 124+74
REF. SURVEY N
OFF. 111' RT.
ELEV. 10.3
DATE 12/3/2024
DRILLER D. POLLOCK
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -19.7 FT (NAVD 88)

LATITUDE: N 26.29755
LONGITUDE: W 81.80196

BOR # SG-124
STA. 124+83
REF. SURVEY N
OFF. 68' LT.
ELEV. 8.5
DATE 12/3/2024
DRILLER D. POLLOCK
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -21.5 FT (NAVD 88)

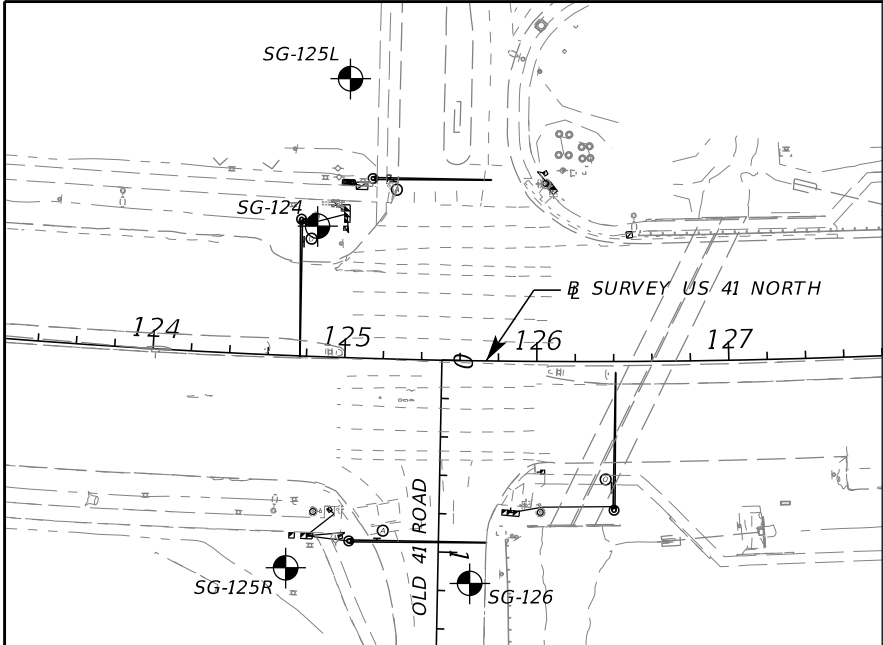
LATITUDE: N 26.29748
LONGITUDE: W 81.80250

SURVEY S BASELINE SURVEY US 41 SOUTH
SURVEY N BASELINE SURVEY US 41 NORTH

	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

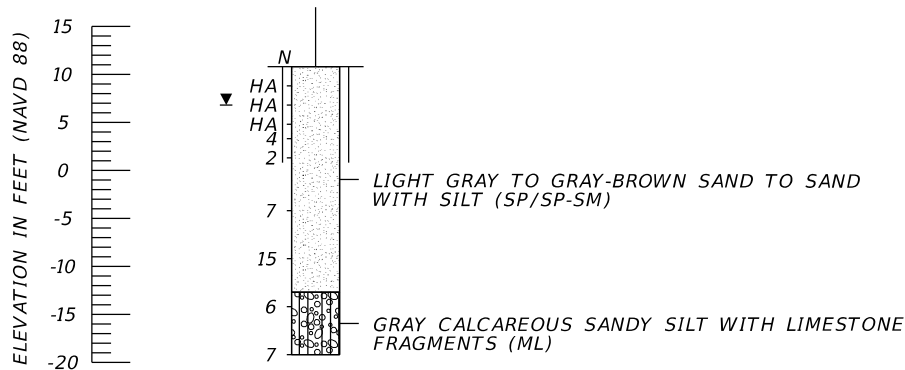
SIGNALS AT SR 45 (US 41) AT OLD 41 ROAD

REVISIONS				ENGINEER OF RECORD		STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (9)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR 45	COLLIER	441512-1-52-01		T-52



BORING LOCATION PLAN

BOR # SG-125L
STA. 124+98
REF. SURVEY N
OFF. 145' LT.
ELEV. 10.8
DATE 12/3/2024
DRILLER D. POLLOCK
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -19.2 FT (NAVD 88)

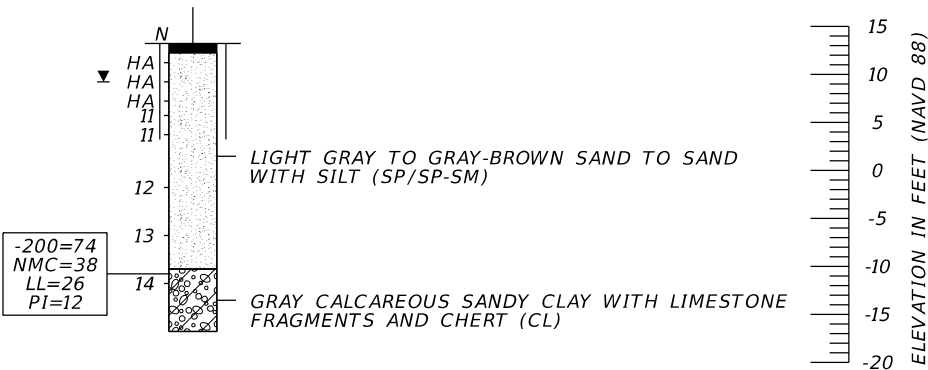
LATITUDE: N 26.29748
LONGITUDE: W 81.80274

- NOTES:
1. THE STATION, OFFSET AND ELEVATION OF THE BORINGS WERE ESTIMATED BASED ON GPS COORDINATES OBTAINED BY TIERRA IN CONJUNCTION WITH THE PROJECT DESIGN FILES PROVIDED BY AIM, INC. AND THEREFORE SHOULD BE CONSIDERED APPROXIMATE.
 2. VERY DENSE/HARD SOILS AND LIMESTONE AND LIMESTONE WITH CHERT WERE ENCOUNTERED IN SOME BORINGS. EXCAVATIONS INTO OR THROUGH THIS MATERIAL WILL BE DIFFICULT AND MAY REQUIRE NON-CONVENTIONAL CONSTRUCTION TECHNIQUES AND SPECIALIZED EQUIPMENT.
 3. LOOSE SOILS WERE ENCOUNTERED WITHIN THE BORINGS. TEMPORARY CASING METHODS FOR SHAFT INSTALLATION BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE NECESSARY IN ORDER TO PREVENT THE COLLAPSE OF LOOSE SOILS AND/OR GROUNDWATER INTRUSION DURING SHAFT CONSTRUCTION.

RECOMMENDED ENVIRONMENTAL CLASSIFICATION:

SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE
SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE

BOR # SG-126
STA. 125+67
REF. SURVEY N
OFF. 116' RT.
ELEV. 13.2
DATE 12/2/2024
DRILLER D. POLLOCK
HAMMER AUTOMATIC
RIG D-25



BORING TERMINATED AT
ELEVATION -16.8 FT (NAVD 88)

LATITUDE: N 26.29781
LONGITUDE: W 81.80200

LEGEND

- LIGHT GRAY TO GRAY-BROWN SAND TO SAND WITH SILT (SP/SP-SM)
- GRAY TO BROWN SILTY SAND (SM)
- GRAY CALCAREOUS SILTY SAND WITH SHELL AND LIMESTONE FRAGMENTS (SM)
- GRAY CALCAREOUS SANDY SILT WITH LIMESTONE FRAGMENTS (ML)
- GRAY CALCAREOUS SANDY CLAY WITH LIMESTONE FRAGMENTS AND CHERT (CL)
- DARK BROWN ORGANIC SAND TO SAND WITH SILT (SP/SP-SM)
- PAVEMENT AND BASE MATERIAL
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- 50/4 NUMBER OF BLOWS FOR 4 INCHES OF PENETRATION
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- OC ORGANIC CONTENT (%)
- NP NON-PLASTIC
- WH SPLIT-SPOON SAMPLER ADVANCED UNDER WEIGHT OF ROD AND HAMMER
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- APPROXIMATE SPT BORING LOCATION
- GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS
- GNA GROUNDWATER NOT APPARENT DUE TO THE INTRODUCTION OF DRILLING FLUID.
- LOSS OF CIRCULATION OF DRILLING FLUID (%)
- CASING

SURVEY S BASELINE SURVEY US 41 SOUTH

SURVEY N BASELINE SURVEY US 41 NORTH

	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE	LESS THAN 4	LESS THAN 3
LOOSE	4 to 10	3 to 8
MEDIUM DENSE	10 to 30	8 to 24
DENSE	30 to 50	24 to 40
VERY DENSE	GREATER THAN 50	GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT	LESS THAN 2	LESS THAN 1
SOFT	2 to 4	1 to 3
FIRM	4 to 8	3 to 6
STIFF	8 to 15	6 to 12
VERY STIFF	15 to 30	12 to 24
HARD	GREATER THAN 30	GREATER THAN 24

SIGNALS AT SR 45 (US 41) AT OLD 41 ROAD

REVISIONS				ENGINEER OF RECORD	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (10)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION	WILLIAM P. ROVIRA IV, P.E. LICENSE NUMBER: 74586 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		T-53
					SR 45	COLLIER	441512-1-52-01		